

## 3.7 Greenhouse Gas Emissions

This section describes the affected environment and regulatory setting for greenhouse gas (GHG) emissions related to the Project Area. In addition, this section describes the potential impacts related to GHG emissions that would result from the implementation of the proposed Project. As noted in the analysis below, impacts associated with GHG emissions during the construction and operation of the proposed Project would be less than significant.

The information in this section is based on the *Air Quality and Greenhouse Gas Impact Assessment* (Ambient Air Quality & Noise Consulting, 2019) prepared for the proposed Project. Air quality and greenhouse gas emissions were generated for an opening year of 2021 (Ambient Air Quality & Noise Consulting, 2019). Due to project delays, it is now anticipated that the park will open in 2024. There is not anticipated to be a substantial difference in projected emissions from 2021 to 2024 and emissions in 2024 may be slightly lower in 2024 due to continual improvement in vehicle and equipment emission standards.

### 3.7.1 Regulatory Setting

A review of the various federal, state, regional, and local government regulatory requirements was conducted to identify regulations that relate to GHG emissions. This section summarizes the various regulatory requirements that are relevant to the proposed Project.

#### 3.7.1.1 Federal

##### *Executive Order 13514*

Executive Order 13514 is focused on reducing GHG emissions internally in federal agency missions, programs, and operations. In addition, the executive order directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

On April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* (U.S. EPA), 549 U.S. 497 (2007), the Supreme Court found that GHGs are air pollutants covered by the Federal Clean Air Act (FCAA) and that the U.S. EPA has the authority to regulate GHG. The Court held that the U.S. EPA Administrator must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision.

On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the FCAA:

- **Endangerment Finding:** The Administrator found that the current and projected concentrations of the six key well-mixed GHGs (carbon dioxide [CO<sub>2</sub>], methane [CH<sub>4</sub>], nitrous oxide [N<sub>2</sub>O], hydrofluorocarbons [HFC], perfluorocarbons [PFC], and sulfur hexafluoride [SF<sub>6</sub>]) in the atmosphere threaten the public health and welfare of current and future generations.

- **Cause or Contribute Finding:** The Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

Although these findings did not themselves impose any requirements on industry or other entities, this action was a prerequisite to finalizing the U.S. EPA's Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles, which was published on September 15, 2009. On May 7, 2010, the final Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards were published in the Federal Register.

U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations. These steps were outlined by President Obama in a Presidential Memorandum on May 21, 2010.

The final combined U.S. EPA and NHTSA standards that make up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO<sub>2</sub> per mile (the equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO<sub>2</sub> level solely through fuel economy improvements). Together, these standards will cut GHG emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). On August 28, 2012, U.S. EPA and NHTSA issued their joint rule to extend this national program of coordinated GHG and fuel economy standards to model years 2017 through 2025 passenger vehicles.

### **3.7.1.2 State**

#### ***Assembly Bill 1493***

Assembly Bill (AB) 1493 (Pavley) of 2002 (Health and Safety Code Sections 42823 and 43018.5) requires the California Air Resources Board (CARB) to develop and adopt the nation's first GHG emission standards for automobiles. These standards are also known as Pavley I. The California Legislature declared in AB 1493 that global warming is a matter of increasing concern for public health and the environment. It cites several risks that California faces from climate change, including a reduction in the State's water supply, an increase in air pollution caused by higher temperatures, harm to agriculture, an increase in wildfires, damage to the coastline, and economic losses caused by higher food, water, energy, and insurance prices. The bill also states that technological solutions to reduce GHG emissions would stimulate California's economy and provide jobs. In 2004, the State of California submitted a request for a waiver from federal clean air regulations, as the State is authorized to do under the FCAA, to allow the State to require reduced tailpipe emissions of CO<sub>2</sub>. In late 2007, the U.S. EPA denied California's waiver request and declined to promulgate adequate federal regulations limiting GHG emissions. In early 2008, the State brought suit against the U.S. EPA related to this denial.

In January 2009, President Obama instructed the U.S. EPA to reconsider the Bush Administration's denial of California's and 13 other states' requests to implement global warming pollution standards for cars

and trucks. In June 2009, the U.S. EPA granted California's waiver request, enabling the State to enforce its GHG emissions standards for new motor vehicles beginning with the current model year.

In 2009, President Obama also announced a national policy aimed at both increasing fuel economy and reducing GHG pollution for all new cars and trucks sold in the United States. The new standards would cover model years 2012 to 2016 and would raise passenger vehicle fuel economy to a fleet average of 35.5 miles per gallon by 2016. California has committed to allowing automakers who show compliance with the national program to also be deemed in compliance with State requirements. California is committed to further strengthening these standards beginning in 2017 to obtain a 45 percent GHG reduction from the 2020 model year vehicles in comparison to the 2009 model year.

### ***Executive Order No. S-3-05***

Executive Order S-3-05 (State of California) proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total GHG emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and State legislature describing (1) progress made toward reaching the emission targets, (2) impacts of global warming on California's resources, and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the secretary of CalEPA created a Climate Action Team made up of members from various state agencies and commissions. The Climate Action Team released its first report in March 2006 and continues to release periodic reports on progress. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through State incentive and regulatory programs.

### ***Assembly Bill 32 – California Global Warming Solutions Act of 2006***

AB 32 (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599) requires that Statewide GHG emissions be reduced to 1990 levels by the year 2020. The gases that are regulated by AB 32 include CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, nitrogen trifluoride (NF<sub>3</sub>), and SF<sub>6</sub>. The reduction to 1990 levels will be accomplished through an enforceable statewide cap on GHG emissions that were phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce Statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap, institute a schedule to meet the emissions cap, and develop tracking, reporting, and enforcement mechanisms to ensure that the State achieves reductions in GHG

emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

### ***Climate Change Scoping Plan***

In October 2008, CARB published its Climate Change Proposed Scoping Plan, which is the State's plan to achieve GHG reductions in California required by AB 32. This initial Scoping Plan contained the main strategies to be implemented in order to achieve the target emission levels identified in AB 32. The Scoping Plan included CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The largest proposed GHG reduction recommendations were associated with improving emissions standards for light-duty vehicles, implementing the Low Carbon Fuel Standard program, incorporating energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems, and developing a renewable portfolio standard for electricity production.

The Scoping Plan states that land use planning and urban growth decisions will play important roles in the State's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. CARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors. With regard to land use planning, the Scoping Plan expects approximately 5.0 million metric tons of carbon dioxide equivalents (MMTCO<sub>2e</sub>) will be achieved associated with implementation of Senate Bill 375, which is discussed further below.

The initial Scoping Plan was first approved by CARB on December 11, 2008, and is updated every five years. The first update of the Scoping Plan was approved by the CARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030-2035) on the road to reaching the 2050 goals. The most recent update released by CARB is the 2017 Climate Change Scoping Plan, which was released in November 2017. The 2017 Climate Change Scoping Plan incorporates strategies for achieving the 2030 GHG-reduction target established in Senate Bill (SB) 32 and Executive Order B-30-15.

### ***California Renewables Portfolio Standards (Senate Bill 1078 and Governor's Order S-14-08)***

SB 1078 (Public Utilities Code Sections 387, 390.1, 399.25 and Article 16) addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide a minimum 20 percent of their supply from renewable sources by 2017. This Senate Bill will affect Statewide GHG emissions associated with electricity generation. In 2008, Governor Schwarzenegger signed Executive Order S-14-08, which set the Renewables Portfolio Standard target to 33 percent by 2020. It directed state government agencies and retail sellers of electricity to take all appropriate actions to implement this target. Executive Order S-14-08 was later superseded by Executive Order S-21-09 on September 15, 2009. Executive Order S-21-09 directed the CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. Statute SB X1-2 superseded this Executive Order in 2011, which obligates all California electricity providers, including investor-owned utilities and publicly owned utilities, to obtain at least 33 percent of their energy from renewable electrical generation facilities by 2020.

CARB is required by current law, AB 32 of 2006, to regulate sources of GHGs to meet a State goal of reducing GHG emissions to 1990 levels by 2020 and an 80 percent reduction of 1990 levels by 2050. The California Energy Commission and California Public Utilities Commission serve in advisory roles to help CARB develop the regulations to administer the 33 percent by 2020 requirement. CARB is also authorized to increase the target and accelerate and expand the time frame.

SB 350 (Chapter 547, Statutes of 2015) further increased the Renewables Portfolio Standard to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. SB 350 was signed into law on October 7, 2015.

### ***Mandatory Reporting of GHG Emissions***

The California Global Warming Solutions Act (AB 32, 2006) requires reporting of GHGs by major sources to the CARB. Major sources required to report GHG emissions include industrial facilities, suppliers of transportation fuels, natural gas, natural gas liquids, liquefied petroleum gas, and carbon dioxide, operators of petroleum and natural gas systems, and electricity retail providers and marketers.

### ***Cap-and-Trade Regulation***

The cap-and-trade regulation is a key element in California's climate plan. It sets a statewide limit on sources responsible for 85 percent of California's GHG emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The cap-and-trade rules came into effect on January 1, 2013, and apply to large electric power plants and large industrial plants. In 2015, fuel distributors, including distributors of heating and transportation fuels, also became subject to cap-and-trade. At that stage, the program was predicted to encompass around 360 businesses throughout California and nearly 85 percent of the State's total GHG emissions.

Under the cap-and-trade regulation, companies must hold enough emission allowances to cover their emissions and are free to buy and sell allowances on the open market. California held its first auction of GHG allowances on November 14, 2012, which was followed by seven jurisdiction-specific quarterly GHG allowance auctions until August 18, 2014. The first joint auction with Québec's Ministry of Sustainable Development, Environment and the Fight against Climate Change was held on November 25, 2014. California's GHG cap-and-trade system is projected to reduce GHG emissions to 1990 levels by the year 2020 and would achieve an approximate 80 percent reduction from 1990 levels by 2050.

### ***Senate Bill 32***

SB 32 was signed by Governor Brown on September 8, 2016. SB 32 effectively extends California's GHG emission-reduction goals from year 2020 to year 2030. This new emission-reduction target of 40 percent below 1990 levels by 2030 is intended to promote further GHG-reductions in support of the State's ultimate goal of reducing GHG emissions by 80 percent below 1990 levels by 2050. SB 32 also directs the CARB to update the Climate Change Scoping Plan to address this interim 2030 emission-reduction target.

### ***Senate Bill 375***

SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will address land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, establishes regional reduction targets for GHGs emitted by passenger cars and light trucks for the years 2020 and 2035. These reduction targets

are scheduled to be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, funding for transportation projects may be withheld.

### ***California Building Code***

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC is adopted every three years by the Building Standards Commission (BSC). In the interim, the BSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide; however, a local jurisdiction may amend a CBC standard if it makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

### **Green Building Standards**

In essence, green buildings standards are indistinguishable from any other building standards. Both standards are contained in the CBC and regulate the construction of new buildings and improvements. The only practical distinction between the two is that whereas the focus of traditional building standards has been protecting public health and safety, the focus of green building standards is to improve environmental performance.

AB 32, which mandates the reduction in GHG emissions in California to 1990 levels by 2020, increased the urgency around the adoption of green building standards. In its scoping plan for the implementation of AB 32, CARB identified energy use as the second largest contributor to California's GHG emissions, constituting roughly 25 percent of all such emissions. In recommending a green building strategy as one element of the scoping plan, CARB estimated that green building standards would reduce GHG emissions by approximately 26 MMTCO<sub>2e</sub> by 2020. The green buildings standards were most recently updated in 2016.

### ***Senate Bill 97***

SB 97 was enacted in 2007. SB 97 required OPR to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of GHG emissions. Those CEQA Guidelines amendments clarified several points, including the following:

- Lead agencies must analyze the GHG emissions of proposed projects and must reach a conclusion regarding the significance of those emissions.
- When a project's GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions.
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change.
- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria.

- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives.

As part of the administrative rulemaking process, the California Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the CEQA Guidelines amendments. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010.

### ***Short-Lived Climate Pollutant Reduction Strategy***

In March 2017, the CARB adopted the Short-Lived Climate Pollutant Reduction Strategy (SLCP Strategy), establishing a path to decrease GHG emissions and displace fossil-based natural gas use. Strategies include avoiding landfill methane emissions by reducing the disposal of organics through edible food recovery, composting, in-vessel digestion, and other processes; and recovering methane from wastewater treatment facilities, and manure methane at dairies, and using the methane as a renewable source of natural gas to fuel vehicles or generate electricity. The SLCP Strategy also identifies steps to reduce natural gas leaks from oil and gas wells, pipelines, valves, and pumps to improve safety, avoid energy losses, and reduce methane emissions associated with natural gas use. The SLCP Strategy identifies measures that can reduce HFC emissions at national and international levels. Lastly, the SLCP identifies State-level actions, including an incentive program to encourage the use of low-Global Warming Potential (GWP) refrigerants and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment (California Air Resources Board, 2017a).

#### **3.7.1.3 Regional**

##### ***Southern California Association of Governments***

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. Under federal law, SCAG is designated as a MPO and under State law as a Regional Transportation Planning Agency and a Council of Governments.

On September 3, 2020, SCAG adopted Connect SoCal: The 2020-2045 RTP/SCS (Southern California Association of Governments, 2020). The RTP is a long-range transportation plan that provides a vision for regional transportation investments over a period of 20 years or more. The SCS is an element of the RTP that demonstrates the integration of land use, transportation strategies, and transportation investments within the Plan. This requirement was put in place by the passage of SB 375, with the goal of ensuring that the SCAG region can meet its regional GHG reduction targets set by the CARB. In comparison to year 2005 levels, the SCS would result in an eight percent reduction in GHG emissions per capita by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040. This meets or exceeds the State's mandated reductions, which are eight percent by 2020 and 13 percent by 2035. SCAG is also responsible under the FCAA for determining federal air quality conformity of projects, plans, and programs within the South Coast Air Quality Management District (SCAQMD).

The 2020-2045 RTP/SCS would also help to reduce vehicle delay and vehicle miles traveled (VMT) within the region. On a per capita basis, vehicle delay would be reduced by roughly 26 percent, and heavy-duty

truck delay on highways 24 percent. VMT per capita would be reduced by five percent and vehicle hours traveled (VHT) would be reduced by approximately nine percent per capita (Southern California Association of Governments, 2020).

### ***South Coast Air Quality Management District***

The SCAQMD is the agency responsible for regulating air pollution in the South Coast Air Basin, which includes the Greater Los Angeles Region. The SCAQMD adopted a “Policy on Global Warming and Stratospheric Ozone Depletion” on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. More recently, in 2008, the Climate Change Policy was approved by the SCAQMD’s Governing Board. The Climate Change Policy directs the agency’s efforts on the reduction of GHG emissions and also established the SCAQMD’s role in emerging GHG-reduction programs. Complementary to the Climate Change Policy, the Governing Board approved a Green Policy in 2009. The Green Policy is intended to help reduce the agency’s carbon footprint from building operations, purchases, and employee work-related activities. The Green Policy also established a “Green Team” to evaluate potential practices, purchases, and other actions that can help to further reduce GHG emissions.

#### **3.7.1.4 Local**

##### ***City of Los Angeles***

###### *Green LA and ClimateLA*

In May 2007, the City published *Green LA: An Action Plan to Lead the Nation in Fighting Global Warming*, which included more than fifty specific climate mitigation actions designed to reduce the City’s contributions to climate change, and to prepare a response to the changes that have already begun to occur (City of Los Angeles, 2007). City departments worked together to respond to the recommendations set forth in the *Green LA* action plan, resulting in *ClimateLA*. *ClimateLA* is an implementation program that provides detailed information about each action item discussed in the *Green LA* framework. While the *ClimateLA* program focuses on mitigation, many of the adaptation measures addressed in *ClimateLA* are considered in this report, such as managing urban heat. Some of the adaptive action items recommended include making Los Angeles a worldwide leader in green buildings, decreasing per-capita water use, and implementing a city-wide climate change education program. Information about proposed and/or ongoing programs, opportunities for achieving the City’s goals, specific challenges, and a list of milestones is provided for each action item. In the near future, the City aims to prioritize adaptation to climate change and include adaptation goals in departmental action plans.

###### *City of Los Angeles Green Building Code*

To achieve goals outlined in *Green LA*, in April 2008, the City adopted the Green Building Program Ordinance to address the impact on climate change from new development, which was amended for consistency with the CalGreen Building Code in 2011. As of January 1, 2011, all new buildings (residential and non-residential) would be subject to the Los Angeles Green Building Code (LAGBC), which is based on the 2013 CalGreen Standards to increase energy efficiency and reduce waste (City of LA Department of Building and Safety, 2017).

### Sustainable City pLAn

In April 2015, Mayor Eric Garcetti introduced the Sustainable City pLAn. An updated annual report, titled L.A.'s Green New Deal, was released in 2019 (Office of the Los Angeles Mayor, 2019). The plan consists of 47 targets with milestones and initiatives for a cleaner environment and a stronger economy. These target categories include renewable energy, local water, clean and healthy buildings, housing and development, mobility and public transit, zero emission vehicles, industrial emissions and air quality monitoring, waste and resource recovery, food systems, urban ecosystems and resilience, environmental justice, prosperity, and green jobs, and lead by example.

## 3.7.2 Environmental Setting

To fully understand global climate change, it is important to recognize the naturally occurring “greenhouse effect” and to define the GHGs that contribute to this phenomenon. Various gases in the earth’s atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth’s surface temperature. Solar radiation enters the earth’s atmosphere from space and a portion of the radiation is absorbed by the earth’s surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

GWP was developed to compare global warming impacts associated with various gases. GWP is the measure of the total energy that one ton of gas absorbs over a particular period of time (usually 100 years), compared to one ton of CO<sub>2</sub> (U.S. Environmental Protection Agency, 2017). Primary GHGs attributed to global climate change, are discussed, as follows:

- **Carbon Dioxide:** CO<sub>2</sub> is a colorless, odorless gas. CO<sub>2</sub> is emitted in a number of ways, both naturally and through human activities. The largest source of CO<sub>2</sub> emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO<sub>2</sub> emissions. The atmospheric lifetime of CO<sub>2</sub> is variable because it is so readily exchanged in the atmosphere (U.S. Environmental Protection Agency, 2019).
- **Methane:** CH<sub>4</sub> is a colorless, odorless gas that is not flammable under most circumstances. CH<sub>4</sub> is the major component of natural gas, about 87 percent by volume. It is also formed and released into the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (enteric fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of methane into the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources

such as wildfires. Methane's atmospheric lifetime is about 12 years (U.S. Environmental Protection Agency, 2019).

- **Nitrous Oxide:**  $N_2O$  is a clear, colorless gas with a slightly sweet odor.  $N_2O$  is produced by both natural and human-related sources. Primary human-related sources of  $N_2O$  are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production.  $N_2O$  is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of  $N_2O$  is approximately 114 years (U.S. Environmental Protection Agency, 2019).
- **Hydrofluorocarbons:** HFCs are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 270 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes of less than 15 years (e.g., HFC-134a, which is used in automobile air conditioning and refrigeration, has an atmospheric life of 14 years) (U.S. Environmental Protection Agency, 2019).
- **Perfluorocarbons:** PFCs are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoro methane ( $CF_4$ ), perfluoro ethane ( $C_2F_6$ ), perfluoro propane ( $C_3F_8$ ), perfluoro butane ( $C_4F_{10}$ ), perfluorocyclobutane ( $C_4F_8$ ), perfluoro pentane ( $C_5F_{12}$ ), and perfluoro hexane ( $C_6F_{14}$ ). Natural geological emissions have been responsible for the PFCs that have accumulated in the atmosphere in the past; however, the largest current source is aluminum production, which releases  $CF_4$  and  $C_2F_6$  as byproducts. The estimated atmospheric lifetimes for PFCs range from 2,500 to 50,000 years (U.S. Environmental Protection Agency, 2019).
- **Nitrogen Trifluoride:**  $NF_3$  is an inorganic, colorless, odorless, toxic, nonflammable gas used as an etchant in microelectronics. Nitrogen trifluoride is predominantly employed in the cleaning of the plasma-enhanced chemical vapor deposition chambers in the production of liquid crystal displays and silicon-based thin film solar cells. It has a GWP of 16,100 carbon dioxide equivalents ( $CO_2e$ ). While  $NF_3$  may have a lower GWP than other chemical etchants, it is still a potent GHG. In 2009,  $NF_3$  was listed by California as a high GWP GHG to be listed and regulated under AB 32 (Section 38505 Health and Safety Code).
- **Sulfur Hexafluoride:**  $SF_6$  is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable.  $SF_6$  is primarily used as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80 percent of all  $SF_6$  produced worldwide. Leaks of  $SF_6$  occur from aging equipment and during equipment maintenance and servicing.  $SF_6$  has an atmospheric life of 3,200 years (U.S. Environmental Protection Agency, 2019).
- **Black Carbon:** Black carbon is the strongest light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Black carbon contributes to climate change both directly by absorbing sunlight and indirectly by depositing on snow and by interacting with clouds and affecting cloud formation. Black carbon is considered a short-lived species, which can vary spatially and, consequently, it is very difficult to quantify associated global-warming

potentials. The main sources of black carbon in California are wildfires, off-road vehicles (locomotives, marine vessels, tractors, excavators, dozers, etc.), on-road vehicles (cars, trucks, and buses), fireplaces, agricultural waste burning, and prescribed burning (planned burns of forest or wildlands) (Climate & Clean Air Coalition, n.d.; U.S. Environmental Protection Agency, 2019).

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Often, estimates of GHG emissions are presented in CO<sub>2</sub>e, which weight each gas by its GWP. Expressing GHG emissions in CO<sub>2</sub>e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO<sub>2</sub> were being emitted. **Table 3.7-1** provides a summary of the GWP for GHG emissions of typical concern with regard to community development projects, based on a 100-year time horizon. As indicated, CH<sub>4</sub> traps over 25 times more heat per molecule than CO<sub>2</sub>, and N<sub>2</sub>O absorbs roughly 298 times more heat per molecule than CO<sub>2</sub>. Additional GHG with high GWP include NF<sub>3</sub>, SF<sub>6</sub>, PFCs, and black carbon.

**Table 3.7-1: Global Warming Potential for Greenhouse Gases**

Greenhouse Gas	Global Warming Potential (100-Year)
Carbon Dioxide (CO <sub>2</sub> )	1
Methane (CH <sub>4</sub> )	28-36
Nitrous Oxide (N <sub>2</sub> O)	265-298

*Source: (U.S. Environmental Protection Agency, 2017)*

### 3.7.2.1 Sources of GHG Emissions

On a global scale, GHG emissions are predominantly associated with activities related to energy production; changes in land use, such as deforestation and land clearing; industrial sources; agricultural activities; transportation; waste and wastewater generation; and commercial and residential land uses. Worldwide, energy production including the burning of coal, natural gas, and oil for electricity and heat is the largest single source of global GHG emissions (U.S. Environmental Protection Agency, 2019).

In 2016, GHG emissions within California totaled 429 million metric tons (MMT) of CO<sub>2</sub>e. GHG emissions, by sector, are summarized in **Figure 3.7-1**, California GHG Emissions Inventory by Scoping Plan Sector. Within California, the transportation sector is the largest contributor, accounting for approximately 39 percent of the total statewide GHG emissions. Emissions associated with industrial uses are the second largest contributor, totaling roughly 21 percent. Electricity generation totaled roughly 16 percent (California Air Resources Board, 2018b).

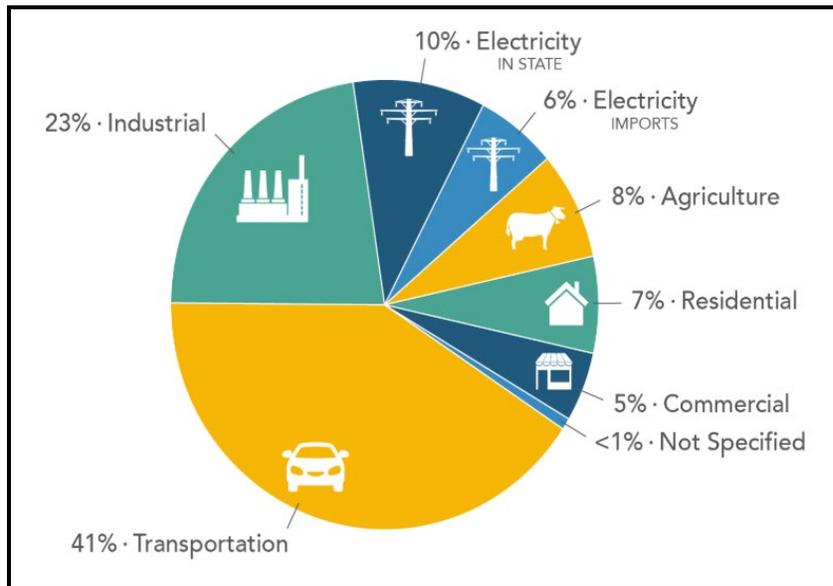
#### **Short-Lived Climate Pollutants**

Short-lived climate pollutants (SLCPs), such as black carbon, fluorinated gases, and methane also have a dramatic effect on climate change. Though short lived, these pollutants create a warming influence on the climate that is many times more potent than that of carbon dioxide.

As part of the CARB's efforts to address SLCPs, the CARB has developed a statewide emission inventory for black carbon. The black carbon inventory will help support implementation of the SLCP Strategy, but it is not part of the State's GHG Inventory that tracks progress towards the State's climate targets. The

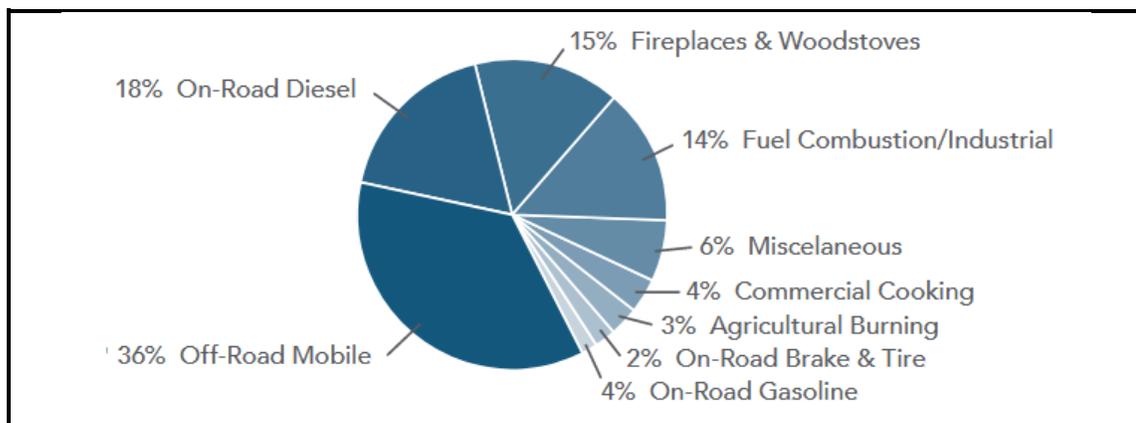
most recent inventory for year 2013 conditions is depicted in **Figure 3.7-2**, California Black Carbon Emissions Inventory (Year 2013). Off-road mobile sources account for a majority of black carbon emissions, totaling roughly 36 percent of the inventory. Other major anthropogenic sources of black carbon include on-road transportation, residential wood burning, fuel combustion, and industrial processes (Climate & Clean Air Coalition, n.d.).

**Figure 3.7-1: California GHG Emissions Inventory by Scoping Plan Sector**



Source: (California Air Resources Board, 2018a)

**Figure 3.7-2: California Black Carbon Emissions Inventory (Year 2013)**



Source: (California Air Resources Board, 2017a)

### 3.7.2.2 Effects of Global Climate Change

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on

agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, increased air pollution episodes, and the consequence of these effects on the economy.

Within California, climate changes would likely alter the ecological characteristics of many ecosystems throughout the State. Such alterations would likely include increases in surface temperatures and changes in the form, timing, and intensity of precipitation. For instance, historical records are depicting an increasing trend toward earlier snowmelt in the Sierra Nevada. This snow pack is a principal supply of water for the State, providing roughly 50 percent of the State's annual runoff. If this trend continues, some areas of the State may experience an increased danger of floods during the winter months and possible exhaustion of the snowpack during spring and summer months. An earlier snowmelt would also impact the State's energy resources. Currently, approximately 13.53 percent of California's electricity comes from hydropower (California Energy Commission, 2019). An early exhaustion of the Sierra snowpack may force electricity producers to switch to more costly or non-renewable forms of electricity generation during spring and summer months. A changing climate may also impact agricultural crop yields, coastal structures, and biodiversity. Therefore, climate change will likely have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry (Planning and Conservation League, n.d.).

### **3.7.3 Environmental Impact Analysis**

#### **3.7.3.1 Methodology**

##### ***Construction***

Short-term emissions associated with construction activities largely depend on the type of development proposed, the amount of material to be imported and exported, equipment required, and construction schedules. Construction emissions of GHGs were calculated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2 computer program. Modeling was conducted for the proposed Project based on estimated material to be imported and exported, off-road equipment usage, and construction schedules provided by the Project engineers. Other construction modeling assumptions, including mobile-source emission factors and usage rates, were based on default parameters contained in the model for Los Angeles County. In accordance with SCAQMD recommendations, construction-generated GHG emissions were amortized over an assumed 30-year Project life for Year 2021 and year 2030 conditions. Emissions modeling assumptions and output files are provided in the *Air Quality and Greenhouse Gas Impact Assessment* prepared for the proposed Project (Ambient Air Quality & Noise Consulting, 2019).

##### ***Operation***

Long-term operational emissions of GHGs were also calculated using the CalEEMod, version 2016.3.2, computer program for Year 2021 and year 2030 conditions. Modeling was conducted based on the estimated building square footage to be constructed and vehicle trip-generation rates identified in the *Traffic Impact Analysis* prepared for the proposed Project (Kimley-Horn and Associates, Inc., 2019). The quantification of Project-generated GHG emissions takes into account compliance with current building standards, such as the use of low-flow water fixtures and water-efficient irrigation systems. Proposed

Project and site enhancements that would contribute to reductions in mobile-source emissions were also accounted for in the analysis, based on methodologies contained in California Air Pollution Control Officers Association's (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures and the default emission reductions identified in CalEEMod. These measures included reductions associated with providing increased diversity (LUT-3), transit accessibility within 0.5 mile of the Project Site (LUT-5), and improvements to the existing pedestrian network (SDT-1).

GHG emissions associated with the existing industrial uses that were removed were also quantified, based on the trip-generation rates identified in the traffic analysis prepared for this project and default energy usage, water usage, and waste-generation rates identified in CalEEMod. Project-generated GHG emissions were compared to estimated emissions associated with the removed industrial uses for determination of net changes in GHGs. The analysis does not account for potential emissions from onsite area or stationary sources that may have been associated with operation of the existing industrial uses. As a result, net changes in operational GHG emissions are conservatively estimated.

For comparison purposes, Project-generated emissions were also quantified for business-as-usual (BAU) conditions. The BAU scenario does not account for measures that would reduce Project-related energy or water use, per current building code requirements, or site enhancements that would contribute to reductions in mobile-source emissions. The BAU scenario includes GHG-reductions expected to be in force by 2020, including reductions associated with implementation of Pavley I vehicle standards, low-carbon fuel standards, and the State's Renewables Portfolio Standards.

### **3.7.3.2 Screening Analysis**

Several impacts and corresponding thresholds of significance in the following section were eliminated from further analysis in this EIR. Topics were eliminated if the IS for the proposed Project concluded there would be "No Impact," or if impacts were identified to be "Less Than Significant... and will not be discussed further in the EIR." Therefore, only the topics described in the section below were determined to require further analysis in this EIR. A copy of the Initial Study, which contains the eliminated topics, is provided in **Appendix A**.

### **3.7.3.3 Thresholds of Significance**

According to Appendix G of the CEQA Guidelines and the *L.A. CEQA Thresholds Guide*, the proposed Project would have a significant impact on GHG emissions if it would:

**VIII(a)** Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

**VIII(b)** Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The City of Los Angeles has not formally adopted quantitative significance thresholds for determination of whether or not a project would have a significant impact on the environment or conflict with an applicable GHG-reduction plan, policy, or regulation. However, various other entities have identified recommended GHG-significance thresholds, as discussed below:

### ***State of California***

By enacting SB 97, California's lawmakers expressly recognized the need to analyze GHG emissions as a part of the CEQA process. SB 97 required OPR to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of GHG emissions. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010. These amendments, however, do not establish a threshold of significance for the assessment of GHG impacts. 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 (i.e., CAPCOA and SCAQMD), so long as any threshold chosen is supported by substantial evidence. The California Natural Resources Agency has also clarified that the amendments recognized the cumulative effects of GHG emissions as they relate to climate change and that GHG impacts should be analyzed in the context of CEQA's requirements for the assessment of cumulative impacts.

### ***California Air Pollution Control Officers Association (CAPCOA)***

In its January 2008 "CEQA and Climate Change" white paper, CAPCOA identified a number of potential approaches for determining the significance of GHG emissions in CEQA documents. In its white paper, CAPCOA suggests making significance determinations "on a case-by-case basis in the context of the project at the time it comes forward" when no significance thresholds have been formally adopted by a lead agency. The CAPCOA white paper suggested a bright-line threshold of 900 MTCO<sub>2e</sub>/year. As proposed, projects generating emissions exceeding this threshold would be considered to have a potentially significant impact. This threshold reflects the amount of emissions that ninety percent of development projects surveyed in four cities within California would generate, which included the cities of Los Angeles, Pleasanton, Dublin, and Livermore.

### ***South Coast Air Quality Management District (SCAQMD)***

At present time, the SCAQMD has not adopted a quantitative project-level GHG significance threshold for land use development projects (e.g., residential/commercial projects) subject to CEQA review. However, the SCAQMD did form a *GHG Significance Threshold Working Group* for the purpose of evaluating potential GHG significance thresholds. In October 2008, SCAQMD released a draft guidance document regarding interim CEQA GHG significance thresholds. Within this document, the SCAQMD proposed interim CEQA GHG indicators of significance using a tiered approach. Accordingly, under Tier 1, projects that would be considered exempt from CEQA would also be considered to have a less-than-significant GHG impact. Under Tier 2, projects that would be consistent with an adopted GHG-reduction plan would be considered to have a less-than-significant GHG impact. Under Tier 3, all non-industrial land use projects that would emit 3,000 MTCO<sub>2e</sub> per year, or less, would be considered to have a less-than-significant GHG impact. Under Tier 4, projects that achieve an identified GHG-percent reduction below BAU conditions would also be considered to have a less-than-significant GHG impact. This recommended Tier 4 standard was subsequently amended in November 2009 and September 2010 to include a recommended service population metric for commercial/residential projects that emit greater than 3,000 MTCO<sub>2e</sub> per year. Projects that would not exceed these thresholds would be considered to have a less-than-significant impact on the environment and would not conflict with GHG-reduction planning efforts.

For land use development projects, the SCAQMD has not adopted any of the above-discussed GHG significance thresholds recommended by the *GHG Significance Threshold Working Group*. The *GHG*

*Significance Threshold Working Group* has been inactive since 2011. However, in December 2008, the SCAQMD Governing Board adopted an interim GHG significance threshold of 10,000 MTCO<sub>2e</sub> for stationary source/industrial projects where the SCAQMD is the lead agency. This threshold, however, does not apply to the proposed Project given that the project would not include the installation of permitted stationary sources.

### 3.7.3.4 Construction Impacts

#### VIII(a): Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Short-term annual GHG emissions for the proposed Project are summarized in **Table 3.7-2**. Based on the modeling conducted, the highest annual GHG emissions associated with construction of the proposed Project would total approximately 1,022 MTCO<sub>2e</sub>. In total, construction activities over the 30-month period would generate approximately 1,386 MTCO<sub>2e</sub>. A small amount of GHG emissions from waste would also be generated during construction; however, this amount is speculative. Construction emissions, when amortized over the life of the proposed Project, defined as 30 years, would average approximately 46 MTCO<sub>2e</sub> per year. Amortized construction-generated GHG emissions were included in the operational GHG emissions inventory for evaluation of Project-generated GHG emissions in comparison to GHG significance thresholds (see Section 3.7.3.4).

**Table 3.7-2: Short-Term Construction-Generated GHG Emissions**

Year	Total GHG Emissions (MTCO <sub>2e</sub> )
Construction Year 1	1,022
Construction Year 2	172
Construction Year 3	192
Total:	1,386
Amortized Emissions:	46

*Based on CalEEMod computer modeling. Amortized emissions assume an average project life of 30 years. Refer to the Air Quality and Greenhouse Gas Impact Assessment prepared for the proposed Project for modeling results and assumptions. Source: (Ambient Air Quality & Noise Consulting, 2019)*

Construction of the proposed Project includes various measures that would reduce short-term emissions from off-road equipment. Such measures include the use of off-road equipment meeting Tier 4 emission standards, idling limitations, and the use of newer, more efficient on-road haul trucks. Implementation of these measures would significantly reduce emissions of black carbon associated with short-term construction activities. For instance, with the use of Tier 4 off-road equipment, construction-generated emissions of black carbon diesel exhaust would be reduced by upwards of approximately 80 percent, compared to statewide fleet averages. With incorporation of measures to reduce short-term emissions from off-road equipment, impacts would be less than significant.

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

Applicable plans for the reduction of GHGs include the *2017 Climate Change Scoping Plan, 2016-2040 RTP/SCS*, the *Green LA* action plan, and the *Sustainable City pLAN*, which are discussed in Section 3.7.1 (California Air Resources Board, 2017b; Southern California Association of Governments, 2016; City of Los Angeles, 2007; Office of the Los Angeles Mayor, 2019). As discussed under **GHG-1** above, construction of the proposed Project includes various BMPs that would reduce short-term emissions from off-road equipment. Therefore, impacts would be less than significant.

**3.7.3.5 Operational Impacts****VIII(a): Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.**

The proposed Project is an infill development within an existing urbanized area and located within 0.5 mile of existing transit services. The proposed Project would provide increased localized access to recreational uses and improved pedestrian and bicycle connectivity. The proposed Project would incorporate water-saving landscape irrigation features, energy-efficient lighting, and use of low-flow water fixtures per current California building code requirements.

Estimated long-term operational GHG emissions are summarized in **Table 3.7-3**. Based on the modeling conducted, operational GHG emissions would total approximately 497 MTCO<sub>2</sub>e/year during the initial year of operation (Year 2021) and 466 MTCO<sub>2</sub>e/year in year 2030. During the initial year of proposed Project operations, a majority of the GHG emissions emitted, roughly 73 percent, would be associated with motor vehicle use. Electricity and water use would constitute approximately 14 and 10 percent, respectively. The remaining approximately three percent of GHG emissions would be associated with natural gas use and waste generation (see **Figure 3.7-3**, Annual Operational GHG Emissions Source Contribution [Year 2021]). By year 2030, the electricity and water use would constitute roughly 11 and 8 percent of the proposed Project's GHG emissions inventory and motor vehicle use would constitute roughly 78 percent of total GHG emissions (see **Figure 3.7-4**, Annual Operational GHG Emissions Source Contribution [Year 2030]).

In comparison to BAU conditions (without GHG-reduction measures), the proposed Project would result in GHG reductions of approximately 8.6 percent. A majority of the GHG reductions would be associated with anticipated reductions in onsite electricity consumption and projected reductions in vehicle emission standards.

Development of the proposed Project would be required to comply with current 2016 building standards. For non-residential projects, these newer building standards are approximately 5 percent more efficient than the 2013 building standards and roughly 35 percent more efficient than the 2010 standards. In comparison to BAU conditions, mobile-source emissions would be reduced by approximately 8 percent.

In comparison to the emissions generated by the proposed Project, the industrial land uses that were removed would have generated substantially higher GHG emissions totaling approximately 2,411 MTCO<sub>2</sub>e in Year 2021 and approximately 1,945 MTCO<sub>2</sub>e in year 2030. Taking into account these removed GHG emissions and with the inclusion of amortized construction-generated GHG emissions, the proposed Project would result in overall net reductions of approximately -1,868 MTCO<sub>2</sub>e in Year 2021 and -1,432

MTCO<sub>2e</sub> in 2030. The proposed Project would not generate GHG emissions that would result in a net increase in GHG emissions; therefore, impacts would be less than significant.

**Table 3.7-3: Summary of Annual Operational GHG Emissions**

Land Use/Event (Capacity)	Emissions (MTCO <sub>2e</sub> ) <sup>1</sup>	
	Year 2021	Year 2030
Special Events (1,000) <sup>2</sup>	44	44
Special Events (2,000) <sup>2</sup>	96	96
Special Events (3,250) <sup>2</sup>	7	7
Special Events (5,000) <sup>2</sup>	6	6
Soccer Fields	156	151
Park Uses & Buildings	188	163
Total:	497	466
Business-As-Usual (BAU) <sup>4</sup> :	544	510
Reduction Compared to BAU:	-47 (-8.6%)	-44 (-9.4%)
Total with Amortized Construction Emissions <sup>3</sup> :	543	512
Less Industrial Uses Removed <sup>5</sup> :	-2,411	-1,945
Net Change Compared to Industrial Uses Removed:	-1,868 (-78%)	-1,432 (-74%)

1. Totals may not sum due to rounding. Emissions were quantified using the CalEEMod computer program based on trip-generation rates derived from the Traffic Impact Analysis (Kimley-Horn and Associates, Inc., 2019) prepared for the proposed Project. Refer to the Air Quality and Greenhouse Gas Impact Assessment prepared for the proposed Project (Ambient Air Quality & Noise Consulting, 2019) for emissions modeling assumptions and results. Project emissions include compliance with current building standards, including use of low-flow water fixtures, use of water-efficient irrigation systems, and improved neighborhood connectivity.

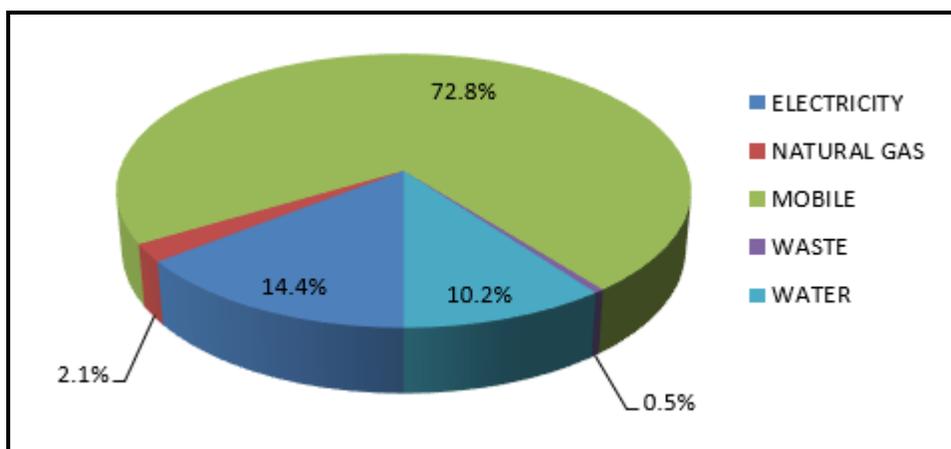
2. Assumes 24 days/year for events with a capacity of 1,000 attendees, 26 days/year for events with a capacity of 2,000 attendees, 2 days/year for events with a capacity of 3,250 attendees, and 1 day/year for events with a capacity of 5,000 attendees.

3. Construction-generated emissions were amortized over an estimated 30-year project life.

4. Business-as-usual excludes compliance with current building standards, including use of low-flow water fixtures, use of water-efficient irrigation systems, and improved neighborhood connectivity.

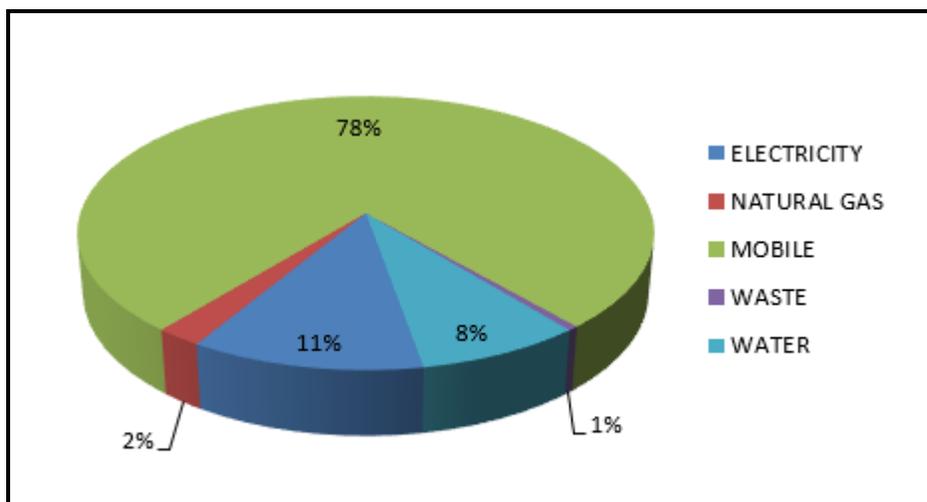
5. Existing industrial uses assumes 223,900 square feet of industrial uses. Vehicle trip-generation rates were derived from the Traffic Impact Analysis prepared for the proposed Project. Excludes stationary-source and off-road equipment emissions.

**Figure 3.7-3: Annual Operational GHG Emissions Source Contribution (Year 2021)**



Source: Ambient Air Quality & Noise Consulting, 2019

**Figure 3.7-4: Annual Operational GHG Emissions Source Contribution (Year 2030)**



Source: Ambient Air Quality & Noise Consulting, 2019

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

Applicable plans for the reduction of GHGs include the *2017 Climate Change Scoping Plan, 2016-2040 RTP/SCS*, the *Green LA* action plan, and the *Sustainable City pLAN*, which are discussed in Section 3.7.1 (California Air Resources Board, 2017b; Southern California Association of Governments, 2016; City of Los Angeles, 2007; Office of the Los Angeles Mayor, 2019). The proposed Project is an infill development project that would provide increased connectivity between existing land uses, including increased pedestrian and biking infrastructure that would improve active transportation options and transit access within the area. Improvements in active transportation options within the area and increased access to local recreational uses would help to reduce overall GHG emissions associated with motor vehicle use. It is estimated that these improvements would reduce mobile-source GHG emissions by a minimum of approximately 8 percent, when compared to conditions without active transportation options.

The proposed Project would also be designed to reduce emissions associated with energy use, water use, and waste generation per current building code requirements. Such measures would include the use of low-flow water fixtures, water-efficient irrigation systems, and high-efficiency lighting, which would reduce related GHG emissions by approximately 15 percent, compared to BAU conditions.

Furthermore, the proposed Project would result in an overall net reduction of long-term operational GHG emissions in comparison to the existing industrial uses that were removed. In comparison to the existing industrial uses that were removed, the proposed Project would result in an overall net GHG reduction of roughly 78 percent in Year 2021 and 74 percent in year 2030 (see **Table 3.7-3**). The proposed Project would also help to reduce urban heat island effect (i.e., built up areas that have higher temperatures compared to nearby rural areas).

Proposed Project features, including improvements to active transportation options; design features that reduce energy use, water use, and waste generation; and the conversion of industrial uses to open space uses, would contribute to reductions in GHG emissions. Therefore, the proposed Project would be consistent with and would not conflict with applicable GHG-reduction plans.

### **3.7.4 Best Management Practices**

#### **BMP-GHG-1: Off-Road Equipment Construction Requirements**

Idling shall be limited for vehicles and off-road equipment. Off-road equipment shall meet Tier 4 emission standards and newer. Efficient on-road haul trucks shall be used, where practicable.

### **3.7.5 Mitigation Measures**

Impacts related to GHG emissions would be less than significant; therefore, mitigation measures are not required.

### **3.7.6 Significant Unavoidable Adverse Impacts**

There are no significant unavoidable adverse impacts on GHG emissions resulting from implementation of the proposed Project.

### **3.7.7 Cumulative Impacts**

GHG emissions from a single project would be relatively small in comparison to State or global GHG emissions. A single project would not generate enough GHG emissions to result in climate change; rather, the accumulation of GHG in the atmosphere resulting from many projects may result in global climate change, which can cause significant environmental effects. Therefore, impacts related to GHG emissions are exclusively cumulative.

The analysis in Sections 3.7.3.4 and 3.7.3.5 take cumulative conditions and effects into account. As discussed in Sections 3.7.3.4 and 3.7.3.5, construction of the proposed Project would not generate GHG emissions that would significantly impact the environment and operation of the proposed Project is anticipated to reduce GHG emissions when compared to the existing industrial land use. In addition, the proposed Project would not conflict with GHG emissions reductions plans and policies. Therefore, the proposed Project would not result in cumulative impacts related to GHG emissions.