Section 4.8

Greenhouse Gas Emissions and Climate Change

4.8.1 Overview

This section describes the current state of climate change science, summarizes greenhouse gas (GHG) emission sources in California, and identifies applicable regulations. This is followed by a discussion of project-generated GHG emissions, the potential contribution of project-generated GHG emissions to global climate change, a qualitative analysis of the project's consistency with plans to reduce GHG emissions, and mitigation for significant impacts where feasible. Supporting GHG calculations are presented in Appendix C.

4.8.2 Existing Conditions

GHG emissions become well mixed within the atmosphere and are transported over long distances. Consequently, unlike other resource areas that are concerned primarily with localized project impacts (e.g., within 1,000 feet of the project site), the global nature of climate change requires a broader analytic approach. Although this section focuses on GHG emissions generated at the project site as a result of construction and operation, the analysis considers potential regional and global GHG impacts.

4.8.2.1 Global Climate Change

The process known as the ~~"~~greenhouse effect~~"~~ keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking ~~the earth~~Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thereby enhancing the ~~"~~greenhouse effect~~"~~ and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution (IPCC 2007). Rising atmospheric concentrations of GHGs, in excess of natural levels, have resulted in increasing global surface temperatures—a process commonly referred to as global warming. Higher global surface temperatures have, in turn, resulted in changes to Earth's climate system, including increases in ocean temperature and acidity, reduced sea ice, variable precipitation, and increases in the frequency and intensity of extreme weather events (IPCC 2018). Large-scale changes to ~~the earth's~~Earth's system are collectively referred to as climate change.

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1 degree Celsius (°C) above pre-industrial levels in 2017

and is increasing at a rate of 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise to 3°C by 2100 and continue afterward (IPCC 2018). Large increases in global temperatures could have substantial adverse effects on the natural and human environments in California and worldwide.

4.8.2.2 Principal Greenhouse Gases

The principle anthropogenic (human-made) GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride, hydrofluorocarbons (HFCs), and perfluorocarbons. The primary GHGs that would be emitted by project-related construction and operations include CO_2, CH_4, and N_2O. The principal characteristics of these pollutants are discussed below.

Carbon dioxide enters the atmosphere through the combustion of fossil fuel (i.e., oil, natural gas, coal), solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., from manufacturing cement). CO_2 is also removed from the atmosphere, or sequestered, when it is absorbed by plants as part of the biological carbon cycle.

Methane is emitted during the production and transport of coal, natural gas, and oil. CH_4 emissions also result from livestock and agricultural practices as well as the anaerobic decay of organic waste in municipal solid waste landfills.

Nitrous oxide is emitted by agricultural and industrial activities as well as the combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method for comparing GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO2e), which compares the gas in question to that of the same mass of CO_2. By definition, CO_2 has a GWP of 1.

Table 4.8-1 lists the global warming potential of CO_2, CH_4, and N_2O and their lifetimes in the atmosphere.

Table 4.8-1. Lifetimes and Global Warming Potentials of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime (years)
Carbon Dioxide (CO_2)	1	--[1]
Methane (CH_4)	25	12
Nitrous Oxide (N_2O)	298	114

Source: CARB 2020a.

[1] No lifetime (years) for carbon dioxide was presented by the California Air Resources Board.

The California Air Resources Board (CARB) recognizes the importance of reducing emissions of short-lived climate pollutants (SLCPs), as described in Section 4.8.3, *Applicable Laws and Regulations*, to achieve the ~~s~~State's overall climate change goals. SLCPs have atmospheric lifetimes on the order of a few days to a few decades, and their relative climate-forcing impacts, when measured in terms of how they heat the atmosphere, can be tens, hundreds, or even thousands of

times greater than that of CO_2 (CARB 2017a). Given their short-term lifespan and warming impact, SLCPs are measured in terms of CO_2e using a 20-year time period. The use of GWPs with a time horizon of 20 years captures the importance of the SLCPs and gives a better perspective as to the speed at which emission controls will affect the atmosphere relative to CO_2 emission controls. The Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy), as discussed Section 4.8.3, addresses CH_4, HFC gases, and anthropogenic black carbon. CH_4 has lifetime of 12 years and a 20-year GWP of 72. HFC gases have lifetimes of 1.4 to 52 years and a 20-year GWP of 437 to 6,350. Anthropogenic black carbon has a lifetime of a few days to weeks and a 20-year GWP of 3,200. The project's emission sources are not major contributors of HFC and black carbon; therefore, they are not discussed herein.

4.8.2.3 Greenhouse Gas Inventories

International, National, Statewide, and Regional GHG Emissions

A GHG inventory is a quantification of all GHG emissions and sinks[1] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources. Table 4.8-2 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential project-related emissions.

Table 4.8-2. Global, National, State, and Regional Greenhouse Gas Emission Inventories

Emissions Inventory	CO_2e (metric tons)
2017 IPCC Global Inventory	53,500,000,000
2019 EPA National Inventory	6,558,000,000
2018 CARB State Inventory	425,300,000
2012 San Diego Regional Inventory	35,000,000

Sources: United Nations 2018; EPA 2021; CARB 2020; SANDAG 2015
EPA = U.S. Environmental Protection Agency

4.8.2.4 Impacts of Global Climate Change

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea-level rise, both globally and in San Diego County, as well as changes in climate and rainfall, among other effects, there remains uncertainty about characterizing precise local climate characteristics and predicting precisely how various ecological and social systems will react to changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change has occurred and will continue to occur in the future, although the precise extent will take further research to define. Specifically, the effects from global climate change in California and worldwide include the following:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates, with a corresponding increase in atmospheric water vapor due to the

[1] A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

atmosphere's ability to hold more water vapor at higher temperatures (California Natural Resources Agency 2019).

- Rising average global sea levels, due primarily to thermal expansion in the oceans and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets (IPCC 2018).
- Changing weather patterns, including changes in precipitation and wind patterns, and more energetic episodes of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and intense tropical cyclones (IPCC 2018).
- Declining Sierra Nevada snowpack levels, which account for approximately half of the surface water storage in California. Snow levels could decline by 70 to as much as 90% over the next 100 years (California Natural Resources Agency 2019).
- Increases in the number of days that could be conducive to ground-level ozone formation (e.g., clear days with intense sunlight) by the end of the twenty-first century in areas with high levels of ozone. The number of days could increase by 25 to 85%, depending on the future temperature scenario.
- Increases in the potential for erosion of California's coastlines as well as seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level.
- The severity of drought conditions in California could be exacerbated (e.g., durations and intensities could be amplified, ultimately increasing the risk of wildfires and consequential damage).
- Under changing climate conditions, agricultural operations are forecast to experience lower crop yields due to extreme heat waves, heat stress, increased water needs of crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats.

The impacts of climate change, such as increases in the number of heat-related events, droughts, and wildfires, pose direct and indirect risks to public health, with people experiencing worsening episodes of illness and an earlier death. Indirect impacts on public health include increases in incidents of vector-borne diseases, stress, and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement.

4.8.3 Applicable Laws and Regulations

4.8.3.1 Federal

There is currently no federal overarching law specifically related to climate change or reductions in GHG emissions. Under the Obama administration, the U.S. Environmental Protection Agency (EPA) had been developing regulations under the Clean Air Act (CAA). There have also been settlement agreements between EPA, several states, and nongovernmental organizations to address GHG emissions from electric generating plants and refineries. In addition, EPA issued an Endangerment Finding and a Cause or Contribute Finding. EPA also adopted a Mandatory Reporting Rule and Clean Power Plan. Under the Clean Power Plan, EPA issued regulations to control CO_2 emissions from new and existing coal-fired power plants. However, on February 9, 2016, the Supreme Court issued a stay regarding these regulations pending litigation. In addition, former EPA Administrator Scott Pruitt

signed a measure to repeal the Clean Power Plan. The fate of the proposed regulations is uncertain given the change in federal administrations and the pending deliberations in federal courts.

Corporate Average Fuel Economy Standards

The National Highway Traffic Safety Administration's (NHTSA's) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in GHG emissions generated by passenger cars and light-duty trucks sold in the United States. On August 2, 2018, NHTSA and EPA proposed amendments to the current fuel efficiency standards for passenger cars and light-duty trucks and new standards for model years 2021 through 2026. Under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, current 2020 standards would be maintained through 2026. On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables EPA/NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards by (1) clarifying that federal law preempts state and local tailpipe GHG standards, (2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and (3) withdrawing California's CAA preemption waiver to set state-specific standards.

EPA and NHTSA published their decision to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the D.C. Circuit (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others is stayed pending resolution of the petition.

EPA and NTHSA published final rules to amend and establish national CO_2 and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 to 40.4 miles per gallon in future years. California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020.[2]

On January 20, 2021, President Biden issued an Executive Order (EO) directing the EPA and NHTSA to review the SAFE Vehicles Rule and propose a new rule suspending, revising, or rescinding it. On April 22, 2021, NTHSA issued a notice of proposed rulemaking to repeal the SAFE Vehicles Rule (49 Code of Federal Regulations Parts 531 and 533).

4.8.3.2 State

California has taken proactive steps, briefly described in this section, to address the issues associated with GHG emissions and climate change. Much of this establishes a broad framework for the ~~s~~State's long-term GHG and energy reduction goals and climate change adaptation program. The former and current governors of California have also issued several EOs related to the ~~s~~State's

[2] *California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia.

evolving climate change policy. Summaries of key policies, EOs, regulations, and legislation at the ~~s~~State level that are relevant to the project are provided below in chronological order.

Assembly Bill 1493

Assembly Bill (AB) 1493 (2002) (Pavley I) requires CARB to develop and implement regulations to reduce automobile and light-duty truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light-duty trucks for model years 2009 to 2016. Additional strengthening of the Pavley standards (referred to previously as Pavley II, and now referred to as the Advanced Clean Cars measure) was adopted for vehicle model years 2017–2025 in 2012. Together, the two standards are expected to increase average fuel economy to roughly 54.5 miles per gallon in 2025.

Executive Order S-3-05

On June 1, 2005, Governor Arnold Schwarzenegger signed California EO S-3-05. The goal of this EO was to reduce California's GHG emissions to (1) 2000 levels by 2010, (2) 1990 levels by 2020, and (3) 80% below the 1990 levels by 2050. EO S-3-05 also calls for the California Environmental Protection Agency to prepare biennial science reports on the potential impact of continued global warming on certain sectors of the California economy. As a result of the scientific analysis presented in these biennial reports, a comprehensive Climate Adaptation Strategy was released in December 2009 following extensive interagency coordination and stakeholder input. The latest of these reports, *Climate Action Team Biennial Report*, was published in December 2010.

Assembly Bill 32

One goal of EO S-03-05 was further reinforced by AB 32 (Chapter 488, Statutes of 2006), the Global Warming Solutions Act of 2006, which requires the ~~s~~State to reduce GHG emissions to 1990 levels by 2020. Since AB 32 was adopted, CARB, the California Energy Commission (CEC), the California Public Utilities Commission (CPUC), and the California Building Standards Commission have been developing regulations that will help meet the goals of AB 32. Under AB 32, CARB is required to prepare a Scoping Plan and update it every 5 years. The Scoping Plan was approved in 2008, the first update was approved in 2014, and an additional update was approved in 2017 (see discussion of Senate Bill [SB] 32 below). The Scoping Plan identifies specific measures to reduce GHG emissions to 1990 levels by 2020 and requires CARB and other ~~s~~State agencies to develop and enforce regulations and other initiatives for reducing GHGs. Specifically, the AB 32 Scoping Plan articulates a key role for local governments, recommending they establish GHG reduction goals for both their municipal operations and the community consistent with those of the ~~s~~State.

Low Carbon Fuel Standard

With EO S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard (LCFS) for California in 2007. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10% by 2020. In September 2018, the LCFS regulation was amended to increase the statewide goal to a 20% reduction in carbon intensity of California's transportation fuels by 2030.

Senate Bill 375

SB 375, signed into law by Governor Schwarzenegger on September 30, 2008, became effective January 1, 2009. This law requires the ~~s~~State's 18 Metropolitan Planning Organizations (MPOs) to develop the sustainable communities strategies (SCS) as part of their regional transportation plans (RTPs) through integrated land use and transportation planning, and to demonstrate an ability to attain the GHG emissions reduction targets that the CARB established for the region by 2020 and 2035. This would be accomplished through either the financially constrained SCS as part of the RTP or an unconstrained alternative planning strategy. If regions develop integrated land use, housing, and transportation plans that meet the SB 375 targets, new projects in these regions can be relieved of certain CEQA review requirements.

Senate Bills 1078, 107, and 2

SBs 1078 (2002), 107 (2006), and 2 (2011), California's Renewables Portfolio Standard (RPS), obligates investor-owned utilities, energy service providers, and Community Choice Aggregators to procure additional retail sales per year from eligible renewable sources with the long-range target of procuring 33% of retail sales from renewable resources by 2020. CPUC and CEC are jointly responsible for implementing the program.

Cap-and-Trade

CARB adopted the "cap-and-trade" program in October 2011. The California "cap-and-trade" program is a market-based system with an overall emissions limit for affected emission sources. Affected sources include in-state electricity generators, hydrogen production, petroleum refining, and other large-scale manufacturers and fuel suppliers and distributors. The original "cap-and-trade" program set a compliance schedule through 2020. AB 398 extends the program through 2030 and requires CARB to make refinements, including establishing a price ceiling. Revenue generated from the "cap-and-trade" program is used to fund various programs. AB 398 established post-2020 funding priorities, to include (1) air toxics and criteria pollutants, (2) low and zero carbon transportation, (3) sustainable agricultural practices, (4) healthy forests and urban greening, (5) SLCPs, (6) climate adaptation and resiliency, and (7) climate and clean energy research.

Short-Lived Climate Pollutant Reduction Strategy

SB 1383, adopted in 2013, requires CARB to develop and implement a SLCP Reduction Strategy with the following 2030 goals: 40% reduction in methane, 40% reduction in HFC gases, and 50% reduction in anthropogenic black carbon below 2013 levels. Per its directive, CARB adopted the SLCP Reduction Strategy, establishing a path to decrease SLCPs from various sectors of the economy. Strategies span from wastewater and landfill practices and methane recovery to reducing natural gas leaks and consumption. The SLCP Reduction Strategy also identifies measures that can reduce HFC emissions through incentive programs and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment.

Senate Bill 743

Governor Jerry Brown signed SB 743 on September 27, 2013, which mandated a change in the way that public agencies evaluate transportation impacts of projects under CEQA, focusing on vehicle miles traveled (VMT), rather than level of service and other delay-based metrics. SB 743 states that

new methodologies under CEQA are needed for evaluating transportation impacts that are better able to reduce GHG emissions and traffic-related air pollution, promoting the development of a multimodal transportation system, and providing clean, efficient access to destinations. It further intended to balance the need for level of service standards with the ~~s~~State's need to build infill housing and mixed-use commercial developments within walking distance of mass transit facilities and downtowns or town centers. SB 743 allowed for measurements of transportation impacts that could include VMT, VMT per capita, automobile trip generation rates, or automobile trips generated. Accordingly, SB 743 required the Governor's Office of Planning and Research (OPR) to amend the ~~State~~ CEQA Guidelines to reflect these changes. In support of these changes, OPR published its Technical Advisory on Evaluating Transportation Impacts in CEQA, which recommends that the determination of the transportation impact of a project be based on whether project-related VMT per capita (or VMT per employee) would be 15% lower than that of existing development in the region (OPR 2018a). OPR's technical advisory explains that this criterion is consistent with Section 21099 of the California Public Resources Code, which states that the criteria for determining significance must "promote the reduction of greenhouse gas emissions" (OPR 2018a).

The ~~State~~ CEQA Guidelines required all jurisdictions in California to use VMT-based thresholds of significance. SB 743 is discussed in greater detail in Section 4.17, *Transportation and Circulation*.

Assembly Bill 1826

In October 2014, Governor Brown signed AB 1826 Chesbro (Chapter 727, Statutes of 2014), requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the ~~s~~State implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units (although multifamily dwellings are not required to have a food waste diversion program). Organic waste (also referred to as organics throughout this resource) means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. As of September 2020, businesses that generate 2 cubic yards or more of commercial solid waste per week must arrange for organic waste recycling services. Although not directly applicable, the project would provide adequate waste and recycling receptacles throughout the project site.

Executive Order B-30-15

Governor Jerry Brown signed EO B-30-15 on April 29, 2015. EO B-30-15 established a medium-term goal for 2030 of reducing GHG emissions by 40% below 1990 levels and requires the CARB to update its current AB 32 Scoping Plan to identify measures to meet the 2030 target. EO B-30-15 supports EO S-3-05 but is only binding on ~~s~~State agencies.

Senate Bill 32 and Assembly Bill 197

SB 32 (2016) requires CARB to ensure that statewide GHG emissions are reduced to at least 40% below the 1990 level by 2030, consistent with the target set forth in EO B-30-15. The companion bill to SB 32, AB 197, creates requirements to form a Joint Legislative Committee on Climate Change Policies, requires CARB to prioritize direct emission reductions and consider social costs when adopting regulations to reduce GHG emissions beyond the 2020 statewide limit, requires CARB to prepare reports on sources of GHGs and other pollutants, establishes 6-year terms for voting

members of CARB, and adds two legislators as non-voting members of CARB. Both bills were signed by Governor Brown in September 2016.

CARB approved the *2017 Climate Change Scoping Plan* in December 2017, which serves to meet the GHG reduction requirements set for in SB 32 and builds on the programs set in place as part of the previous Scoping Plan that was drafted to meet the 2020 reduction targets per AB 32. The 2017 Scoping Plan proposes meeting the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight, continued investment in renewables, greater use of low-carbon fuels, including electricity and hydrogen, stronger efforts to reduce emissions of SLCPs (e.g., CH_4, black carbon, fluorinated gases), further efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car, continuing the cap-and-trade program, and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target.

The 2017 Scoping Plan recommends that local governments aim to achieve community-wide efficiency of 6 metric tons of carbon dioxide-equivalent ($MTCO_2e$) per capita by 2030 and 2 $MTCO_2e$ per capita by 2050 to be used in local climate action planning. These efficiency targets would replace the "15% from 2008 levels by 2020" approach recommended in the initial Scoping Plan, which would allow for local governments to grow in a sustainable manner.

The 2017 Scoping Plan also emphasizes the importance of reducing VMT by on-road vehicles in the ~~s~~State, with recommendations for 15% reduction in total light-duty VMT from the business-as-usual scenario in 2050. In January 2019, CARB published more specific guidance about VMT in its document titled *2017 Scoping Plan–Identified VMT Reductions and Relationship to the State Climate Goals* (CARB 2019). Recognizing VMT as a proxy for mobile-source GHG emissions, this document includes information about the level of statewide VMT reduction that would promote achievement of statewide GHG emissions reduction targets. CARB found that to be consistent with the transportation assumptions embedded in the 2017 Scoping Plan and with 2050 ~~s~~State climate goals, VMT per capita would need to be approximately 14.3% lower than existing conditions, and light-duty VMT per capita would need to be approximately 16.8% lower than existing conditions.

Senate Bill 350 and Senate Bill 100

SB 350 (The Clean Energy and Pollution Reduction Act) was signed into law in October 2015. SB 350 requires CARB (in coordination with the CPUC and CEC) to coordinate and implement the following overarching goals:

- Increase the RPS to 50% of retail sales by 2030 and ensure grid reliability.
- Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.
- Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in their integrated resource plans (IRPs) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly-owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs. The IRPs will detail how each large utility will meet their customers resource needs, minimize price increases, reduce emissions, and ramp up the deployment of clean energy resources.

In September 2018, SB 100 was signed into law, which implements the following goals:

- Increase the RPS to 50% of retail sales by 2026 (moved up by four years from SB 350).
- Increase the RPS to 60% of retail sales by 2030 (new 2030 target).
- Increase the RPS to 100% of retail sales by 2045 (carbon-free goal for 2045).

SB 100 is a legislative action that was signed into law after the 2017 Scoping Plan was adopted. The Scoping Plan modeling is based on the SB 350 target of 50% renewables by 2030. However, the new SB 100 target of 60% renewables by 2030 and 100% renewables by 2045 supersede the goals of SB 350 and will be included in future Scoping Plan updates.

Executive Order B-55-18

EO B-55-18 was approved by the California legislature and signed by Governor Brown in September 2018. EO B-55-18 acknowledges the environmental, community, and public health risks posed by future climate change. It further recognizes the climate stabilization goal adopted by 194 states and the European Union under the Paris Agreement. Although the United States was not party to the agreement, California is committed to meeting the Paris Agreement goals and going beyond them wherever possible. Based on the worldwide scientific agreement that carbon neutrality must be achieved by midcentury, EO B-55-18 establishes a new ~~s~~State goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. The EO charges the CARB with developing a framework for implementing and tracking progress towards these goals. This EO extends EO S-3-05, but is only binding on ~~s~~State agencies. However, given this directive, it is likely that the carbon neutral goal by 2045 will make its way into future updates to the Scoping Plan, which must be updated every 5 years.

Green Building Code and Title 24 Updates

The Green Building Standards Code (CALGreen) applies to the planning, design, operation, construction, use, and occupancy of newly constructed buildings and requires the installation of energy- and water-efficient indoor infrastructure for all new projects after January 1, 2011. CALGreen also requires newly constructed buildings to develop a waste management plan and divert at least 50% of the construction materials generated during project construction.

Administrative regulations related to CALGreen Part 11 and the 2016 Building Energy Efficiency Standards were adopted in 2016 (effective January 1, 2017). The 2016 standards resulted in residential construction that was 25% more efficient than previous residential construction. Part 11 also established voluntary standards, which became mandatory in the 2010 edition of the code, including planning and designing for sustainable site development, energy efficiency, water conservation, material conservation, and reductions in internal air contaminants. The standards offer builders better windows, insulation, lighting, ventilation systems, and other features to reduce energy consumption in homes and businesses.

On May 9, 2018, CEC adopted the 2019 Building Energy Efficiency Standards, which took effect on January 1, 2020. The 2019 standards mandate higher efficiency levels and rooftop solar photovoltaic (PV) systems for all new residential buildings constructed in 2020 and beyond. Under the 2019 standards, single-family homes would use approximately 7% less energy than those built under 2016 standards. With incorporation of rooftop solar electricity generation, residential homes could use approximately 53% less energy than homes built under the 2016 standards. Non-residential

buildings will be 30% more energy efficient because the standards will update indoor and outdoor lighting to make maximum use of light-emitting diode (LED) technology. Future CALGreen standards are expected to include a requirement of zero net energy for newly constructed commercial buildings.

Assembly Bill 1279

The California Climate Crisis Act of 2022 (Assembly Bill 1279), adopted by the Governor on September 16, 2022, declares the State's policy to achieve net zero GHG emissions as soon as possible, but no later than 2045. It also aims to achieve and maintain net negative GHG emissions beyond 2045. By 2045, the bill requires statewide anthropogenic GHG emissions to be reduced to at least 85% below the 1990 levels. The bill mandates that CARB collaborates with relevant State agencies to update the plan, identifying measures to achieve these policy goals. The plan should also incorporate various policies and strategies to enable CO_2 removal solutions and the utilization and storage of carbon capture technologies within California. Additionally, CARB is required to submit an annual report outlining its progress.

4.8.3.3 Regional

San Diego Air Pollution Control District

The AB 32 Scoping Plan does not provide an explicit role for local air districts in implementing AB 32, but it does state that CARB will work actively with air districts in coordinating emissions reporting, encouraging, and coordinating GHG reductions, and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting as well as through their role as a CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents. As discussed in Section 4.3, *Air Quality and Health Risk*, the San Diego Air Pollution Control District (SDAPCD) is responsible for air quality planning in San Diego County. To date, SDAPCD has not developed specific thresholds of significance with regard to addressing the GHG emissions in CEQA documents.

San Diego Association of Governments

SANDAG San Diego Forward: The Regional Plan

SANDAG is the San Diego region's primary public planning, transportation, and research agency. SANDAG provides the public forum for regional policy decisions about growth and planning. In 2015, SANDAG adopted *San Diego Forward: The Regional Plan*, which includes an implementation program for growth within the San Diego region through 2050. The Regional Plan is built on an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system. Furthermore, the Regional Plan, including its SCS, commits to reducing emissions from transportation sources to comply with SB 375, improving public health, and meeting the National Ambient Air Quality Standards. The SCS included in the Regional Plan envisions reducing GHG emissions through strategies such as focusing on housing and job growth in urbanized areas where there is existing and planned transportation infrastructure; employing smart growth land use policies; investing in a transportation network; addressing the housing needs of all

economic segments or the population; and implementing the Regional Plan through incentives and collaboration (SANDAG 2015).

4.8.3.4 Local

County of San Diego Climate Action Plan

The County adopted the 2018 County of San Diego Climate Action Plan (CAP) on February 14, 2018. The CAP outlined strategies and measures to reduce the County's contribution to GHG emissions and to meet the ~~s~~State's 2020 and 2030 emissions targets, as well as ensure progress towards the 2050 reduction goal. The CAP identifies 11 strategies and 26 measures plus numerous supporting efforts to reduce GHG emissions in the largely rural, unincorporated ~~San Diego County~~area as well as within County ~~government~~ operations (County of San Diego 2021a). These strategies and measures would focus on energy efficiency, developing renewable sources of energy, improving waste recycling, and improving access to sustainable transportation. Measures relevant to the proposed County-sponsored project include the following:

- Measure T-2.3: Reduce County Employee Vehicle Miles Traveled.
- Measure T-3.2: Use Alternative Fuels in County Projects.
- Measure T-3.4: Reduce the County's Fleet Emissions.
- Measure E-1.4: Reduce Energy Use Intensity at County Facilities.
- Measure E-2.4: Increase Use of On-Site Renewable Electricity Generation for County Operations.
- Measure W-1.3: Reduce Potable Water Consumption at County Facilities.
- Measure A-2.2: Increase County Tree Planting.

On September 30, 2020, the County ~~of San Diego~~ Board of Supervisors voted to set aside the approval of the CAP because the courts found a portion of its Supplemental EIR to be out of compliance with CEQA. The County is currently preparing a CAP Update to revise the 2018 CAP and associated EIR in response to the court's direction. In accordance with the ~~State~~ CEQA Guidelines, consistency with the 2018 CAP cannot be relied upon for determination of project-related GHG emissions impact significance until it is reapproved in compliance with CEQA.

Although the court ruling struck down part of the 2018 CAP EIR, the court did not find fault with its 26 GHG reduction measures. Therefore, while the 2018 CAP may not be used for project impact significance determination, the relevant GHG reduction measures of the 2018 CAP may be used to mitigate project-specific GHG impacts (County of San Diego 2021a).

Further discussion on plans, policies, and regulations appropriate for determining significance of GHG emissions impacts related to implementation of the project is provided in Section 4.8.4.2, *Thresholds of Significance*, below.

4.8.4 Project Impact Analysis

4.8.4.1 Methodology

GHG emissions associated with construction and operation of the project were assessed and quantified (where applicable) using industry standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions and emission calculations can be found in Appendix C. The methodology used to estimate GHG emissions discussed below is the same that was used to estimate air quality emissions, as described in Section 4.3.

Construction

Construction of the project would generate GHG emissions from off-road equipment exhaust and employee vehicles and haul trucks traveling to and from the project site. Emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. The estimates relied on a combination of CalEEMod default data values as well as information based on similar types of projects provided by ~~the~~ County DPR staff. Construction is expected to begin in the ~~fall~~spring of ~~2022 and last approximately 16 months~~2024. Construction GHG emissions are summed and amortized over the expected life of the project (assumed to be 30 years), consistent with industry standards and the life of the project.

- **Off-Road Equipment:** Emissions associated with diesel-powered construction equipment were estimated based on emission factor~~s~~, horsepower, and load factors from CalEEMod (version 2016.3.2), with activity data (hours per days, days of use) confirmed by County DPR staff.
- **On-Road Vehicles:** On-road vehicles (e.g., delivery trucks, haul trucks, and passenger vehicles) would be required for material deliveries to the project site, material hauling from the project site, onsite material movement, and employee commuting. Exhaust emissions from on-road vehicles were estimated in CalEEMod using daily activity data including the number of trips per day. Emission factors for haul trucks are based on aggregated-speed emission rates for ~~EMFAC's~~EMission FACtor's (EMFAC) heavy-heavy duty truck (HHDT) vehicle category. Emission factors for water and vendor trucks are based on aggregated-speed emission rates for EMFAC's HHDT and medium heavy-duty trucks (MHDT) vehicle categories with a fleet mix consisting of 50% MHDT and 50% HHDT. Emission factors for employee commute vehicles are based on a weighted average of the aggregated-speed emission rates for EMFAC's light-duty automobile/light-duty truck vehicle categories (LDA, LDT1, and LDT2~~).~~.)[3] The employee commute vehicles consisted of a fleet mix of 50% LDA, 25% LDT1, and 25% LDT2.

  Based on the project's grading plans, it was estimated that a majority of soil would be balanced on site and soil export trucks would not be required. However, a variety of fill materials for trails and walkways would be imported by haul trucks. Fill material to be imported would require approximately 1,700 trucks trips during the construction period assuming approximately 13,400 cubic yards of import using 16-cubic-yard trucks.

[3] LDA = Passenger Cars, LDT1 = light-duty trucks with equivalent weight test of less than or equal to 3,750 pounds, LDT2 = Light-duty trucks with equivalent weight test of 3,751 to 5,750 pounds.

Operations

Operation of the project would generate GHG emissions from mobile, area, energy, water, and solid waste sources. CalEEMod was used to estimate GHG emissions from each of these sources, and a discussion of each is provided below. The following analysis was developed assuming the buildout year for the project ~~is assumed to~~would be 2024 based on a fall 2022 construction start date and a 16-month construction period. Retaining the construction schedule and fall 2024 buildout year results in a conservative analysis as GHG emissions in later years would be lower. A detailed description of model input and output parameters and assumptions is provided in Appendix C.

- **Mobile:** GHG emissions from motor vehicles are associated with park visitors. Mobile emissions were estimated using CalEEMod and daily trips provided in the Transportation Impact Study (TIS) prepared for the project (Chen Ryan 2020). The TIS estimated the project would generate 480 daily trips.
- **Area:** Area source emissions were estimated using CalEEMod and are associated with combustion of fuel from landscaping equipment. CalEEMod uses a default value of 180 days per year of landscaping activities.
- **Energy:** Energy source emissions are associated with the consumption of electricity from the project's buildings and lighting. The project would not consume natural gas. Electricity consumption from buildings was estimated in CalEEMod using a Health Club land use as a surrogate for the project's building square footage because the City Park land use does not have energy consumption factors associated with it. The electricity provider for the project area is San Diego Gas and Electric (SDG&E). Based on the SDG&E's power mix for 2019, the CO_2e intensity of SDG&E-provided electricity was 590.8 pounds per megawatt-hour (MWh) (SDG&E 2020). Based on ~~California's renewable portfolio standards~~RPS requirements, SDG&E would be required to have renewable energy sources account for 60% of its power mix in 2030. Using linear interpolation, the 2030 CO_2e intensity would be 344 pounds per MWh. As the project would have a buildout year of 2024, the 2024 intensity factor was assumed to be 478.6 pounds per MWh based on interpolating the 2019 and 2030 values.
- **Water:** GHG emissions from water and wastewater are due to the required energy to supply, distribute, and treat them. Wastewater also results in emissions of GHGs from wastewater treatment systems. Emissions are calculated using CalEEMod and are based on the water usage rate for the land uses, 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 emission factors for the wastewater treatment process.
- **Solid Waste:** GHG emissions from solid waste disposal are also calculated using CalEEMod. The GHG emission factors, particularly for CH_4, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery) are statewide averages and were used in the analysis.

4.8.4.2 Thresholds of Significance

The ~~State~~ CEQA Guidelines, Appendix G (14 California Code of Regulations 15000 et seq.), identify sample criteria for determining the significance of project-related GHG emissions. A project impact

would be considered potentially significant if construction or operation of the project would cause either of the following:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Section 15064.4(b) of the ~~State~~ CEQA Guidelines further states that when assessing the significance of impacts from project-related GHG emissions, a lead agency should consider:

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. Such requirements must be "CEQA-qualified"—i.e., adopted by the relevant public agency through a public review process, and the lead agency must include substantial evidence linking statewide goals, strategies, and plans to the project's findings.

The extent to which a project increases or decreases GHG emissions in the existing environmental setting should be estimated in accordance with Section 15064.4, *Determining the Significance of Impacts from Greenhouse Gas Emissions*, of the ~~State~~ CEQA Guidelines. The ~~State~~ CEQA Guidelines indicate that when calculating GHG emissions resulting from a project, lead agencies shall make a good-faith effort based on scientific and factual data (Section 15064.4 (a)), and lead agencies have discretion to select the model or methodology deemed most appropriate for enabling decision makers to intelligently assess the project's incremental contribution to climate change (Section 15064.4 (c)).

The ~~State~~ CEQA Guidelines do not indicate an amount of GHG emissions that constitutes a significant impact on the environment. Instead, they authorize the lead agency to consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (~~State~~ CEQA Guidelines Sections 15064.4(a) and 15064.7(c)). Several agencies throughout the ~~s~~State have drafted and/or adopted numerical threshold approaches and guidelines for analyzing the significance of project-related GHG emissions. However, no numerical thresholds have been formally adopted by an air district or lead agency for use in the San Diego region.

In the absence of an adopted numerical threshold for the project region, the significance of the project-related GHG emissions can be determined by evaluating the project's compliance with regulations or requirements adopted to implement statewide, regional, or local plans for the reduction or mitigation of GHG emissions. The ~~s~~State's 2030 target (reduce GHG emissions to 40% below 1990 levels by 2030) has been codified in law through SB 32 and the 2017 Scoping Plan (CARB 2017b). Therefore, 2030 marks the next statutory statewide milestone target applicable to the project.

The County's 2018 CAP quantified baseline and projected future GHG emissions from activities within the ~~county~~unincorporated area (where the project is located) and proposed County-specific

measures and strategies to reduce GHG emissions in accordance with the 2030 statewide GHG reduction target adopted in SB 32. However, as previously discussed under Section 4.8.3.4, *Local,* given the County ~~of San Diego~~ Board of Supervisors' vote to rescind the 2018 CAP, it is no longer a "CEQA-qualified" document as defined by Sections 15183.5(b) and 15064.4 of the ~~State~~ CEQA Guidelines and cannot be used to determine significance of project-related GHG emission impacts.

In this case, significance of impacts related to project-generated GHG emissions can be determined through an assessment of compliance with statewide regulations and requirements adopted to implement GHG reduction plans that align with the SB 32 2030 target, such as CARB's 2017 Scoping Plan. The specific threshold approach used to assess the significance of the project's GHG emission impacts is informed by the guidance summarized here and is discussed in further detail in the following section.

Threshold Approach

The project would generate GHG emissions from construction and operations activities. Construction would generate GHG emissions from use of off-road equipment and employee and truck vehicle trips between 2022 and 2024. Operations would generate GHG emissions from mobile vehicle trips to and from the project site, electricity consumption, water and wastewater conveyance, solid waste, and landscaping equipment. Given that the County, CARB, and SDAPCD have not established a numerical threshold of significance for GHG emissions relevant to park uses within the ~~county~~unincorporated area, the approach for evaluating the project's impacts related to GHG emissions relies on compliance with statewide plans adopted for the purpose of reducing and/or mitigating GHG emissions. The compliance evaluation is the sole basis for determining the significance of the project's GHG-related impacts on the environment.

GHG emissions resulting from construction and operation of the project were estimated in accordance with Section 15064.4 of the ~~State~~ CEQA Guidelines. The severity of potential impacts from project-related GHG emissions was assessed based on the total increase above the existing environmental setting. The GHG emissions associated with implementation of the project were estimated using industry standard and accepted software tools, techniques, and emissions factors, as described under Section 4.8.4.1, *Methodology,* above. Estimation of emissions is for informational purposes only, for comparison with existing environmental conditions. The significance of the project's GHG impacts is not based on the quantitative amount of GHG emissions from implementation, and instead is based on the project's compliance with statewide GHG reduction regulations and requirements, which is assessed qualitatively.

Recent guidance on GHG-reduction strategies for operational GHG emissions have been provided at the ~~s~~State level through the 2017 Scoping Plan, OPR, and CARB. The 2017 Scoping Plan outlines the framework and strategies the ~~s~~State will take to achieve the 2030 emission-reduction targets established by SB 32. The 2017 Scoping Plan update proposes to meet the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight, continued investment in renewables, greater use of low-carbon fuels including electricity and hydrogen, stronger efforts to reduce emissions of SLCPs, further efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car, continuing the "Cap-and-Trade" program, and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target (CARB 2017b). Furthermore, OPR guidance specifies that a "land use development project that produces low VMT, achieves applicable building energy-efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where

available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation" (OPR 2018b).

As discussed in Section 4.8.3.2, *State*, CARB's 2017 Scoping Plan emphasizes the importance of reducing VMT by on-road vehicles to lower mobile-source GHG emissions in pursuit of achieving statewide reduction targets. The 2017 Scoping Plan recommends a 15% reduction in total light-duty VMT from the business-as-usual scenario in 2050, and updated CARB guidance found that projects with total VMT per capita that is 14.3% lower than existing conditions would be consistent with the ~~s~~State's long-term GHG reduction goals (CARB 2019). At the local level, VMT guidance specific to the ~~County~~unincorporated area is provided in the *County of San Diego Transportation Study Guidelines* (County TSG) (County of San Diego ~~2020~~ 2022). The County TSG was adopted to assist with significance determinations for transportation impacts in accordance with SB 743, which established VMT as the most appropriate metric for transportation impacts to align local environmental review under CEQA with California's long-term GHG reduction goals.

If the project is compliant with or exceeds the regulations outlined in the 2017 Scoping Plan and adopted by CARB or other ~~s~~State agencies, the project could appropriately rely on their use as showing compliance with performance-based standards adopted to fulfill the statewide goal for reducing GHG emissions. The project's compliance with regulatory programs adopted by CARB and other ~~s~~State agencies is therefore used to evaluate the significance of the project's GHG emissions.

4.8.4.3 Project Impacts and Mitigation Measures

Threshold 1: The project would ~~not~~ generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

County Park and Trails and Open Space~~/Preserve~~

Impact Discussion

The GHG emissions generated by construction and operation of the project were estimated for informational purposes to provide context for the potential change in GHG emissions compared to existing conditions. As discussed in Chapter 2, *Environmental Setting*, the project site is currently undeveloped and, although it is closed to the public, it is ~~being~~ used as unofficial recreational open space.

Construction

Construction of the project would result in temporary generation of GHG emissions related to off-road equipment use and on-road vehicle operations. As mentioned previously, GHG emissions are measured exclusively as cumulative impacts; therefore, the project's construction emissions are considered part of the total GHG emissions for the project lifecycle, which also include GHG emissions during operations. The project's construction emissions are amortized over the lifetime of the project (30 years) and the resulting annual emissions are combined with the project's annual operational GHG emissions. Table 4.8-3 shows the project's construction-related emissions.

Table 4.8-3. Estimated Short-term Construction GHG Emissions

Construction Year	Estimated GHG Emissions ($MTCO_2e$)[1]
2022	285
2023	798
2024	55
Total Construction Emissions	**1,137**
Annual Construction Emissions (Amortized over 30 years)	38

Source: See Appendix C for detailed input parameters and modeling results.
[1] Totals may not add up due to rounding.

The project's construction activities would result in the generation of GHG emissions that could directly or indirectly have a significant impact on the environment because the project would not comply with the 2017 Scoping Plan. Impacts would be potentially significant for construction.

Operations

Operation of the project would result in mobile-source GHG emissions associated with vehicle trips to and from the project site (i.e., project-generated VMT), landscaping equipment, electricity consumption, water consumption, and the generation of wastewater and solid waste. Annual GHG emissions associated with operation of project are summarized Table 4.8-4. As shown in Table 4.8-4, the project's annual operational emissions are estimated to be 502 $MTCO_2e$ in opening year 2024.

Table 4.8-4. Annual Operational GHG Emissions

Source	Annual GHG Emissions ($MTCO_2e$)[1]
Area	<1
Electricity	23
Mobile	383
Waste	22
Water	35
Amortized Construction (See Table 4.8-3)	*38*
Total Project Emissions	502

Source: See Appendix C for detailed input parameters and modeling results.
[1] Totals may not add up due to rounding.

As discussed in Section 4.8.4.2, *Thresholds of Significance,* the threshold for determining significance of GHG emission impacts from the project is compliance with statewide plans adopted for the purpose of reducing and/or mitigating GHG emissions. At the ~~s~~State level, the 2017 Scoping Plan outlines the framework and strategies the ~~s~~State will take to achieve its emission reduction targets. The 2017 Scoping Plan Update proposes to meet the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight, continued investment in renewables, greater use of low-carbon fuels including electricity and hydrogen, stronger efforts to reduce emissions of SLCPs, further efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car, continuing the cap-and-trade program, and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target (CARB 2017b).

There are several statewide programs included in the 2017 Scoping Plan strategy that require no action at the project level and would benefit project-related emission sources. For example, the Scoping Plan incorporates SB 350, which extends the RPS to a 50% target by 2030 while doubling the energy efficiency savings expected statewide (which was further expended to 100% carbon-free energy production by 2045 after the SB 32 Scoping Plan was adopted). Although the RPS requirements are only applicable to utility companies, the project would be consistent with goals of reducing GHG emissions from electricity by installing solar PV panels on six overhead structures in the parking lot, which would generate renewable electricity for project uses, and the project's outdoor lighting would be solar-powered. Overall, the project would reduce its electricity consumption, thus reducing GHG emissions.

CARB expanded the LCFS, aiming to achieve a 20% reduction in the carbon intensity of transportation fuels by 2030 (and maintain 20% beyond 2030). Furthermore, the Mobile Source Strategy aims to support the transition to 1.5 million zero-emission vehicles (plug-in hybrid electric, battery-electric, and hydrogen fuel cell) by 2025 and 4.2 million by 2030, while also ramping up GHG stringency for all light-duty vehicles. The Mobile Source Strategy would benefit emissions from project-related transportation as the statewide vehicle fleet becomes more efficient and electrified. These statewide programs will be implemented over time, resulting in reductions in mobile GHG emissions over the 30-year project life. Furthermore, the project would not consume natural gas during operations, which is consistent with OPR guidance and the 2017 Scoping Plan.

Project operations would result in mobile-source GHG emissions at the project site associated with visitor vehicle trips (i.e., project-generated VMT). As discussed in Section 4.8.4.2, *Threshold Approach*, SB 743 established VMT as the most appropriate metric for transportation impacts to align environmental CEQA review with California's long-term GHG reduction goals. The County TSG requires all projects within the unincorporated ~~San Diego County~~area undergo a screening process to ensure project-related VMT is consistent with statewide goals. Based on Section 3.3 of the County TSG, there are several categories based on project characteristics and/or locations that would deem a VMT impact less than significant. Chen Ryan Associates conducted the VMT analysis for the project (Appendix H). The VMT screening analysis concluded that the project fell under the "local serving public facilities and other uses [local parks and trailheads]" category. Based on the County TSG, this category met the screening criteria and would be exempt from additional VMT analysis and is assumed to have a less-than-significant VMT impact. Because the project would result in a less-than-significant impact for VMT, the project's mobile-source GHG emissions would not conflict ~~withow the project h~~with SB 743. Because reducing GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2017 Scoping Plan, operation of the project would not conflict with the statewide GHG target for 2030 mandated by SB 32. Please refer to Section 4.17, *Transportation and Circulation*, for additional information on the project-related VMT analysis.

Moreover, the project would incorporate a variety of features that would reduce GHG emissions consistent with statewide programs. The project would provide adequate bicycle parking for park visitors using the bike ~~park~~skills area and trails and would provide sufficient receptacles for trash and recycling.

The project would incorporate onsite electricity generation from the solar PV array and solar-powered outdoor lighting, native plants in its landscaping and a synthetic turf baseball field, and two electric vehicle charging stations; and the project would not consume natural gas. Furthermore, the VMT screening analysis indicated the project met the VMT screening criteria and would have a less-

than-significant VMT impact. Because the project would not have a significant VMT impact, the project's mobile-source GHG emissions would not conflict with SB 743 where reducing GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2017 Scoping Plan. Overall, the project would be consistent with applicable polices from the 2017 Scoping Plan and regulatory programs. Therefore, GHG emissions from operation of the project would have a less-than-significant impact on the environment.

Impact Determination

Impact-GHG-1: Generation of GHG Emissions that May Have a Significant Impact on the Environment. The project's construction activities would result in the generation of GHG emissions that could directly or indirectly have a significant impact on the environment because the project would not comply with the 2017 Scoping Plan. Impacts would be potentially significant for construction. GHG emissions from operation of the project would have a less-than-significant impact on the environment.

Mitigation Measures

MM-GHG-1: Implement Construction Best Management Practices. The County shall ensure implementation of the following measures during project construction:

- Require equipment to be maintained in good tune and to reduce excessive idling time.
- Utilize alternative fueled equipment and vehicles, such as renewable diesel, renewable natural gas, compressed natural gas, or electric.
- Require older equipment be retrofitted with advanced engine controls, such as diesel particulate filters, selective catalytic reduction, or cooled exhaust gas recirculation.

Level of Significance After Mitigation

Impact-GHG-1 would be reduced to a less-than-significant level after implementation of **MM-GHG-1**, which would ensure compliance with the 2017 Scoping Plan. Therefore, construction impacts would be less than significant with mitigation. GHG emissions from operation would remain less than significant.

Threshold 2: The project would ~~not~~ conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

County Park and Trails and Open Space~~/Preserve~~

Impact Discussion

As discussed previously, CARB's 2017 Scoping Plan provides the framework for achieving the statewide GHG reduction target established by SB 32 of 40% below 1990 levels by 2030. In this case, the 2017 Scoping Plan is the most relevant plan adopted for the purpose of reducing emissions of GHGs within the ~~county.~~unincorporated area. Compliance with the applicable regulations or requirements adopted to implement the 2017 Scoping Plan would ensure GHG emissions resulting from implementation of the project are less than significant.

Construction

~~The~~As discussed previously, the project's construction activities would result in the generation of GHG emissions and would conflict with the 2017 Scoping Plan. Impacts would be potentially significant for construction.

Operation

The impact discussion under Threshold 1 above addresses the project's compliance with the relevant measures and regulatory programs adopted by CARB and other ~~s~~State agencies to reduce GHG emissions in accordance with SB 32 and the 2017 Scoping Plan. Many of the programs included in the 2017 Scoping Plan would result in the reduction of project-related GHG emissions with no action required at the project level. These programs include SB 350, LCFS, and the Mobile Source Strategy. These programs would benefit GHG emission reductions through increased energy efficiency and renewable energy production, reduction in carbon intensity of transportation fuels, and the accelerated efficiency and electrification of the statewide vehicle fleet, respectively. Implementation of these statewide programs would result in a reduction of operational GHG emissions over the 30-year project lifetime.

The 2017 Scoping Plan emphasizes the importance of reducing VMT to achieve mobile-source GHG emission reductions necessary to reach statewide climate goals. As detailed in Section 4.17, *Transportation and Circulation,* the project's VMT impact was deemed less than significant. Based on this, the project's mobile-source GHG emissions would not conflict with SB 743. Because reducing GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2017 Scoping Plan, operation of the project would not conflict with the statewide GHG target for 2030 mandated by SB 32.

Impact Determination

Impact-GHG-2: Conflict With an Applicable Plan, Policy, or Regulation. The project's construction activities would potentially conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Impacts would be potentially significant for construction. GHG emissions from operation of the project would have a less-than-significant impact on the environment.

Mitigation Measures

MM-GHG-1: Implement Construction Best Management Practices. The County shall ensure implementation of the following measures during project construction:

- Require equipment to be maintained in good tune and to reduce excessive idling time.
- Utilize alternative fueled equipment and vehicles, such as renewable diesel, renewable natural gas, compressed natural gas, or electric.
- Require older equipment be retrofitted with advanced engine controls, such as diesel particulate filters, selective catalytic reduction, or cooled exhaust gas recirculation.

Level of Significance After Mitigation

Impact-GHG-2 would be reduced to a less-than-significant level after implementation of **MM-GHG-1**, which would ensure consistency with SB 32 and the 2017 Scoping Plan. Therefore, impacts would be less than significant with mitigation.

4.8.5 Summary of Significant Impacts

Table 4.8-5. Summary of Significant Greenhouse Gas Emissions and Climate Change Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-GHG-1: Generation of GHG Emissions that May Have a Significant Impact on the Environment	**MM-GHG-1: Implement Construction Best Management Practices**	Less than Significant	**Impact-GHG-1** would be reduced to a less-than-significant level after implementation of **MM-GHG-1**, which would ensure compliance with the 2017 Scoping Plan. Therefore, construction impacts would be less than significant with mitigation. GHG emissions from operation would remain less than significant.
Impact-GHG-2: Conflict With an Applicable Plan, Policy, or Regulation	**MM-GHG-1: Implement Construction Best Management Practices**	Less than Significant	**Impact-GHG-2** would be reduced to a less-than-significant level after implementation of **MM-GHG-1**, which would ensure consistency with SB 32 and the 2017 Scoping Plan.