3.8 Greenhouse Gas Emissions

This section compares the Project’s characteristics with applicable regulations, plans, and policies set forth by the State of California, South Coast Air Quality Management District (SCAQMD) the Southern California Association of Governments (SCAG) and the City to reduce greenhouse gas (GHG) emissions to determine whether the Project 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 Air Quality and Greenhouse Gas Technical Appendix, which is attached as Appendix C to this Draft EIR. Project design features include PDF-UTIL-1: Drought-Tolerant Landscaping and PDF-UTIL-2: Water-Efficient Irrigation. Impacts to greenhouse gas emissions are less than significant, and no mitigation is required.

3.8.1 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 (°F). However, as GHG from human activities increase, they build up in the atmosphere and warm the climate, leading to many other changes around the world - in the atmosphere, on land, and in the oceans, with associated adverse climatic and ecological consequences (USEPA 2022a).

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 (Pew Center 2006).

Global GHG emissions due to human activities have grown since pre-industrial times. As reported by the United States Environmental Protection Agency (USEPA), global carbon emissions from fossil fuels increased by over 16 times between 1900 and 2008 and by about 43 percent between 1990 and 2015. In addition, in the Global Carbon Budget 2019 report, published in December 2019, atmospheric carbon dioxide (CO₂) concentrations in 2018 were found to be 47 percent above the concentration at the start of the Industrial Revolution, and the present
concentration is the highest during at least the last 800,000 years (Friedlingstein 2019). Global increases in CO₂ concentrations are due primarily to fossil fuel use, with land use change providing another significant but smaller contribution. Regarding emissions of non-CO₂ GHGs, these have also increased significantly since 1990 (USEPA 2021). In particular, studies have concluded that it is very likely that the observed increase in methane (CH₄) concentration is predominantly due to agriculture and fossil fuel use (USEPA 2021).

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 (UN 2007).

In December 2015, the US entered into the Paris Agreement which has a goal of keeping a global temperature rise this century below 2 degrees Celsius (ºC) above pre-industrial levels and limit the temperature increase further to 1.5ºC. 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 (SCAG 2006):

> Global warming poses a serious threat to the economic well-being, public health and natural environment in southern California and beyond. The potential adverse impacts of global warming include, among others, a reduction in the quantity and quality of water supply, a rise in sea level, damage to marine and other ecosystems, and an increase in the incidences of infectious diseases. Over the past few decades, energy intensity of the national and state economy has been declining due to the shift to a more service-oriented economy. California ranked fifth lowest among the states in CO₂ emissions from fossil fuel consumption per unit of Gross State Product. However, in terms of total CO₂ emissions, California is second only to Texas in the nation and is the 12th largest source of climate change emissions in the world, exceeding most nations. The SCAG region, with close to half of the state’s population and economic activities, is also a major contributor to the global warming problem.

**GHG Fundamentals**

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

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1 As defined by California Assembly Bill (AB) 32 and Senate Bill (SB) 104.
the low frequency infrared energy, which is radiated back from the Earth towards space, resulting in a warming of the atmosphere. Compounds that are regulated as GHGs are discussed in Table 3.8-1. (IPCC 1995; IPCC 2007)

<table>
<thead>
<tr>
<th>Greenhouse Gas</th>
<th>GHG Emissions (MMTCO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide (CO2)</td>
<td>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 CO2 are burning coal, oil, natural gas, and wood.</td>
</tr>
<tr>
<td>Methane (CH4)</td>
<td>A flammable gas and the main component of natural gas. When one molecule of CH4 is burned in the presence of oxygen, one molecule of CO2 and two molecules of water are released. A natural source of CH4 is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain CH4, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.</td>
</tr>
<tr>
<td>Nitrous Oxide (N2O)</td>
<td>A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. N2O 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.</td>
</tr>
<tr>
<td>Hydrofluorocarbons (HFCs)</td>
<td>Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH4 or ethane (C2H6) with chlorine and/or fluorne 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.</td>
</tr>
<tr>
<td>Perfluorocarbons (PFCs)</td>
<td>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.</td>
</tr>
<tr>
<td>Sulfur Hexafluoride (SF6)</td>
<td>An inorganic, odorless, colorless, non-toxic, and non-flammable gas. SF6 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.</td>
</tr>
<tr>
<td>Nitrogen Trifluoride (NF3)</td>
<td>An inorganic, non-toxic, odorless, non-flammable gas. NF3 is used in the manufacture of semiconductor devices, as an oxidizer of high energy fuels, for the preparation of tetrafluoromethyamine, as an etchant gas in the electronic industry, and as a fluorine source in high power chemical lasers.</td>
</tr>
</tbody>
</table>

Not all GHGs possess the same ability to induce climate change. Carbon dioxide is the most abundant GHG in Earth's atmosphere. Other GHGs are less abundant but have higher global warming potential (GWP) than CO2. Thus, emissions of other GHGs are commonly quantified in the units of equivalent mass of carbon dioxide (CO2e). GWP is based on several factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO2, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years otherwise referred to as atmospheric lifetime) relative to that of CO2.
The larger the GWP, the more that a given gas warms the Earth compared to CO\textsubscript{2} over that time.\textsuperscript{2} These GWP ratios are available from the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories have been calculated using the GWPs from the IPCC’s Second Assessment Report (SAR). The IPCC updated the GWP values in its Fourth Assessment Report (AR4). The GWPs in the IPCC AR4 are used by CARB for reporting statewide GHG emissions inventories, consistent with international reporting standards. By applying the GWP ratios, Project-related CO\textsubscript{2}e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO\textsubscript{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, the California Emissions Estimator Model (CalEEMod) is built on these assumptions, AR4 GWP values are used for the Project. Generally, the changes from AR4 to AR5 are reductions in warming potential for the GHG most associated with construction and operation of typical development projects. The GWP from AR4 and AR5 and atmospheric lifetimes for key regulated GHGs are provided in Table 3.8-2.

<table>
<thead>
<tr>
<th>Gas</th>
<th>Atmospheric Lifetime (Years)</th>
<th>Global Warming Potential (100-Year Time Horizon) (AR4 Assessment)</th>
<th>Global Warming Potential (100-Year Time Horizon) (AR5 Assessment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide (CO\textsubscript{2})</td>
<td>50-200</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Methane (CH\textsubscript{4})</td>
<td>12 (+/-3)</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>Nitrous Oxide (N\textsubscript{2}O)</td>
<td>114</td>
<td>298</td>
<td>265</td>
</tr>
<tr>
<td>HFC-23: Fluorofluorocarbon (CHF\textsubscript{3})</td>
<td>270</td>
<td>14,800</td>
<td>12,400</td>
</tr>
<tr>
<td>HFC-134a: 1,1,1,2-Tetrafluoroethane (CH\textsubscript{2}F\textsubscript{3})</td>
<td>14</td>
<td>1,430</td>
<td>1,300</td>
</tr>
<tr>
<td>HFC-152a: 1,1,1,2-Difluoroethane (C\textsubscript{2}H\textsubscript{4}F\textsubscript{2})</td>
<td>1.4</td>
<td>124</td>
<td>138</td>
</tr>
<tr>
<td>PFC-14: Tetrafluoromethane (CF\textsubscript{4})</td>
<td>50,000</td>
<td>7,390</td>
<td>6,630</td>
</tr>
<tr>
<td>PFC-116: Hexafluoroethane (C\textsubscript{6}F\textsubscript{6})</td>
<td>10,000</td>
<td>12,200</td>
<td>11,100</td>
</tr>
<tr>
<td>Sulfur Hexafluoride (SF\textsubscript{6})</td>
<td>3,200</td>
<td>22,800</td>
<td>23,500</td>
</tr>
<tr>
<td>Nitrogen Trifluoride (NF\textsubscript{3})</td>
<td>740</td>
<td>17,200</td>
<td>16,100</td>
</tr>
</tbody>
</table>


\textsuperscript{2} GWPs and associated CO\textsubscript{2}e 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.
Projected Impacts of Global Warming in California

In 2009, California adopted a Statewide Climate Adaptation Strategy (CAS) that summarizes climate change impacts and recommends adaptation strategies across seven sectors: Public Health, Biodiversity and Habitat, Oceans and Coastal Resources, Water, Agriculture, Forestry, and Transportation and Energy. The California Natural Resources Agency will be updating the CAS and is responsible for preparing reports to the Governor on the status of the CAS. The Natural Resources Agency has produced climate change assessments which detail impacts of global warming in California (SCDOJ 2021). 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.
- Habitat destruction and loss of ecosystems due to climate change affecting plant and wildlife habitats.
- Global warming can cause drought, warmer temperatures and saltwater contamination resulting in impacts to California’s agricultural industry.

With regard to public health, as reported by the Center for Health and the Global Environment at the Harvard Medical School, the following are examples of how climate change can affect cardio-respiratory disease: (1) pollen is increased by higher levels of atmospheric CO₂; (2) heat waves can result in temperature inversions, leading to trapped masses or unhealthy air contaminants by smog, particulates, and other pollutants; and (3) the incidence of forest fires is increased by drought secondary to climate change and to the lack of spring runoff from reduced winter snows. These fires can create smoke and haze, which can settle over urban populations causing acute and exacerbating chronic respiratory illness (Epstein 2003).

Existing Conditions

**Existing Statewide Greenhouse Gas Emissions**

CARB compiles GHG inventories for the State of California. Based on the year 2019 GHG inventory data (the latest year for which data are available), California emitted 418.2 MMTCO₂e which includes emissions resulting from imported electrical power (CARB 2021b). Between 1990 and 2019, the population of California grew by approximately 9.8 million (from 29.8 to 39.6 million). (USCB 1995; CDOF 2021a) This represents an increase of approximately 33 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from $773 billion in 1990 to $3.1 trillion in 2019, representing an increase of approximately four times the 1990 gross state product (CDOF 2021b). Despite the population and economic growth, California’s net GHG emissions were reduced to below 1990 levels in 2016.
and has continued to decline. According to CARB, the declining trend coupled with the state’s GHG reduction programs (such as the RPS, LCFS, vehicle efficiency standards, and declining caps under the Cap and Trade Program) demonstrate that California is on track to meet the 2020 GHG reduction target codified in HSC, Division 25.5, also known as AB 32 and amended by SB 32 (CARB 2016). Table 3.8-3, identifies and quantifies statewide human-caused GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2019 (i.e., the most recent year in which data are available from CARB). As shown in Table 3.8-3, the transportation sector is the largest contributor to statewide GHG emissions at approximately 40 percent in 2019.

### Table 3.8-3
**STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>150.7</td>
<td>35%</td>
<td>166.1</td>
<td>39.7%</td>
</tr>
<tr>
<td>Electric Power</td>
<td>110.6</td>
<td>26%</td>
<td>58.8</td>
<td>14.1%</td>
</tr>
<tr>
<td>Commercial</td>
<td>14.4</td>
<td>3%</td>
<td>15.9</td>
<td>3.8%</td>
</tr>
<tr>
<td>Residential</td>
<td>29.7</td>
<td>7%</td>
<td>28.0</td>
<td>6.7%</td>
</tr>
<tr>
<td>Industrial</td>
<td>103.0</td>
<td>24%</td>
<td>88.2</td>
<td>21.1%</td>
</tr>
<tr>
<td>Recycling and Waste a</td>
<td>–</td>
<td>–</td>
<td>8.9</td>
<td>2.1%</td>
</tr>
<tr>
<td>High GWP/Non-Specified b</td>
<td>1.3</td>
<td>&lt;1%</td>
<td>20.6</td>
<td>4.9%</td>
</tr>
<tr>
<td>Agriculture/Forestry</td>
<td>23.6</td>
<td>6%</td>
<td>31.8</td>
<td>7.6%</td>
</tr>
<tr>
<td>Forestry Sinks</td>
<td>-6.7</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Net Total (IPCC SAR)</strong></td>
<td><strong>426.6</strong></td>
<td><strong>100%</strong></td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Net Total (IPCC AR4)</strong> d</td>
<td><strong>431</strong></td>
<td><strong>100%</strong></td>
<td><strong>418.2</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

* Totals may not add up exactly due to rounding.

a Included in other categories for the 1990 emissions inventory.

b High GWP gases are not specifically called out in the 1990 emissions inventory.

c Revised methodology under development (not reported for 2015).

d CARB revised the state’s 1990 level GHG emissions using GWPs from the IPCC AR4.


California’s decreasing GHG emissions trend (total and per capita) and increasing population and gross state product trends are shown graphically in Figure 3.8-1. The figure shows that the state has decreased its GHG emissions on a total and per capita basis while also increasing population and economic output.
Change in California GDP, Population, and GHG Emissions Since 2000

SOURCE: CARB, California Greenhouse Gas Emissions for 2000 to 2019 Trends of Emissions and Other Indicators

<table>
<thead>
<tr>
<th>Metric</th>
<th>Associated 2019 Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>2.7 trillion (2012 $)</td>
</tr>
<tr>
<td>Population</td>
<td>39.8 Million</td>
</tr>
<tr>
<td>GHG Emissions</td>
<td>418.2 Million Tonnes CO₂e</td>
</tr>
<tr>
<td>GHG Emissions per Capita</td>
<td>10.5 metric tons CO₂e per capita</td>
</tr>
<tr>
<td>GHG Emissions per GDP</td>
<td>150 tonnes CO₂e per Million $</td>
</tr>
</tbody>
</table>

Figure 3.8-1
Change in California GDP, Population, and GHG Emissions Since 2000

Silver Lake Reservoir Complex Master Plan Project
Existing Project Site Greenhouse Gas Emissions

As described in Chapter 2.0, Project Description, the Silver Lake Reservoir Complex (SLRC) includes reservoirs, dams, buildings and structures, water and stormwater infrastructure, interior roads, and public recreational facilities. Approximately 3 acres of SLRC land is currently operated and maintained by the City of Los Angeles Recreation and Parks Department (RAP) as a publicly accessible park space (refer to Chapter 2.0, Project Description, of this Draft EIR for additional details). In addition, RAP operates the existing Silver Lake Recreation Center, located along the southern side of the SLRC. The Silver Lake Recreation Center includes a recreation center, playground, and basketball courts. A dog park operated and maintained by RAP is currently located along the southern side of the SLRC. Currently, there are two public pathways on the west side of Ivanhoe Reservoir and along the top of Silver Lake Dam. Approximately 4 acres of existing paved surfaces around the reservoirs’ perimeters are available for shared public use with LADWP. The entire SLRC is enclosed by a perimeter chain-link fence varying in height from 6 to 12 feet. The Neighborhood Nursery School and the Tesla Pocket Park are both located along the northeastern side of the SLRC in an area that would not be impacted by the Project. The proposed Project would re-develop portions of the SLRC with a contemporary design that would create park zones blending vegetated areas with public spaces.

None of the existing public facilities within the SLRC would be removed, rather public spaces and facilities would be expanded, renovated, and redesigned to improve visitor experience and the existing area would be organized into a series of new spaces (zones) surrounding the reservoirs (refer to Chapter 2.0, Project Description, of this Draft EIR for additional details). Therefore, since the existing public facilities within the SLRC would not be removed and would either continue to operate as under existing conditions or would be expanded, renovated, and redesigned to improve visitor experience, existing greenhouse gas emissions are not required to be calculated and the Project’s greenhouse gas emissions are conservatively considered new.

3.8.2 Regulatory Framework

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

- Federal Clean Air Act
- Corporate Average Fuel Economy (CAFE) Standards
- Energy Independence and Security Act
- California Air Resources Board
- California Greenhouse Gas Reduction Targets
- California Global Warming Solutions Act (AB 32)
- Climate Change Scoping Plan
- Cap-and-Trade Program
- Emission Performance Standards
• Renewables Portfolio Standard Program
• Clean Energy and Pollution Reduction Act
• Pavley Standards
• California Low Carbon Fuel Standard
• Advanced Clean Cars Regulations
• Sustainable Communities and Climate Protection Act (SB 375)
• Senate Bill 743
• Executive Order N-79-20
• California Appliance Efficiency Regulations
• Title 24, Building Standards Code and CALGreen Code
• CEQA Guidelines
• South Coast Air Quality Management District
• Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy
• City of Los Angeles 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
• Traffic Study Policies and Procedures

Federal

Federal Clean Air Act

The USEPA is responsible for implementing federal policy to address GHGs. The United States Supreme Court (Supreme Court) ruled in Massachusetts v. Environmental Protection Agency, 127 S.Ct. 1438 (2007), that CO₂ and other GHGs are pollutants under the federal Clean Air Act (CAA), which the USEPA must regulate if it determines they pose an endangerment to public health or welfare. In December 2009, USEPA issued an endangerment finding for GHGs under the Clean Air Act, setting the stage for future regulation.

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

3.8 Greenhouse Gas Emissions

Corporate Average Fuel Economy (CAFE) Standards

In response to the Massachusetts v. Environmental Protection Agency ruling, President George W. Bush issued Executive Order 13432 in 2007, directing the USEPA, the United States Department of Transportation (USDOT), and the United States Department of Energy (USDOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. The National Highway Traffic Safety Administration (NHTSA) subsequently issued multiple final rules regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model year 2011 and later for model years 2012–2016 and 2017–2021. In March 2020, the USDOT and the USEPA issued the final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which amends existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establishes new standards covering model years 2021 through 2026 (USEPA 2020). These standards set a combined fleet wide average of 36.9 to 37 miles per gallon (mpg) for the model years affected (NHTSA 2010). In February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (USEPA 2021b). This final rule revises current GHG standards beginning for vehicles in model year 2023 and through model year 2026 and establish 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 (the SAFE rule standards) would achieve only 32 mpg in model year 2026 vehicles (USEPA 2021d).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011 the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the USEPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines. Building on the first phase of standards, in August 2016, the 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 CO₂ emissions by approximately 1.1 billion metric tons (USEPA 2016).

Energy Independence and Security Act

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

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

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.”

State

California Air Resources Board

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

California Greenhouse Gas Reduction Targets

Executive Order S-3-05

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

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

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

3 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.
The CAT stated that smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development (TOD), and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population.

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

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

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

**California Global Warming Solutions Act of 2006**
In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code (HSC), Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines regulated GHGs as CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries, with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions.

To achieve these goals, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources consistent with the CAT strategies, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. In order to achieve the reduction...
targets, AB 32 requires CARB to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG reductions.\(^4\)

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amend HSC Division 25.5, establish a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and include provisions to ensure that the benefits of state climate policies reach disadvantaged communities. The new goals outlined in SB 32 update the Climate Change Scoping Plan requirement of AB 32 and involve increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

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

**Climate Change Scoping Plan**

AB 32 required CARB to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (HSC section 38561[h]). The 2008 Climate Change Scoping Plan proposed a “comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health” (CARB 2008). The 2008 Climate Change Scoping Plan had a range of GHG reduction actions which included direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

The 2008 Climate Change Scoping Plan called for a “coordinated set of solutions” to address all major categories of GHG emissions. Transportation emissions were addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard (LCFS), and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to use energy more efficiently. Utility energy providers were required to include more renewable energy sources through implementation of the Renewables Portfolio Standard.\(^5\) Additionally, the 2008 Climate Change Scoping Plan

\(^4\) California Air Resources Board’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.

\(^5\) For a discussion of Renewables Portfolio Standard, refer to subsection California Renewables Portfolio Standard.
emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicates that substantial savings of electricity and natural gas will be accomplished through “improving energy efficiency by 25 percent.”

The 2008 Climate Change Scoping Plan identified several specific issues relevant to the development projects, including:

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

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

- The importance of supporting the Department of Water Resources’ work to implement the Governor’s objective to reduce per capita water use by 20 percent by 2020. Specific measures to achieve this goal include water use efficiency, water recycling, and reuse of urban runoff. The Climate Change Scoping Plan notes that water use requires significant amounts of energy, including approximately one-fifth of statewide electricity.

- Encouraging local governments to set quantifiable emission reduction targets for their jurisdictions and use their influence and authority to encourage reductions in emissions caused by energy use, waste and recycling, water and wastewater systems, transportation, and community design.

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions reduction target for 2020. The 2020 emissions reduction target was originally set at 427 million metric tons (MMT) of CO₂e using the GWP values from the IPCC SAR. Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the scope of the reductions California must make to return to the 1990 emissions level by 2020 as required by AB 32. CARB originally defined the “business-as-usual”, or BAU, scenario as emissions in the absence of any GHG emission reduction measures discussed in the 2008 Climate Change Scoping Plan, as approximately 596 MMTCO₂e (using GWP values from the IPCC SAR). For example, in further explaining CARB’s BAU methodology, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards. Therefore, under these original projections, the state would have had to reduce its 2020 BAU emissions by 28.4 percent to meet the 1990 target of 427 MMTCO₂e.

2014 Climate Change Scoping Plan Update

The First Update to the Climate Change Scoping Plan (2014 Scoping Plan) was approved by CARB in May 2014 and built upon the initial Climate Change Scoping Plan with new strategies and recommendations (CARB 2014). In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined the 1990 GHG emissions inventory and 2020 GHG emissions limit to be increased to 431 MMTCO₂e. CARB also updated the state’s 2020 BAU
3. Environmental Setting, Impact Analysis, and Mitigation Measures

3.8 Greenhouse Gas Emissions

The emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that had recently been adopted for motor vehicles and renewable energy. CARB’s projected statewide 2020 emissions estimate using the GWP values from the IPCC AR4 was 509.4 MMTCO\(_2\)e. Therefore, under the First Update to the Climate Change Scoping Plan, the emission reductions necessary to achieve the 2020 emissions target of 431 MMTCO\(_2\)e would have been 78.4 MMTCO\(_2\)e, or a reduction of GHG emissions by approximately 15.4 percent, (down from 28.4 percent).

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

In conjunction with the First Update, CARB identified “six key focus areas comprising major components of the state’s economy to evaluate and describe the larger transformative actions that will be needed to meet the state’s more expansive emission reduction needs by 2050” (CARB 2014). Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of the 2050 reduction target.

Based on CARB’s research efforts, it has a “strong sense of the mix of technologies needed to reduce emissions through 2050” (CARB 2014). Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

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

**2017 Climate Change Scoping Plan Update**

In response to the passage of SB 32 and the identification of the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) in December 2017 (CARB 2017b). The 2017 Scoping Plan builds upon the framework established by the 2008 Climate Change Scoping Plan and the First Update while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health. The 2017 Scoping Plan includes policies to
require direct GHG reductions at some of the state’s largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade program, which constraints and reduces emissions at covered sources (CARB 2017b).

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

- At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025
- At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030
- Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Cars regulations
- Medium- and heavy-duty GHG Phase 2 standards for vehicle model years 2018 through 2027 that improves fuel efficiency and reduces carbon pollution.
- Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NOx standard.
- Last Mile Delivery: New regulation that would result in the use of low NOx or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for Class 3–7 last mile delivery trucks in California. This measure assumes zero emissions vehicles (ZEVs) comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.
- Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document “Potential VMT Reduction Strategies for Discussion.”

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

For individual projects under CEQA, the 2017 Scoping Plan states that local governments can support climate action when considering discretionary approvals and entitlements. According to the
2017 Scoping Plan, lead agencies have the discretion to develop evidence-based numeric thresholds consistent with the 2017 Scoping Plan, the state’s long-term goals, and climate change science (CARB 2017b).

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

A summary of the GHG emissions reductions required under HSC Division 25.5 is provided in Table 3.8-4.

**Table 3.8-4**

<table>
<thead>
<tr>
<th>Emissions Scenario</th>
<th>GHG Emissions (MMTCO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2008 Scoping Plan (IPCC SAR)</strong></td>
<td></td>
</tr>
<tr>
<td>2020 BAU Forecast (CARB 2008 Scoping Plan Estimate)</td>
<td>596</td>
</tr>
<tr>
<td>2020 Emissions Target Set by AB 32 (i.e., 1990 level)</td>
<td>427</td>
</tr>
<tr>
<td>Reduction below Business-As-Usual necessary to achieve 1990 levels by 2020</td>
<td>169 (28.4%) a</td>
</tr>
<tr>
<td><strong>2014 Scoping Plan (GHG Estimates Updated in 2014 to Reflect IPCC AR4)</strong></td>
<td></td>
</tr>
<tr>
<td>2020 BAU Forecast (CARB 2014 Scoping Plan Estimate)</td>
<td>509.4</td>
</tr>
<tr>
<td>2020 Emissions Target Set by AB 32 (i.e., 1990 level)</td>
<td>431</td>
</tr>
<tr>
<td>Reduction below NAT necessary to achieve 1990 levels by 2020</td>
<td>78.4 (15.4%) b</td>
</tr>
<tr>
<td><strong>2017 Scoping Plan</strong></td>
<td></td>
</tr>
<tr>
<td>2030 BAU Forecast (&quot;Reference Scenario&quot; which includes 2020 GHG reduction policies and programs)</td>
<td>389</td>
</tr>
<tr>
<td>2030 Emissions Target Set by AB 32 (i.e., 40% below 1990 Level)</td>
<td>260</td>
</tr>
<tr>
<td>Reduction below Business-As-Usual Necessary to Achieve 40% below 1990 Level by 2030</td>
<td>129 (33.2%) c</td>
</tr>
</tbody>
</table>

MMTCO₂e = million metric tons of carbon dioxide equivalents

a 596 – 427 = 169 / 596 = 28.4%
b 509.4 – 431 = 78.4 / 509.4 = 15.4%
c 389 – 260 = 129 / 389 = 33.2%


Under the Scoping Plan Scenario, continuation of the Cap-and-Trade regulation (or carbon tax) is expected to cover approximately 34 to 79 MMTCO₂ of the 2030 reduction obligation (CARB 2017b). The state’s short-lived climate pollutants strategy, which is for GHGs that remain in the atmosphere for shorter periods of time compared to longer-lived GHGs like CO₂, is expected to cover approximately 17 to 35 MMTCO₂. The Renewables Portfolio Standard with 50 percent renewable electricity by 2030 is expected to cover approximately 3 MMTCO₂. The mobile source strategy and sustainable freight action plan includes maintaining the existing vehicle GHG
emissions standards, increasing the number of zero emission vehicles and improving the freight system efficiency, and is expected to cover approximately 11 to 13 MMTCO₂. CARB expects that the reduction in GHGs from doubling of the energy efficiency savings in natural gas and electricity end uses in the CEC 2015 Integrated Energy Policy Report by 2030 would cover approximately 7 to 9 MMTCO₂ of the 2030 reduction obligation. The other strategies would be expected to cover the remaining 2030 reduction obligations.

**Cap-and-Trade Program**

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

CARB designed and adopted a California Cap-and-Trade Program pursuant to its authority under AB 32 (CCR 2022c). The Cap-and-Trade Program is designed to reduce GHG emissions from public and private major sources (deemed “covered entities”) by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve the state’s emission-reduction mandates. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the Program’s duration (CCR 2022c).

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 MTCO₂e per year must comply with the Cap-and-Trade Program (CCR 2022c). Triggering of the 25,000 MTCO₂e 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”) (CCR 2022b).

Each covered entity with a compliance obligation is required to surrender “compliance instruments” for each MTCO₂e of GHG they emit. Covered entities are allocated free allowances in whole or part (if eligible), and can buy allowances at auction, purchase allowances from others, or purchase offset credits.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the statewide emission limits will not be exceeded. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory framework adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the state’s emissions forecasts and the effectiveness of direct regulatory measures.

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6 Compliance instruments are permits to emit, the majority of which will be “allowances,” but entities also are allowed to use CARB-approved offset credits to meet up to 8% of their compliance obligations.
The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported (CCR 2022c). 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 (CCR 2022c).

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

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.

**Energy-Related (Stationary) Sources**

**Emission Performance Standards**

SB 1368, signed September 29, 2006, is a companion bill to AB 32, which requires the CPUC and the CEC to establish GHG emission performance standards for the generation of electricity. These standards also generally apply to power that is generated outside of California and imported into the state. SB 1368 provides a mechanism for reducing the emissions of electricity providers, thereby assisting CARB to meet its mandate under AB 32.

**Renewables Portfolio Standard**

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

**Mobile Sources**

**Pavley Standards**

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

In January 2012, CARB approved greenhouse gas emission regulations which require further reductions in passenger greenhouse gas emissions for 2017 and subsequent vehicle model years. As noted above, in August 2012, the USEPA and USDOT adopted GHG emission standards for model year 2017 through 2025 vehicles (USEPA 2012). 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 (CARB 2022a).

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. In February 2022, USEPA finalized the rule strengthen the emissions standards for passenger cars and light trucks for model years 2023–2026.

On September 27, 2019, the USEPA withdrew the waiver it had previously provided to California for the state’s GHG and ZEV programs under Section 209 of the Clean Air Act (Federal Register 2019). The withdrawal of the waiver was effective November 26, 2019. In response, several states including California filed a lawsuit challenging the withdrawal of the EPA waiver (USDCDCC 2019). In March 2022, the USEPA found that the actions taken as a part of the SAFE Vehicles Rule Part One were decided in error and are now entirely rescinded. With this action, California’s authority under the CAA to implement its own GHG emission standards and ZEV sales mandate is restored (USEPA 2022b).

**California Low Carbon Fuel Standard**

Executive Order S-01-07 was enacted on January 18, 2007. The order mandates the following: (1) that a statewide goal be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020; and (2) that a LCFS for transportation fuels be established in California. The final regulation was approved by the Office of Administrative Law and filed with the Secretary of State on January 12, 2010; the LCFS became effective on the same day. In September 2015, CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted (CARB 2022b).
The development of the 2017 Scoping Plan has identified LCFS as a regulatory measure to reduce GHG emission to meet the 2030 emissions target. In September 2018, the standards were amended by CARB to require a 20 percent reduction in carbon intensity by 2030, aligning with California’s 2030 targets set by SB 32 (CARB 2018).

**Advanced Clean Cars Regulations**

In 2012, CARB approved the Advanced Clean Cars program, an emissions-control program for model years 2015–2025 (CARB 2021a). The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years (CARB 2021a). 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 (CARB 2017a). Effective November 26, 2019, the federal SAFE Vehicles Rule Part One: One National Program withdrew the California waiver for the GHG and ZEV programs under Section 209 of the Clean Air Act, which revokes California’s authority to implement the Advanced Clean Cars and ZEV mandates. In response, several states including California filed a lawsuit challenging the withdrawal of the EPA waiver (USDCDCC 2019). In April 2021, the USEPA announced it will move to reconsider its previous withdrawal of the waiver (Federal Register 2021).

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

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

**Sustainable Communities and Climate Protection Act (SB 375)**

The Sustainable Communities and Climate Protection Act of 2008, or SB 375 (Chapter 728, Statutes of 2008), establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions and was adopted by the state on September 30, 2008. SB 375 finds that the “transportation sector is the single largest contributor of greenhouse gases of any sector” (State of California 2008). Under SB 375, CARB is required, in consultation with the
Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. SCAG is the Metropolitan Planning Organization in which the City of Los Angeles is located. CARB set targets for 2020 and 2035 for each of the 18 metropolitan planning organization regions in 2010, and updated them in 2018 (CARB 2021c). In March 2018, the CARB updated the SB 375 targets for the SCAG region to require an eight percent reduction by 2020 and a 19 percent reduction by 2035 in per capita passenger vehicle GHG emissions (CARB 2018). As discussed further below, SCAG has adopted an updated Regional Transportation Plan / Sustainable Community Strategies (RTP/SCS) subsequent to the update of the emission targets. The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions by 19 percent by 2035, which is consistent with SB 375 compliance with respect to meeting the state’s GHG emission reduction goals (SCAG 2020b).

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

**Senate Bill 743**

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

**Building Standards and Other Regulations**

**California Appliance Efficiency Regulations**

The Appliance Efficiency Regulations (Title 20, Sections 1601 through 1608), adopted by the CEC, include standards for new appliances (e.g., refrigerators) and lighting, if they are sold or offered for sale in California. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

**Title 24, Building Standards Code and CALGreen Code**

The CEC first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.
Part 11 of the Title 24 Building Standards is referred to as the California Green Building Standards (CALGreen) Code and was developed to help the state achieve its GHG reduction goals under HSC Division 25.5 (e.g., AB 32) by codifying standards for reducing building-related energy, water, and resource demand, which in turn reduces GHG emissions from energy, water, and resource demand. The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality” (CBSC 2010). The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality (CBSC 2010).

On May 9, 2018, the CEC adopted the 2019 Title 24 Standards, which went into effect on January 1, 2020. The 2019 standards continue to improve upon the previous (2016) Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings (CEC 2019). The 2019 Title 24 Standards ensure that builders use the most energy efficient and energy conserving technologies and construction practices. As described in the 2019 Title 24 Standards represent “challenging but achievable design and construction practices” that represent “a major step towards meeting the Zero Net Energy (ZNE) goal.” Single-family homes built with the 2019 Title 24 Standards are projected to use approximately seven percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once the mandated rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. Nonresidential buildings are projected to use approximately 30 percent less energy due mainly to lighting upgrades (CEC 2019). Compliance with Title 24 is enforced through the building permit process.

**CEQA Guidelines**

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

However, neither a threshold of significance nor any specific mitigation measures are included or provided in the guidelines.7 The guidelines require a lead agency to make a good-faith effort, based on the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Discretion is given to the lead agency whether to: (1) use a model or methodology to quantify GHG emissions resulting

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7 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).
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 (CCR 2022d).

The administrative record for the Guidelines Amendments also clarifies “that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of California Environmental Quality Act’s requirements for cumulative impact analysis (Bryant 2009).”

**Regional**

**South Coast Air Quality Management District CEQA Guidance**

The City of Los Angeles is located in the South Coast Air Basin (Air Basin), which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San 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 (SCAQMD 2008a). A GHG Significance Threshold Working Group was formed to further evaluate potential GHG significance thresholds (SCAQMD 2008c). The SCAQMD proposed the use of a percent emission reduction target to determine significance for commercial/residential projects that emit greater than 3,000 MTCO₂e per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 MTCO₂e 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 MTCO₂e per year for stationary source/industrial projects where the SCAQMD is the lead agency. However, the SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects). The Working Group has been inactive since 2011, and SCAQMD has not formally adopted any GHG significance threshold for other jurisdictions.
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 in October 2020. The vision for the region incorporates a range of best practices for increasing transportation choices, reducing dependence on personal automobiles, further improving air quality, and encouraging growth in walkable, mixed-use communities with ready access to transit infrastructure and employment. More and varied housing types and employment opportunities would be located in and near job centers, transit stations and walkable neighborhoods where goods and services are easily accessible via shorter trips. To support shorter trips, people would have the choice of using neighborhood bike networks, car share or micro-mobility services like shared bicycles or scooters. For longer commutes, people would have expanded regional transit services and more employer incentives to carpool or vanpool. Other longer trips would be supported by on-demand services such as microtransit, carshare, and citywide partnerships with ride hailing services. For those that choose to drive, hotspots of congestion would be less difficult to navigate due to cordon pricing and using an electric vehicle will be easier thanks to an expanded regional charging network.

The 2020–2045 RTP/SCS states that the SCAG region was home to about 18.8 million people in 2016 and currently includes approximately 6.0 million homes and 8.4 million jobs (SCAG 2020a). By 2045, the integrated growth forecast projects that these figures will increase by 3.7 million people, with nearly 1.6 million more homes and 1.6 million more jobs. Transit Priority Areas8 (TPAs) will account for less than one percent of regional total land but are projected to accommodate 30 percent of future household growth between 2016 and 2045. The 2020–2045 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region’s TPAs. TPAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.

The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions by 19 percent by 2035, which is consistent with SB 375 compliance with respect to meeting the state’s GHG emission reduction goals (SCAG 2020b). Due to fuel economy and efficiency improvements, GHG emission rates of model year 2017 vehicles have decreased by 15 to 20 percent when compared to model year 2008 and earlier vehicles. However, for purposes of SB 375 emissions reduction targets, the fuel economy improvements have been largely excluded from the reduction calculation. The SB 375 target focuses on the amount of vehicle travel per capita. As discussed above, OPR recommended that achieving 15 percent lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the state’s emissions goals (i.e., SB 375 goal). The reductions generated by fuel economy

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8 Defined by the 2020–2045 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a major transit stop (rail or bus rapid transit station) with 15-minute or less service frequency during peak commute hours
improvements are already included as part of the state’s GHG emissions reduction program and are not double counted in the SB 375 target calculation.

Local

*City of Los Angeles Green New Deal*

The City of Los Angeles addressed the issue of global climate change in *Green LA, An Action Plan to Lead the Nation in Fighting Global Warming* (“LA Green Plan/ClimateLA”) in 2007. This document outlines the goals and actions the City has established to reduce the generation and emission of GHG emissions from both public and private activities.

In April 2019, the *Green New Deal (Sustainable City Plan 2019)*, was released, consisting of a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives (City of Los Angeles 2019). The City’s Green New Deal is the first four-year update to the City’s first Sustainable City Plan that was released in 2015 (City of Los Angeles 2015). It 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 City’s 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 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 mBTU/sq.ft 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 lbs. of waste generated per capita per day in 2011).

• Eliminate organic waste going to landfill by 2028.

• Reduce urban/rural temperature differential by at least 1.7°F by 2025; and 3°F by 2035.

• Ensure the proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

With the introduction of the City of Los Angeles’ Green New Deal in 2019, the City aims to reduce greenhouse gas emissions, which involves electrification of all new municipally-owned buildings and major building renovations. Building electrification is a key step in achieving the 2030 goal of carbon neutrality. Building electrification requires no use of fossil fuels on-site, including natural gas. The proposed Project would not implement natural gas in areas where it is typically used for buildings and instead would use electric alternatives that are available.

**City of Los Angeles Green Building Code**

On December 11, 2019, the Los Angeles City Council approved Ordinance No. 186,488, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, by adding a new Article 9 to incorporate various provisions of the 2019 CALGreen Code. Projects filed on or after January 1, 2020, must comply with the provisions of the Los Angeles Green Building Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. Article 9, Division 5 includes mandatory measures for newly constructed nonresidential and high-rise residential buildings.

**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 (LASAN 2022). The RENEW LA Plan, aims to achieve a zero waste goal through reducing, reusing, recycling, or converting the resources not going to disposal and achieving a diversion rate of 90 percent or more by 2025 (City of Los Angeles 2011). The City has also approved the Waste Hauler Permit Program (Ordinance No. 181,519, LAMC Chapter VI, Article 6, Section 66.32-66.32.5), which
requires private waste haulers to obtain AB 939 Compliance Permits to transport construction and demolition waste to City-certified construction and demolition waste processors. The City’s Exclusive Franchise System Ordinance (Ordinance No. 182,986), among other requirements, sets a maximum annual disposal level and diversion requirements for franchised waste haulers to promote waste diversion from landfills and support the City’s zero waste goals. These 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.

**City of Los Angeles General Plan**

The City does not have a General Plan Element specific to climate change and GHG emissions, and its General Plan does not have any stated goals, objectives, or policies specifically addressing climate change and GHG emissions. However, the following five goals from the City’s General Plan Air Quality Element would also lead to GHG emission reductions (City of Los Angeles 1991):

- 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.

**Traffic Study Policies and Procedures**

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

**3.8.3 Significance Thresholds and Criteria**

The significance criteria used to evaluate the proposed Project impacts to greenhouse gas emissions are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (Refer to Impact 3.8-1)
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (Refer to Impact 3.8-2)
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, in addition to quantification, this section recommends certain qualitative factors that may be used in the determination of significance (i.e., extent to which the project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs). CEQA Guidelines Section 15064.4 does 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 the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)). Although GHG emissions can be quantified as discussed below under the Methodology subsection, CARB, SCAQMD, and the City have not adopted quantitative project-level significance thresholds for GHG emissions that would be applicable to the Project.

The California Natural Resources Agency (CNRA) has also clarified that the Guidelines 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)) (CNRA 2009).

OPR 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” (CNRA 2009). Furthermore, the 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 (OPR 2008).”

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 will avoid or substantially lessen the cumulative problem within the geographic area of the project (CCR 2022a). To qualify, such a plan or program 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 (CCR 2022a). 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 plan, [and] plans or regulations for the reduction of greenhouse gas emissions” (CCR 2022a).
Thus, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project complies with a program and/or other regulatory schemes to reduce GHG emissions.

CARB’s Climate Change Scoping Plan, SCAG’s 2020–2045 RTP/SCS, City’s Green New Deal, and the Los Angeles Green Building Code all apply to the Project and are all intended to reduce GHG emissions to meet the statewide targets set forth in AB 32 and amended by SB 32. Thus, in the absence of any adopted quantitative threshold, the significance of the Project’s GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions, including CARB’s 2017 Scoping Plan, SCAG’s 2020–2045 RTP/SCS, City’s Green New Deal, and the Los Angeles Green Building Code. If the Project is not in conflict with the applicable regulatory plans and policies to reduce GHG emissions, then the Project would result in a less than significant impact with respect to GHG emissions.

The 2006 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.

For the reasons set forth above, to answer both state CEQA Guidelines Appendix G Threshold (a) and Threshold (b) for greenhouse gas emissions, the City will consider whether the Project is not in conflict with the Climate Change Scoping Plan, SB 375 (through demonstration of conformance with the 2020–2045 RTP/SCS), the City’s Green New Deal, and the Los Angeles Green Building Code. As discussed above, OPR has noted that lead agencies “should make a good-faith effort to calculate or estimate GHG emissions from a project (OPR 2008).” GHG emissions are quantified below, consistent with OPR guidelines.

**Methodology**

**Quantification of Greenhouse Gas Emissions**

In addition to the evaluation of the Project’s consistency with plans adopted for the purpose of reducing and/or mitigating GHG emissions, for informational purposes, the analysis also calculates the amount of GHG emissions that would be attributable to the Project using recommended air quality models, as described below. The primary purpose of quantifying the Project’s GHG emissions is to satisfy CEQA Guidelines Section 15064.4(a), which requires a good-faith effort by the lead agency to describe and calculate emissions. The estimated emissions inventory is also used to determine if there would be a reduction in the Project’s incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions. The significance of the Project’s GHG emissions impacts is not based on the amount of GHG emissions resulting from the Project, and is evaluated solely on the basis of consistency with GHG reduction plans, policies, and regulations.

The California Climate Action Registry (Climate Registry) has prepared the General Reporting Protocol for calculating and reporting GHG emissions from a number of general and industry-specific activities (TCR 2016). The GHG emissions provided in this report are consistent with the
General Reporting Protocol framework. The General Reporting Protocol recommends separating GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include the following:

- **Scope 1**: Direct, on-site combustion of fossil fuels (e.g., natural gas from mobile sources, propane, gasoline, and diesel).
- **Scope 2**: Indirect, off-site emissions associated with purchased electricity or purchased steam.
- **Scope 3**: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy.9

CARB recommends consideration of indirect emissions to provide a more complete picture of the GHG footprint of a facility: “As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information” to CARB to be considered for future strategies by the industrial sector (CARB 2010). For these reasons, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, OPR directs lead agencies to “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.”10 Therefore, direct and indirect emissions have been calculated for the Project.

A fundamental challenge 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 project because the project may cause a shift in the locale for some type of GHG emissions, rather than simply causing “new” GHG emissions. As a result, there is a lack of clarity as to 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. Therefore, the analysis of the Project’s GHG emissions is conservative in that it assumes all of the GHG emissions are new additions to the atmosphere.

It is considered reasonable and consistent with criteria pollutant calculations to consider those GHG emissions resulting from Project-related incremental (net) increases from emissions sources mentioned in the scope categories above, such as emissions from the use of on-road mobile vehicles, electricity, and natural gas, compared to existing conditions. This includes Project construction activities such as demolition, hauling, and construction worker trips. This analysis also considers indirect GHG emissions from water conveyance, wastewater generation, and solid

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9 Embodied energy includes energy required for water pumping and treatment for end-uses. Third-party vehicles include vehicles used by spectators, visitors, students and employees traveling to and from the Project Site.
waste handling. Since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions are calculated on an annual basis.

GHG emissions are estimated using the California Emissions Estimator Model (CalEEMod, version 2020.4.0), which 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 from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.11

**Construction Emissions**

The emissions of GHGs associated with construction of the Project were calculated for each year of construction activity using CalEEMod and EMFAC. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date). Project construction is estimated to start in 2025, but may commence at a later date. If the onset of construction is delayed to a later date than assumed in the modeling analysis, construction impacts would be similar to or less than those analyzed, because a more energy-efficient and cleaner burning construction equipment and vehicle fleet mix would be expected in the future. This is because state regulations require construction equipment fleet operators to phase-in less polluting heavy-duty equipment and trucks over time. As a result, should the Project commence construction on a later date than modeled in this GHG impact analysis, GHG impacts would be less than the impacts disclosed herein.

The output values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule. These values were then applied to the same construction phasing assumptions used in the criteria pollutant analysis, which include those associated with the Project’s off-site improvements (see Section 3.3, *Air Quality*, of this Draft EIR) to generate GHG emissions values for each construction year. The emissions have been estimated using the CalEEMod software, an emissions inventory software program recommended by SCAQMD, and the CARB EMFAC model. The SCAQMD guidance, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, recognizes that construction-related GHG emissions from projects “occur over a relatively short-term period of time” and that “they contribute a relatively small portion of the overall lifetime project GHG emissions” (SCAQMD 2008b).

In accordance with SCAQMD guidance, GHG emissions from construction have been amortized (i.e., averaged annually) over the lifetime of the Project. The SCAQMD defines the lifetime of a project as 30 years (SCAQMD 2008c). Therefore, the Project’s total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions. A more detailed discussion of the methodology for projecting the Project’s

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11 See: http://www.aqmd.gov/caleemod/.
3. Environmental Setting, Impact Analysis, and Mitigation Measures

3.8 Greenhouse Gas Emissions

Construction emissions and descriptions of the Project’s construction subphasing and equipment list are available in the Air Quality and Greenhouse Gas Technical Appendix for the Project, which is provided in Appendix C of this Draft EIR.

Operational Emissions

Similar to construction, operational GHG emissions are also estimated using CalEEMod, along with CARB’s EMFAC model. CalEEMod was used to estimate GHG emissions from electricity, natural gas, solid waste, water and wastewater, and landscaping equipment. Mobile emissions were estimated based on emission factors from EMFAC along with trip rates that were provided for the Project uses in the Project’s Transportation Impact Assessment (TIA) and default commercial trip type trip lengths from CalEEMod to estimate annual VMT (see Appendix K). The SLRC Project team generated vehicle occupancy rates assumptions in order to estimate total vehicle trips associated with each peak park everyday use and special events/life performances, community events and polling station events (see the Project’s TIA, included as Appendix K of this Draft EIR, for additional details regarding the vehicle occupancy rate assumptions and trip generation methodology) (see Appendix K). Thus, the Project’s GHG analysis also accounted for annual VMT from special events/life performances that could occur during the year, which would include 12 weekend special events/life performances with approximately 600 attendees per event, and 12 weekday special events, community events and polling station events with approximately 50 attendees per event, that would occur at the Silver Lake Lawn in the Meadow (see Appendix K). The Project would generate an estimated net increase of 2,486,228 annual VMT (of which, approximately 98 percent is attributable to everyday uses of the Project Site) (see Appendix K). The Project’s emissions were calculated for Project buildout in 2030.

The GHG emissions calculations for the Project include credits or reductions for implementation of relevant project design features set forth in this Draft EIR. The analysis of Project GHG emissions at buildout also takes into account actions and mandates already approved and expected to be in force by Project buildout (e.g., Pavley I and II Standards and implementation of California’s statewide RPS beyond current levels of renewable energy). Emissions reductions regarding Cap-and-Trade were not included in this analysis.

Operational GHG emissions were calculated for the GHG conditions where the Project With GHG Reduction Characteristics, Features, and Measures represents emission factors from the Project in the year 2030 consistent with SB 100, which was adopted after the 2017 Scoping Plan and represents the state’s most current RPS law and growth in electricity demand with an emission factor of 469.86 lbs/megawatt hour (MWh) for year 2030 scaled proportionately based on the future year renewable energy targets of 60 percent by 2030.

As previously noted, operational mobile source GHG emissions are estimated based on CARB’s EMFAC model. Mobile source emissions are based on annual VMT from the TIA prepared for the Project (see Appendix K). The daily VMT for the everyday use component of the Project were based on CalEEMod commercial-customer trip length (8.4 miles) and conservatively the
longest trip length for commercial trip types in CalEEMod was used to estimated VMT from special events/life performances, community events and polling station events (16.6 miles).^{12}

In addition, the operational mobile source GHG emissions estimates are based on GHG emission factors for the mobile sources and the GWP values for the GHGs emitted. Emissions of GHGs from motor vehicles are dependent on specific vehicle types and models that would travel to and from the Project Site. The national policy for fuel efficiency and emissions standards for the United States auto industry requires that new passenger cars and light-duty trucks achieve an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO$_2$ per mile by model year 2016 (Phase I standards), based on USEPA calculation methods. In August 2012, more stringent phased-in standards were adopted for new model year 2017 through 2025 passenger cars and light-duty trucks. New model year 2020 vehicles are projected to achieve 41.7 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 213 grams of CO$_2$ per mile (Phase II standards). By 2025, new vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO$_2$ per mile (Phase II standards) (USEPA 2012). However, as mentioned under the Federal subsection in Section 3.8.2, Regulatory Framework, in April 2020, the final USEPA and NHTSA SAFE Vehicles Rule was published in the Federal Register. However, as directed in President Biden’s executive order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis Executive Order, the USEPA and NHTSA are now evaluating whether and how to replace the SAFE Rule. Additionally, as mentioned above, in February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (USEPA 2021b). This final rule revises current GHG standards beginning for vehicles in model year 2023 and through model year 2026 and establish 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 (the SAFE rule standards) would achieve only 32 mpg in model year 2026 vehicles (USEPA 2021d).

The most current version of the CARB and USEPA-approved EMFAC model does incorporate the effect of the SAFE Vehicles Rules and is incorporated to their emission factors. CARB has provided off-model adjustment factors for criteria pollutant emissions and for GHG emissions. These adjustment factors were accounted for in the Project’s construction and operational mobile emissions calculations. Therefore, as the SAFE Vehicles Rules have been rescinded and replaced the USEPA, mobile source GHG emissions beyond 2021 would be slightly less than disclosed in this Draft EIR.

All vehicle types could visit the Project Site. Therefore, this assessment uses Air Basin’s motor vehicle fleet mix and the fleet average calendar year emissions factors from EMFAC to estimate mobile source GHG emissions.

With regard to energy demand, the consumption of fossil fuels to generate electricity and to provide space heating and cooling and hot water generates GHG emissions. Emissions of GHGs associated with energy usage under the Project’s proposed land uses are calculated using the CalEEMod tool. Future fuel consumption rates are estimated based on specific square footage of

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12 See: http://www.aqmd.gov/caleemod/.
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the Project’s athletic, recreational, and vehicular parking land uses, as well as predicted water supply needs of the Project. Emission factors for GHGs due to electrical generation to serve the demands of the existing Project Site were obtained from the LADWP 2017 Power Strategic Long-Term Resource Plan, which accounts for the generation mix using renewable and non-renewable sources (LADWP 2016b). Approximately 36.7 percent of LADWP’s 2020 electricity purchases were from renewable sources, which is similar to the 32 percent statewide percentage of electricity purchases from renewable sources (LADWP 2020). LADWP would provide an increasing percentage from renewable sources in compliance with the RPS with 50 percent by 2025, 55 percent by 2030, and 65 percent by 2036. Based on data from LADWP, the CO2 intensity for electricity sales as of year 2016 was 834 lbs CO2/MWh. With the passage of SB 100, LADWP would be required to update plans to provide an increasing percentage of renewable electricity pursuant to the regulation (i.e., 60 percent by December 31, 2030 and 100 percent by December 31, 2045).

Based on LADWP future projections for the Project opening year of 2030, an estimated emission factor of 469.86 lbs CO2/MWh for electricity was calculated using LADWP projections from existing plans for compliance with the RPS (i.e., SB 100) and future projected energy supply resources (CLI 2018; LADWP 2017; CEC 2017).

Emissions of GHGs associated with solid waste disposal under the Project’s proposed land uses are calculated using the CalEEMod tool. The emissions are based on the size of the Project’s recreational land uses, the waste disposal rate for the land uses was estimated based on the assumed average number of visitors and employees on the Project Site per day, and the GWP values for the GHGs emitted (CAPCOA 2020). The City has developed and is in the process of implementing, the Solid Waste Integrated Resources Plan, also referred to as the City’s 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 (e.g., recycling) for the City to 76 percent as of 2013 (LASAN 2013).

The emissions of GHGs associated with water demand and wastewater generation from the Project are calculated using CalEEMod. The emissions are based on the size of the Project land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution and for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted (CAPCOA 2020).

The emissions of GHGs associated with operational area sources under the Project are calculated using the CalEEMod tool. The emissions for landscaping equipment are based on the size of the open space based on the Project’s athletic, recreational, and parking land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted.

Operational GHG emissions are assessed based on the Project-related incremental increase in GHG emissions compared to baseline conditions. As stated above, since the existing public facilities within the SLRC would not be removed under the Project and would either continue to operate as under existing conditions or would be expanded, renovated, and redesigned to improve
3. Environmental Setting, Impact Analysis, and Mitigation Measures

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visitor experience, existing greenhouse gas emissions are not required to be calculated and the Project’s greenhouse gas emissions are conservatively considered new.

In order to evaluate the efficacy of the GHG reduction characteristics, features, and measures that would be implemented as part of the Project, this analysis compares the Project’s GHG emissions to the emissions that would be generated by the Project Without GHG Reduction Characteristics, Features, and Measures. This approach mirrors the concepts used in CARB’s Climate Change Scoping Plan, which demonstrates GHG reductions compared to a Project Without GHG Reduction Characteristics, Features, and Measures. For informational purposes and to evaluate the efficacy of the GHG reduction characteristics, features, and measures that would be implemented as part of the Project, operational GHG emissions were calculated based on a scenario without Project Design Features and consistent with CARB’s Climate Change Scoping Plan statewide BAU forecast for the AB 32 target year of 2020 and continued reductions through SB 32 through 2030, with a CO₂ intensity factor of 693.04 lbs/MWh for year 2030, which represents the RPS law and growth in electricity demand, but does not include SB 100 that was signed into law after CARB’s Climate Change Scoping Plan. In addition, the Project Without GHG Reduction Characteristics, Features, and Measures scenario does not account for land use characteristics of the Project that reduce VMT given its location within an established residential community with nearby access to public transportation. For the Project Without GHG Reduction Characteristics, Features, and Measures scenario, the VMT was adjusted to account for the average percentage of visitors that currently do not use vehicles but alternative modes of transportation to visit the park (58 percent) based on the National Recreation and Park Association’s, 2018 American’s Engagement with Parks Report, to determine the Project Without GHG Reduction Characteristics, Features, and Measures scenario’s annual VMT of 5,560,880 (emissions results and summary are presented in Section 3.8.4 and Table 3.8-6, and detailed emissions calculations are provided in Appendix C of this Draft EIR) (NRPA 2018).

There are challenges in determining consumption-based GHG emissions for embodied GHG emissions, such as the production of construction materials and consumer goods and services, as many require elongated supply chains. Therefore, the data necessary to accurately quantify embodied emissions may not be readily available due to the fact that other jurisdictions (particularly outside California or outside the United States) may not track GHG emissions in sufficient detail. Furthermore, as discussed in the Draft Association of Environmental Professionals (AEP) White Paper: Production, Consumption and Lifecycle Greenhouse Gas Inventories: Implications for CEQA and Climate Action Plans, “CEQA admonishes lead agencies to avoid speculation in completing their analyses and making conclusions. Moreover, CEQA does not require a lead agency to complete every study possible, but rather to fully disclose impacts based on reasonably available data. Developing project-specific estimates of embedded GHG emissions for all construction materials, or future consumed goods and services that are related to complex supply chains, would require extensive research and may not be able to accurately identify GHG emissions for many consumed items without substantial uncertainty” (AEP 2017).
In addition, the state addressed embodied (lifecycle) GHG emissions in the Final Statement of Reasons for Regulatory Action, prepared for the amendment to Appendix F of the CEQA Guidelines pursuant to SB 97 (CNRA 2009):

The amendments to Appendix F remove the term —lifecycle. No existing regulatory definition of —lifecycle exists. In fact, comments received during OPR’s public workshop process indicate a wide variety of interpretations of that term. (Letter from Terry Rivasplata et al. to OPR, February 2, 2009, at pp. 5, 12 and Attachment; Letter from Center for Biological Diversity et al. to OPR, February 2, 2009, at pp. 17.) Thus, retention of the term —lifecycle in Appendix F could create confusion among lead agencies regarding what Appendix F requires. Moreover, even if a standard definition of the term —lifecycle existed, requiring such an analysis may not be consistent with CEQA. As a general matter, the term could refer to emissions beyond those that could be considered —indirect effects of a project as that term is defined in Section 15358 of the State CEQA Guidelines. Depending on the circumstances of a particular project, an example of such emissions could be those resulting from the manufacture of building materials. (CAPCOA White Paper, pp. 50-51.) CEQA only requires analysis of impacts that are directly or indirectly attributable to the project under consideration. (State CEQA Guidelines, § 15064(d).) In some instances, materials may be manufactured for many different projects as a result of general market demand, regardless of whether one particular project proceeds. Thus, such emissions may not be caused by the project under consideration. Similarly, in this scenario, a lead agency may not be able to require mitigation for emissions that result from the manufacturing process. Mitigation can only be required for emissions that are actually caused by the project. (CEQA Guidelines Section 15126.4(a)(4).)

Therefore, embodied GHG emissions were not considered in this analysis as they are not consistent with generally recommended GHG emissions analysis methodology under CEQA.

**Project Consistency with Applicable Plans and Policies**

The Project’s GHG emission impacts are evaluated by assessing whether the Project conflicts with applicable GHG reduction strategies and local actions approved or adopted by CARB, SCAG, and the City. As there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the Project’s impacts related to GHG emissions focuses on whether the Project is not in conflict with, and therefore is consistent with, statewide, regional, and local plans adopted for the purpose of reducing and/or mitigating GHG emissions. This evaluation of consistency with such plans is the sole basis for determining the significance of the Project’s GHG-related impacts on the environment consistent with CEQA Guidelines Section 15064.4 and CEQA Guidelines Appendix G.

A consistency analysis is provided and describes the Project’s compliance with performance-based standards included in the regulations outlined in the applicable portions of CARB’s Climate Change Scoping Plan, the 2020–2045 RTP/SCS, City’s Green New Deal, and the Los Angeles Green Building Code.
3.8.4 Project Design Features

The following Project Design Features are applicable to the Project.

**PDF-UTIL-1: Drought-Tolerant Landscaping.** See Section 3.18, *Utilities and Service Systems*, of this Draft EIR for a description of this Project Design Feature.

**PDF-UTIL-2: Water-Efficient Irrigation.** See Section 3.18, *Utilities and Service Systems*, of this Draft EIR for a description of this Project Design Feature.

3.8.5 Impacts and Mitigation Measures

**Greenhouse Gas Emissions**

**Impact 3.8-1:** Would the proposed Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

As described above, compliance with a GHG emissions reduction plan renders a project’s impact less than significant. In support of the consistency analysis which describes the Project’s compliance with or exceedance of performance-based standards included in the regulations and policies outlined in the applicable portions of the Climate Change Scoping Plan, the 2020–2045 RTP/SCS, the City’s Green New Deal, and the Los Angeles Green Building Code, quantitative calculations are provided below. The Project would generate an incremental contribution to and a 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.

**Construction Emissions**

The emissions of GHGs associated with construction of the Project, were calculated for each year of construction activity using CalEEMod and EMFAC. Construction would be completed in approximately 56 months (construction of the Project is anticipated to begin in the first quarter of 2025 pending Project consideration and approval and is estimated to be completed in the third quarter of 2029 with construction occurring for approximately four years and eight months). Results of the GHG emissions calculations are presented in Table 3.8-5.

Across all the park zones, the Project would import approximately 86,765 cubic yards and export approximately 89,003 cubic yards of soil during grading/excavation and export approximately 30,332 cubic yards of soil drainage/utilities/trenching, approximately 21,450 cubic yards of demolition debris (asphalt, earthwork, and general construction debris) and approximately 13,264 cubic yards of site preparation debris (vegetation and minor earthwork). Emissions from haul trucks and continuous pour concrete trucks were estimated outside of CalEEMod using EMFAC emission factors for heavy-duty trucks. It should be noted that the GHG emissions shown in Table 3.8-5 are based on construction equipment operating continuously throughout the workday. In reality, construction equipment tends to operate periodically or cyclically throughout the workday. Therefore, the GHG emissions shown reflect a conservative estimate.
Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to include them when assessing all of the long-term GHG emissions associated with a project. As recommended by the SCAQMD, construction-related GHG emissions were amortized over a 30-year project lifetime in order to include these emissions as part of a project’s annualized lifetime total emissions. In accordance with this methodology, the estimated Project’s construction GHG emissions have been amortized over a 30-year period and are added to the annualized operational GHG emissions.

Mitigation Measures:
None Required

Significance Determination:
Less than Significant Impact

Operational Emissions

The Project’s annual GHG emissions included emissions from operations and construction calculated by CalEEMod and EMFAC for mobile source emissions. As previously described, construction GHG emissions for the entire construction period were amortized over 30 years. The Project must comply with the portions of the Los Angeles Green Building Code and state’s CALGreen Code / California Title 24 Building Energy Efficiency requirements applicable to the Project, and meeting these requirements are assumed in the quantitative analysis below. As explained above, the Project’s mobile source emission calculations associated with the Project are calculated using the estimated annual VMT using the trip rates that were provided for the Project uses in the Project’s TIA and default commercial trip type trip lengths from CalEEMod (see Appendix K).

With compliance with the City of Los Angeles’ Green New Deal, all new municipally-owned buildings and major building renovation projects will utilize electricity instead of natural gas. Accordingly, natural gas would not be supplied to support proposed Project operation activities related to building energy. Further, the Project would optimize natural ventilation and daylighting...
at the new Education Center and Multi-Purpose Facility which would reduce the amount of electricity needed for lighting and heating/cooling. The Education Center would also include shade trees and overhangs to minimize the heat gain and regulate indoor temperatures without the need for additional electrical capacity. The Project would also improve the energy efficiency of the existing Multi-Purpose Facility and would be updated to meet current building energy and safety codes. The Education Center, updated Recreation Center, and Multi-Purpose Facility would be designed to be all-electric and would eliminate the use of natural gas. While this does result in higher electricity usage, it results in more sustainable development by eliminating fossil fuel and the associated criteria pollutant emissions (i.e. natural gas) use for building energy. The proposed Project would not result in installation of any new natural gas infrastructure.

Maximum unmitigated, annual net GHG emissions resulting from on road mobile sources, area sources (landscape maintenance equipment and electric heaters), energy (i.e., electricity), water conveyance and wastewater treatment, and solid waste were calculated for the Project buildout year (2030). The Project’s total and net GHG emissions from operation of the Project are shown in Table 3.8-6, below.

<table>
<thead>
<tr>
<th>TABLE 3.8-6</th>
<th>ESTIMATED OPERATIONAL GREENHOUSE GAS EMISSIONS – PROJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Sources</td>
<td>CO₂e at Buildout Year (2025)</td>
</tr>
<tr>
<td>Project Operational</td>
<td>Metric Tons per Year</td>
</tr>
<tr>
<td>Mobile Sources b</td>
<td>876</td>
</tr>
<tr>
<td>(Includes VMT associated from both the Everyday Use and special events/life performances, community events and polling station events)</td>
<td></td>
</tr>
<tr>
<td>Area</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Electricity</td>
<td>167</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>5</td>
</tr>
<tr>
<td>Water and Wastewater Treatment</td>
<td>92</td>
</tr>
<tr>
<td>Construction (Amortized)</td>
<td>347</td>
</tr>
<tr>
<td>Project Total</td>
<td>1,486</td>
</tr>
</tbody>
</table>

Percent reduction of Project with GHG reduction characteristics, features, and measures compared to Project without GHG reduction characteristics, features, and measures: -44.8%

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a Totals may not add up exactly due to rounding in the modeling calculations.
b As discussed in Section 3.8.3, under the Methodology subsection, the Project’s GHG analysis also accounted for annual VMT from special events/life performances that could occur during the year, including 12 weekend special events/life performances with approximately 600 attendees per event, and 12 weekday special events, community events and polling station events performances with approximately 50 attendees per event, that would occur at the Silver Lake Lawn in the Meadow. The Project would generate an estimated net increase of 2,486,228 annual VMT (of which, approximately 98 percent is attributable to everyday uses of the Project Site. Refer to VMT data in Appendix C and Appendix K of this Draft EIR.

SOURCE: Appendix C
As discussed previously, state, regional, and local GHG reduction plans and policies, such as CARB’s Climate Change Scoping Plan, SCAG’s 2020–2045 RTP/SCS, and City’s Green New Deal, would be applicable to the Project. These plans and policies are intended to reduce GHG emissions in accordance with the goals of AB 32. In order to evaluate the efficacy of the GHG reduction characteristics, features, and measures that would be implemented as part of the Project as required by these GHG reduction plans and policies and while other methodologies for calculating Project GHG reduction efficiencies exist, this analysis compares the Project’s GHG emissions to the emissions that would be generated by the Project without implementation of GHG reduction characteristics, features, and measures and is presented here for informational purposes only. This comparison is provided to evaluate the Project’s efficiency with respect to GHG emissions but is not the threshold of significance used for impact analysis. The analysis assumes the Project without implementation of GHG reduction characteristics, features, and measures would incorporate the same land uses and building square footage as the Project. Furthermore, this analysis is consistent with the most current regulatory policies and GHG quantification methods; however, the scientific, regulatory environment regarding GHG reduction and CEQA approaches for GHG analysis are constantly evolving and would continue to do so into the future.

The quantification of GHG emissions for the Project without implementation of GHG reduction characteristics, features, and measures scenario is evaluated based on the specific and defined circumstances that CARB relied on when it projected the state’s GHG emissions in the absence of GHG reduction measures in the Climate Change Scoping Plan (for complete list of assumptions refer to Appendix C of this Draft EIR).

Comparison of Project GHG emissions to Project \ Without Implementation of GHG Reduction Characteristics, Features, and Measures

When considering only the Project’s emissions, Table 3.8-6 shows that the Project’s operational emissions of 1,486 MTCO₂e would be generated primarily by mobile sources and secondarily by energy (electricity and natural gas from mobile sources) and in 2030 would be approximately 45 percent less than the emissions that would be generated by the Project without implementation of GHG reduction characteristics, features, and measures (i.e., based on the quantitative reduction, including those associated with mobile emissions). The Project without implementation of GHG reduction characteristics, features, and measures does not account for land use characteristics of the Project that reduce VMT given its location within an established residential community with nearby access to public transportation. Thus, this analysis quantitatively demonstrates the efficiency of the Project GHG reduction measures as set forth in the applicable GHG reduction plans and policies and that the Project would result in a GHG-efficient development. The reduction in emissions (i.e., Project scenario and Project without implementation of GHG reduction characteristics, features, and measures) is due to the following primary factors:

- **Optimize Building Energy Performance and Lower the CI of electricity.** Under the RPS, LADWP is required to reduce the CI of their electricity. The CI of LADWP electricity would be anticipated to be 693.04 lbs/MWh, which is consistent with CARB’s Climate Change Scoping Plan statewide BAU forecast for the AB 32 target year of 2020 and continued reductions through SB 32 through 2030, but does not account for newer RPS requirements.
such as SB 100 that was signed into law after the 2017 Scoping Plan. As discussed above, the future year CO₂ emission factor of 469.86 lbs/MWh for year 2030 was scaled proportionately based on the future year renewable energy targets of 60 percent by 2030 consistent with SB 100 (refer to Appendix C for additional details) (LADWP 2016a; CEC 2017). For the Project, these features account for approximately a 32 percent reduction in electricity emissions and a 3 percent reduction in total GHG emissions in the first operational year of 2025. For the Project, the lower CI of electricity also accounts for approximately a 32 percent reduction in emissions associated with Project water supply, treatment, and distribution and for wastewater treatment and a 2 percent reduction in total GHG emissions in the first operational year of 2030. Thus, the reduction in GHG emissions from optimizing building energy performance and lowering the CI of electricity would be 4.5 percent of the total GHG emissions (detailed emissions calculations are provided in Appendix C of this Draft EIR).

- **Reduction in vehicle trips and VMT associated with the Project’s land use characteristics.** As discussed above, based on the Project’s land use characteristics, VMT reductions are expected due to the Project’s location, and design. These characteristics account for approximately a 55 percent reduction in VMT and a 40 percent reduction in total GHG emissions in the first operational year of 2030.

It is important to note that the total net Project emissions in Table 3.8-6 do not reflect the fact that Project operational-related GHG emissions would likely be lower as the Project would provide additional sustainability features that would help to reduce the Project’s outdoor water demand and reduce associated GHG emissions from water supply, conveyance, distribution and treatment. As described in Section 3.18, *Utilities and Service Systems*, the Project would include strategies to reduce irrigation water demand through PDF-UTIL-1 and PDF-UTIL-2. Through PDF-UTIL-1, and would use a mix of native and drought-tolerant plants appropriate to the Los Angeles region to provide a plant palette adapted to climate change. Lawn would be used sparingly and strategically distributed where needed to support multifunctional cultural and recreational uses. Through PDF-UTIL-2, irrigation water would be pumped from the reservoirs to the proposed Meadow park zones which would then flow back into the reservoirs. Transition habitat zones would also be irrigated with reservoir water on a separate cycle appropriate for the drought-tolerant, coastal scrub planting palette proposed under the proposed Project. This irrigation strategy would be validated by reservoir water quality testing and soil analysis under proposed operations. Remaining upland habitat, lawn areas, and ornamental gardens would be irrigated via a potable water supply available from the LADWP distribution system which would require a dedicated meter. If recycled water is available in the future, it could be used to irrigate ornamental planting (see Section 3.18, *Utilities and Service Systems*, for additional details). In addition, as described in Section 2.5.7, *Sustainability Design Features*, the proposed Project would include recycling and compost receptacles throughout the park, which would reduce the amount of waste generated by the Project and 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.

It is also important to note that the total net Project emissions in Table 3.8-6 do not account for declining GHG emissions in future years as emissions reduction plans, policies, and regulations at the state, local, and regional level (including the RTP/SCS and Climate Change Scoping Plan, discussed above) are achieved and as the state’s Cap-and-Trade program continues to be implemented. Emissions related to electricity would decline as utility providers, including LADWP,
met their RPS obligations to provide renewable electricity sources to meet the future RPS obligations of 60 percent by December 31, 2030, and 100 percent by December 31, 2045. Emissions from mobile sources would also decline in future years as older vehicles are replaced with newer vehicles, resulting in a greater percentage of the vehicle fleet meeting more stringent combustion emissions standards, such as the model year 2017–2025 Pavley Phase II standards and Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards. In addition, as described in Section 2.5.7, Sustainability Design Features, although the Project is not required to provide any bicycle parking spaces per the LAMC, the Project would also provide on-site bicycle parking spaces and improve existing bike lanes along Silver Lake Boulevard, and the proposed Project would provide drop-off space for micro-mobility initiatives such as Metro Micro (see Chapter 2.0, Project Description, for additional details). These Project characteristics are related to key SCAG’s 2020–2045 RTP/SCS GHG reduction strategies including reducing vehicle trips and associated emissions, which include locating uses in areas accessible to transit and providing biking infrastructure to improve active transportation options and transit access.

As stated above, because there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the Project’s impacts related to GHG emissions focuses on whether it conflicts with statewide, regional, and local plans adopted for the purpose of reducing and/or mitigating GHG emissions. This evaluation of consistency with such plans is the primary basis for determining the significance of the Project’s GHG-related impacts on the environment. Accordingly, as shown below in Threshold (b), since the Project would not conflict with applicable plans, regulations or goals, the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Post Buildout Emissions

Executive Orders S-3-05 and B-30-25 establish a goal to reduce GHG emissions to 80 percent below 1990 levels by 2050. This goal has not been codified by the Legislature and CARB has not adopted a strategy or regulations to meet the 2050 goal. However, studies have shown that, in order to meet the 2050 goal, aggressive technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, would be required. In its original 2008 Scoping Plan, CARB acknowledged that the “measures needed to meet the 2050 goal are too far in the future to define in detail” (CARB 2008). In the 2014 Scoping Plan, 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” (CARB 2014). The 2017 Scoping Plan recognizes that additional work is needed to achieve the more stringent 2050 target: “While the Scoping Plan charts the path to achieving the 2030 GHG emissions reduction target, we also need momentum to propel us to the 2050 statewide GHG target (80 percent below 1990 levels). In developing this Scoping Plan, we considered what policies are needed to meet our mid-term and long-term goals” (CARB 2017b). For example, the 2017 Scoping Plan acknowledges that “though Zero Net Carbon Buildings are not feasible at this time and more work needs to be done in this area, they would be necessary to achieve the 2050 target. To that end, work must begin now to
review and evaluate research in this area, establish a planning horizon for targets, and identify implementation mechanisms” (CARB 2017b).

- **Energy Sector**: Technological improvements and additions to California’s renewable resource portfolio would favorably influence the Project’s emissions level (CARB 2014).

- **Transportation Sector**: Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all would serve to reduce the Project’s emissions level (CARB 2014).

- **Water Sector**: The Project’s emissions level would be reduced as a result of further enhancements to water conservation technologies (CARB 2014).

- **Waste Management Sector**: Plans to further improve recycling, reuse, and reduction of solid waste would beneficially reduce the Project’s emissions level (CARB 2014).

The *Air Quality and Greenhouse Gas Technical Appendix* for the Project, which is provided in Appendix C of this Draft EIR, was prepared after thorough investigation of feasible methodologies to determine the potential GHG impacts associated with the Project. Due to the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the Project’s impacts relative to the 2050 goal is speculative for purposes of CEQA. Despite the thorough investigation performed, due to the uncertainty regarding specific state and local actions that would be implemented to achieve the 2050 GHG emission reduction targets, calculating Project emissions levels for 2050 would be highly speculative. Nonetheless, statewide efforts are underway to facilitate the state’s achievement of those goals, and it is reasonable to expect the Project’s emissions level to decline as the regulatory initiatives identified by CARB in the 2017 Scoping Plan are implemented, and other technological innovations occur.

In addition, the Project is the type of land use development that is encouraged by the 2020–2045 RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the state’s long-term climate policies. The Project Site is located near multiple transportation options, including Los Angeles County Metropolitan Transit Authority (Metro)’s Line 201 that runs West Silver Lake Drive with multiple stops adjacent to the the that runs on West Silver Lake Drive with multiple stops adjacent to the Complex and Metro Line 92 which runs on Glendale Boulevard with multiple stops which are a short walking distance from the Complex and Metro Line 92 which runs on Glendale Boulevard with multiple stops which are a short walking distance from the Project. In addition, as described in Section 2.5.7, *Sustainability Design Features*, although the Project is not required to provide any bicycle parking spaces per the LAMC, the Project would also provide on-site bicycle parking spaces and improve existing bike lanes along Silver Lake Boulevard, and the proposed Project would provide drop-off space for micro-mobility initiatives such as Metro Micro (see Chapter 2.0, *Project Description*, for additional details). These Project characteristics are related to key GHG reduction strategies in SCAG’s 2020–2045 RTP/SCS, which include locating uses in areas accessible to transit and providing biking infrastructure to improve active transportation options and transit access. Additional details regarding the Project’s furtherance of key GHG reduction strategies in the SCAG 2020–2045 RTP/SCS are discussed in Threshold (b) as well as in Appendix C of this Draft EIR. By furthering implementation of SB 375, the Project supports regional land use and
transportation GHG reductions, and would not conflict with state climate targets for 2030 and beyond.

Stated differently, the Project’s emissions total at buildout represents the maximum emissions inventory for the Project as California’s emissions sources are being regulated (and foreseeably expected to continue to be regulated in the future) in furtherance of the state’s environmental policy objectives. As such, given the reasonably anticipated decline in Project emissions once fully constructed and operational, the Project would not conflict with the 2030 and 2050 targets and Executive Orders S-3-05 and B-30-15.

As set forth above, the Project would generate increased GHG emissions over existing conditions. However, even a very large individual project would not generate enough GHG emissions on its own to significantly influence global climate change. Moreover, as discussed under Impact 3.8-2 below, the Project would not conflict with the Climate Change Scoping Plan, the 2020–2045 RTP/SCS, the City’s Green New Deal, and the Los Angeles Green Building Code. The Project’s consistency with these applicable regulatory plans and policies to reduce GHG emissions, would reduce the Project’s GHG emissions by about 45 percent compared to the Project without implementation of GHG reduction characteristics, features, and measures. In summary, the plan consistency analysis provided below under Threshold (b) demonstrates that the Project’s design features would not conflict with regulations and policies and would comply with or exceed the regulations and reduction actions/strategies outlined in the Climate Change Scoping Plan, the 2020–2045 RTP/SCS, City’s Green New Deal, and the Los Angeles Green Building Code. The Project’s evaluation of consistency with the above plans is the primary basis for determining the significance of the Project’s GHG-related impacts on the environment. Accordingly, as shown below under Impact 3.8-2, since the Project would not conflict with applicable plans, regulations or goals, the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

**Mitigation Measures:**
None Required

**Significance Determination:**
Less than Significant Impact

**Applicable Plan, Policy, or Regulation**

**Impact 3.8-2: Would the proposed Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

As mentioned above, in the absence of any adopted quantitative threshold, the significance of the Project’s GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted for the purpose of reducing the emissions of GHGs.

As described above, compliance with a GHG emissions reduction plan renders a less-than-significant impact. The analyses below demonstrate that the Project would not conflict with the applicable GHG emission reduction plans and policies included within CARB’s Climate Change...
3. Environmental Setting, Impact Analysis, and Mitigation Measures

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Scoping Plan, the 2020–2045 RTP/SCS, City’s Green New Deal, and the Los Angeles Green Building Code (refer to the Air Quality and Greenhouse Gas Technical Appendix, which is attached as Appendix C of this Draft EIR, for additional details).

**CARB’s Climate Change Scoping Plan**

The Climate Change Scoping Plan outlines a framework that relies on a broad array of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, incentives, voluntary actions, and market-based mechanisms, such as the Cap-and-Trade program. The Climate Change Scoping Plan builds off of a wide array of regulatory requirements that have been promulgated to reduce statewide GHG emissions, particularly from energy demand and mobile sources. While these regulatory requirements are not targeted at specific land use development projects, they would indirectly reduce a development project’s GHG emissions. A discussion of these regulatory requirements that would reduce the Project’s GHG emissions are provided below. As detailed below and in Appendix C of this Draft EIR, the Project would not conflict with the Climate Change Scoping Plan and the implementing GHG reduction strategies.

**Energy and Water**

- **California Renewables Portfolio Standard (RPS) program (SB 100) and SB 350**: While this action does not directly apply to individual projects, the Project complies with the RPS program inasmuch as its electricity is provided by LADWP, which, in compliance with the RPS program, is required to obtain 33 percent renewable power by 2020 and has committed to achieving 50 percent renewables by 2025 (LADWP 2017). Furthermore, per the updated requirements of SB 100, signed by Governor Brown on September 10, 2018, LADWP would be required to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030 and should plan to achieve 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. Thus, the Project would be supplied with electricity via renewable sources at increasing rates over time reducing the Project’s electricity-related GHG emissions. As required under SB 350, doubling of the energy efficiency savings from final end uses of retail customers by 2030 would primarily rely on the existing suite of building energy efficiency standards under CCR Title 24, Part 6 and utility-sponsored programs such as rebates for high-efficiency appliances, heating, ventilation, and air conditioning (HVAC) systems, and insulation. The Project would comply with Title 24 Standards.

- **SB 1368/AB 398, CCR Title 20, Cap-and-Trade Program**: The state’s Cap-and-Trade Program reduces GHG emissions from major sources (deemed “covered entities”) by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve emission reduction targets. While the Cap-and-Trade Program does not directly apply to individual projects, the Project would benefit from the Program inasmuch as the Project’s electricity usage and mobile source emissions would be covered by the Cap-and-Trade Program as LADWP and California fuel suppliers are covered entities, resulting in an indirect reduction of GHG emissions from the Project’s energy consumption and mobile source emissions.

- **Title 24 Building Energy Efficiency Standards, and the CALGreen Code**: The Project would meet or exceed the energy standards in the Title 24 Building Energy Efficiency Standards, and the CALGreen Code. As stated above and as described in Section 3.18, Utilities and Service Systems, the Project would include strategies to reduce irrigation water...
demand through PDF-UTIL-1 and PDF-UTIL-2. Through PDF-UTIL-1, the Project would use a mix of native and drought-tolerant plants appropriate to the Los Angeles region to provide a plant palette adapted to climate change. Lawn would be used sparingly and strategically distributed where needed to support multifunctional cultural and recreational uses. Through PDF-UTIL-2, Irrigation water would be pumped from the reservoirs to the proposed Meadow park zones which would then flow back into the reservoirs. Transition habitat zones would also be irrigated with reservoir water on a separate cycle appropriate for the drought-tolerant, coastal scrub planting palette proposed under the proposed Project. This irrigation strategy would be validated by reservoir water quality testing and soil analysis under proposed operations. Remaining upland habitat, lawn areas, and ornamental gardens would be irrigated via a potable water supply available from the LADWP distribution system which would require a dedicated meter. If recycled water is available in the future, it could be used to irrigate ornamental planting (see Section 3.18, Utilities and Service Systems, for additional details). As stated previously, the 2008 Climate Change Scoping Plan notes that water use requires significant amounts of energy, including approximately one-fifth of statewide electricity.

**Mobile**

- **AB 1493 (Pavley Regulations):** The state’s Pavley Regulations apply to new passenger vehicles from model year 2012 through 2016 (Phase I) and model years 2017–2025 (Phase II). While this action does not apply to individual projects, future employees and visitors to the Project Site would purchase new vehicles in compliance with this regulation. Mobile source emissions generated by future spectators, visitors, students and employees to the Project Site would be reduced with implementation of AB 1493.

- **Advanced Clean Cars Program:** The Advanced Clean Cars (ACC) program includes Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years. While this action does not directly apply to individual projects, the standards would apply to all vehicles purchased or used by visitors and employees to the Project Site. Currently, there are 10 parallel parking spaces along this segment of West Silver Lake Drive. By converting to 90-degree parking, a total of approximately 25 parking spaces would be added, resulting in a net increase in parking of 15 spaces at this location. Two of the new parking spaces would be dedicated to electric vehicle (EV) parking. As such, the Project would support compliance with this regulation.

- **Advance Clean Truck Regulation:** The Advanced Clean Truck Regulation has two components, a manufacturer sales requirement and a reporting requirement. The manufacturer component of the regulation requires manufacturers that certify Class 2b-8 chassis or complete vehicles with combustion engines would be required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales. The reporting component of the regulation requires large employers, including retailers, manufacturers, brokers and others, would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs. This would be applicable to occasional delivery trucks to the Project Site.
Low Carbon Fuel Standard (Executive Order S-01-07): This regulation establishes a statewide goal to reduce the carbon intensity of California’s transportation fuels by at least 7.5 percent in the CI of California’s transportation fuels by 2020 and a 20 percent reduction in CI from a 2010 baseline by 2030. While this action does not directly apply to individual projects, future employees and visitors to the Project Site would utilize transportation fuels in compliance with this regulation. GHG emissions related to vehicular travel by Project would benefit from this regulation and mobile source emissions generated by future spectators, visitors, students and to the Project Site would be reduced with implementation of the LCFS.

SB 375: SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state’s Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. While this action does not directly apply to individual projects, the Project would not conflict with the SCAG 2020–2045 RTP/SCS goals and objectives under SB 375 to implement “smart growth.” As discussed in Section 3.8.4 the Project would not conflict with the SCAG 2020–2045 RTP/SCS. The Project would incorporate physical and operational Project characteristics that would reduce vehicle trips and VMT and encourage alternative modes of transportation for visitors and employees. The Project would support reducing VMT given its location within an established residential community with nearby access to public transportation within 0.25 mile of the Project Site. The Project Site is located near Metro’s Line 201 that runs West Silver Lake Drive with multiple stops adjacent to the that runs on West Silver Lake Drive with multiple stops adjacent to the Complex and 92 which runs on Glendale Boulevard with multiple stops which are a short walking distance from the Complex and Metro Line 92 which runs on Glendale Boulevard with multiple stops which are a short walking distance from the Project. To further reduce reliance on fossil fuels and transportation-related GHG emissions, the Project Site currently has 10 parallel parking spaces along this segment of West Silver Lake Drive. By converting to 90-degree parking, a total of approximately 25 parking spaces would be added, resulting in a net increase in parking of 15 spaces at this location. Two of the new parking spaces would be dedicated to electric vehicle (EV) parking.

Solid Waste

California Integrated Waste Management Act (IWMA) of 1989 and AB 341: The IWMA mandated that state agencies develop and implement an integrated waste management plan which outlines the steps to be taken to divert at least 50 percent of their solid waste from disposal facilities. AB 341 directs CalRecycle to develop and adopt regulations for mandatory commercial recycling and sets a statewide goal for 75 percent disposal reduction by the year 2020. In addition, 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. While this action does not directly apply to individual projects, the Project would benefit from the IWMA and the SWIRP inasmuch as it would be served by a solid waste collection and recycling service that include mixed waste processing, and that yields waste diversion results comparable to source separation and consistent with Citywide recycling targets. According to the City of Los Angeles Zero Waste Progress Report (March 2013), the City achieved a landfill diversion rate of approximately 76 percent by year 2012 (LASAN 2013). In addition, as described in Section 2.5.7, Sustainability Design Features, the proposed Project would include recycling and compost receptacles throughout the park, which would reduce the amount of waste generated by the Project and 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.
As demonstrated above, the Project would not conflict with the future anticipated statewide GHG reductions goals. CARB has outlined a number of potential strategies for achieving the 2030 statewide reduction target of 40 percent below 1990 levels, as mandated by SB 32. These potential strategies include using renewable resources for half of the state’s electricity by 2030, increasing the fuel economy of vehicles and the number of zero-emission or hybrid vehicles, reducing the rate of growth in VMT, supporting other alternative transportation options, and use of high-efficiency appliances, water heaters, and HVAC systems (E3 2015). The Project would benefit from statewide and utility-provider efforts towards increasing the portion of electricity provided from renewable resources. The utility provider for the Project, LADWP, provided 34 percent of 2019 electricity purchases from renewable sources and would be required to provide 50 percent by 2025, 60 percent by 2030, and 100 percent by 2045 (LADWP 2020). The Project would also benefit from statewide efforts towards increasing the fuel economy standards of vehicles. The Project would support reducing VMT given its location within an established residential community to existing transit options, as described above.

As a result, the Project would not conflict with applicable Climate Change Scoping Plan strategies and regulations to reduce GHG emissions.

**Post-2030 Analysis**

The 2017 Scoping Plan also outlines strategies to reduce GHG emissions to achieve the 2030 target from sectors that are not directly controlled or influenced by the Project, but nonetheless contribute to Project-related GHG emissions. For instance, the Project itself is not subject to the Cap-and-Trade regulation; however, Project-related emissions would decline pursuant to the regulation as utility providers and transportation fuel producers are subject to renewable energy standards, Cap-and-Trade, and the LCFS. While CARB is in the process of expanding the regulatory framework to meet the 2030 reduction target based on the existing laws and strategies in the 2017 Scoping Plan, the Project would support or not impede implementation of these potential GHG reduction strategies identified by CARB for all the reasons summarized above.

In June 2018, an updated report was published on the California PATHWAYS model, which was used in the preparation of the 2017 Scoping Plan. This updated report determined that “meeting the state’s 2030 climate goals requires scaling up and using technologies already in the market such as energy efficiency and renewables, while pursuing aggressive market transformation of new technologies that have not yet been utilized at scale in California (for example, zero-emission vehicles and electric heat pumps)” (CEC 2018). Priority GHG reduction strategies include energy efficiency in buildings, renewable energy, and smart growth through increased use of public transit, walking, biking, telepresence, and denser, mixed-use community design. Further, as stated above, Project emissions in Table 3.8-6 do not reflect the fact that Project operational-related GHG emissions would likely be lower as the Project would provide additional sustainability features that would help to reduce the Project’s outdoor water demand and reduce associated GHG emissions from water supply, conveyance, distribution and treatment. As described in Section 3.18, *Utilities and Service Systems*, the Project would include strategies to reduce irrigation water demand through PDF-UTIL-1 and PDF-UTIL-2. Through PDF-UTIL-1, the Project would use a mix of native and drought-tolerant plants appropriate to the Los Angeles region to provide a plant palette adapted to climate change. Lawn would be used sparingly and
strategically distributed where needed to support multifunctional cultural and recreational uses. Through PDF-UTIL-2, Irrigation water would be pumped from the reservoirs to the proposed Meadow park zones which would then flow back into the reservoirs. Transition habitat zones would also be irrigated with reservoir water on a separate cycle appropriate for the drought-tolerant, coastal scrub planting palette proposed under the proposed Project. This irrigation strategy would be validated by reservoir water quality testing and soil analysis under proposed operations. Remaining upland habitat, lawn areas, and ornamental gardens would be irrigated via a potable water supply available from the LADWP distribution system which would require a dedicated meter. If recycled water is available in the future, it could be used to irrigate ornamental planting (see Section 3.18, Utilities and Service Systems, for additional details). In addition, as described in Section 2.5.7, Sustainability Design Features, the proposed Project would include recycling and compost receptacles throughout the park, which would reduce the amount of waste generated by the Project and 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. As such, the Project would not conflict with the findings relevant to the Project from the updated California PATHWAYS model report.

With statewide efforts underway to facilitate the state’s achievement of those goals, it is reasonable to expect the Project’s GHG emissions to decline from their opening year levels as reported in Table 3.8-6, above, as the regulatory initiatives identified by CARB in the 2017 Scoping Plan are implemented, and other technological innovations occur. Stated differently, the Project’s emissions at buildout likely represents the maximum emissions for the Project as anticipated regulatory developments and technology advances are expected to reduce emissions associated with the Project, such as emissions related to electricity use and vehicle use.

Even though the 2017 Scoping Plan and supporting documentation do not provide an exact regulatory and technological roadmap to achieve 2050 goals, they demonstrate 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 study or not currently feasible at the time the 2017 Scoping Plan was adopted could enable the state to meet the 2050 targets. For example, the 2017 Scoping Plan states some policies are not feasible at this time, such as Net Zero Carbon Buildings, but that this type of policy would be necessary to meet the 2050 target.

Based on the above, the Project would not conflict with CARB’s Climate Change Scoping Plan, and there would be an anticipated decline in Project emissions once fully constructed and operational; the Project would not conflict with the state’s GHG reduction targets for 2030 and 2050. Therefore, impacts would be less than significant. As stated above, a detailed consistency

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13 E3, Summary of the California State Agencies’ PATHWAYS Project: Long-Term Greenhouse Gas Reduction Scenarios, April 6, 2015; Greenblatt, Jeffrey, “Modeling California Impacts on Greenhouse Gas Emissions,” Energy Policy, Vol. 78, 2015, pages 158-172. The CARB, CEC, 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% below 1990 levels by 2050. With input from the agencies, E3 developed scenarios that explore the potential pace at which emission reductions can be achieved as well as the mix of technologies and practices deployed. E3 conducted the analysis using its California PATHWAYS model. Enhanced specifically for this study, the model encompasses the entire California economy with detailed representations of the buildings, industry, transportation, and electricity sectors.
table that contains a list of the state’s Climate Change Scoping Plan GHG-reducing strategies applicable to the Project and describes that the Project would not conflict with the Climate Change Scoping Plan is available in the *Air Quality and Greenhouse Gas Technical Appendix* for the Project, which is provided in Appendix C of this Draft EIR.

**SCAG’s 2020–2045 RTP/SCS**

Transportation-related GHG emissions would be the largest source of emissions from the Project. This finding is consistent with the findings in regional plans, including the 2020–2045 RTP/SCS, which recognizes that the transportation sector is the largest contributor to the state’s GHG emissions. At the regional level, the 2020–2045 RTP/SCS is an applicable plan adopted for the purpose of reducing GHGs.

The purpose of the 2020–2045 RTP/SCS is to achieve the regional per capita GHG reduction targets for the passenger vehicle and light-duty truck sector established by CARB pursuant to SB 375. To accomplish this goal, the 2020–2045 RTP/SCS identifies various strategies to reduce per capita VMT. The 2020–2045 RTP/SCS is expected to help SCAG reach its GHG reduction goals, as identified by CARB, with reductions in per capita passenger vehicle GHG emissions for specified target years.

In addition to demonstrating the region’s ability to attain and exceed the GHG emission-reduction targets set forth by CARB, the 2020–2045 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of the 2020–2045 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use. With regard to individual developments, such as the Project, strategies and policies set forth in the 2020–2045 RTP/SCS can be grouped into the following three categories: (1) reduction of vehicle trips and VMT, (2) increased use of alternative fuel vehicles, and (3) improved energy efficiency. These strategies and policies are addressed below.

In order to assess the Project’s potential to conflict with the 2020–2045 RTP/SCS, this section analyzes the Project’s land use characteristics for consistency with the strategies and policies set forth in the 2020–2045 RTP/SCS to meet GHG emission-reduction targets set by CARB. Generally, projects are considered to not conflict with applicable land use plans and regulations, such as SCAG’s 2020–2045 RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. The Project would not conflict with the 2020–2045 RTP/SCS goals and benefits intended to improve mobility and access to diverse destinations, provide better “placemaking,” provide more transportation choices, and reduce vehicular demand and associated emissions. Thus, successful implementation of the 2020–2045 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use.

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14 As discussed in the 2020–2045 RTP/SCS, the actions and strategies included in the 2020–2045 RTP/SCS remain unchanged from those adopted in the 2012–2035 and 2016–2040 RTP/SCS.
Integrated Growth Forecast

The 2020–2045 RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG’s Regional Council, are based on the local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. While the Project does not propose residential uses or new businesses, new employees would be introduced by the Project. On a typical day in which special events/life performances on the Silver Lake Lawn in the Meadow (i.e., fewer than 600 spectators and participants) would take place. Approximately 5 employees would be net new and would include operations and maintenance positions. According to the 2020–2045 RTP/SCS, the employment forecast for the City of Los Angeles Subregion in 2022 is approximately 1,907,801 employees (SCAG 2020a). In 2030, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have 1,987,139 employees (SCAG 2020a). Thus, the Project’s estimated 5 employees would constitute 0.01 percent of the employment growth forecasted in the City between 2022 and 2030. Accordingly, the Project’s generation of employees would not conflict with employment generation projections contained in the 2020–2045 RTP/SCS. Refer to Section 3.11, Land Use and Planning, of this Draft EIR, for additional information regarding consistency with the 2020–2045 RTP/SCS.

VMT Reduction Strategies and Policies

The Project is a development within an established residential community at a location served by several local and regional bus lines. Existing transit options serving the Project include Metro’s Line 201 that runs West Silver Lake Drive with multiple stops adjacent to the SLRC and 92 which runs on Glendale Boulevard with multiple stops which are a short walking distance from the Complex and Metro Line 92 which runs on Glendale Boulevard with multiple stops which are a short walking distance from the Project. In addition, as described in Section 2.5.7, Sustainability Design Features, although the Project is not required to provide any bicycle parking spaces per the LAMC, the Project would also provide on-site bicycle parking spaces and improve existing bike lanes along Silver Lake Boulevard, and the proposed Project would provide drop-off space for micro-mobility initiatives such as Metro Micro (see Chapter 2.0, Project Description, for additional details). The Project would provide visitors and employees with the ability to access nearby public transit and opportunities for walking and biking, which would facilitate a reduction in VMT and related vehicular GHG emissions, and would not conflict with the VMT Reduction Strategies and Policies of the 2020–2045 RTP/SCS.

The Project would also not be in conflict with the following key GHG reduction strategies in SCAG’s 2020–2045 RTP/SCS as substantiated below, which are based on changing the region’s land use and travel patterns in the following key areas (SCAG 2020b):

- Compact growth in areas accessible to transit
- Locate jobs in proximity to transit
- Locate job growth focused in Priority Growth Areas
- Biking and walking infrastructure to improve active transportation options and transit access
As discussed previously, the Project is located within an established residential community well served by public transportation. As described under the CARB’s Climate Change Scoping Plan subsection, in Section 3.8.4 above, several transit providers operate service within the immediate vicinity of the Project Site. The 2020–2045 RTP/SCS focuses on orienting job growth in Priority Growth Areas served by high quality transit and into other infill areas where urban infrastructure already exists. The Project supports this by locating recreational uses within an established residential community with an existing street grid and in proximity to existing public transit options and in proximity to off-site uses (i.e., commercial, shopping and entertainment businesses and neighborhood housing uses) would allow people in the neighborhood and community to utilize the nearby Project Site services. In addition, as described in Section 2.5.7, Sustainability Design Features, although the Project is not required to provide any bicycle parking spaces per the LAMC, the Project would also provide on-site bicycle parking spaces and improve existing bike lanes along Silver Lake Boulevard, and the proposed Project would provide drop-off space for micro-mobility initiatives such as Metro Micro (see Chapter 2.0, Project Description, for additional details). The Project would provide visitors, students, and employees with the ability to access nearby public transit and opportunities for walking and biking, which would facilitate a reduction in VMT and related vehicular GHG emissions, which would not conflict with the goals of the 2020–2045 RTP/SCS.

By locating the Project’s proposed recreational land uses within an area that has existing high quality public transit (with access to existing regional bus and rail service) and employment opportunities within walking distance, and by including features that support and encourage pedestrian activity and other non-vehicular transportation and increased transit use in the Silver Lake neighborhood of the Los Angeles area, the Project would reduce vehicle trips and VMT and resulting air pollution and GHG emissions. Therefore, by facilitating a land use pattern that promotes sustainability, the proposed Project would not conflict with VMT objectives of the 2020–2045 RTP/SCS.

A detailed consistency table that contains a list of the 2020–2045 RTP/SCS actions and strategies GHG-reducing strategies applicable is available in Appendix C, Air Quality and Greenhouse Gas Technical Appendix. The consistency table shows that the Project would not conflict with the 2020–2045 RTP/SCS

Increased Use of Alternative Fueled Vehicles Policy Initiative
A goal of the 2020–2045 RTP/SCS, with regard to individual development projects, such as the Project, is to increase alternative fueled vehicles to reduce per capita GHG emissions. The 2020–2045 RTP/SCS policy initiative focuses on providing charge port infrastructure and accelerating fleet conversion to electric or other near zero-emission technologies. Currently, there are 10 parallel parking spaces along this segment of West Silver Lake Drive. By converting to 90-degree parking, a total of approximately 25 parking spaces would be added, resulting in a net increase in parking of 15 spaces at this location. Two of the new parking spaces would be dedicated to electric vehicle (EV) parking. As such, the Project would not conflict with this goal of the 2020–2045 RTP/SCS.
3. Environmental Setting, Impact Analysis, and Mitigation Measures

3.8 Greenhouse Gas Emissions

Energy Efficiency Strategies and Policies

The 2020–2045 RTP/SCS includes strategies for individual developments, such as the Project, to improve energy efficiency (e.g., reducing energy consumption) to reduce GHG emissions. As discussed in Chapter 2.0, Project Description, the Project has been designed and would be constructed to incorporate environmentally sustainable building features and construction protocols required by the Los Angeles Green Building Code and CALGreen Code. These standards would reduce energy and water usage and waste and, thereby, reduce associated greenhouse gas emissions and help minimize the impact on natural resources and infrastructure. The Project would include energy-saving measures. These measures include natural light to be harvested for the main spaces in the gymnasium building using large expanses of glass and skylights; daylighting systems to coordinate the levels of artificial lighting; HVAC systems that would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain; high efficiency, low-e insulated glass units to be used for the gymnasium building envelope; glazing to be protected from direct sunlight with deep overhangs and window screening to mitigate glare, and reduce solar radiation and heat gain; and new and existing tree canopies to be utilized to protect building walls from sun exposure and provide shade for the ground area. These measures were generally accounted for based on compliance with 2019 Title 24 standards.

The Project would include water sustainability features, which would include, but not limited to, the installation of low-flow toilets, low-flow faucets, low-flow showers, and other energy and resource conservation measures. In addition, as described in Section 3.18, Utilities and Service Systems, the Project would include strategies to reduce irrigation water demand through PDF-UTIL-1 and PDF-UTIL-2. Through PDF-UTIL-1, the Project would use a mix of native and drought-tolerant plants appropriate to the Los Angeles region to provide a plant palette adapted to climate change. Lawn would be used sparingly and strategically distributed where needed to support multifunctional cultural and recreational uses. Through PDF-UTIL-2, Irrigation water would be pumped from the reservoirs to the proposed Meadow park zones which would then flow back into the reservoirs. Transition habitat zones would also be irrigated with reservoir water on a separate cycle appropriate for the drought-tolerant, coastal scrub planting palette proposed under the proposed Project. This irrigation strategy would be validated by reservoir water quality testing and soil analysis under proposed operations. Remaining upland habitat, lawn areas, and ornamental gardens would be irrigated via a potable water supply available from the LADWP distribution system which would require a dedicated meter. If recycled water is available in the future, it could be used to irrigate ornamental planting (see Section 3.18, Utilities and Service Systems, for additional details). Therefore, based on the above, the Project would not conflict with energy strategies in the 2020–2045 RTP/SCS.

Land Use Characteristics

In order to assess the Project’s consistency with the 2020–2045 RTP/SCS, this Draft EIR also analyzes the Project’s land use characteristics, such as density and proximity to job centers, for consistency with those utilized by SCAG in its SCS. The Project’s consistency with the applicable land use goals and principles set forth in the 2020–2045 RTP/SCS are discussed in Section 3.11, Land Use and Planning, Table 3.11-1, of this Draft EIR. As concluded on Table
3. Environmental Setting, Impact Analysis, and Mitigation Measures

3.8 Greenhouse Gas Emissions

The Project would not conflict with applicable land use strategies of the 2020–2045 RTP/SCS.

**Conclusion**

As discussed in the above analysis, the Project would not conflict with and would support the goals and benefits of the 2020–2045 RTP/SCS to reduce GHG emissions that are potentially applicable to the Project. As stated above, a detailed consistency table that contains a list of the 2020–2045 RTP/SCS actions and strategies GHG-reducing strategies applicable to the Project and describes that the Project would not conflict with the 2020–2045 RTP/SCS is available in the Air Quality and Greenhouse Gas Technical Appendix for the Project, which is provided in Appendix C of this Draft EIR. Accordingly, the Project is the type of land use development that is encouraged by the 2020–2045 RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the state’s long-term climate policies. By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with state regulatory requirements. Impacts are less than significant.

**City’s Green New Deal**

The City’s Green New Deal includes both short-term and long-term aspirations through the year 2050 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. While not a plan adopted solely to reduce GHG emissions, within the City’s Green New Deal, climate mitigation is one of eight explicit benefits that help define its strategies and goals. Although the Green New Deal mainly targets GHG emissions related to City-owned buildings and operations, certain reductions associated with the Project would promote the Green New Deal’s goals. Such measures include increasing renewable energy usage; reduction of per capita water usage; promotion of walking and biking, promotion of educational and recreational uses close to transit; and various recycling and trash diversion goals. In addition, a detailed consistency table that contains a list of the Green New Deal actions and strategies GHG-reducing strategies applicable to the Project and describes that the Project would not conflict with the Climate Change Scoping Plan is available in the Air Quality and Greenhouse Gas Technical Appendix for the Project, which is provided in Appendix C of this Draft EIR.

Although the City’s Green New Deal is not an adopted plan or directly applicable to private development projects, the Project would not conflict with these aspirations as it is a development consisting of educational and recreational uses on a Project Site in proximity to transit. In addition, the Project would comply with Title 24 Standards and would implement measures to reduce overall energy usage compared to baseline conditions. The Project would 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 the Green New Deal with regard to energy-efficient buildings and waste and landfills. The Project would also
provide bicycle parking and connections to walking and biking paths in furtherance of reducing VMT and decreasing GHG.

With compliance with the City of Los Angeles’ Green New Deal, all new municipally-owned buildings and major building renovation projects will utilize electricity instead of natural gas. Accordingly, natural gas would not be supplied to support proposed Project operation activities related to building energy.

Additionally, as described in Section 3.18, Utilities and Service Systems, the Project would include strategies to reduce irrigation water demand through PDF-UTIL-1 and PDF-UTIL-2. Through PDF-UTIL-1, the Project would use a mix of native and drought-tolerant plants appropriate to the Los Angeles region to provide a plant palette adapted to climate change. Lawn would be used sparingly and strategically distributed where needed to support multifunctional cultural and recreational uses. Through PDF-UTIL-2, Irrigation water would be pumped from the reservoirs to the proposed Meadow park zones which would then flow back into the reservoirs. Transition habitat zones would also be irrigated with reservoir water on a separate cycle appropriate for the drought-tolerant, coastal scrub planting palette proposed under the proposed Project. This irrigation strategy would be validated by reservoir water quality testing and soil analysis under proposed operations. Remaining upland habitat, lawn areas, and ornamental gardens would be irrigated via a potable water supply available from the LADWP distribution system which would require a dedicated meter. If recycled water is available in the future, it could be used to irrigate ornamental planting (see Section 3.18, Utilities and Service Systems, for additional details). Therefore, as the Project’s GHG emissions would be generated in connection with a development located and designed to be consistent with the applicable City plan goals and actions for reducing GHG emissions, the Project would not conflict with these City plans adopted for the purpose of reducing GHG emissions, and the Project’s GHG emissions would result in less-than-significant impacts.

**Los Angeles Green Building Code**

The Project would comply with the California 2019 Title 24 Building Energy Efficiency Standards, as amended by the City. The Project would also meet the mandatory measures of the CALGreen Code as amended by the City by incorporating strategies, such as natural light to be harvested for the main spaces in the gymnasium building using large expanses of glass and skylights; daylighting systems to coordinate the levels of artificial lighting; HVAC systems that would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain; high efficiency, low-e insulated glass units to be used for the gymnasium building envelope; glazing to be protected from direct sunlight with deep overhangs and window screening to mitigate glare, and reduce solar radiation and heat gain; and new and existing tree canopies to be utilized to protect building walls from sun exposure and provide shade for the ground area. The Project would also include the installation of low-flow toilets, low-flow faucets, low-flow showers, and other energy and resource conservation measures.

As described in Section 3.18, Utilities and Service Systems, the Project would include strategies to reduce irrigation water demand through PDF-UTIL-1 and PDF-UTIL-2. Through PDF-UTIL-1, the Project would use a mix of native and drought-tolerant plants appropriate to the Los
Angeles region to provide a plant palette adapted to climate change. Lawn would be used sparingly and strategically distributed where needed to support multifunctional cultural and recreational uses. Through PDF-UTIL-2, Irrigation water would be pumped from the reservoirs to the proposed Meadow park zones which would then flow back into the reservoirs. Transition habitat zones would also be irrigated with reservoir water on a separate cycle appropriate for the drought-tolerant, coastal scrub planting palette proposed under the proposed Project. This irrigation strategy would be validated by reservoir water quality testing and soil analysis under proposed operations. Remaining upland habitat, lawn areas, and ornamental gardens would be irrigated via a potable water supply available from the LADWP distribution system which would require a dedicated meter. If recycled water is available in the future, it could be used to irrigate ornamental planting (see Section 3.18, Utilities and Service Systems, for additional details). Therefore, the Project would not conflict with the Los Angeles Green Building Code.

**Conclusion**

In conclusion, the Project’s consistency with applicable GHG reduction plans and policies demonstrate that the Project does not conflict with regulations and policies and complies with or exceeds the regulations and reduction actions/strategies outlined in the Climate Change Scoping Plan, 2025–2045 RTP/SCS, the City’s Green New Deal, and the Los Angeles Green Building Code. Therefore, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs, and Project-specific impacts with regard to GHG emissions would be less than significant.

**Mitigation Measures:**

None Required

**Significance Determination:**

Less than Significant Impact

**Cumulative Impact**

**Impact 3.8-3:** Would the proposed Project construction and operation, when considered with related projects in the geographic scope, result in a cumulatively impact to greenhouse gas emissions?

Analysis of GHG emissions is cumulative in nature because impacts are caused by cumulative global emissions and additionally, climate change impacts related to GHG emissions do not necessarily occur in the same area as the project is located. Given that the Project would generate GHG emissions that would not conflict with applicable reduction plans and policies, and given that GHG emission impacts are cumulative in nature, the Project’s incremental contribution to cumulatively significant GHG emissions would be less than significant.

Although the Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. The resultant consequences of that climate change can cause adverse environmental effects. A project’s GHG emissions typically would be very small in
comparison to state or global GHG emissions and, consequently, they would, in isolation, have no
significant direct impact on climate change. The state has mandated a goal of reducing statewide
emissions to 40 percent below 1990 levels by 2030, even though statewide population and
commerce are predicted to continue to expand. In order to achieve this goal, CARB is in the
process of establishing and implementing regulations to reduce statewide GHG emissions.
Currently, there are no applicable CARB, SCAQMD, or City of Los Angeles significance
thresholds or specific reduction targets, and no approved policy or guidance to assist in
determining significance at the project or cumulative levels. Additionally, there is currently no
generally accepted methodology to determine whether GHG emissions associated with a specific
project represent new emissions or existing, displaced emissions. Therefore, consistent with
CEQA Guidelines Section 15064h(3),\(^\text{15}\) the City, as lead agency, has determined that the
Project’s contribution to cumulative GHG emissions and global climate change would be less
than significant if the Project would not conflict with the applicable regulatory plans and policies
to reduce GHG emissions: Climate Change Scoping Plan, SCAG’s 2020–2045 RTP/SCS, City’s

Subsection 3.8.2, CARB’s Climate Change Scoping Plan, illustrates that implementation of the
Project’s regulatory requirements and Project Design Features, including state mandates, would
contribute to GHG reductions. These reductions represent a reduction from the Project without
implementation of GHG reduction characteristics, features, and measures scenario and support
state goals for GHG emissions reduction. The methods used to establish this relative reduction are
consistent with the approach used in CARB’s Climate Change Scoping Plan for the
implementation of AB 32.

The Project is consistent with the approach outlined in CARB’s Climate Change 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. In addition, as recommended by CARB’s Climate Change Scoping Plan,
the Project would use “green building” features as a framework for achieving GHG emissions
reductions as new buildings would be designed to comply with the City’s requirements and the
CALGreen Code.

As part of SCAG’s 2020–2045 RTP/SCS, a reduction in VMT within the region is a key
component to achieving the 2035 GHG emission reduction targets established by CARB. As
discussed previously, the Project Site’s land use characteristics demonstrate that the Project’s VMT
would be reduced compared to a standard non-infill project and based on its location efficiency.

\(^\text{15}\) As indicated above, the CEQA Guidelines were amended in response to SB 97. In particular, the CEQA Guidelines
were amended to specify that compliance with a GHG emissions reduction program renders a cumulative impact
insignificant. Per CEQA Guidelines Section 15064h(3), a project’s incremental contribution to a cumulative
impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation
program that provides specific requirements that will avoid or substantially lessen the cumulative problem within
the geographic area of the project. To qualify, such a plan or program 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. 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 plan, [and] plans or regulations for the reduction of greenhouse
gas emissions.”
As discussed in Section 3.3, Air Quality, and in Section 3.11, Land Use and Planning, of this Draft EIR, the Project would not conflict with applicable land use policies of the City of Los Angeles and SCAG pertaining to air quality, including reducing GHG emissions.

The Project also would comply with the City’s Green New Deal, as discussed under Threshold (b) in Subsection 3.8.5, City’s Green New Deal, which emphasizes improving energy conservation and energy efficiency, increasing renewable energy generation, and changing transportation and land use patterns to reduce auto dependence. The Project would also comply with the Los Angeles Green Building Code, which emphasizes improving energy conservation and energy efficiency, and increasing renewable energy generation. The Project’s regulatory requirements and project design features provided above and throughout this Draft EIR would advance these objectives. Furthermore, the related projects would also be anticipated to comply with many of these same emissions reduction goals and objectives (e.g., Los Angeles Green Building Code).

As discussed above, the Project would not conflict with the applicable GHG reduction plans and policies. The comparison of the Project’s emissions to a scenario without GHG reduction features demonstrates the efficacy of the measures contained in these policies. Moreover, while the Project is not directly subject to the Cap-and-Trade Program, that Program would indirectly reduce the Project’s GHG emissions by regulating “covered entities” that affect the Project’s GHG emissions, including energy, mobile, and construction emissions. More importantly, the Cap-and-Trade Program would backstop the GHG reduction plans and policies applicable to the Project in that the Cap-and-Trade Program would be responsible for relatively more emissions reductions if California’s direct regulatory measures reduce GHG emissions less than expected. The Cap-and-Trade Program would ensure that the GHG reduction targets of AB 32 and SB 32 are met.

The 2017 Scoping Plan demonstrates that the state’s existing and proposed regulatory framework would allow the state to reduce its GHG emissions level to 40 percent below 1990 levels by 2030. Even though the 2017 Scoping Plan and supporting documentation do not provide an exact regulatory and technological roadmap to achieve the 2050 goal, they demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the state to meet the 2050 target. Subsequent to the findings of these studies, SB 32 was passed on September 8, 2016, which would require CARB to ensure that statewide GHG are reduced to 40 percent below the 1990 emissions level by 2030. As discussed above, the new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

Thus, based on the above, the Project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment and would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. In the absence of adopted standards and established significance thresholds, and given this consistency, the Project’s impacts would not be cumulatively considerable, and, therefore, the Project’s cumulative GHG emissions impacts would be less than significant.
Mitigation Measures:

None Required

Significance Determination:

Less than Significant Impact

3.8.6 Summary of Impacts

Table 3.8-7 summarizes the impact significance determinations and lists mitigation measures related to greenhouse gas emissions.

<table>
<thead>
<tr>
<th>Impact</th>
<th>Mitigation Measure</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.8-1: Greenhouse Gas Emissions</td>
<td>None Required</td>
<td>LTS</td>
</tr>
<tr>
<td>3.8-2: Applicable Plan, Policy, or Regulation</td>
<td>None Required</td>
<td>LTS</td>
</tr>
<tr>
<td>3.8-3: Cumulative</td>
<td>None Required</td>
<td>LTS</td>
</tr>
</tbody>
</table>

NOTES:
NI = No Impact, no mitigation proposed
LTS = Less than Significant, no mitigation proposed
LTSM = Less than Significant Impact with Mitigation Incorporated
SU = Significant and Unavoidable

3.8.7 References


Bryant, C., 2009. 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.


3. Environmental Setting, Impact Analysis, and Mitigation Measures

3.8 Greenhouse Gas Emissions


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3.8 Greenhouse Gas Emissions


USEPA, 2016. EPA and NHTSA Adopt Standards to Reduce GHG and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond. Available online at: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100P7NL.PDF?Dockey=P100P7NL.PDF, accessed March 6, 2022.


