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 are provided in the *130 College DEIR Technical Appendix for Air Quality and Greenhouse Gas Emissions*, which is attached as 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 (ºF). However, as GHGs 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]

[1] *USEPA, Climate Change Indicators: Greenhouse Gases, www.epa.gov/climate-indicators/greenhouse-gases, accessed August 14, 2025.*

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 2023 report, published in December 2023, atmospheric carbon dioxide (CO_2) concentrations in 2023 were found to be 51 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 CO_2 concentrations are due primarily to fossil fuel use, with land use change providing another significant but smaller contribution. Regarding emissions of non-CO_2 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 (CH_4) 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. 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]

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[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 2022, November 11, 2022.*

[4] *USEPA, Global Greenhouse Gas Emissions Data, /www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data, accessed August 14, 2025.*

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

[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.*

In December 2015, the U.S. entered into the Paris Agreement, which has a goal of keeping a global temperature rise this century below 2 degrees Celsius (ºC) above pre-industrial levels and limit the temperature increase further to 1.5º 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 CO_2 emissions from fossil fuel consumption per unit of Gross State Product. However, in terms of total CO_2 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 Earth's atmosphere that play a critical role in determining temperature near Earth's surface. GHGs include CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).[8] More specifically, these gases allow high-frequency shortwave solar radiation to enter Earth's atmosphere but retain some of the low frequency infrared energy, which is radiated back from Earth toward space, resulting in a warming of the atmosphere. Compounds that are regulated as GHGs are discussed in Table IV.E-1 below on page IV.E-4.[9,10]

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[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.*

[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.*

Table IV.E-1
Description of Identified GHGs[a]

Greenhouse Gas	General Description
Carbon Dioxide (CO_2)	An odorless, colorless GHG, which has both natural and anthropocentric 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 (CH_4)	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 from landfills, fermentation of manure, and cattle.
Nitrous Oxide (N_2O)	A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. N_2O 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_2H_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 (SF_6)	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 (NF_3)	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; Environmental Protection Agency, Acute Exposure Guideline Levels (AEGLs) for Nitrogen Trifluoride, January 2009; and IPCC, Fifth Assessment Report, www.ipcc.ch/report/ar5/syr/, accessed August 14, 2025.

Not all GHGs possess the same ability to induce climate change. CO_2 is the most abundant GHG in Earth's atmosphere. Other GHGs are less abundant but have higher global warming potential (GWP) than CO_2. Thus, emissions of other GHGs are commonly quantified in the units of equivalent mass of carbon dioxide (CO_2e). GWP is based on several factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO_2, 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 CO_2.

The larger the GWP, the more that a given gas warms Earth compared to CO_2 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 the California Air Resources Board (CARB) for reporting Statewide GHG emissions inventories, consistent with international reporting standards. By applying the GWP ratios, Project-related CO_2e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO_2 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 emissions 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.

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 (CNRA) updates the CAS every three years and is responsible for preparing reports to the Governor on the status of the CAS. The 2022 Adaptation Strategy provides a framework for bold adaptation solutions that fully integrate equity into California's climate

[11] *GWPs and associated CO_2e 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-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_2O)	114	298	265
HFC-23: Fluoroform (CHF_3)	270	14,800	12,400
HFC-134a: 1,1,1,2-Tetrafluoroethane (CH_2FCF_3)	14	1,430	1,300
HFC-152a: 1,1-Difluoroethane ($C_2H_4F_2$)	1.4	124	138
PFC-14: Tetrafluoromethane (CF_4)	50,000	7,390	6,630
PFC-116: Hexafluoroethane (C_2F_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, https://archive.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html, accessed August 14, 2025.

resilience programs and builds on the successes and lessons learned since the 2009 CAS. The CNRA 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.
- 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.

[12] *State of California, Department of Justice, Office of the Attorney General, Climate Change Impacts in California, https://oag.ca.gov/environment/impact, accessed June 21, 2024.*

- 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 CO_2; (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

- Federal Corporate Average Fuel Economy (CAFE) Standards

- Federal Energy Independence and Security Act

- California Air Resources Board

- California Greenhouse Gas Reduction Targets

- California Global Warming Solutions Act (AB 32)

- State Climate Change Scoping Plan

- State Cap-and-Trade Program

- Emission Performance Standards

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[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.*

- Renewables Portfolio Standard Program
- California Climate Crisis Act (AB 1279)
- 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
- Executive Order B-55-18
- California Appliance Efficiency Regulations
- Title 24, Building Standards Code and California Green Building Standards Code
- CEQA Guidelines
- South Coast Air Quality Management District
- Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy
- L.A.'s Green New Deal
- City of Los Angeles Green Building Code
- City of Los Angeles Solid Waste Programs and Ordinances
- City of Los Angeles General Plan
- City of Los Angeles Housing Element (Housing Needs Assessment)
- City of Los Angeles Mobility Plan 2035
- Transportation 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 CO_2 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, the 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, CH_4 and other non-CO_2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The 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 CO_2 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 miles per gallon (mpg) for the model years 2021 through 2026.[15] In February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards.[16] This final rule revises

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[14] *USEPA, 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, www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy, accessed July 5, 2023.*

[16] *USEPA, Federal Register/Vol. 86, No. 248/Thursday, December 30, 2021/Rules and Regulations, Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards.*

current GHG standards for vehicles in model year 2023 through model year 2026 and establishes the most stringent GHG standards ever set for the light-duty vehicle sector that are expected to result in average fuel economy label values of 40 mpg, while the standards they replace (i.e., the SAFE rule standards) would achieve only 32 mpg in model year 2026 vehicles.[17]

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011 the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 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 nationwide over the 2010 baselines. Building on the first phase of standards, in August 2016, the USEPA and NHTSA finalized Phase 2 standards for medium and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution. The Phase 2 standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons nationwide annually.[18]

(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

[17] *USEPA, Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards: Regulatory Update, December 2021.*

[18] *USEPA, 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.*

the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

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."[19]

(2) State

(a) 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 CAA. CARB adopted the 2022 SIP in September 2022.[20] 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.[21] 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;

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[19] *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.*

[20] *CARB, State Implementation Program, 2022 State Implementation Program, ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy accessed June 21, 2024.*

[21] *CARB, Final 2022 Climate Change Scoping Plan, adopted December 2022, Chapter 1.*

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

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 California, as well as strategies for mitigating and adapting to climate change.

The CAT states 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 Jerry 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 CO_2e ($MMTCO_2e$).

(iii) Executive Order B-55-18

Executive Order B-55-18, issued by Governor Jerry 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 toward this goal, as well as ensuring future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

In October 2020, CARB released a study, which evaluated three scenarios that achieve carbon neutrality in California by 2045. The study was used by CARB in

development of the 2022 Scoping Plan.[22] More ambitious carbon reduction scenarios that achieve carbon neutrality prior to 2045 may be considered as part of future analyses by the State.

The scenarios analyzed to achieve carbon neutrality include a High Carbon Dioxide Removal (CDR) scenario, Zero Carbon Energy scenario, and a Balanced scenario. The High CDR scenario achieves GHG reductions by relying on CO_2 removal strategies. The Zero Carbon Energy scenario is based on the assumption of zero-fossil fuel emissions by 2045. The Balanced scenario represents a middle point between the High CDR scenario and Zero Carbon Energy scenario. The scenarios would achieve at least an 80-percent reduction in GHGs by 2045, relative to 1990 levels. Remaining CO_2 would be reduced to zero by applying CO_2 removal strategies, including sinks from natural and working lands and negative emissions technologies, such as direct air capture.[23,24]

Under each of these scenarios, CARB proposed reduction strategies for various sectors that contribute GHG emissions throughout the State. 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.

(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, which the State has achieved. HSC Division 25.5 defines regulated GHGs as CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 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,

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[22] *Energy+Environmental Economic, Achieving Carbon Neutrality in California, PATHWAYS Scenarios Developed for the California Air Resources Board, October 2020.*

[23] *Sinks are defined as natural or artificial reservoirs that accumulate and store a carbon-containing chemical compound for an indefinite period.*

[24] *Energy+Environmental Economics, Achieving Carbon Neutrality in California, PATHWAYS Scenarios Developed for the California Air Resources Board, October 2020, p. 22.*

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.[25]

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Jerry 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 associated with SB 32 that prioritizes efforts to cut GHG emissions in low-income and 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.

(d) Climate Change Scoping Plan

The Scoping Plan is a GHG reduction roadmap developed and updated by CARB at least once every five years, as required by AB 32. It lays out the transformations needed across various sectors to reduce GHG emissions and reach the State's climate targets. CARB adopted the Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) in December 2022, as the third update to the initial plan that was adopted in 2008. The initial 2008 Scoping Plan laid out a path to achieve the AB 32 target of returning to 1990 levels of GHG emissions by 2020, a reduction of approximately 15 percent below business as usual activities.[26] The 2008 Scoping Plan included a mix of incentives, regulations, and carbon pricing, laying out the portfolio approach to addressing climate change and clearly

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[25] *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.*

[26] *CARB, Climate Change Scoping Plan: A Framework for Change, 2008.*

making the case for using multiple tools to meet California's GHG targets. The 2013 Scoping Plan Update (adopted in 2014) assessed progress toward achieving the 2020 target and made the case for addressing short-lived climate pollutants (SLCPs).[27] The 2017 Scoping Plan shifted the focus to the newer SB 32 goal of a 40-percent reduction below 1990 levels by 2030 by laying out a detailed cost-effective and technologically feasible path to this target and also assessed progress toward achieving the AB 32 goal of returning to 1990 GHG levels by 2020.[28] The 2020 goal was ultimately reached in 2016, four years ahead of the schedule called for under AB 32.

The 2022 Scoping Plan is the most comprehensive and far-reaching Scoping Plan developed to date. It identifies a technologically feasible, cost-effective, and equity-focused path to achieve new targets for carbon neutrality by 2045 and to reduce anthropogenic GHG emissions to at least 85 percent below 1990 levels, while also assessing the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan.[29] The 2030 target is an interim but important stepping stone along the critical path to the broader goal of deep decarbonization by 2045. The relatively longer path assessed in the 2022 Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts to reduce GHGs and air pollution, while identifying new clean technologies and energy. Given the focus on carbon neutrality, the 2022 Scoping Plan also includes discussion for the first time of the natural and working lands sectors as sources for both sequestration and carbon storage and as sources of emissions as a result of wildfires. The estimated statewide GHG emissions reductions from the 2022 Scoping Plan are provided in Table IV.E-3 on page IV.E-16.

The 2022 Scoping Plan reflects existing and recent direction in the Governor's Executive Orders and State Statutes, which identify policies, strategies, and regulations in support of and implementation of the 2022 Scoping Plan. Among these include Executive Order B-55-18 and AB 1279 (The California Climate Crisis Act), which identify the 2045 carbon neutrality and GHG reduction targets required for the 2022 Scoping Plan.

Table IV.E-4 on page IV.E-17 provides a summary of major climate legislation and executive orders issued since the adoption of the 2017 Scoping Plan.

The 2022 Scoping Plan Scenario identifies the need to accelerate AB 32's 2030 target, from 40 percent to 48 percent below 1990 levels. The Cap-and-Trade Program continues to play a large factor in the reduction of near-term emissions for meeting the 2030

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[27] *CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, May 2014.*

[28] *CARB. California's 2017 Climate Change Scoping Plan, November 2017.*

[29] *CARB. California's 2017 Climate Change Scoping Plan, November 2017.*

Table IV.E-3
Estimated Statewide Greenhouse Gas Emissions Without and With Reduction Measures in the 2022 Scoping Plan

Emissions Scenario	GHG Emissions ($MMTCO_2e$)
2019	
2019 State GHG Emissions	404
2030	
2030 Business-As-Usual Forecast	312
2030 GHG Emissions without Carbon Removal and Capture	233
2030 GHG Emissions with Carbon Removal and Capture	226
2030 Emissions Target Set by AB 32 (i.e., 1990 level by 2030)	260
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2030	52 (16.7%)[a]
2045	
2045 Business-As-Usual Forecast	266
2045 GHG Emissions without Carbon Removal and Capture	72
2045 GHG Emissions with Carbon Removal and Capture	(3)

$MMTCO_2e$ = million metric tons of carbon dioxide equivalents; parenthetical numbers represent negative values.

[a] *312 – 260 = 52. 52 ÷ 312 = 16.7%*

Source: CARB, Final 2022 Climate Change Scoping Plan, adopted December 2022.

reduction target. Every sector of the economy will need to begin to transition in this decade to meet these GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Scoping Plan approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology. The 2022 Scoping Plan Scenario is summarized in Table 2-1 starting on page 72 of the 2022 Scoping Plan. It includes references to relevant statutes and executive orders, although it is not comprehensive of all existing new authorities for directing or supporting the actions described.

Table IV.E-4
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
AB 1279 (Muratsuchi, Chapter 337, Statutes of 2022) *The California Climate Crisis Act*	AB 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that the Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO_2 removal solutions and carbon capture, utilization, and storage (CCUS) technologies. This bill is implemented through the 2022 Scoping Plan.
SB 905 (Caballero, Chapter 359, Statutes of 2022) *Carbon Capture, Removal, Utilization, and Storage Program*	SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate CCUS and CDR projects and technology. The bill requires CARB, on or before January 1, 2025, to adopt regulations creating a unified state permitting application for approval of CCUS and CDR projects. The bill also requires the CNRA to publish a framework for governing agreements for two or more tracts of land overlying the same geologic storage reservoir for the purposes of a carbon sequestration project. The 2022 Scoping Plan modeling reflects both CCUS and CDR contributions to achieve carbon neutrality.
SB 846 (Dodd, Chapter 239, Statutes of 2022) *Diablo Canyon Powerplant: Extension of Operations*	SB 846 extends the Diablo Canyon Power Plant's sunset date by up to five additional years for each of its two units and seeks to make the nuclear power plant eligible for federal loans. The bill requires that the California Public Utilities Commission (CPUC) not include and disallow a load-serving entity from including in their adopted resource plan, the energy, capacity, or any attribute from the Diablo Canyon power plant. The 2022 Scoping Plan explains the emissions impact of this legislation.
SB 1020 (Laird, Chapter 361, Statutes of 2022) *Clean Energy, Jobs, and Affordability Act of 2022*	SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target year of 2045 to 2035. This bill requires each state agency to individually achieve the 100 percent goal by 2035 with specified requirements. This bill requires the CPUC, California Energy Commission (CEC), and CARB, on or before December 1, 2023, and annually thereafter, to issue a joint reliability progress report that reviews system and local reliability. The bill also modifies the requirement for CARB to hold a portion of its Scoping Plan workshops in regions of the state with the most significant exposure to air pollutants by further specifying that this includes communities with minority populations or low-income communities in areas designated as being in extreme federal non-attainment. The 2022 Scoping Plan describes the implications of this legislation on emissions.

Table IV.E-4 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
SB 1137 (Gonzales, Chapter 365, Statutes of 2022) *Oil & Gas Operations: Location Restrictions: Notice of Intention: Health protection zone: Sensitive receptors*	SB 1137 prohibits the development of new oil and gas wells or infrastructure in health protection zones, as defined, except for purposes of public health and safety or other limited exceptions. The bill requires operators of existing oil and gas wells or infrastructure within health protection zones to undertake specified monitoring, public notice, and nuisance requirements. The bill requires CARB to consult and concur with the California Geologic Energy Management Division (CalGEM) on leak detection and repair plans for these facilities, adopt regulations as necessary to implement emission detection system standards, and collaborate with CalGEM on public access to emissions detection data.
SB 1075 (Skinner, Chapter 363, Statutes of 2022) *Hydrogen: Green Hydrogen: Emissions of Greenhouse Gases*	SB 1075 requires CARB, by June 1, 2024, to prepare an evaluation that includes: policy recommendations regarding the use of hydrogen, and specifically the use of green hydrogen, in California; a description of strategies supporting hydrogen infrastructure, including identifying policies that promote the reduction of GHGs and short-lived climate pollutants; a description of other forms of hydrogen to achieve emission reductions; an analysis of curtailed electricity; an estimate of GHG and emission reductions that could be achieved through deployment of green hydrogen through a variety of scenarios; an analysis of the potential for opportunities to integrate hydrogen production and applications with drinking water supply treatment needs; policy recommendations for regulatory and permitting processes associated with transmitting and distributing hydrogen from production sites to end uses; an analysis of the life-cycle GHG emissions from various forms of hydrogen production; and an analysis of air pollution and other environmental impacts from hydrogen distribution and end uses. This bill would inform the production of hydrogen at the scale called for in the 2022 Scoping Plan.
AB 1757 (Garcia, Chapter 341, Statutes of 2022) *California Global Warming Solutions Act of 2006: Climate Goal: Natural and Working Lands*	AB 1757 requires the CNRA, in collaboration with CARB, other state agencies, and an expert advisory committee, to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions in 2030, 2038, and 2045 by January 1, 2024. These targets must support state goals to achieve carbon neutrality and foster climate adaptation and resilience. This bill also requires CARB to develop standard methods for state agencies to consistently track GHG emissions and reductions, carbon sequestration, and additional benefits from natural and working lands over time. These methods will account for GHG emissions reductions of CO2, methane, and nitrous oxide related to natural and working lands and the potential impacts of climate change on the ability to reduce GHG emissions and sequester carbon from natural and working lands, where feasible. This 2022 Scoping Plan describes the next steps and implications of this legislation for the natural and working lands sector.
SB 1206 (Skinner, Chapter 884, Statutes of 2022) *Hydrofluorocarbon gases: sale or distribution*	SB 1206 mandates a stepped sales prohibition on newly produced high- GWP HFCs to transition California's economy toward recycled and reclaimed HFCs for servicing existing HFC-based equipment. Additionally, SB 1206 also requires CARB to develop regulations to increase the adoption of very low

Table IV.E-4 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	GWP technologies (i.e., GWP < 10 and no-GWP) in sectors that currently rely on higher-GWP HFCs.
SB 27 (Skinner, Chapter 237, Statutes of 2021) *Carbon Sequestration: State Goals: Natural and Working Lands: Registry of Projects*	SB 27 requires CNRA, in coordination with other state agencies, to establish the Natural and Working Lands Climate Smart Strategy by July 1, 2023. This bill also requires CARB to establish specified CO_2 removal targets for 2030 and beyond as part of its Scoping Plan. Under SB 27, CNRA is tasked to establish and maintain a registry to identify projects in the state that drive climate action on natural and working lands and are seeking funding. CNRA also must track carbon removal and GHG emission reduction benefits derived from projects funded through the registry. This bill is reflected directly in the 2022 Scoping Plan as CO_2 removal targets for 2030 and 2045 in support of carbon neutrality.
SB 596 (Becker, Chapter 246, Statutes of 2021) *Greenhouse Gases: Cement Sector: Net- zero Emissions Strategy*	SB 596 requires CARB, by July 1, 2023, to develop a comprehensive strategy for the State's cement sector to achieve net-zero-emissions of GHGs associated with cement used within the state as soon as possible, but no later than December 31, 2045. The bill establishes an interim target of 40 percent below the 2019 average GHG intensity of cement by December 31, 2035. Under SB 596, CARB must: • Define a metric for GHG intensity and establish a baseline from which to measure GHG intensity reductions. • Evaluate the feasibility of the 2035 interim target (40 percent reduction in GHG intensity) by July 1, 2028. • Coordinate and consult with other state agencies. • Prioritize actions that leverage state and federal incentives. • Evaluate measures to support market demand and financial incentives to encourage the production and use of cement with low GHG intensity. The 2022 Scoping Plan modeling is designed to achieve these outcomes.
Executive Order N-82-20	Governor Newsom signed Executive Order N-82-20 in October 2020 to combat the climate and biodiversity crises by setting a Statewide goal to conserve at least 30 percent of California's land and coastal waters by 2030. The Executive Order also instructed the CNRA, in consultation with other State agencies, to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the state's carbon neutrality goal and build climate resilience. In addition to setting a Statewide conservation goal, the Executive Order directed CARB to update the target for natural and working lands in support of carbon neutrality as part of this Scoping Plan, and to take into consideration the NWL Climate Smart Strategy. CO_2 Executive Order N-82-20 also calls on the CNRA, in consultation with other State agencies, to establish the California Biodiversity Collaborative (Collaborative). The Collaborative shall be made up of governmental partners, California Native American tribes, experts, business and community leaders, and other stakeholders from across the state. State agencies will consult the Collaborative on efforts to: • Establish a baseline assessment of California's biodiversity that builds upon existing data and can be updated over time.

Table IV.E-4 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	• Analyze and project the impact of climate change and other stressors in California's biodiversity. • Inventory current biodiversity efforts across all sectors and highlight opportunities for additional action to preserve and enhance biodiversity. CNRA also is tasked with advancing efforts to conserve biodiversity through various actions, such as streamlining the state's process to approve and facilitate projects related to environmental restoration and land management. The California Department of Food and Agriculture (CDFA) is directed to advance efforts to conserve biodiversity through measures such as reinvigorating populations of pollinator insects, which restore biodiversity and improve agricultural production. The Natural and Working Lands Climate Smart Strategy informs the 2022 Scoping Plan.
Executive Order N-79-20	Governor Newsom signed Executive Order N-79-20 in September 2020 to establish targets for the transportation sector to support the state in its goal to achieve carbon neutrality by 2045. The targets established in this Executive Order are: • 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. • 100 percent of medium- and heavy-duty vehicles will be zero-emission by 2045 for all operations where feasible, and by 2035 for drayage trucks. • 100 percent of off-road vehicles and equipment will be zero-emission by 2035 where feasible. The Executive Order also tasked CARB to develop and propose regulations that require increasing volumes of zero- electric passenger vehicles, medium- and heavy-duty vehicles, drayage trucks, and off-road vehicles toward their corresponding targets of 100 percent zero-emission by 2035 or 2045, as listed above. The 2022 Scoping Plan modeling reflects achieving these targets.
Executive Order N-19-19	Governor Newsom signed Executive Order N-19-19 in September 2019 to direct state government to redouble its efforts to reduce GHG emissions and mitigate the impacts of climate change while building a sustainable, inclusive economy. This Executive Order instructs the Department of Finance to create a Climate Investment Framework that: • Includes a proactive strategy for the state's pension funds that reflects the increased risks to the economy and physical environment due to climate change. • Provides a timeline and criteria to shift investments to companies and industry sectors with greater growth potential based on their focus of reducing carbon emissions and adapting to the impacts of climate change. • Aligns with the fiduciary responsibilities of the California Public Employees' Retirement System, California State Teachers' Retirement System, and the University of California Retirement Program. Executive Order N-19-19 directs the State Transportation Agency to leverage more than $5 billion in annual state transportation spending to help reverse

Table IV.E-4 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	the trend of increased fuel consumption and reduce GHG emissions associated with the transportation sector. It also calls on the Department of General Services to leverage its management and ownership of the state's 19 million square feet in managed buildings, 51,000 vehicles, and other physical assets and goods to minimize state government's carbon footprint. Finally, it tasks CARB with accelerating progress toward California's goal of five million ZEV sales by 2030 by: • Developing new criteria for clean vehicle incentive programs to encourage manufacturers to produce clean, affordable cars. • Proposing new strategies to increase demand in the primary and secondary markets for ZEVs. • Considering strengthening existing regulations or adopting new ones to achieve the necessary GHG reductions from within the transportation sector. The 2022 Scoping Plan modeling reflects efforts to accelerate ZEV deployment.
SB 576 (Umberg, Chapter 374, Statutes of 2019) *Coastal Resources: Climate Ready Program and Coastal Climate Change Adaptation, Infrastructure and Readiness Program*	Sea level rise, combined with storm-driven waves, poses a direct risk to the state's coastal resources, including public and private real property and infrastructure. Rising marine waters threaten sensitive coastal areas, habitats, the survival of threatened and endangered species, beaches, other recreation areas, and urban waterfronts. SB 576 mandates that the Ocean Protection Council develop and implement a coastal climate adaptation, infrastructure, and readiness program to improve the climate change resiliency of California's coastal communities, infrastructure, and habitat. This bill also instructs the State Coastal Conservancy to administer the Climate Ready Program, which addresses the impacts and potential impacts of climate change on resources within the conservancy's jurisdiction.
AB 65 (Petrie- Norris, Chapter 347, Statutes of 2019) *Coastal Protection: Climate Adaption: Project Prioritization: Natural Infrastructure: Local General Plans*	This bill requires the State Coastal Conservancy, when it allocates any funding appropriated pursuant to the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, to prioritize projects that use natural infrastructure in coastal communities to help adapt to climate change. The bill requires the conservancy to provide information to the Governor's Office of Planning and Research (OPR), now known as the Office of Land Use and Climate Innovation (LCI) on any projects funded pursuant to the above provision to be considered for inclusion into the clearinghouse for climate adaptation information. The bill authorizes the conservancy to provide technical assistance to coastal communities to better assist them with their projects that use natural infrastructure.
Executive Order B-55-18	Governor Jerry Brown signed Executive Order B-55-18 in September 2018 to establish a Statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. Policies and programs undertaken to achieve this goal shall: • Seek to improve air quality and support the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities.

Table IV.E-4 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	• Be implemented in a manner that supports climate adaptation and biodiversity, including protection of the state's water supply, water quality, and native plants and animals. This Executive Order also calls for CARB to: • Develop a framework for implementation and accounting that tracks progress toward this goal. • Ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The 2022 Scoping Plan is designed to achieve carbon neutrality no later than 2045 and the modeling includes technology and fuel transitions to achieve that outcome.
SB 100 (De León, Chapter 312, Statutes of 2018) *California Renewables Portfolio Standard Program: emissions of greenhouse gases*	Under SB 100, the CPUC, CEC, and CARB shall use programs under existing laws to achieve 100 percent clean electricity. The statute requires these agencies to issue a joint policy report on SB 100 every four years. The first of these reports was issued in 2021. The 2022 Scoping Plan reflects the SB 100 Core Scenario resource mix with a few minor updates.
AB 2127 (Ting, Chapter 365, Statutes of 2018) *Electric Vehicle Charging Infrastructure: Assessment*	This bill requires the CEC, working with CARB and the CPUC, to prepare and biennially update a Statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the State to meet its goals of putting at least 5 million zero-emission vehicles (ZEV) on California roads by 2030 and of reducing emissions of GHGs to 40 percent below 1990 levels by 2030. The bill requires the CEC to regularly seek data and input from stakeholders relating to electric vehicle charging infrastructure. This bill supports the deployment of ZEVs as modeled in the 2022 Scoping Plan.
SB 30 (Lara, Chapter 614, Statutes of 2018) *Insurance: Climate Change*	This bill requires the Insurance Commissioner to convene a working group to identify, assess, and recommend risk transfer market mechanisms that, among other things, promote investment in natural infrastructure to reduce the risks of climate change related to catastrophic events, create incentives for investment in natural infrastructure to reduce risks to communities, and provide mitigation incentives for private investment in natural lands to lessen exposure and reduce climate risks to public safety, property, utilities, and infrastructure. The bill requires the policies recommended to address specified questions.
AB 2061 (Frazier, Chapter 580, Statutes of 2018) *Near-zero-emission and Zero-emission Vehicles*	Existing State and federal law sets specified limits on the total gross weight imposed on the highway by a vehicle with any group of two or more consecutive axles. Under existing federal law, the maximum gross vehicle weight of that vehicle may not exceed 82,000 pounds. AB 2061 authorizes a near-zero- emission vehicle or a zero-emission vehicle to exceed the weight limits on the power unit by up to 2,000 pounds. This bill supports the deployment of cleaner trucks as modeled in this 2022 Scoping Plan.

Table IV.E-4 (Continued)
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary

Source: City of Los Angeles, 2024.

Achieving the targets described in the 2022 Scoping Plan will require continued commitment to and successful implementation of existing policies and programs, and identification of new policy tools and technical solutions to go further, faster. California's Legislature and state agencies will continue to collaborate to achieve the State's climate, clean air, equity, and broader economic and environmental protection goals. It will be necessary to maintain and strengthen this collaborative effort, and to draw upon the assistance of the federal government, regional and local governments, tribes, communities, academic institutions, and the private sector to achieve the State's near-term and longer-term emission reduction goals and a more equitable future for all Californians. The 2022 Scoping Plan acknowledges that the path forward is not dependent on one agency, one state, or even one country. However, the State can lead by engaging Californians and demonstrating how actions at the state, regional, and local levels of governments, as well as action at community and individual levels, can contribute to addressing the challenge.

Aligning local jurisdiction action with state-level priorities to tackle climate change and the outcomes called for in the 2022 Scoping Plan is identified as critical to achieving the statutory targets for 2030 and 2045. The 2022 Scoping Plan discusses the role of local governments in meeting the State's GHG reductions goals. Local governments have the primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population growth, economic growth, and the changing needs of their jurisdictions. They also make critical decisions on how and when to deploy transportation infrastructure, and can choose to support transit, walking, bicycling, and neighborhoods that do not force people into cars. Local governments also have the option to adopt building ordinances that exceed statewide building code requirements, and play a critical role in facilitating the rollout of ZEV infrastructure. As a result, local government decisions play a critical role in supporting state-level measures to contain the growth of GHG emissions associated with the transportation system and the built environment—the two largest GHG emissions sectors over which local governments have authority. The City has taken the initiative in combating climate change by developing programs and regulations, such as L.A.'s Green New Deal and the Los Angeles Green Building Code. Each of these is discussed further below.

(e) Cap-and-Trade Program

The Climate Change Scoping Plan identified 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 the Cap-and-Trade Program, 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.

CARB designed and adopted a California Cap-and-Trade Program[30] pursuant to its authority under AB 32. The Cap-and-Trade Program was 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 sectors[31] (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, as GHG emission reductions are continually achieved throughout the Cap-and-Trade Program's duration.

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.[32] 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).[33]

Each covered entity with a compliance obligation is required to surrender "compliance instruments"[34] 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 Program 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

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[30] *California Code of Regulations 17, Sections 95800–96023.*

[31] *California Code of Regulations 17, Sections 95811, 95812.*

[32] *California Code of Regulations 17, Section 95812.*

[33] *California Code of Regulations 17, Sections 95100–95158*

[34] *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 percent of their compliance obligations.*

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.[35] 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.[36]

The Cap-and-Trade 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.

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 on 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. On October 7,

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[35] *California Code of Regulations 17, Section 95811(b).*

[36] *California Code of Regulations 17, Sections 95811, 95812(d).*

2015, SB 350 (Chapter 547, Statues 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 Scoping Plan incorporated the SB 350 standards and estimated the GHG reductions would account for approximately 21 percent of the Scoping Plan reductions.[37] 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.[38]

(iii) Assembly Bill 1279 (The California Climate Crisis Act)

The California Legislature enacted AB 1279,[39] The California Climate Crisis Act, on September 16, 2022. AB 1279 establishes the policy of the State to achieve net zero GHG emissions, carbon neutrality,[40] as soon as possible, but no later than 2045 and achieve and maintain net negative GHG emissions thereafter. Additionally, AB 1279 ensures that by 2045, statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. SB 1279 also requires CARB to ensure that the 2022 Scoping Plan identified and recommended measures to achieve carbon neutrality and to identify and implement policies and strategies for CO_2 removal solutions and carbon capture, utilization, and storage technologies. It also requires CARB to submit an annual report on progress in achieving the 2022 Scoping Plan's goals.

(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

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

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

[39] *California Legislative Information, AB 1279 The California Climate Crisis Act, 2022, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1279, accessed June 21, 2024.*

[40] *Carbon neutrality means "net zero" emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and through mechanical sequestration. AB 1279 uses the terminology net zero and the 2022 Scoping Plan Update uses the terminology carbon neutrality or carbon neutral. These terms mean the same thing and are used interchangeably.*

2009. In 2004, CARB approved the Pavley regulation to require automakers to control GHG emissions from new passenger vehicles for the 2009 through 2016 model years. Upon adoption of subsequent federal GHG standards by the 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 GHG emission regulations, which require further reductions in passenger GHG 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.[41] 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.[42]

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.

Subsequently, on March 20, 2024, USEPA announced new, more protective final standards to further reduce harmful air pollutant emissions from light-duty and medium-duty vehicles starting with model year 2027. The final rule builds upon USEPA's standards for federal GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026, established in 2021. These standards will phase in over model years 2027 through 2032.

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[41] *USEPA, 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, October 15, 2012.*

[42] *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 by Governor Arnold Schwarzenegger 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 from a 2010 baseline; and (2) that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established in California. The final regulation was approved by the State's 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.[43]

The development of the 2017 Scoping Plan Update identified LCFS as a regulatory measure to reduce GHG emissions 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.[44]

(iii) Advanced Clean Cars Regulations

In 2012, CARB approved the Advanced Clean Cars program, an emissions-control program for model years 2015–2025.[45] 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 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.[46] 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.[47]

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 or forbid residents from owning gas-powered vehicles. In accordance with the executive order, the 2020 Mobile Source Strategy was developed by

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[43] *CARB, Low Carbon Fuel Standard, About, ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/about, accessed June 21, 2024.*

[44] *CARB, CARB amends Low Carbon Fuel Standard for wider impact, September 27, 2018.*

[45] *CARB, Advanced Clean Cars Program, About, ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about, accessed June 21, 2024.*

[46] *CARB, Advanced Clean Cars Program, About.*

[47] *CARB, News Release: CARB finds vehicle standards are achievable and cost-effective, March 24, 2017.*

CARB, 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 are intended to 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 for ACC II regulations was adopted on November 30, 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), which was adopted by the State on September 30, 2008, establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. SB 375 finds that the "transportation sector is the single largest contributor of greenhouse gases of any sector."[48] Under SB 375, CARB is required, in consultation with the Metropolitan Planning Organizations (MPOs), to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. SCAG is the MPO in which the City of Los Angeles is located. CARB set targets for 2020 and 2035 for each of the 18 MPO regions in 2010 and updated them in 2018.[49] In March 2018, CARB updated the SB 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.[50] In response, SCAG adopted an updated Regional Transportation Plan/Sustainable Community Strategies (2020–2045 RTP/SCS) subsequent to the update of the emission targets. The 2020–2045 RTP/SCS was intended 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.[51]

Under SB 375, the target must be incorporated within that region's RTP, which is used for long-term transportation planning, in an 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

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[48] *State of California, Senate Bill No. 375, September 30, 2008.*

[49] *CARB, Sustainable Communities & Climate Protection Program, About, ww2.arb.ca.gov/our-work/programs/sustainable-communities-climate-protection-program/about, accessed June 21, 2024.*

[50] *CARB, SB 375 Regional Greenhouse Gas Emissions Reduction Targets, 2018.*

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

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 Jerry Brown signed SB 743 in 2013, which creates a process to change the way that transportation impacts are analyzed under CEQA. Specifically, SB 743 required OPR, now LCI, 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." Instead of LOS, 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 1609), adopted by the CEC, include standards for new appliances (e.g., refrigerators) and lighting, if they are sold or offered for sale in California. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

(ii) 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 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."[52] The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program (e.g., Leadership in Energy and Environmental Design) 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.[53]

On August 11, 2021, the CEC adopted the 2022 Title 24 Standards, which went into effect on January 1, 2023. The 2022 standards continue to improve upon the previous (2019) Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings.[54] The 2022 Title 24 Standards ensure that builders use the most energy efficient and energy conserving technologies and construction practices. The 2022 Title 24 standards encourage use of electric heat pumps, requiring newly constructed residences to be electric-ready and introduces solar and battery storage standards as an optional measure to achieve compliance and increases minimum ventilation requirements to improve air quality. Compliance with Title 24 is enforced through the building permit process.

(i) CEQA Guidelines

In August 2007, the California State Legislature adopted SB 97 (Chapter 185, Statutes of 2007), which required 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, OPR adopted the new guidelines that became effective on March 18, 2010. In late 2018, OPR finalized amendments to the CEQA Guidelines, including changes to CEQA Guidelines Section 15064.4, which addresses the analysis of GHG emissions. The amendments became effective on December 28, 2018.

However, neither a threshold of significance nor any specific mitigation measures are included or provided in the CEQA Guidelines.[55] The CEQA Guidelines require a lead agency to make a good-faith effort, to the extent possible based on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project.

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[52] *California Building Standards Commission, 2010 California Green Building Standards Code, 2010.*

[53] *California Building Standards Commission, 2010 California Green Building Standards Code, 2010.*

[54] *California Energy Commission, Building Energy Efficiency Standards, 2022, www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency, accessed June 21, 2024.*

[55] *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).*

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.[56]

The administrative record for the amendments to the CEQA Guidelines 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."[57]

(3) Regional

(a) South Coast Air Quality Management District CEQA Guidance

The City 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 Gorgonio 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.[58] A GHG Significance Threshold Working Group was formed to further evaluate

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[56] *14 Cal. Code Regs. § 15064.4(b).*

[57] *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.*

[58] *SCAQMD, Board Meeting, December 5, 2008, Agenda No. 31, www3.aqmd.gov/hb/2008/December/081231a.htm, accessed June 21, 2024.*

potential GHG significance thresholds.[59] 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 the Air Basin or other jurisdictions.

(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 2020–2045 RTP/SCS and 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. SCAG subsequently adopted the 2024–2050 RTP/SCS in April 2024 and the reduction per capita in transportation emissions is consistent with the 2020–2045 RTP/SCS. 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, such as 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 due to an expanded regional charging network.

The 2024–2050 RTP/SCS is a long-term plan for the Southern California region that details investment in the transportation system and development in communities to meet the existing and future needs of the region through projects, investments, policies and strategies. While the 2024–2050 RTP/SCS remains focused on its core responsibilities and on the requirements of comprehensive regional transportation planning integrated with the

[59] *SCAQMD, Greenhouse Gases CEQA Significance Thresholds, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds, accessed June 21, 2024.*

development of a sustainable communities strategy, it also encompasses a holistic approach to programs and strategies that support success of the RTP/SCS, such as workforce development, broadband and mobility hubs. The primary goals of the 2024–2050 RTP/SCS include:

- Mobility: Build and maintain an integrated multimodal transportation network;
- Communities: Develop, connect and sustain livable and thriving communities;
- Environment: Create a healthy region for the people of today and tomorrow; and
- Economy: Support a sustainable, efficient and productive regional economic environment that provides opportunities for all people in the region.

SCAG's determination that the 2024–2050 RTP/SCS meets the state's GHG emissions reduction targets has been accepted by CARB. This acceptance confirms that the SCAG 2024–2050 RTP/SCS meets the state's GHG emissions reduction targets consistent with AB 32 and SB 32.

(4) Local

(a) L.A.'s Green New Deal

The City 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.

Subsequently on April 8, 2015, Mayor Eric Garcetti released the Sustainable City pLAn, which includes both short-term and long-term aspirations through the year 2035 in various topic areas, including water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others.[60] Specific targets included the construction of new housing units within 1,500 feet of transit by 2017, reducing VMT per capita by 5 percent by 2025, and increasing trips made by walking, biking, or transit by at least 35 percent by 2025. The Sustainable City pLAn was intended to be updated every four years.

In April 2019, the Sustainable City pLAn was updated and renamed as *L.A.'s Green New Deal*, which consists of a program of actions designed to create sustainability-based performance targets through 2050 to advance economic, environmental, and equity

[60] *City of Los Angeles, Sustainable City pLAn, April 2015.*

objectives.[61] L.A.'s Green New Deal augments, expands, and elaborates on the City'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. These include reducing GHG emissions through near-term outcomes:

- Reduce potable water use per capita by 22.5 percent by 2025, 25 percent by 2035, and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square feet for all building types by 22 percent by 2025, 34 percent by 2035, and 44 percent by 2050 (from a baseline of 68 thousand British thermal units [MBtu] per square foot in 2015).
- All new buildings will be net zero carbon by 2030, and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025 and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025 and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/ matched rides, or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.
- Reduce VMT per capita by at least 13 percent by 2025, 39 percent by 2035, and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles in the City to 25 percent by 2025, 80 percent by 2035, and 100 percent by 2050.
- Increase landfill diversion rate to 90 percent by 2025, 95 percent by 2035, and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 pounds of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.

[61] *City of Los Angeles. LA's Green New Deal, 2019.*

- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025 and 3 degrees by 2035.

- Ensure the proportion of Angelenos living within 0.5 mile of a park or open space is at least 65 percent by 2025, 75 percent by 2035, and 100 percent by 2050.

(b) Los Angeles Green Building Code

On December 10, 2020, the Los Angeles City Council approved Ordinance No. 187,719, 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 2022 CALGreen Code. Projects filed on or after January 1, 2023, 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.[62] The City 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

[62] *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 June 21, 2024.*

diversion requirements for franchised waste haulers to promote waste diversion from landfills and support the City's zero waste goals. These 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, but several stated goals, objectives, or policies in the City's General Plan Air Quality Element, Plan for Healthy LA, and the Mobility Plan encourage the reduction in GHG emissions. More specifically, the following five goals from the City's General Plan Air Quality Element would lead to GHG emission reductions:[63]

- 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) Mobility Plan 2035

In August 2015, the City Council adopted Mobility Plan 2035 (Mobility Plan), which serves as the City's General Plan circulation element. The City Council has adopted several amendments to the Mobility Plan since its initial adoption, including the latest amendment on September 7, 2016. The Mobility Plan incorporates "complete streets" principles and lays the policy foundation for how the City's residents interact with their streets. While the Mobility Plan mainly relates to transportation, certain components would serve to reduce VMT and mobile source GHG emissions. One component of the Mobility Plan is a GHG emission tracking program to establish compliance with SB 375, AB 32, and the region's SCS.

[63] *City of Los Angeles, Air Quality Element, June 1991, pages IV-1 to IV-4.*

(f) Transportation Study Policies and Procedures

The City's Department of Transportation (LADOT) has developed the City Transportation Assessment Guidelines (TAG) (July 2019, updated July 2020 and August 2022) 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.

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 less than 1 percent of global and 6.1 percent of national GHG emissions.[64,65] California represents approximately 12 percent of the national population. Approximately 80 percent of GHGs in California consist of CO_2 produced from fossil fuel combustion. The current California GHG inventory compiles Statewide anthropogenic GHG emissions and carbon sinks/storage from years 2000 to 2022.[66] It includes estimates for CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. The GHG inventory for California for years 2016 through 2022 is presented in Table IV.E-5 on page IV.E-39. As shown in Table IV.E-5, the GHG inventory for California in 2022 was 371.1 $MMTCO_2e$. Based on data presented above, the 2016 Statewide GHG inventory fell below 1990 levels, consistent with the goals of AB 32.[67]

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[64] *CEC, Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2020, October 2022.*

[65] *USEPA, Global Greenhouse Gas Emissions Data, www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data, accessed June 21, 2024.*

[66] *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.*

[67] *CARB, "Climate pollutants fall below 1990 levels for first time," July 11, 2018.*

Table IV.E-5
California GHG Inventory
(million metric tons CO_2e)

Sector	2016	2017	2018	2019	2020	2021	2022
Transportation	164.8	166.0	164.8	161.7	135.2	145.1	139.9
On Road	153.9	155.3	153.6	151.2	126.4	135.6	129.9
Passenger Vehicles	117.1	117.5	116.6	116.0	94.1	104.1	102.5
Heavy Duty Trucks	36.8	37.8	37.0	35.2	32.0	31.6	27.4
Ships & Commercial Boats	3.5	3.6	3.6	3.7	3.8	3.8	3.8
Aviation (Intrastate)	4.3	4.4	4.3	4.0	2.7	3.2	3.9
Rail	1.5	1.3	1.9	1.4	1.4	1.3	1.1
Unspecified	1.6	1.4	1.4	1.5	1.2	1.2	1.1
Percent of Total Emissions	40%	41%	40%	40%	37%	38%	38%
Industrial	81.3	81.7	82.3	80.9	73.6	74.2	72.7
Off-Road	1.9	2.0	2.4	2.5	2.0	2.0	1.8
Refineries and Hydrogen Production	29.9	30.2	30.2	28.8	25.8	26.2	26.2
General Fuel Use	12.4	12.4	12.1	12.8	11.6	11.7	11.9
Diesel	0.5	0.5	0.5	0.5	0.4	0.4	0.3
Natural Gas	9.2	8.9	8.8	9.5	8.3	8.4	8.5
Other Fuels	2.8	3.0	2.8	2.9	2.9	2.8	3.0
Oil & Gas: Production & Processing[a]	15.3	15.5	15.1	15.1	12.9	12.8	11.9
Fuel Use	13.8	13.9	13.4	13.3	11.3	11.3	10.6
Fugitive Emissions	1.4	1.6	1.7	1.9	1.6	1.5	1.3
Cement Plants	7.6	7.7	7.9	7.8	7.5	7.6	7.4
Clinker Production	4.7	4.9	5.0	4.9	4.7	4.7	4.6
Fuel Use	2.9	2.8	2.9	2.9	2.8	2.9	2.9
Cogeneration Heat Output	6.4	6.1	6.8	6.0	6.2	6.1	5.7
Other Fugitive and Process Emissions	7.8	7.9	7.9	7.8	7.8	7.7	7.8
Natural Gas Transmission & Distribution	4.1	4.1	4.1	4.1	4.2	4.2	4.2
Manufacturing	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Wastewater Treatment	1.9	1.9	1.9	1.9	2.0	1.9	1.9
Other	1.7	1.7	1.7	1.6	1.5	1.6	1.6
Percent of Total Emissions	20%	20%	20%	20%	20%	20%	20%
Electric Power	70.8	64.4	65.0	60.2	59.5	62.3	59.8
In-State Generation	44.4	40.4	40.4	38.5	40.9	42.5	42.2
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	40.3	36.9	36.9	35.1	38.1	39.7	38.9
Other Fuels	2.6	2.6	2.6	2.6	1.9	2.0	2.5
Fugitive and Process Emissions	1.5	0.9	0.9	0.8	0.8	0.8	0.7
Imported Electricity	26.4	23.9	24.6	21.7	18.6	19.8	17.5
Unspecified Imports	9.7	8.8	11.6	9.9	8.8	8.5	8.9

Table IV.E-5 (Continued)
California GHG Inventory
(million metric tons CO_2e)

Sector	2016	2017	2018	2019	2020	2021	2022
Specified Imports	16.7	15.1	13.0	11.8	9.8	11.3	8.6
Percent of Total Emissions	17%	16%	16%	15%	16%	16%	16%
Commercial and Residential	37.7	38.3	37.5	40.6	39.0	38.8	39.5
Residential Fuel Use	23.4	24.0	23.5	25.9	25.4	24.8	24.7
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Natural Gas	21.0	21.7	21.0	23.3	22.9	22.2	22.3
Other Fuels	1.5	1.5	1.6	1.7	1.6	1.6	1.5
Fugitive Emissions	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Commercial Fuel Use	12.4	11.7	12.2	12.8	11.7	12.2	13.0
Diesel	1.1	0.8	1.0	0.8	0.7	0.7	0.6
Natural Gas	10.1	10.2	10.0	10.5	9.3	10.1	10.6
Other Fuels	1.3	1.4	1.1	1.4	1.7	1.4	1.8
Commercial Cogeneration Heat Output	0.4	0.5	0.5	0.4	0.4	0.4	0.4
Other Commercial and Residential	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Percent of Total Emissions	9%	9%	9%	10%	10%	10%	11%
Agriculture[d]	32.1	31.6	32.0	31.2	31.4	30.4	29.8
Livestock	22.5	22.8	22.6	22.4	22.2	21.1	20.9
Enteric Fermentation (Digestive Process)	10.9	11.2	11.1	11.0	11.0	11.0	11.0
Manure Management	11.6	11.6	11.5	11.4	11.2	10.1	9.9
Crop Growing & Harvesting	6.7	6.6	6.7	6.7	6.8	6.8	6.8
Fertilizers	5.0	5.1	5.1	5.1	5.2	5.2	5.2
Soil Preparation and Disturbances	1.6	1.4	1.5	1.5	1.5	1.5	1.5
Crop Residue Burning	0.1	0.1	0.1	0.1	0.1	0.1	0.1
General Fuel Use	2.98	2.3	2.7	2.2	2.4	2.5	2.2
Diesel	2.3	1.7	2.1	1.6	1.8	1.8	1.5
Natural Gas	0.6	0.5	0.6	0.5	0.6	0.7	0.6
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent of Total Emissions	8%	8%	8%	8%	9%	8%	8%
High Global Warming Potential	19.5	20.1	20.6	20.8	21.3	21.3	21.3
Ozone Depleting Substance Substitutes	19.0	19.6	20.1	20.3	20.8	28.8	20.9
Electricity Grid SF6 Losses[c]	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Semiconductor Manufacturing[b]	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Percent of Total Emissions	5%	5%	5%	5%	6%	6%	6%
Recycling and Waste	7.9	8.2	8.2	8.3	8.5	8.3	8.2
Landfills[b]	7.6	7.9	7.9	8.4	8.2	8.0	7.9

Table IV.E-5 (Continued)
California GHG Inventory
(million metric tons CO_2e)

Sector	2016	2017	2018	2019	2020	2021	2022
Composting	0.3	0.3	0.3	0.4	0.3	0.3	0.3
Percent of Total Emissions	2%	2%	2%	2%	2%	2%	2%
Total Net Emissions	**414.1**	**410.3**	**410.5**	**403.7**	**368.5**	**380.4**	**371.1**

[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.*

[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 2000–2022—by Category as Defined in the 2008 Climate Change Scoping Plan million metric tons of CO_2e—(based on IPCC Fourth Assessment Report's Global Warming Potentials).

(2) Existing Project Site Emissions

The Project Site is currently developed with a surface asphalt parking lot used for bus storage. There are no buildings or landscaping within the Project Site, but there is a billboard, parking lights, a cargo storage container, six electric bus chargers, and fencing. To provide a conservative analysis of the Project, estimates of Project emissions presented below do not assume any existing source emissions to determine the net increase in GHG emissions generated by on-site uses (i.e., Project emissions were assumed to be all new emissions).

3. Project Impacts

a. Thresholds of Significance

(1) State CEQA Guidelines Appendix G

In accordance with Appendix G of the State CEQA Guidelines (CEQA Guidelines), the Project would have a significant impact related to GHG emissions 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 an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

Section 15064.4 of the CEQA Guidelines recommends that lead agencies quantify GHG emissions of projects and consider several other factors that may be used in the

determination of significance of GHG emissions from a project, including the extent to which the project may increase or reduce GHG emissions; whether a project exceeds an applicable significance threshold; and the extent to which a project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs. 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)).

CNRA released a technical advisory on CEQA and climate change that provided some guidance on assessing the significance of GHG emissions, and states that "lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice," and that while "climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment."[68] Furthermore, the 2008 OPR technical advisory states that "CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project."[69]

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.[70] 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.[71] 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."[72] 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

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[68] *See, generally, California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, December 2009, pages 11-13, 14 and 16; 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.*

[69] *Governor's Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, June 19, 2008.*

[70] *14 CCR Section 15064(h)(3).*

[71] *14 CCR Section 15064(h)(3).*

[72] *14 CCR Section 15064(h)(3).*

complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.[73]

The City has not adopted a numeric threshold for the analysis of GHG impacts. As noted above, CEQA Guidelines Section 15064.4 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 is consistent with applicable plans, policies, regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of GHG emissions. For this Project, as a land use development project, the most directly applicable adopted regulatory plan to reduce GHG emissions is SCAG's 2020–2045 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 AB 32 2022 Scoping Plan, SCAG's 2024–2050 RTP/SCS, and L.A.'s 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 as the Project is an office/commercial development, and the City is the Lead Agency.

(3) 2006 L.A. CEQA Thresholds Guide

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

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[73] *See, for example, San Joaquin Valley Air Pollution Control District, CEQA Determinations of Significance tor 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, 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 that SCAQMD has applied its 10,000-$MTCO_2e$/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 tor 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).*

- AB 32 2022 Scoping Plan;
- SCAG 2024–2050 RTP/SCS; and
- L.A.'s Green New Deal.

As discussed above, the 2008 OPR technical advisory notes that lead agencies "should make a good-faith effort to calculate or estimate GHG emissions" from a project.[74] GHG emissions are quantified below, consistent with these guidelines.

b. Methodology

Amendments to Section 15064.4 of the CEQA Guidelines were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Consistent with existing CEQA practice, CEQA Guidelines Section 15064.4 gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. If a qualitative analysis is used, CEQA Guidelines Section 15064.4 recommends certain factors that may be used in the determination of significance (i.e., extent to which the project may increase or reduce GHG emissions compared to the existing environment; whether the project emissions exceed an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHG emissions). The amendments do not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies, or suggested by other experts, such as CAPCOA, provided that any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)). The CNRA has also clarified that the CEQA Guidelines amendments focus on the effects of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15064(h)(3)).[75]

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions and has not formally adopted a local plan for reducing GHG emissions. In addition, neither SCAQMD, LCI, CARB, CAPCOA, nor any other State or regional agency have yet adopted a numerical significance threshold for assessing GHG emissions that is applicable to the Project. Since there is no applicable adopted or accepted

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[74] *Governor's Office of Planning and Research, Technical Advisory – CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, June 19, 2008, p. 5.*

[75] *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.*

numerical threshold of significance for GHG emissions, the analysis focuses on the Project's consistency with Statewide, regional plans, and local initiatives adopted for the purpose of reducing and/or mitigating GHG emissions. The evaluation of consistency with such plans is the sole basis for determining the significance of the Project's GHG emissions-related impacts on the environment.

Notwithstanding, as required by CEQA, the analysis below also calculates the amount of GHG emissions that would be attributable to the Project using recommended air quality models, as described below. The primary purpose of quantifying the Project's GHG emissions is to satisfy CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. However, as set forth above, there is no CEQA requirement to use a quantitative significance threshold. The estimated emissions inventory is also used to determine if there would be a reduction in the Project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions. However, the significance of the Project's GHG emissions impacts is not based on the amount of GHG emissions resulting from the Project.

(1) Consistency with Plans

The Project's GHG impacts were evaluated by assessing the Project's consistency with applicable Statewide, regional, and local GHG reduction plans and strategies. As discussed previously, the Project is evaluated for consistency with AB 32's 2022 Scoping Plan, SCAG 2024–2050 RTP/SCS, and L.A.'s Green New Deal.

Appendix D, Local Actions, of the 2022 Scoping Plan includes "recommendations intended to build momentum for local government actions that align with the State's climate goals, with a focus on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under the California Environmental Quality Act (CEQA)."[76]

The State encourages local governments to adopt a CEQA-qualified Climate Action Plan (CAP) addressing the three priority areas (transportation electrification, VMT reduction, and building decarbonization). However, the State recognizes that almost 50 percent of jurisdictions do not have an adopted CAP, among other reasons because they are costly, requiring technical expertise, staffing, and funding. Additionally, CAPs need to be monitored and updated as State targets change and new data become available. Jurisdictions that wish to take meaningful climate action (such as preparing a non-CEQA-qualified CAP or as individual measures) aligned with the State's climate goals in the absence of a

[76] *CARB, 2022 Scoping Plan, December 2022, Appendix D, p. 4.*

CEQA-qualified CAP are advised to look to the three priority areas when developing local climate plans, measures, policies, and actions: transportation electrification, VMT reduction, and building decarbonization. "By prioritizing climate action in these three priority areas, local governments can address the largest sources of GHGs within their jurisdiction."[77]

OPR, now known as LCI as noted above, 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 2022 Scoping Plan provides measures to achieve AB 32 and SB 32 targets. On a regional level, SCAG's 2024–2050 RTP/SCS contains measures to achieve VMT reductions required under SB 375. The City does not have a programmatic mitigation plan from which to tier, such as a Greenhouse Gas Emissions Reduction Plan as recommended in the relevant amendments to the CEQA Guidelines. L.A.'s Green New Deal, although a mayoral initiative and not an adopted plan, 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 plans, policies, regulations, and requirements the Project would result in a less than significant impact, because it would be consistent and would not conflict with the overarching State, regional and local plans for GHG reduction (i.e., AB 32).

A consistency analysis is provided and describes the Project's consistency and potential to conflict with the policies and objectives outlined in the applicable portions of the 2022 Scoping Plan, the 2024–2050 RTP/SCS, and L.A.'s Green New Deal.

(2) Quantification of Emissions

In view of the above considerations, the City has quantified 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 that the City has not formally adopted numerical significance threshold or local plan for reducing GHG emissions applicable to this Project, the City has assessed the significance of the Project's GHG emissions by comparing 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.

(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

[77] *CARB, 2022 Scoping Plan, December 2022, Appendix D, p. 9.*

a number of general and industry-specific activities.[78] 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."[79] 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.[80] They include the following:

- Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam or permitted sources (e.g., power plants).
- 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).[81]

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

CARB recommends consideration of indirect emissions to provide a more complete picture of the GHG footprint of a facility. Annually reported indirect energy usage aids the conservation awareness of a facility and provides information to CARB to be considered for

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[78] *California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009.*

[79] *California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009.*

[80] *USEPA, Greenhouse Gases at EPA, www.epa.gov/greeningepa/greenhouse-gases-epa, accessed June 21, 2024.*

[81] *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.*

future strategies.[82] For example, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, the 2008 OPR technical advisory notes 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."[83] Therefore, direct and indirect emissions have been calculated for the Project.

A fundamental difficulty in the analysis of GHG emissions is the global nature of the existing and cumulative future conditions. Changes in GHG emissions can be difficult to attribute to a particular planning program or project because the planning effort or project may cause a shift in the locale for some type of GHG emissions, 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.[84] 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 the SCAQMD to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.

(a) Construction

The Project's construction emissions were calculated using CalEEMod Version 2022.1. Details of the modeling assumptions and emission factors are provided in Appendix B of this Draft EIR. CalEEMod calculates emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. GHG

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[82] *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.*

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

[84] *SCAQMD, CEQA Air Quality Modeling, www.aqmd.gov/home/rules-compliance/ceqa/air-quality-modeling, accessed June 21, 2024.*

emissions during construction were forecast based on the construction assumptions included in Appendix B of this Draft EIR 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 improvements, grade, and excavate the Project Site, construct the proposed building and related improvements, and plant new landscaping within and along the perimeter of 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 recommends 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.[85] Thus, total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions.

(b) Operation

Similar to construction, the SCAQMD-recommended CalEEMod modeling assumptions and emission factors are used to calculate potential GHG emissions generated by new land uses on the Project Site, including area sources, electricity, natural gas, mobile sources, stationary sources (i.e., emergency generators), solid waste generation and disposal, and water usage/wastewater generation. CalEEMod default values for generation/usage rates, GHG 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 (e.g., restaurant cooking), 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

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

electricity use are directly dependent on the electricity utility provider. In this case, GHG intensity factors for the Los Angeles Department of Water and Power (LADWP) were selected in CalEEMod. The carbon intensity (lbs/MWh) for electricity generation was calculated for the Project buildout year (i.e., 2028) based on LADWP's reported intensity for the Project's baseline year.

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[86] and an estimate of the Project's annual VMT, which was provided in the Project's Transportation Assessment.[87] As discussed in Section IV.I, Transportation, of this Draft EIR, the Project VMT was derived from the LADOT VMT Calculator. The VMT Calculator was developed by the Department of City Planning 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 employee and visitor trips to and from the Project Site and other activities that generate a vehicle trip.

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 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 as provided by CalEEMod, and the GWP values for the GHGs emitted.

The GHG emissions related to water usage and wastewater generation are based on the Project's proposed 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 were

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[86] *CAPCOA, California Emissions Estimator Model, Appendix C: Calculation Details for CalEEMod, April 2022.*

[87] *Gibson Transportation Consultants, Transportation Assessment for the 130 W. College Street Project, Los Angeles, California, October 2024. Refer to Appendix I of this Draft EIR.*

obtained from surveys conducted throughout California for various land uses. Project water consumption GHG emissions were 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 consistency with applicable project design features set forth in this Draft EIR. The analysis of Project GHG emissions with Project Design Feature GHG-PDF-1 at buildout also takes into account actions and mandates already approved and expected to be in force by Project buildout (e.g., Title 24 Standards, Pavley I Standards, full implementation of California's Statewide RPS beyond current levels of renewable energy, and the California LCFS), including the 500 kilowatt (kw) solar array required by the California Energy Code.[88] Appendix B of this Draft EIR also includes a CalEEMod model for the Project without Project Design Feature GHG-PDF-1. It should be noted that GHG reductions due to LCFS are currently not incorporated into CalEEMod. The CalEEMod model incorporates EMFAC2021 emission factors, which are based on tailpipe emissions for combustion powered vehicles. The emissions benefits due to LCFS come from the production cycle (upstream emissions) rather than the combustion cycle (tailpipe). As a result, EMFAC2021 emission factors do not include emissions benefits due to LCFS as emission factors are based on tailpipe emissions. 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, in an infill area, etc.) would provide a proportional reduction in mobile source GHG emissions compared to a generic project without such locational benefits. Calculation of Project emissions conservatively did not include actions and mandates that are not already in place but are 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 the Cap-and-Trade Program were conservatively 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 feature with regard to GHG emissions would be implemented:

[88] *Actions and mandates are based on relevant year targets established by AB 32 and the current CARB Scoping Plan.*

Project Design Feature GHG-PDF-1: The Project will prohibit the use of natural gas during Project operations, excluding restaurant cooking equipment and the emergency generator.

D. Analysis of Project Impacts

Threshold (a): Would the Project generate greenhouse gas 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 greenhouse gases?

(1) Impact Analysis

(a) Consistency with Applicable Plans and Policies

As discussed above under Subsection IV.E.3.a(1) on page IV.E-41, compliance with applicable GHG emissions reduction plans would result in a less-than-significant Project and cumulative impact related to GHG emissions. The following section describes the extent to which the Project complies with the regulations outlined in the 2022 Scoping Plan, the 2024–2050 RTP/SCS, and L.A.'s Green New Deal. As shown herein, the Project would be consistent and not conflict with the applicable GHG reduction plans and policies.

(i) 2022 Scoping Plan

As discussed above, jurisdictions that want to take meaningful climate action aligned with the State's climate goals in the absence of a CEQA-qualified CAP (such as preparing a non-CEQA-qualified CAP or as individual measures) should also look to the three priority areas (transportation electrification, VMT reduction, and building decarbonization). To assist local jurisdictions, the 2022 Scoping Plan presents a non-exhaustive list of impactful GHG reduction strategies that can be implemented by local governments within the three priority areas (Priority GHG Reduction Strategies for Local Government Climate Action Priority Areas).[89] A detailed assessment of goals, plans, and policies implemented by the City, which would support the GHG reduction strategies in the three priority areas is provided below. In addition, further details are provided regarding the correlation between these reduction strategies and applicable actions included in Table 2-1 (page 72) of the 2022 Scoping Plan (Actions for the Scoping Plan Scenario).

[89] *Table 1 of Appendix D, 2022 Scoping Plan, November 2022.*

Transportation Electrification

The priority GHG reduction strategies for local government climate action related to transportation electrification are discussed below and would support the 2022 Scoping Plan action to have 100 percent of all new passenger vehicles to be zero-emission by 2035 (see Table 2-1 of the 2022 Scoping Plan).

- **Convert local government fleets to ZEVs**

CARB approved the Advanced Clean Cars II rule, which codifies Executive Order N-79-20 and requires 100 percent of new cars and light trucks sold in California be ZEVs by 2035. The State has also adopted AB 2127, which requires the CEC to analyze and examine charging needs to support California's EVs in 2030 to help decision-makers allocate resources to install new EV chargers where they are needed most.

L.A.'s Green New Deal identifies a number of measures to reduce VMT and associated GHG emissions. Such measures that would support the local reduction strategy include converting all city fleet vehicles to zero emission where technically feasible by 2028. Starting in 2021, all vehicle procurement followed a "zero emission first" policy for City fleets. L.A.'s Green New Deal also establishes a target to increase the percentage of ZEVs to 25 percent by 2025, 80 percent by 2035, and 100 percent by 2050. In order to achieve this goal, the City is planning to build or in the process of building 20 fast charging plazas throughout the City. The City is also planning to install or in the process of installing 28,000 publicly available chargers by 2028 to encourage use of ZEVs.

The City's goals of converting the municipal fleet to zero emissions and installation of EV chargers throughout the City would be consistent with the 2022 Scoping Plan goals of transitioning to EVs. Although this measure mainly applies to City fleets, the Project would be consistent and would not conflict with these goals by installing EV chargers in at least 10 percent of the total parking spaces. Installation of EV chargers would encourage use of EVs.

- **Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans)**

The State has adopted AB 1236 and AB 970, which require cities to adopt streamlined permitting procedures for EV charging stations. As a result, the City updated Section IX of the LAMC, which requires new construction to designate 30 percent of new parking spaces as capable of supporting future electric vehicle supply equipment (EVSE). This would exceed the 2022 CALGreen Code requirements of 20 percent of new parking spaces as EV

capable. Ordinance No. 186,485 also requires new construction to install EVSE at 10 percent of total parking spaces. This requirement also exceeds the 2022 CALGreen Code requirements of installing EVSE for 25 percent of EV capable parking spaces, which is 5 percent of the total parking spaces. The City has also implemented programs to increase the amount of EV charging on city streets, EV carshare, and incentive programs for apartments to be retrofitted with EVSE.

The City's goals of installing EVSE throughout the City would be consistent with the 2022 Scoping Plan goals of transitioning to EVs. In addition, the Project would comply with the LAMC EVSE requirements.

VMT Reduction

The priority GHG reduction strategies for local government climate action related to VMT reduction are discussed below and would support the 2022 Scoping Plan action to reduce VMT per capita 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045. These reduction strategies include the following:

- **Reduce or eliminate minimum parking standards in new developments**
- **Implement parking pricing or transportation demand management pricing strategies**

The Mobility Plan contains measures and programs related to VMT reduction throughout the City. With regard to parking standards, the implementation of Mobility Plan Programs and AB 2097 reduce or eliminate parking requirements for certain types of developments near transit (within half a mile). These reduction strategies and TDM programs would serve to reduce minimum parking standards and reduce vehicle trips.

The Project would implement a Transportation Demand Management (TDM) Program as required by the LAMC that includes a reduction in parking supply compared to LAMC, promotions and marketing, and provision of bike parking in excess of LAMC requirements to support alternative modes of transportation. The Project would also include Mitigation Measure MM-TR-1, which includes implementation of a ride-share program, to reduce VMT by an additional 6.8 percent. Therefore, the Project would be consistent and not conflict with this reduction strategy to reduce parking standards.

- **Implement Complete Streets policies and investments, consistent with general plan circulation element requirements**

The Mobility Plan established a "Complete Streets" planning framework which resulted in the City of Los Angeles Complete Streets Design Guide (Design Guide) in 2015,

consistent with California's Complete Streets Act of 2008. A supplemental update to the Design Guide was adopted in 2020.

The Design Guide provides a number of measures to increase public access to electric shuttles, car sharing and walking. The Design Guide establishes guidelines for establishing on-street parking for car sharing. The City has also established BlueLA, which is a car sharing network consisting of more than 100 electric vehicles located throughout the City. In addition, under L.A.'s Green New Deal, the City is planning to install or in the process of installing 28,000 publicly available chargers by 2028, introduce 135 new electric DASH buses, and 20 fast charging plazas.

This reduction strategy mainly applies to City traffic circulation. However, the Project would implement a TDM Program, which would include pedestrian network improvements to encourage alternative modes of transportation. Therefore, the Project would not conflict with implementation of Complete Streets policies.

- **Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.**

- **Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking**

- **Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood)**

- **Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements)**

These reduction strategies are supported through implementation of SB 375, which requires integration of planning processes for transportation, land use, and housing; generally encourages jobs/housing proximity; promotes TOD; and encourages high-density development along transit corridors. To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2024–2050 RTP/SCS. The 2024–2050 RTP/SCS is a long-term plan for the Southern California region that details investment in the transportation system and development in communities to meet the needs of the region both today and in the future. Please refer below for additional discussion of consistency with the 2024–2050 RTP/SCS.

On a local level, the City has developed the Design Guide, which provides a number of reduction strategies to increase public access to electric shuttles, car-sharing, and walking;

continues to build out networks in the Mobility Plan for pedestrians, bicyclists, and transit users; has implemented an EV car sharing network; and is working towards increasing publicly available EVSE, and introducing new electric DASH buses.

The Project represents an infill development within an existing urbanized area that would concentrate new development consistent with the overall growth pattern encouraged in the 2024–2050 RTP/SCS. The Project's 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 serviced by the Los Angeles County Metropolitan Transportation Authority (Metro), LADOT, and Santa Clarita Transit (SCT) bus lines, as well as the Metro A Line Chinatown Station. In addition, the Project Site's proximity to a variety of residential and other office/commercial uses and services and entertainment venues would encourage employees of the Project Site to walk to nearby destinations to meet their shopping and entertainment needs, thereby reducing VMT and GHG emissions. Therefore, the Project would be consistent with these reduction strategies.

Building Decarbonization

The priority GHG reduction strategies for local government climate action related to electrification are discussed below and would support the 2022 Scoping Plan actions regarding meeting increased demand for electrification without new fossil gas-fire resources and all electric appliances beginning in 2029 for commercial uses (see Table 2-1 of the 2022 Scoping Plan).

- **Adopt all-electric new construction reach codes for residential and commercial uses**

California's transition away from fossil fuel–based energy sources will bring the Project's GHG emissions associated with building energy use down to zero as the City's electric supply becomes 100 percent carbon free. California has committed to achieving this goal by 2045 through SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 strengthened the State's RPS by requiring that 60 percent of all electricity provided to retail users in California come from renewable sources by 2030 and that 100 percent come from carbon-free sources by 2045. The land use sector will benefit from the RPS because the electricity used in buildings will be increasingly carbon-free, but implementation does not depend (directly, at least) on how buildings are designed and built.

In addition, the Project has voluntarily included Project Design Feature GHG-PDF-1, which prohibits the use of natural gas during Project operations, excluding restaurant cooking equipment and the emergency generator. Therefore, the Project would be consistent and not conflict with this reduction strategy.

As such, based on the analysis above and below, the Project would not conflict with the GHG reduction-related actions and strategies in the 2022 Scoping Plan. As such, impacts related to consistency with the 2022 Scoping Plan would be less than significant.

(ii) SCAG 2024–2050 RTP/SCS

As previously discussed, 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 2024–2050 RTP/SCS is to provide a framework for future growth that will decrease per capita GHG emissions from cars and light-duty trucks based on land use planning and transportation options. To accomplish this goal, the 2024–2050 RTP/SCS identifies various strategies to reduce per capita VMT. The 2024–2050 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 2024–2050 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. When compared to the previous RTP/SCS, the policies in the 2024–2050 RTP/SCS have been refined to promote multimodal transportation investments and local development that align with the regional growth vision. Thus, successful implementation of the 2024–2050 RTP/SCS would result in more complete communities with a variety of transportation, employment, and housing choices, while reducing automobile use. With regard to individual developments, such as the Project, strategies and policies set forth in the 2024–2050 RTP/SCS can generally 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. These strategies and policies are addressed below.

Consistency with Integrated Growth Forecast

The 2024–2050 RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review.

According to the 2024–2050 RTP/SCS, the employment forecast for the City of Los Angeles Subregion in 2024 was approximately 2,005,813 employees.[90] In 2028, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have approximately 2,047,263 employees.[91]

As discussed in Section II, Project Description, of this Draft EIR, the Project would develop up to 234,601-square-feet of new commercial development consisting of 224,597 square feet of office uses, 4,095 square feet of restaurant use, and 4,110 square feet of retail uses. Adjacent to the ground floor restaurant, 1,799 square feet of outdoor uncovered dining area would be provided, and while this area is not considered floor area per the LAMC, it is conservatively included in this environmental analysis. Based on generation rates provided by the City of Los Angeles VMT Calculator Documentation, the Project would generate approximately 930 new employees.[92]

Per the 2024–2050 RTP/SCS, the Project's estimated 930 new employees would represent approximately 0.26 percent of the projected growth in the SCAG region between 2024 and 2028 (i.e., the Project's baseline and buildout years) and approximately 2.2 percent of the projected employment growth in the SCAG Region between 2024 and 2028.[93] Therefore, the Project's contribution to population and employment growth would be also consistent with projections contained in the 2020–2045 RTP/SCS.

Consistency with VMT Reduction Strategies and Policies

As discussed above, for CEQA purposes, the City is basing its determination of the significance of the Project's GHG emissions solely on the Project's consistency with State, regional, and local regulatory strategies 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 VMT-reducing measures

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90 *Based on a linear interpolation of 2019–2035 data.*

91 *Based on a linear interpolation of 2019–2045 data.*

92 *Based on City of Los Angeles VMT Calculator Documentation (Version 1.3), May 2020, Table 1: Land Use and Trip Generation Base Assumptions. The generation rate of 0.004 employees per square foot for "General Office" land use is applied to the 224,597 square feet of office space. The generation rate of 0.002 employees per square foot for "General Retail" land use is applied to the 4,110 square feet of retail space. The generation rate of 0.004 employees per square foot for "High-Turnover Sit-Down Restaurant" land use is applied to the 5,894 square feet of restaurant space. As documented in Appendix A, VMT Analysis LADOT Calculator Worksheets, of the Project's Transportation Assessment (Appendix I of this Draft EIR), the Project would generate approximately 930 employees.*

93 *The Project's projected number of employees (930) ÷ increase in employment in the City of Los Angeles subregion from 2024 to 2028 (41,450) = 2.2 percent.*

within the Air Basin help quantify the GHG emissions reductions achieved by locating the Project on an infill site in a High Quality Transit Corridor (HQTC) that promotes alternative modes of transportation.

The Project would be designed and constructed to incorporate features to support and promote environmental sustainability. Specifically, the Project represents an infill development within an existing urbanized area that would introduce new office/commercial uses on the Project Site within an HQTC. The Project Site is transit accessible and is close to a number of bus transit lines, a rail line, and DASH routes. Particularly, the Project Site is located immediately across from the Metro A Line Chinatown Station. The Project Site is also located in close proximity to stops for Metro Lines 70 and 76, the DASH Lincoln Heights/Chinatown stop, DASH Downtown Routes A, B, D, and E, and SCT Lines 794 and 799. Moreover, the Project Site is located approximately 0.5 miles north of Union Station, which is a hub for all major public transit lines for the region. These bus lines, rail line, and Union Station connect passengers to the Project Site from various locations across the City and throughout Los Angeles County.

The Project would also provide required short- and long-term bicycle parking spaces in compliance with the requirements of the LAMC, as well as lockers and showers. The provision of bicycle parking spaces and amenities on-site would further reduce vehicle trips and VMT by encouraging biking and non-automotive forms of transportation. The Project's design would also provide pedestrian access that minimizes barriers and links the Project Site with external streets to encourage people to walk instead of drive.

Historically, 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 USEPA Mixed-Use Development (MXD) model to calculate trip reductions for multi-use developments.[94] 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 B, incorporation of USEPA MXD VMT reduction features and City requirements applicable to the Project would result in a 31-percent reduction in overall VMT compared to the baseline

[94] *USEPA, Mixed-Use Trip Generation Model, www.epa.gov/smartgrowth/mixed-use-trip-generation-model, accessed June 21, 2024.*

ITE trip generation rates. Mitigation Measure MM-TR-1, which includes implementation of a ride-share program, would reduce VMT by an additional 6.8 percent.

The Project would also be consistent with the following key GHG reduction strategies in SCAG's 2024–2050 RTP/SCS:

- Encourage and support the implementation of projects, both physical and digital, that facilitate multimodal connectivity, prioritize transit and shared mobility, and result in improved mobility, accessibility and safety; and
- Encourage employment development in areas surrounding existing and planned transit/rail stations;

Furthermore, because the Project would be located within a SCAG-designated Livable Corridor and HQTC)well-served by Metro rail and various local bus lines, the Project would contribute to the productivity and use of the regional transportation system. The Project would provide employment and local-serving uses near transit and encourage active transportation by providing new bicycle parking infrastructure and active street frontages, in line with the 2024–2050 RTP/SCS goals. Thus, the Project would further promote a reduction in VMT and subsequent reduction in GHG emissions and would be consistent with the 2024–2050 RTP/SCS goals.

As discussed previously, the Project would include the development of up to 234,601 square-feet of new commercial development, consisting of 224,597 square feet of office uses, 4,095 square feet of restaurant uses, and 4,110 square feet of retail uses, within an HQTC. Adjacent to the ground floor restaurant, 1,799 square feet of outdoor uncovered dining area would be provided, and while this area is not considered floor area per the LAMC, it is conservatively included in this environmental analysis. The Project Site is served by multiple bus lines and the Metro A Line Chinatown Station, located directly across the street from the Project Site bicycle parking, lockers, and showers provided by the Project would further encourage biking. These and other measures, such as proximity to residential uses and other job centers and retail uses, as well as increased density, would further promote a reduction in VMT and subsequent reduction in GHG emissions, which would be consistent with the goals of SCAG's 2024–2050 RTP/SCS.

Increased Use of Alternative Fueled Vehicles Policy Initiative

The second category of strategies and policies of the 2024–2050 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 policy initiatives included therein focus 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 parking spaces provided to be capable of supporting future EVSE and at least 10 percent of the total parking spaces with EV charging stations as dictated by City requirements.

Energy Efficiency Strategies and Policies

The third category of strategies and policies of the 2024–2050 RTP/SCS for individual developments, such as the Project, involves improving energy efficiency (e.g., reducing energy consumption) to reduce GHG emissions. The 2024–2050 RTP/SCS policy initiative focuses on exploring and advancing the transition toward zero-emission and clean technologies and other transformative technologies, where viable. 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 the CALGreen Code. These standards would reduce energy and water usage and waste and, thereby, reduce associated GHG emissions and help minimize the impact on natural resources and infrastructure. The sustainability features to be incorporated into the Project would include, but not limited to, 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. Furthermore, the Project would be subject to the 2025 Title 24 Standards. The Project has also voluntarily included Project Design Feature GHG-PDF-1, which prohibits the use of natural gas during Project operations, excluding restaurant cooking equipment and emergency generators.

Land Use Assumptions

At the regional level, the 2024–2050 RTP/SCS is a plan adopted for the purpose of reducing GHGs. In order to assess the Project's consistency with the 2024–2050 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 2024–2050 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 and principles set forth in the 2024–2050 RTP/SCS is discussed in Section IV.G, Land Use and Planning, of the Draft EIR and detailed in Table 1 of Appendix G of the Draft EIR.

In sum, the Project is the type of land use development that is encouraged by the 2024–2050 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.[95] By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with State regulatory requirements.

Overall, the Project would not conflict with the GHG reduction-related actions and strategies contained in the 2024–2050 RTP/SCS. As such, impacts related to consistency with the 2024–2050 RTP/SCS would be less than significant.

(iii) L.A.'s Green New Deal

As discussed above, L.A.'s Green New Deal, a mayoral initiative, includes both short-term and long-term aspirations through the year 2035 in various topic areas, including water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others. L.A.'s Green New Deal provides information as to what the City will do with buildings and infrastructure in their control, and provides specific targets related to housing and development, as well as mobility and transit, including the reduction of VMT per capita and increasing trips made by walking, biking or transit. L.A.'s Green New Deal was updated in April 2019. L.A.'s Green New Deal's specific targets include ensuring 57 percent of new housing units are built within 1,500 feet of transit by 2025 and 75 percent by 2035; reducing VMT per capita by at least 13 percent by 2025, 39 percent by 2035, and 45 percent by 2050; increasing the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025 and 50 percent by 2035 and has established targets, such as 100 percent renewable energy by 2045, installation of 10,000 publicly available EVSE by 2022 and 28,000 by 2028, diversion of 100 percent of waste by 2050, and recycling 100 percent of wastewater by 2035.[96]

Table IV.E-6 on page IV.E-63 provides a discussion of the Project's consistency with applicable GHG-reducing actions from L.A.'s Green New Deal. As discussed therein, the Project would not conflict with the applicable goals and actions of L.A.'s Green New Deal.

Although L.A.'s Green New Deal is not directly applicable to private development projects, the Project would generally be consistent with these aspirations as it is an infill development that is served by multiple bus lines, and the Metro A Line Chinatown Station is located directly across the street from the Project. The Project would develop up to 234,601 square-feet of new commercial development, consisting of 224,597 square feet of office uses, 4,095 square feet of restaurant use, and 4,110 square feet of retail. Adjacent to

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

[96] *City of Los Angeles, L.A.'s Green New Deal, Sustainable City pLAn, 2019 Targets, https://plan.mayor.lacity.gov/las-green-new-deal/targets, accessed June 21, 2024.*

Table IV.E-6
Consistency with Applicable GHG Emissions Goals and Actions of L.A.'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. Consistent with City policy, water usage rates were calculated consistent with the requirements under City Ordinance No. 184,248, the 2022 California Plumbing Code, 2022 CALGreen Code, 2020 Los Angeles Plumbing Code, and Los Angeles Green Building Code and reflects approximately a 20-percent reduction in water usage as compared to the CalEEMod default base demand. Newer codes are now in effect and more stringent, so this calculation of water usage is conservative. Therefore, the Project would not conflict with this goal.
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.	**No Conflict.** While this action primarily applies to the City, the Project would be designed and operated to meet the applicable requirements of the CALGreen Code and the Los Angeles Green Building Code. The Project would be subject to the 2022 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."[a] The Project would also implement Project Design Feature GHG-PDF-1. Therefore, the Project would not conflict with this goal.
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.** While this action primarily applies to the City, the Project would be designed and operated to meet the applicable requirements of the CALGreen Code and the Los Angeles Green Building Code. Therefore, the Project would not conflict with this goal.
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	**No Conflict.** While this action primarily applies to the City, the Project would be located near a mass transit station to reduce vehicle trips. The Project would also promote a pedestrian-friendly community by placing office and commercial uses within walking distance

Table IV.E-6 (Continued)
Consistency with Applicable GHG Emissions Goals and Actions of L.A.'s Green New Deal

Action	Description	Consistency Analysis
	consistent with the West Side Mobility Plan to ease congestion.	to residential uses and other office, retail, and commercial uses. The Project Site is located in a TPA as designated by the City and an HQTC as designated by the 2024–2050 RTP/SCS. The Project would also provide bicycle parking spaces in accordance with LAMC requirements for Project employees and visitors, as well as lockers and showers. The VMT reduction features and City requirements applicable to the Project would result in a 31-percent reduction in overall VMT compared to baseline trip generation rates. Mitigation Measure MM-TR-1 would reduce VMT by an additional 6.8 percent. Therefore, the Project would not conflict with this goal.
Focus Area: Mobility and Public Transit		
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, streamline permitting processes for EV charger installations and update building codes to simplify EV charging requirements.	**No Conflict.** While this action primarily applies to the City, the Project would provide EVSE and electric vehicle supply wiring consistent with applicable City requirements. Therefore, the Project would not conflict with this goal.

[a] *CEC, 2019 Building Energy Efficiency Standards, Fact Sheet.*

Source: Eyestone Environmental, 2025.

the ground floor restaurant, 1,799 square feet of outdoor uncovered dining area would be provided, and while this area is not considered floor area per the LAMC, it is conservatively included in this environmental analysis. Furthermore, the Project would comply with the CALGreen Code; implement Project Design Feature GHG-PDF-1 (all-electric building with limited exceptions) in furtherance of the State's goals related to electrification; and comply with the City of Los Angeles Solid Waste Management Policy Plan, and the Exclusive Franchise System Ordinance (Ordinance No. 182,986) in furtherance of the aspirations included in 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 parking and storage areas for Project employees and guests, as well as lockers and showers.

Overall, the Project would not conflict with L.A.'s Green New Deal. Therefore, impacts pertaining to consistency with L.A.'s Green New Deal would be less than significant.

(iv) Post-2030 Analysis

A study prepared by E3 shows that the State's existing and proposed regulatory framework will put the State on a pathway to reduce its GHG emissions level to the statewide policy goal included in Executive Order B-30-15 of 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050 if additional appropriate reduction measures are adopted.[97] 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 requires that Statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. As discussed above, the 2022 Scoping Plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries. The Project's design features advance these goals by reducing VMT, as described in more detail above, and other sustainable features that encourage the use of electric vehicles, improve energy efficiency, and reduce water usage, including, but not limited to weather-based irrigation systems; water-efficient plantings with drought-tolerant species; shade trees in public areas; green walls in some outdoor areas; vegetated roofs to help reduce energy use; short- and long-term bicycle parking in excess of LAMC requirements; storm water capture; pedestrian-first design; employment and commercial activity center near various public transit stops; use of daylighting, where feasible; and energy-efficient lighting. In addition, the Project would meet the Los Angeles Green Building Code requirements (Ordinance No. 186,485 and Ordinance No. 186,488) requiring 30 percent of total new parking spaces would be capable of supporting future EVSE, and 10 percent of total new spaces would include EV charging stations. Lastly, the

[97] *Energy and Environmental Economics (E3), Achieving Carbon Neutrality in California, PATHWAYS Scenarios Developed for the California Air Resources Board (October 2020) Mahone, Amber. 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.*

Project has voluntarily committed to being an all-electric development with the exception of restaurant cooking and the emergency generator consistent with Project Design Feature GHG-PDF-1.

The emissions modeling in the 2022 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 2022 Scoping Plan assumed that new regulations as well as the Cap-and-Trade Program would deliver the reductions necessary to achieve the 2030 emissions target. As mentioned above, in 2017, AB 398 was passed to clarify the role of the State's Cap-and-Trade Program from 2021 through 2030. As a result of AB 398, many programs to achieve the 2030 target increased in stringency beginning in 2021 to meet accelerated 2030 targets. In the 2022 Scoping Plan, CARB has identified that changes to the Cap-and-Trade Program would be necessary to achieve the 2030 target. In October 2024, CARB issued a notice to inform Cap-and-Trade market participants of the topics for amendments to the program which include, but are not limited to, removal of existing allowances, price increases, clarifications to offset protocols, and updates to allowances for electrical distribution and industrial sectors.[98] As of August 2025, a formal rulemaking proposal has not been released. Although the Project is consistent with the 2022 Scoping Plan, additional measures to achieve the 2030 targets and beyond are outside of the Project's control. While any evaluation of post-2030 Project emissions would be speculative, the Project would not preclude or impede the State achieving the 2030 targets.

Executive Order S-3-05 establishes a goal to reduce GHG emissions to 80 percent below 1990 levels by 2050. This goal, however, has not been codified. That being said, studies have shown that, in order to meet the 2050 target, aggressive technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. In its 2008 Climate Change Scoping Plan, CARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail."[99] In the 2014 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."[100]

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[98] *CARB, Information Regarding Cap-and-Trade Regulation Updates, October 15, 2024.*

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

[100] *CARB, 2017 Scoping Plan Update, November 2017, p. 18.*

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 operational emissions level (i.e., 2,978 metric tons of CO_2e per year) to decline as the regulatory initiatives identified by CARB in the 2014 Scoping Plan are implemented, and other technological innovations occur.[101,102] Stated differently, the Project's total emissions at buildout, as presented in Table IV.E-9 on page IV.E-73 in the analysis below, represent the maximum emissions inventory for the Project as California's emissions sources are being regulated (and foreseeably expected to continue to be regulated in the future) in furtherance of the State's environmental policy objectives. That inventory takes into account existing regulations, and regulations that would apply to the Project at its buildout year. Refer to Table IV.E-6 on page IV.E-63 for applicable regulatory measures that would serve to reduce GHG impacts from the Project. As an example, the Project's GHG emissions associated with electrical usage would be reduced by an additional 22 percent in Year 2030 and to zero in 2050 since the electricity provider (i.e., LADWP) servicing the Project Site must generate electricity with 60 percent renewables in 2030 and 100 percent renewables by 2045 per SB 100. As such, given the reasonably anticipated decline in Project emissions once fully constructed and operational, the Project would not conflict with the Executive Order's horizon-year (2050) goal. Further, the Project is consistent with the 2024–2050 RTP/SCS, which demonstrates that the region would meet the post-2030 GHG reduction goal of 19 percent by 2035. The Project is the type of land use development that is encouraged by the 2024–2050 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 and City requirements applicable to the Project would result in a 31-percent reduction in overall VMT and a corresponding mobile source GHG emissions compared to the baseline ITE trip generation rates. This reduction in VMT would further support the goals of the 2024–2050 RTP/SCS with an estimated 19-percent decrease in per capita GHG emissions from passenger vehicles by 2035. 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.

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[101] *Such regulatory measures which will further reduce GHG emissions include the RPS under SB 100 which requires 100-percent renewable energy by 2045.*

[102] *As shown in Appendix B of this Draft EIR, without Project Design Feature GHG-PDF-1, the Project would emit 3,030 metric tons of CO_2e per year.*

(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 scenario, a 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-7 on page IV.E-69 provides a summary of key emission reduction strategies required to achieve Carbon Neutrality by 2045. In addition, Table IV.E-7 demonstrates how the Project would be consistent and not conflict 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, be consistent with, the State's achievement of the goals included in Executive Order B-55-18.

(vi) Conclusion

The plan consistency analysis above demonstrates that the Project would not conflict with the plans, policies, regulations, and GHG reduction actions/strategies outlined in applicable GHG reduction plans and policies, including the 2022 Scoping Plan, the 2024–2050 RTP/SCS, and L.A.'s Green New Deal. As the Project would not conflict with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs, impacts related to regulatory consistency would be less than significant.

Table IV.E-7
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 not conflict with this goal as it would source transportation fuel from these providers that would comply with these reduction measures.
Sector: Buildings	The State would require 100 percent of sales of electric appliances by 2030 through 2040.	**No Conflict.** The Project would not conflict with this goal as it includes Project Design Feature GHG-PDF-1, which prohibits the use of natural gas during Project operations, excluding restaurant cooking equipment and the emergency generator.
Sector: Transportation	The State would require 100 percent 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 percent BEV or CNG as early as 2035. At least 50 percent of rail within the State would be electrified and 50 percent of in-state aviation be electrified.	**No Conflict.** The Project would not conflict with this goal as employees and visitors of the Project purchasing vehicles within the State would comply with BEV or compressed natural gas (CNG) vehicle sales requirements. Therefore, the Project would not conflict with requirements on sales of BEV or CNG) powered vehicles. In addition, the Project would install EVSE consisting of 10 percent of total parking spaces.
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 percent. Oil and gas extraction and petroleum refining energy demand would be reduced by at least 90 percent.	**Not Applicable.** The Project would not include industrial or agricultural uses.
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 (i.e., LADWP). However, the Project would not conflict with this goal as it would source electricity from the LADWP that would comply with these reduction measures. The Project also includes a 500-kw solar

Table IV.E-7 (Continued)
Project Consistency with 2045 Carbon Neutrality Goals

Sector	Description	Consistency Analysis
		array consistent with the California Energy Code.
High GWP and Non-Combustion	Landfill and wastewater methane would be reduced by 23 percent. Pipeline fugitive emissions would be reduced by 72 percent, agricultural methane would be reduced by 41 percent and refrigerants would be reduced by 75 percent. Percent reductions are relative to Year 2020.	**No Conflict.** This action primarily applies to the local water utility (i.e., LADWP) and solid waste utility. However, the Project would not conflict with this goal as it would source water from the LADWP and generate solid waste within the City that would comply with these reduction measures.
Sector: Carbon Dioxide Removal	At least 33 million metric tons/year of carbon dioxide removal needed in 2045.	**Not Applicable.** While this action primarily applies to the State, the Project would not conflict with goal as it would comply with this policy as required by current or future regulations.

Source: CARB, Achieving Carbon Neutrality in California, Table 1. October 2020; Eyestone Environmental, 2025.

(b) Project Emissions

As discussed above, Section 15064.4 of the CEQA Guidelines recommends quantification of a Project's GHG emissions. However, the quantification is provided for informational purposes only and Project GHG emissions are not evaluated against any numeric threshold, as compliance with a GHG emissions reduction plan renders a project's potential impacts less than significant. In support of the above regulatory consistency analysis which describes the Project's compliance with the regulations and policies outlined in the applicable portions of the 2022 Scoping Plan, the 2024–2050 RTP/SCS, and L.A.'s Green New Deal, quantitative calculations are provided below.

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 improvements, shoring, excavation, grading, and construction-related equipment and vehicular activity;
- Area source: emissions associated with landscaping equipment and consumer products;

- 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

Project construction is assumed to begin in 2027, occur over approximately 20 months, and be completed in 2028.[103] As described in Section II, Project Description, of this Draft EIR, construction of the Project would commence with demolition of the existing parking lot. This phase would be followed by grading and excavation for the subterranean parking levels and installation of required utilities. Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. The construction equipment and truck fleet mix is anticipated to emit less pollution in future years due to more stringent emissions control regulations. The estimated quantity of excavation expected is approximately 67,791 cubic yards of export material (e.g., concrete and asphalt surfaces), and soil would be hauled from the Project Site during the demolition and excavation phase. 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-8 on page IV.E-72.

As presented in Table IV.E-8, construction of the Project is estimated to generate a total of 3,533 $MTCO_2e$. 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.[104] This results in annual Project construction emissions

[103] *Appendix B-2.3 Summary of Construction Assumptions provided by the Applicant.*

[104] *SCAQMD Governing Board Agenda Item 31, December 5, 2008.*

Table IV.E-8
Construction-Related Emissions
($MTCO_2e$)

Year	$MTCO_2e$[a]
2027	2,307
2028	1,225
Total	3,553
Amortized Over 30 Years	118

[a] *CO_2e was calculated using CalEEMod, and the results are provided in the Construction CalEEMod output file within Appendix B of this Draft EIR.*

Source: Eyestone Environmental, 2025.

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. As shown in Table IV.E-9 on page IV.E-73, the Project, at full buildout, is expected to result in a total of 8 $MTCO_2e$ per year from area sources. Please refer to Appendix B of this Draft EIR for the supporting calculations that reflect the emission reduction measures.

Electricity and Natural Gas Generation Emissions

GHGs are emitted as a result of activities in buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits CO_2 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

Table IV.E-9
Annual GHG Emissions Summary (Buildout)
(metric tons of carbon dioxide equivalent [$MTCO_2e$])[a,b]

Scope	Project
Area[c]	8
Energy[d]	808
Mobile[e]	2,057
EV Chargers[f]	(142)
Stationary[g]	23
Solid Waste[h]	21
Water/Wastewater[i]	82
Refrigerant	2
Construction	118
Total Emissions[j]	**2,978**

Numbers may not add up exactly due to rounding.

[a] *CO_2e was calculated using CalEEMod and the results are provided in the CalEEMod output file within Appendix B of this Draft EIR. Values may not add up due to rounding.*

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

[c] *Area source emissions are from landscape equipment.*

[d] *Energy source emissions are based on CalEEMod default electricity and natural gas usage rates and account for Project Design Feature GHG-PDF-1, which prohibits the use of natural gas during Project operations, excluding restaurant cooking equipment and the emergency generator and the 500 kw solar array required by the California Energy Code. Appendix B of this Draft EIR also includes a CalEEMod model for the Project without Project Design Feature GHG-PDF-1. As shown therein, total. Thus, impacts would be less than significant with or without Project Design Feature GHG-PDF-1. Emissions from electricity generation only take into account carbon intensity at buildout 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 60 percent renewable energy by 2030.*

[e] *Emissions were calculated with CalEEMod which includes EMFAC2021 emission factors. EMFAC2021 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 reductions from increasing fuel economy standards for future years.*

[f] *Emissions were calculated consistent with code requirements for EV chargers, which require that 10 percent of parking spaces be equipped with EV chargers.*

[g] *Stationary source emissions are from an on-site emergency generator.*

[h] *Solid waste emissions are calculated based on CalEEMod default solid waste generation rates.*

[i] *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.*

Table IV.E-9 (Continued)
Annual GHG Emissions Summary (Buildout)
(metric tons of carbon dioxide equivalent [$MTCO_2e$])

Scope	Project
[j] *Appendix B of this Draft EIR also includes a CalEEMod model for the Project without Project Design Feature GHG-PDF-1. As shown therein, without Project Design Feature GHG-PDF-1, the Project would emit 3,030 metric tons of CO_2e per year. As noted above, SCAQMD, LCI, CARB, CAPCOA, or any other State or regional agency has not yet adopted a numerical significance threshold for assessing GHG emissions that is applicable to the Project Thus, impacts would be less than significant with or without Project Design Feature GHG-PDF-1.*	
Source: Eyestone Environmental, 2025.	

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 2023 and 2045 data. LADWP's carbon intensity projections also take into account SB 350 RPS and SB 100 RPS requirements for renewable energy.

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

CalEEMod electricity and natural gas usage rates are based on the 2018–2030 Uncalibrated Commercial Sector Forecast and California Residential Appliance Saturation Survey (RASS) studies.[105] The data are specific to CEC California Electricity Forecast Zones; therefore, Zone 16 was assigned to the Project Site by CalEEMod. 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, 2013, 2016, 2019, 2022, and 2025 to incorporate increasing energy efficiency standards percent. The 2013 Title 24 requirements would improve energy efficiency standards by 25 percent above the 2007 Title 24 requirements.[106]

[105] *CEC, 2018–2030 Uncalibrated Commercial Sector Forecast, 2020, and 2019 Residential Appliance Saturation Survey, 2022.*

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

As discussed above, the Project would be subject to the 2022 Title 24 standards. The 2022 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the standards include encouraging use of electric heat pumps, requiring newly constructed residences to be electric-ready and introduces solar and battery storage standards as an optional measure to achieve compliance. As CalEEMod is based on 2019 Title 24 standards, with the exception of the 500 kw solar array as noted above, this analysis conservatively does not take into account additional energy usage reductions under the 2022 Title 24 standards. Such regulations include both the current and future iterations of Title 24, which will further increase energy efficiency and ZNE requirements. In addition, the Project would not conflict with the goals of achieving Carbon Neutrality by 2045, as discussed above.

As shown in Table IV.E-9 on page IV.E-73, Project GHG emissions from electricity and natural gas usage would result in a total of 808 $MTCO_2e$ per year. The Project includes Project Design Feature GHG-PDF-1 in which implementation would result in the same decrease in natural gas usage and resultant GHG emissions.[107]

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 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 the Project VMT estimates provided by the Gibson Transportation Consulting, Inc.[108] 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 office/ commercial 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 as measured by the LADOT VMT Calculator. The Project would develop new office, retail, and restaurant uses on a site that is within an HQTC and would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation. The Project Site is served by multiple bus lines, and the Metro A Line Chinatown Station is located

[107] *As shown in Appendix B of this Draft EIR, without Project Design Feature GHG-PDF-1, Project GHG emissions from electricity and natural gas usage would result in a total of 860 $MTCO_2e$ per year.*

[108] *Gibson Transportation Consulting Inc., Transportation Assessment for 130 College Project, October 2024. Refer to Appendix I of this Draft EIR.*

directly across the street from the Project Site. The bicycle parking spaces, lockers, and showers provided on-site would further reduce vehicle trips and VMT by encouraging biking and non-automotive forms of transportation. Project design would also provide pedestrian access that minimizes barriers and links the Project Site with external streets to encourage people to walk instead of drive. As discussed previously, the LADOT VMT Calculator takes into account VMT reducing features, such as proximity to transit, as detailed in the Transportation Assessment included in Appendix I of this Draft EIR. As shown in Appendix B, incorporation of USEPA MXD VMT reduction features and City requirements applicable to the Project results in a 31-percent reduction in overall VMT and corresponding mobile source GHG emissions.

As shown in Table IV.E-9 on page IV.E-73, Project GHG emissions from mobile sources would result in a total of 2,057 $MTCO_2e$ per year, which accounts for a 942-$MTCO_2e$ per year reduction associated with the above discussed USEPA MXD VMT reduction features and City requirements applicable to the Project (e.g., accessibility to mass transit and proximity to residential uses and other commercial uses, as well as retail and entertainment uses). Refer to Appendix B of this Draft EIR for the supporting calculations that reflect the emission reduction measures.

The Project's GHG emissions inventory does not take into account future regulations to reduce vehicle GHG emissions. As discussed above, the Project would not conflict with GHG reduction measures to achieve the goals of Executive Order B-55-18 (Carbon Neutrality by 2045). The GHG reduction measures provided above in Table IV.E-6 on page IV.E-63 (e.g., increased use of LCFS and further electrification of the mobile fleet) also include future regulations not accounted for in the Project's GHG emissions inventory. In addition, Governor Gavin Newsom has issued an executive order to require all new passenger cars and trucks sold to be ZEV by 2035.[109] These future regulatory compliance measures would further reduce Project-related mobile source emissions and would help support the State's goals of achieving Carbon Neutrality by 2045, as well as those of AB 32 and SB 32.

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-9, the Project is expected to result in a total of 23 $MTCO_2e$ per year from stationary sources.

[109] *State of California, Executive Order N-79-20, September 23, 2020.*

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. The Project without waste-reducing features assumes that all solid waste would be sent to landfills without any diversion or recycling. However, the Project takes into account diversion and recycling activities within the City. As shown in Table IV.E-9 on page IV.E-73, Project GHG emissions from solid waste generation would result in a total of 21 $MTCO_2e$ per year, which accounts for a 76-percent recycling/diversion rate.

The Project's GHG emissions inventory does not take into account solid waste diversion rates and recycling legislation in future years anticipated beyond Project buildout (i.e., 2028). Such legislation includes AB 1826, which requires commercial uses to recycle a specific amount of organic waste. Waste diversion requirements under AB 1826 are intended to be phased in over time depending on the reduction of organic waste achieved. Based on recycling rates as of September 2020, CalRecycle has reduced the threshold to two cubic yards of solid waste generated by covered businesses. As AB 1826 waste diversion rates are based on recycling rates, future diversion rates are not yet known and not accounted for in the Project's GHG emissions inventory. Also, as discussed above, the Project would not conflict with GHG reduction measures to achieve the goals of Executive Order B-55-18. Such GHG reduction measures pertaining to solid waste include reducing methane from landfills by 23 percent relative to Year 2020. Therefore, the Project would support the State's goals of achieving Carbon Neutrality by 2045, as well as those of AB 32 and SB 32.

Water Usage and Wastewater Generation Emissions

GHG emissions are related to the energy used to convey, treat, recycle, and distribute water and energy used to collect and treat 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 factor[110] to determine the embodied energy necessary to

[110] *The intensity factor reflects the average pounds of CO_2e per megawatt generated by a utility company.*

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. In accordance with City policy, water usage rates were calculated consistent with the requirements under City of Los Angeles Ordinance No. 184,248, 2022 California Plumbing Code, 2022 CALGreen Code, 2020 Los Angeles Plumbing Code, and Los Angeles Green Building Code, and reflect an approximately 20-percent reduction as compared to the base demand. Newer codes are now in effect and more stringent, so this calculation of water usage is conservative. 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.

The Project's GHG emissions inventory does not take into account future water conservation measures. Enacted legislation includes SB 606 and AB 1668, which serve as a roadmap to establish water conservation targets and reduce water usage beyond what is currently accounted for in the Project's GHG emissions inventory.[111] While SB 606 and AB 1668 focus on improving water conservation efforts and drought planning, a reduction in water usage would also result in a reduction in GHG emissions. Also as discussed above the Project would not conflict with GHG reduction measures to achieve the goals of Executive Order B-55-18. Such GHG reduction measures pertaining to water usage include reducing CH_4 from wastewater facilities by 23 percent relative to Year 2020. Therefore, the Project would support the State's goals of achieving Carbon Neutrality by 2045, as well as those of AB 32 and SB 32.

As shown in Table IV.E-9 on page IV.E-73, Project GHG emissions from water/ wastewater usage would result in a total of 81 $MTCO_2e$ per year, which accounts for a 20-percent reduction in water/wastewater emissions as required by Los Angeles Building Code requirements. 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-9, when taking into consideration implementation of relevant project design features, as well as the requirements set forth in the Los Angeles Green Building Code, and full implementation of current State mandates, the Project's GHG emissions for the Project in 2028 would equal 118 $MTCO_2e$ per year (amortized over 30 years) during construction and 2,860 $MTCO_2e$ per year during operation of the Project with a combined total of 2,978 $MTCO_2e$ per year.

[111] *California Department of Water Resources, Fast Facts on the Water Conservation Legislation.*

As discussed above, the Project's GHG emissions inventory does not take into account future regulations and legislation to reduce GHG emissions to achieve Carbon Neutrality by 2045. However, for all the reasons described above, the Project would support the State's goals of Executive Order B-55-18, AB 32, and SB 32.

(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 the 2022 Scoping Plan, 2024–2050 RTP/SCS, and L.A.'s Green New Deal, as well as the Los Angeles Green Building Code. **As the Project would not conflict with applicable 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, Project-specific impacts with regard to GHG emissions 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 or included, 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. Table IV.E-9 on page IV.E-73 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 the 2022 Scoping Plan, particularly its emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. The Project is also consistent with the 2024–2050 RTP/SCS' regulatory requirements to reduce regional GHG emissions from the land use and transportation sectors by 2020 and 2035. Furthermore, the Project would generally comply with the aspirations of L.A.'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, the Project's incremental contribution to GHG emissions and their effects on climate change would not be cumulatively considerable. **For these reasons, the Project's cumulative impact on GHG emissions 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 or included, and the impact level remains less than significant.