4.8 GREENHOUSE GAS EMISSIONS

The following setting and impact discussion is based, in part, on the *Air Quality and Greenhouse Gas Impact Assessment* prepared for the DRSP (AMBIENT 2022; EIR Appendix D). The *Air Quality and Greenhouse Gas Impact Assessment* includes an in-depth assessment of existing conditions related to GHG emissions, the pertinent regulatory framework, and potential GHG impacts associated with the proposed project.

4.8.1 Existing Conditions

4.8.1.1 Overview of Greenhouse Gas Emissions

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 GHG emissions, 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 (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Primary GHGs attributed to global climate change, are discussed, as follows:

- **Carbon Dioxide.** CO_2 is a colorless, odorless gas that is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 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_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere.
- **Methane.** CH_4 is a colorless, odorless gas that is not flammable under most circumstances. CH_4 is the major component of natural gas, about 87% by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. CH_4 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 CH_4 to the atmosphere. Natural sources of CH_4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources, such as wildfires. The atmospheric lifetime of CH_4 is approximately 12 years.
- **Nitrous Oxide.** N_2O is a clear, colorless gas with a slightly sweet odor that 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 120 years.
- **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 1 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).

- **Perfluorocarbons.** PFCs are colorless, highly dense, chemically inert, and non-toxic. There are seven PFC gases: perfluoromethane (CF_4), perfluoroethane (C_2F_6), perfluoropropane (C_3F_8), perfluorobutane (C_4F_{10}), perfluorocyclobutane (C_4F_8), perfluoropentane (C_5F_{12}), and perfluorohexane (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 2,600 to 50,000 years.
- **Nitrogen Trifluoride.** Nitrogen trifluoride (NF_3) is an inorganic, colorless, odorless, toxic, nonflammable gas that is used as an etchant in microelectronics. NF_3 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 global warming potential (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, non-toxic, and generally non-flammable. SF_6 is primarily used as an electrical insulator in high-voltage equipment. The electric power industry uses roughly 80% of all SF_6 produced worldwide. Leaks of SF_6 occur from aging equipment and during equipment maintenance and servicing. the atmospheric life of SF_6 is approximately 3,200 years.
- **Black Carbon.** Black carbon is the strongest light-absorbing component of 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, is very difficult to quantify associated GWPs. The main sources of black carbon in California are wildfires, off-road vehicles (e.g., 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).

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_2e, which weighs each gas by its GWP. Expressing GHG emissions in CO_2e 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_2 were being emitted. Table 4.8-1 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_4 traps over 25 times more heat per molecule than CO_2, and N_2O absorbs roughly 298 times more heat per molecule than CO_2. Additional GHGs with high GWP include NF_3, SF_6, PFCs, and black carbon.

Table 4.8-1. Global Warming Potential for GHGs

Greenhouse Gas	Global Warming Potential (100-year)*
Carbon Dioxide (CO_2)	1
Methane (CH_4)	25
Nitrous Dioxide (N_2O)	298

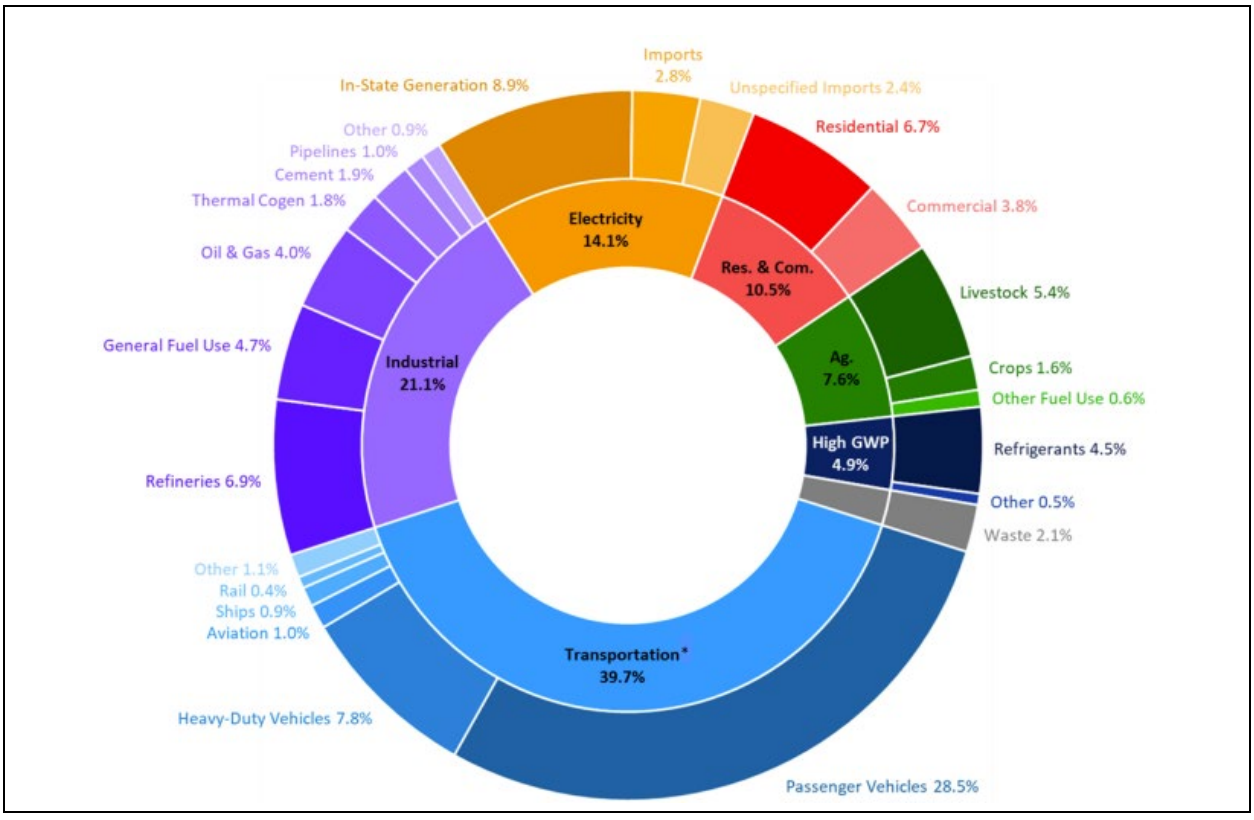
Source: AMBIENT (2022)

* Based on Intergovernmental Panel on Climate Change (IPCC) GWP values for a 100-year time horizon

4.8.1.1.1 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.

In 2019 GHG emissions within California totaled 418.2 million metric tons of CO_2e ($MMTCO_2e$). GHG emissions, by sector, are summarized in Figure 4.8-1. Within California, the transportation sector is the largest contributor, accounting for approximately 40% of the total statewide GHG emissions. Emissions associated with industrial uses are the second largest contributor, totaling roughly 21%. Electricity generation totaled roughly 14% (AMBIENT 2022).



Source: CARB (2021)

Figure 4.8-1. California GHG emissions inventory by scoping plan sector.

4.8.1.1.2 SHORT-LIVED CLIMATE POLLUTANTS

Short-lived climate pollutants (SLCPs), such as black carbon, fluorinated gases, and CH_4 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 the 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. In 2013 off-road mobile sources account for a majority of black carbon emissions totaling roughly 36% of the inventory. Other major anthropogenic sources of black carbon include on-road transportation, residential wood burning, fuel combustion, and industrial processes (AMBIENT 2022).

4.8.1.1.3 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 the precipitation. For instance, historical records are depicting an increasing trend toward earlier snowmelt in the Sierra Nevada. This snowpack is a principal supply of water for the state, providing roughly 50% 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. Earlier snowmelt would also impact the state's energy resources. Currently, approximately 20% of California's electricity comes from hydropower. Early exhaustion of the Sierra snowpack may force electricity producers to switch to more costly or nonrenewable forms of electricity generation during spring and summer months. A changing climate may also impact agricultural crop yields, coastal structures, and biodiversity. The resulting changes in climate will likely have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry.

4.8.1.2 Local Setting

The Specific Plan Area and associated off-site NCSD improvement areas are located within the community of Nipomo, which is located within the SCCAB and is under the jurisdiction of the SLOAPCD. According to the USEPA Greenbook and the CARB, San Luis Obispo County is currently not in attainment for 8-hour ozone (USEPA 2022; CARB 2020).

4.8.2 Regulatory Setting

4.8.2.1 Federal

4.8.2.1.1 EXECUTIVE ORDER 13514

EO 13514 is focused on reducing GHGs 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. USEPA, 549 U.S. 497 (2007), the U.S. Supreme Court found that GHGs are air pollutants covered by the FCAA and that the USEPA has the authority to regulate GHGs. The court held that the USEPA 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 USEPA 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 (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) 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 USEPA'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 CAFE Standards were published in the *Federal Register*.

The USEPA and 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 USEPA 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_2 per mile (the equivalent to 35.5 mpg if the automobile industry were to meet this CO_2 level solely through fuel economy improvements). Together, these standards will cut GHG emissions by an estimated 960 MMT 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, the USEPA 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.

4.8.2.2 State

4.8.2.2.1 CALIFORNIA ASSEMBLY BILL 1493

AB 1493 (Pavley) of 2002 (Health and Safety Code Sections 42823 and 43018.5) required the 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_2. In late 2007, the USEPA denied California's waiver request and declined to promulgate adequate federal regulations limiting GHG emissions. In early 2008, the state brought suit against the USEPA related to this denial.

In January 2009, President Obama instructed the USEPA 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 USEPA 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 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 covered model years 2012 through 2016 and raised passenger vehicle fuel economy to a fleet average of 35.5 mpg by 2016. California has committed to allowing automakers who show compliance with the national program to also be deemed in compliance with state requirements.

4.8.2.2.2 CALIFORNIA EXECUTIVE ORDER NO. S-3-05

EO 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% 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.

4.8.2.2.3 CALIFORNIA EXECUTIVE ORDER NO. N-19-19

EO N-19-19 (State of California) calls for actions from multiple state agencies to reduce GHG emissions and mitigate the impacts of climate change. This includes a direct acknowledgment of the role the transportation sector must play in tackling climate change.

This executive order empowers the California State Transportation Agency (CalSTA) to leverage more than $5 billion in discretionary state transportation funds to reduce GHG emissions in the transportation sector and adapt to climate change. Accordingly, CalSTA will work to align transportation spending with the state's Climate Change Scoping Plan where feasible; direct investments to strategically support smart growth to increase infill housing production; reduce congestion through strategies that encourage a reduction in driving and invest further in walking, biking, and transit; and ensure that overall transportation costs for low-income Californians do not increase as a result of these policies.

4.8.2.2.4 CALIFORNIA EXECUTIVE ORDER NO. N-79-20

EO N-79-20 (State of California) calls to accelerate the transition away from fossil fuels by requiring all new cars sold in California to be zero emission by 2035, all new commercial trucks sold in the state to be zero emission by 2045 for all operations where feasible, and all new off-road vehicles and equipment sold to be zero-emission by 2035 where feasible. EO N-79-20 reaffirms the state's commitment to implementing EO N-19-19.

EO N-79-20 reiterates the message of EO N-19-19 by highlighting three strategies to expand clean transportation options from the Climate Action Plan for Transportation Infrastructure (CAPTI), while also emphasizing the importance of CAPTI and the urgency of climate change. EO N-79-20 furthers the state's climate goals by explicitly pointing to the critical role of transit, passenger rail, active transportation, Complete Streets, and micromobility as tools to expand mobility options, encourage mode shift, and reduce overall VMT.

4.8.2.2.5 CALIFORNIA ASSEMBLY BILL 32: CALIFORNIA GLOBAL WARMING SOLUTIONS ACT

AB 32 of 2006 (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, and 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_2, CH_4, N_2O, HFCs, PFCs, NF_3, and SF_6. The reduction to 1990 levels was intended to be accomplished through an enforceable statewide cap on GHG emissions that was phased in beginning in 2012. To effectively implement the cap, AB 32 directs the 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 the CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that the 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.

4.8.2.2.6 CLIMATE CHANGE SCOPING PLAN AND UPDATE

In October 2008, the CARB published the *Climate Change 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, implementing 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. The 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 $MMTCO_2e$ will be achieved associated with the implementation of SB 375, which is discussed further below.

The initial Scoping Plan was first approved by the CARB on December 11, 2008, and is updated every 5 years. The *First Update to the Climate Change 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 reach the 2050 goals (CARB 2014). The most recent update released by the CARB is *California's 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 SB 32 and EO B-30-15. Most notably, the 2017 Scoping Plan encourages zero-net increases in GHG emissions; however, it also recognizes that achieving net-zero increases in GHG emissions may not be feasible or appropriate for all projects and that the inability of a project to mitigate its GHG emissions to zero would not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA.

4.8.2.2.7 CALIFORNIA 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% of their supply from renewable sources by 2017. This bill will affect statewide GHG emissions associated with electricity generation. In 2008, Governor Schwarzenegger signed EO S-14-08, which set the RPS target to 33% by 2020. It directed state government agencies and retail sellers of electricity to take all appropriate actions to implement this target. EO S-14-08 was later superseded by EO S-21-09 on September 15, 2009. EO S-21-09 directed the CARB to adopt regulations requiring 33% of electricity sold in the state come from renewable energy by 2020. Statute SB X1-2 superseded this executive order in 2011, which obligated all California electricity providers, including investor-owned utilities and publicly owned utilities, to obtain at least 33% of their energy from renewable electrical generation facilities by 2020.

The CARB is required by AB 32 to regulate sources of GHGs to meet a state goal of reducing GHG emissions to 1990 levels by 2020 and an 80% reduction of 1990 levels by 2050. The CEC and CPUC serve in advisory roles to help the CARB develop the regulations to administer the 33% by 2020

requirement. The CARB is also authorized to increase the target and accelerate and expand the time frame.

4.8.2.2.8 MANDATORY REPORTING OF GHG EMISSIONS

AB 32 requires the 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.

4.8.2.2.9 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% 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 the cap-and-trade rules. At that stage, the program will encompass around 360 businesses throughout California and nearly 85% 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. 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% reduction from 1990 levels by 2050.

4.8.2.2.10 CALIFORNIA SENATE BILL 32

SB 32, signed by Governor Brown on September 8, 2016, effectively extends California's GHG emission-reduction goals from 2020 to 2030. This new emission-reduction target of 40% 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% 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.

4.8.2.2.11 CALIFORNIA SENATE BILL 97

SB 97, enacted in 2007, required the California Governor's Office of Planning and Research (OPR) to develop, and the California Natural Resources Agency to adopt, amendments to the State CEQA Guidelines addressing the analysis and mitigation of GHG emissions. Those 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 State CEQA Guidelines amendments. The amendments to the State CEQA Guidelines implementing SB 97 became effective on March 18, 2010.

4.8.2.2.12 CALIFORNIA SENATE BILL 100

SB 100, signed by Governor Jerry Brown on September 10, 2018, sets a goal of phasing out all fossil fuels from the state's electricity sector by 2045. SB 100 increases how much of California's electricity portfolio must come from renewables by 2030 from 50% to 60%. It establishes a further goal to have an electric grid that is entirely powered by clean energy by 2045, which could include other carbon-free sources, like nuclear power, that are not renewable.

4.8.2.2.13 CALIFORNIA SENATE BILL 375

SB 375 requires MPOs to adopt an SCS or APS that will address land use allocation in that MPOs RTP. The CARB, in consultation with the MPOs, establishes regional reduction targets for GHGs emitted by passenger cars and light trucks for the years 2020 and 2035. These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emission technologies affect the reduction strategies to achieve the targets. The 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. In 2018 the CARB adopted updated SB 375 targets.

4.8.2.2.14 CALIFORNIA BUILDING CODE

The 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 3 years by the CBSC. In the interim, the CBSC 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.

4.8.2.2.15 CALIFORNIA 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 of 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, the CARB identified energy use as the second largest contributor to California's GHG emissions, constituting roughly 25% of all such emissions. In recommending a green building strategy as one element of the scoping plan, the CARB estimated that green building standards would reduce GHG emissions by approximately 26 MMT of CO2e by 2020.

CALGreen was most recently updated in May 2018. Referred to as the 2019 Standards, this most recent update focused on four key areas: smart residential PV systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. The ventilation measures improve indoor air quality, protecting homeowners from air pollution originating from outdoor and indoor sources. Under the newly adopted standards, nonresidential buildings will use about 30% less energy due mainly to lighting upgrades. The recently updated 2019 Standards also require new homes built after January 1, 2020, to be equipped with solar PV systems. The solar PV systems are to be sized based on the buildings annual electricity demand, the building square footage, and the climate zone within which the home is located. However, under the 2019 Standards, homes may still rely on other energy sources, such as natural gas. Compliance with the 2019 Standards, including the solar PV system mandate, residential dwellings will use approximately 50% to 53% less energy than those under the 2016 Standards. Actual reduction will vary depending on various factors (e.g., building orientation, sun exposure). Nonresidential buildings will use about 30% less energy due mainly to lighting upgrades.

The recently updated 2022 Standards, which were approved in December 2021, encourages efficient electric heat pumps, establishes electric-ready requirements when natural gas is installed and to support the future installation of battery storage, and further expands solar photovoltaic and battery storage standards. The 2022 Standards extend solar PV system requirements, as well as battery storage capabilities for select land uses, including high-rise, multi-family, and non-residential land uses, such as office buildings, schools, restaurants, warehouses, theaters, grocery stores, and more. Depending on the land use and other factors, solar systems should be sized to meet targets of up to 60% of the structure's loads. These new solar requirements will become effective January 1, 2023, and contribute to California's goal of reaching net-zero carbon footprint by 2045.

4.8.2.2.16 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 CH_4 emissions by reducing the disposal of organics through edible food recovery, composting, in-vessel digestion, and other processes; recovering CH_4 from wastewater treatment facilities and manure CH_4 at dairies; and using the CH_4 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 CH_4 emissions associated with natural gas use. Lastly, the SLCP Strategy also identifies measures that can reduce HFC emissions at international and national levels, in addition to state-level action that includes an incentive program to encourage the use of low-GWP refrigerants, and limitations on the use of high-GWP refrigerants in new refrigeration and air conditioning equipment.

4.8.2.3 Local

4.8.2.3.1 COUNTY OF SAN LUIS OBISPO GENERAL PLAN

Conservation and Open Space Element

The County's COSE is a comprehensive long-range planning document that sets forth goals, policies, and actions to address the conservation and preservation of public services, air quality, vegetation and wildlife, mineral resources, and visual resources, historic and archeological resources, as well as energy.

4.8.2.3.2 COUNTY OF SAN LUIS OBISPO 2016 ENERGYWISE PLAN

The County's 2016 EWP was adopted by the County Board of Supervisors in November 2011 in order to implement the goals established by the COSE. These goals include reducing GHG emissions from government and community operations by 15% and reducing energy use from County government operations by 20% from baseline levels (2006) by the year 2020. The EWP represents the County's contribution to the state's efforts to reduce GHG emissions as outlined in AB 32, which calls for state agencies to reduce emissions to 1990 levels by 2020 and 40% below 1990 levels by 2030.

4.8.2.3.1 SAN LUIS OBISPO COUNCIL OF GOVERNMENTS 2019 REGIONAL TRANSPORTATION PLAN AND SUSTAINABLE COMMUNITIES STRATEGY

The 2019 RTP, which was adopted by the SLOCOG Board in June 2019, includes the region's SCS and outlines how the region will meet or exceed its GHG reduction targets by creating more compact, walkable, bike-friendly, transit-oriented communities; preserving important habitat and agricultural areas; and promoting a variety of transportation demand management and system management tools and techniques to maximize the efficiency of the transportation network. Specifically, Policy Objective 6.3, included in the 2019 RTP, identifies the need to reduce GHG emissions from vehicles and improve air quality of the region.

4.8.2.3.2 SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT

The SLOAPCD is a local public agency with the primary mission of realizing and preserving clean air for all county residents and businesses. Responsibilities of the SLOAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by federal and state regulatory requirements. Table 4.8-2 includes SLOAPCD GHG thresholds of significance.

Table 4.8-2. SLOAPCD GHG Thresholds of Significance

Operational Year	2030
Land Use Sectors GHG Emissions Target[1]	213,000,000
Population[2]	41,860,549
Employment[3]	20,729,820
Service Population (SP)	62,590,369
GHG Efficiency Threshold ($MTCO_2e$/SP/year)	3.4

Source: AMBIENT (2022)

Note: Employment data for interim years are estimated based on proportionality with population trends based on historical data and the AB 32 Scoping Plan's land use inventory sectors for years 2023 and 2030, including transportation sources.

[1] Based on CARB 2017 Climate Scoping Plan Update/SB 32 Scoping Plan Emissions Sector targets.

[2] California Department of Finance Demographic Research Unit. 2019. Report P-1 "State Population Projections (2010 - 2060)" (DOF 2019).

[3] California Employment Development Department. Employment Projections Labor Market Information Resources and Data, "CA Long-Term. 2018-2028 Statewide Employment Projections". Projected year 2030 employment data was projected based on the average-annual increase for years 2018 through 2028.

4.8.2.4 Applicable State, Regional, and Local Land Use Plans and Policies Relevant to Greenhouse Gas Emissions

Table 4.8-3 lists applicable state, regional, and local land use policies and regulations pertaining to GHG emissions that were adopted for the purpose of avoiding or mitigating an environmental effect and that are relevant to the proposed project. A general overview of these policy documents is presented in Section 4.8.2, *Regulatory Setting*, and Chapter 3, *Environmental Setting*. Also included in Table 4.8-3 is an analysis of project consistency with identified policies and regulations. Where the analysis concludes the proposed project would potentially conflict with the applicable policy or regulation, the reader is referred to Section 4.8.5, *Project-Specific Impacts and Mitigation Measures*, and Section 4.11, *Land Use and Planning*, for additional discussion.

Table 4.8-3. Consistency Analysis for Greenhouse Gas Emissions

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
County of San Luis Obispo General Plan		
Conservation and Open Space Element		
Policy AQ 1.1 Compact Development. Encourage compact land development by concentrating new growth within existing communities and ensuring complete services to meet local needs.	Development of mixed-used communities with locally serving commercial uses will support regional efforts to reduce VMT.	**Potentially Consistent.** The Specific Plan Area would include new development immediately adjacent to the Nipomo URL in an area planned for housing of varying densities and hotel, retail, and educational land uses and supported by the planned extension of transportation, water, and wastewater infrastructure.
Policy AQ 1.2 Reduce vehicle miles traveled. Require projects subject to discretionary review to minimize additional vehicle travel.	The intent of this policy is to reduce VMT on a project-by-project basis.	**Potentially Inconsistent.** Buildout of the DRSP would result in an increase in overall VMT and VMT per employee even with implementation of Mitigation Measure TR/mm-3.1.
Policy AQ 1.5 Transportation efficiency. Improve the operating efficiency of the transportation system by reducing vehicle travel demand and expanding opportunities for multi-modal travel.	The promotion of alternative transportation modes supports regional efforts to maximize the existing transportation network and to reduce VMT.	**Potentially Consistent.** Buildout of the Specific Plan Area would include the development of an interconnected system of pedestrian and bicycle facilities, a Park and Ride transit center, and transit stops along Collector A.
Policy AQ 1.6 Multi-modal transportation. Coordinate with other local governments and agencies to develop a multi-modal transportation system. This system should enable convenient and efficient use of transportation alternatives. It should also provide multi-modal transfer sites that incorporate auto, bike parking, transit, pedestrian and bicycle paths, as well as park and ride pickup points.	The promotion of alternative transportation modes supports regional efforts to maximize the efficiency of the existing transportation network and reduce VMT.	**Potentially Consistent.** Buildout of the Specific Plan Area would include the development of an interconnected system of pedestrian and bicycle facilities, a Park and Ride transit center, and transit stops along Collector A.
Policy AQ 1.7 Bicycle and pedestrian travel. Encourage bicycle and pedestrian use by supporting the policies found in the Regional Transportation Plan, County Bikeways Plan, Land Use and Circulation Element, and County Parks and Recreation Element. In addition, support public and private efforts to facilitate	The promotion of walking and bicycling for varied trip purposes supports regional efforts to reduce VMT.	**Potentially Consistent.** Buildout of the Specific Plan Area would include the development of an interconnected system of pedestrian and bicycle facilities, a Park and Ride transit center, and transit stops along Collector A.

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
bicycling and walking for transportation and recreation.		
Policy AQ 1.8 Support SLO Regional Rideshare. Support San Luis Obispo Regional Rideshare's Transportation Choices Programs that promote transportation alternatives by providing financial or other incentives to employers, employees, and commuters who develop Trip Reduction Plans and implement commute options.	The promotion of carpooling and bicycle use for varied trip purposes (e.g., work, school, household needs) supports regional efforts to reduce VMT.	**Potentially Consistent.** Buildout of the Specific Plan Area would support countywide rideshare as part of a suite of transportation demand management strategies limiting the number of single-occupancy vehicles for work trips.
Policy AQ 3.6 Strategic growth principles. Ensure that implementation of the Strategic Growth principles and goals are balanced with protection of sensitive receptors near high-volume transportation routes and sources of toxic emissions (i.e., railyards, downtown centers, gasoline development facilities, chrome platers, dry cleaners, and refineries).	The intent of this policy is to reduce emission of criteria air pollutants, PM, TACs, and GHGs.	**Potentially Consistent.** Development of the DRSP would locate residential uses 500 or more feet from the US 101 corridor. Further, buildout of the Specific Plan Area would require implementation of Mitigation Measures AQ/mm-3.1 through AQ/mm-3.3, GHG/mm-1.1, and TR/mm-3.1 to limit construction- and operations-related emissions of criteria air pollutants, PM, and TACs.
Policy AQ 3.7 Reduce vehicle idling. Encourage the reduction of heavy vehicle idling throughout the county, particularly near schools, hospitals, senior care facilities, and areas prone to concentrations of people, including residential areas.	The intent of this policy is to reduce emission of criteria air pollutants, PM, TACs, and GHGs.	**Potentially Consistent.** With implementation of Mitigation Measure AQ/mm 3-1, projects within the Specific Plan Area, as a compact development with a mix of land uses interconnected by pedestrian and bicycle facilities that connect to public transit stops and a Park and Ride transit center, would support transportation demand management strategies limiting the number of vehicle trips and tailpipe emissions.
Policy AQ 3.8 Reduce dust emissions. Reduce PM_{10} and $PM_{2.5}$ emissions from unpaved and paved county roads to the maximum extent feasible.	The intent of this policy is to reduce emission of criteria air pollutants, PM, TACs, and GHGs.	**Potentially Consistent.** With implementation of Mitigation Measure AQ/mm-3.2, roads within the Specific Plan Area would be paved and the backbone roadway infrastructure would meet minimum standards identified in the County's Public Improvement Standards.
Policy AQ 4.1 Reduce greenhouse gas emissions. Implement and enforce State legislative or regulatory standards, policies, and programs designed to reduce greenhouse gas emissions.	The intent of this policy is to reduce emission of criteria air pollutants, PM, TACs, and GHGs.	**Potentially Consistent.** With implementation of Mitigation Measures AQ/mm-3.1 through AQ/mm-3.3, GHG/mm-1.1, and TR/mm-3.1 for infrastructure improvements and development of the mix of land uses, GHGs would be reduced to the maximum extent feasible.
Policy AQ 4.4 Development projects and land use activities. Reduce greenhouse gas emissions from development projects and other land use activities.	The intent of this policy is to reduce emission of criteria air pollutants, PM, TACs, and GHGs.	**Potentially Consistent.** With implementation of Mitigation Measures AQ/mm-3.1 through AQ/mm-3, GHG/mm-1.1, and TR/mm-3.1 for infrastructure improvements and development of the mix of land uses, GHGs would be reduced to the maximum extent feasible.
Policy E 1.1 Meeting energy needs. Meet electricity needs through the following prioritized measures: a. Increased conservation and efficiency in all sectors of energy use. b. Development and use of locally appropriate sources of renewable resources from both distributed and large-scale projects. Examples include wind, tidal, wave, solar,	The intent of this policy is to reduce demand for energy resources and promote energy generation from renewable sources.	**Potentially Consistent.** With development of residential and nonresidential uses as all-electric land uses and implementation of Mitigation Measure GHG/mm-1.1, use of nonrenewable energy resources with high GWP would be reduced to the maximum extent feasible.

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
micro-hydroelectric, biomass, and geothermal. c. Development of non-renewable sources of energy.		
Policy E 3.1 Use of renewable energy. Ensure that new and existing development incorporates renewable energy sources such as solar, passive building, wind, and thermal energy. Reduce reliance on non-sustainable energy sources to the extent possible using available technology and sustainable design techniques, materials, and resources.	The intent of this policy is to reduce demand for energy resources and promote energy generation from renewable sources.	**Potentially Consistent.** With development of residential and nonresidential uses as all-electric land uses and implementation of Mitigation Measure GHG/mm-1.1, use of nonrenewable energy resources with high GWP would be reduced to the maximum extent feasible.
Policy E 3.2 Energy efficient equipment. Require the use of energy-efficient equipment in all new development, including but not limited to Energy Star appliances, high-energy efficiency equipment, heat recovery equipment, and building energy management systems.	The intent of this policy is to reduce demand for energy resources in new development.	**Potentially Consistent.** With development of residential and nonresidential uses with on-site renewable energy generation (e.g., solar) and promotion of all-electric buildings and implementation of Mitigation Measure GHG/mm-1.1, use of nonrenewable energy resources with high GWP would be reduced to the maximum extent feasible.
Policy E 4.1 Integrate green building practices. Integrate green building practices into the design, construction, management, renovation, operations, and demolition of buildings, including publicly funded affordable housing projects, through the development review and building permitting process.	The intent of this policy is to reduce demand for energy resources in the development process from construction to operation.	**Potentially Consistent.** With development of residential and nonresidential uses as all-electric buildings and implementation of Mitigation Measure GHG/mm-1.1, use of nonrenewable energy resources with high GWP would be reduced to the maximum extent feasible.
Policy E 4.4 Solar exposure. Orient new buildings to maximize solar resources, shading, ventilation, and lighting.	The intent of this policy is to reduce demand for energy through site planning.	**Potentially Consistent.** Development of residential and nonresidential uses would include site planning principles that promote energy conservation and on-site renewable energy generation.
Policy E 5.4 Construction and demolition waste. Continue to reduce construction and demolition waste in accordance with the County's Construction and Demolition Debris Recycling Ordinance. Support increased diversion rates over time.	The intent of this policy is to reduce demand for landfill space and to preserve the embedded energy in building materials, where possible.	**Potentially Consistent.** With development of residential and nonresidential uses as all-electric land uses and implementation of Mitigation Measure GHG/mm-1.1, use of nonrenewable energy resources with high GWP would be reduced to the maximum extent feasible.
Framework for Planning (Inland)		
Principle 4: Create walkable neighborhoods and towns.		
Policy 1. Plan communities with schools, parks, public spaces, transit stops and commercial districts located as focal points within convenient walking distances of neighborhoods.	The planning and development of mixed-used communities with multimodal transportation infrastructure and locally serving commercial uses supports regional efforts to reduce VMT.	**Potentially Consistent.** The DRSP includes a mix of compatible land uses interconnected by a system of pedestrian, bicycle, and equestrian facilities with links to the Nipomo and county pedestrian and bicycle network.
Policy 2. Plan for maximum connectivity between different land uses through walkways or other means.	The planning and development of an interconnected multimodal transportation system within mixed-used communities with locally serving commercial uses	**Potentially Consistent.** The DRSP includes a mix of compatible land uses interconnected by a system of pedestrian, bicycle, and equestrian facilities with links to the Nipomo and county pedestrian and bicycle network.

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
	supports regional efforts to reduce VMT.	
Principle 5: Provide a variety of transportation choices.		
Policy 2. Reduce and minimize the generation of air pollutants and greenhouse gases from existing and future development, with emphasis on reducing vehicle miles traveled.	Compact development with a mix of land uses limits single-occupant vehicle trips and supports regional efforts to reduce VMT.	**Potentially Consistent.** The DRSP includes a mix of land uses (residential, parks and open space, commercial/retail, and educational) and multimodal transportation infrastructure. Transportation demand strategies identified under Mitigation Measure TR/mm-3.1 would reduce and minimize project-generated VMT per employee and regional VMT.
Policy 4. Provide public transit, bicycle lanes, multi-use trails and pedestrian walkways that connect destinations within and between communities, to encourage alternative transportation.	Implementation of mixed-use communities with pedestrian and bicycle facilities that connect with transit service support regional efforts to reduce VMT.	**Potentially Consistent.** The DRSP would include a backbone roadway infrastructure designed as "Complete Streets" to include pedestrian and bicycle facilities and meet the County's minimum design standards and construction specifications. The DRSP would also include off-street pedestrian paths.
Policy 5. Make communities more bicycle- and pedestrian-friendly with safe and attractive routes.	Implementation of mixed-use communities with pedestrian and bicycle facilities that connect with the existing facilities support regional efforts to reduce VMT.	**Potentially Consistent.** The DRSP would include a backbone roadway infrastructure designed as "Complete Streets" to include pedestrian and bicycle facilities and meet the County's minimum design standards and construction specifications. The DRSP would also include off-street pedestrian paths.
Principle 7: Encourage mixed land uses.	Coordinated land use and transportation planning support mixed-use developments and regional efforts to reduce VMT.	**Potentially Consistent.** The DRSP includes a mix of land uses (residential, parks and open space, commercial/retail, and educational) and multimodal transportation infrastructure.
South County Inland Area Plan		
Circulation Policies		
a. Transportation should be planned to facilitate the use of all modes to improve traffic service and air quality. Transportation planning should be consistent between the Planning and Public Works Departments.	Increased efficiency of the transportation system through coordinated development and promotion of multimodal transportation supports regional efforts to reduce VMT and limit air pollutant and PM emission.	**Potentially Consistent.** The DRSP backbone roadway infrastructure would be designed and constructed in accordance with County Public Improvement Standards to include interconnected pedestrian and bicycle facilities that also connect with public transit.
Nipomo Community Plan		
Land Use Programs		
5. Pathway Plan. Work with the community to prepare a plan for pedestrian circulation through the urban area. The plan should identify locations of walking and riding paths connecting neighborhoods to shopping areas, parks and schools. Linear parkways should be studied as one method of providing alternate pedestrian routes within public parks.	The intent of this program is to support development of an interconnected system of bicycle, pedestrian, and equestrian pathways that connect varied land uses.	**Potentially Consistent.** Buildout of the DRSP includes a variety of pedestrian, bicycle, and equestrian facilities

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
SLOCOG 2019 Regional Transportation Plan (RTP)		
Goal 2. Improve intermodal mobility and accessibility for all people		
Policy Objective 2.1. Provide reliable, integrated, and flexible travel choices across and between modes.	Development of interconnected pedestrian, bicycle, and transit facilities support regional efforts to reduce VMT and ultimately GHG, criteria air pollutant, and PM emissions.	**Potentially Consistent.** Buildout of the DRSP includes a variety of pedestrian, bicycle, and equestrian facilities and connects these systems to public transit stops and the proposed Park and Ride lot along Collector A.
Policy Objective 2.2. Improve opportunities for businesses and citizens to easily access goods, jobs, services, and housing.	Mixed-use developments support regional efforts to reduce VMT, and ultimately GHG, criteria air pollutant, and PM emissions, by locating goods, jobs, services, and housing in close proximity to pedestrian, bicycle, and transit-supportive facilities.	**Potentially Consistent.** Buildout of the DRSP includes a variety of pedestrian, bicycle, and equestrian facilities and connects these systems to public transit stops, the proposed Park and Ride lot along Collector A, and the commercial and employment center on the east portion of Specific Plan Area.
Policy Objective 2.5. Support cooperative planning activities that lead to an integrated multimodal transportation system.	Coordinated land use and transportation planning, including development of effective transportation demand management strategies, supports mixed-use developments and regional efforts to reduce VMT.	**Potentially Consistent.** Buildout of the DRSP includes a variety of pedestrian, bicycle, and equestrian facilities and connects these systems to public transit stops, the proposed Park and Ride lot along Collector A, and the commercial and employment center on the east portion of Specific Plan Area.
Goal 4. Improve public safety and security.		
Policy Objective 4.2. Reduce congestion and increase safety by improving operations.	This policy is focused on maintaining the quality of service on county roadways as growth continues so that increases in congestion and delay are limited and user safety is maintained.	**Potentially Consistent.** The DRSP backbone roadway infrastructure would be designed and constructed in accordance with County Public Improvement Standards. It would include a mix of interconnected pedestrian, bicycle, and equestrian facilities with visual or physical separation from road ROWs, such as Class I and IV bicycle paths.
Policy Objective 4.3. Enhance public safety and security in all modes of transportation.	This policy is focused on the development of an efficient and highly functional circulation network for pedestrians, bicycles, equestrians, automobiles, and public transit with an emphasis on user safety.	**Potentially Consistent.** The DRSP backbone roadway infrastructure would be designed and constructed in accordance with County Public Improvement Standards. It would include a mix of interconnected pedestrian, bicycle, and equestrian facilities, some with visual or physical separation from road ROWs, such as Class I and IV bicycle paths.
Goal 5. Foster livable, healthy communities and promote social equity		
Policy Objective 5.1. Reflect community values while integrating land use and transportation planning to connect communities through a variety of transportation choices that promote healthy lifestyles.	This policy is focused on the development of an efficient and highly functional circulation network for pedestrians, bicycles, equestrians, automobiles, and public	**Potentially Consistent.** The DRSP backbone roadway infrastructure would be designed and constructed in accordance with County Public Improvement Standards. It would include a mix of interconnected pedestrian, bicycle, and equestrian facilities, some with visual or

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
	transit with an emphasis on user safety.	physical separation from road ROWs, such as Class I and IV bicycle paths.
Policy Objective 5.2. Integrate public health and social equity in transportation planning and decision-making.	This policy is focused on the health concerns associated with emissions of criteria air pollutants, PM, and TACs.	**Potentially Consistent.** The DRSP backbone roadway infrastructure would be designed and constructed in accordance with County Public Improvement Standards. It would include a mix of interconnected pedestrian, bicycle, and equestrian facilities, some with visual or physical separation from road ROWs, such as Class I and IV bicycle paths.
Policy Objective 5.3. Support efforts to increase the supply and variety of housing, jobs, and basic services in locations that reduce trips, travel distances, and congestion on US 101.	This policy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting mixed-use land development.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.
Policy Objective 5.4. Make investments and develop programs that support local land use decisions that implement the SCS and other strategies to reduce GHG emissions and make our communities more healthy, livable, sustainable, and mobile.	This policy reduces VMT, and ultimately GHG and air quality emissions, by promoting mixed land uses, and further reduces GHG and other contaminant emissions through the reduction of VMT.	**Potentially Consistent.** Buildout of the DRSP would require the payment of development fees by each prospective developer, including fair share contributions for identified on- and off-site transportation improvements. Additionally, the existing Road Improvement Fee Ordinance No. 2379 (1988) allows the County to collect fees to fund road construction projects that are needed to mitigate cumulative traffic impacts.
Goal 6. Practice environmental stewardship		
Policy Objective 6.3. Reduce GHG Emissions from vehicles and improve air quality of the region.	This policy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting compact mixed-use developments and a circulation system that meets the needs of all users for a range of trip purposes.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. The local circulation system is designed with a variety of pedestrian, bicycle, and equestrian facilities and connects these systems to public transit stops and the proposed Park and Ride lot. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.
Sustainable Communities Strategy		
Community Planning and Development Standards		
2. Support the update and modification of zoning and development standards in downtowns and villages to consider or support (Near): • Mixed-use, infill, and residential development, • Reduced vehicle parking requirements,	This standard is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities with	**Potentially Consistent**. The DRSP has been developed with input from various governmental agencies and has employed strategic growth and transit-oriented development principles for site planning and infrastructure.

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
• Increased bicycle parking requirements, • Intensification of land use, and • Modification of setbacks, building height, and size limitations.	transportation demand strategies.	
Infill Development and Location Efficiency		
8. Support mixed-use and infill development near existing transit services and activity centers. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Inconsistent.** The DRSP proposes a mix of residential, commercial, and open space uses outside of the existing Nipomo URL. The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service, and is generally surrounded by existing residential development; however, the project does not propose infill development and does not promote location efficiency.
11. Support the reduction of parking requirements along existing and emerging transit corridors. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.
Healthy, Livable Communities		
12. Promote healthy and livable communities and human-scale development that promotes biking and walking. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.
13. Coordinate with local jurisdictions to ensure best practices of incorporating healthy community design in land use, circulation, and health elements of agency general plans. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
14. Coordinate with public health staff to share best practices of incorporating healthy community design into policy and planning documents. (Near)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.
15. As part of agency review and comment on specific plans and significant development projects, encourage healthy and livable community design concepts, and incorporation of multimodal transportation options. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.
Land Use Transportation Connection		
18. Support local jurisdictions' efforts to direct new and future development to existing downtowns, villages, and commercial corridors. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.
19. Support local jurisdictions' efforts to improve connectivity between adjacent land uses. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
Reduce Vehicle Trips and VMT		
20. Support expanded transit service and increased frequency of transit service within and between communities to reduce vehicle trips and vehicle miles of travel. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.
21. Support local jurisdictions' efforts to improve active transportation infrastructure to replace some short vehicle trips with bike and walk trips. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.
22. Support the addition of peak-hour express transit trips to reduce vehicle congestion on major highways, and other primary transportation corridors. (Near)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.
Parking and Parking Demand Management		
24. Support roadway corridor plans in downtown and village areas that investigate how to best use existing roadway width relative to traffic demands to assess options of reducing travel lanes and providing additional on-street parking and enhanced pedestrian and bicycle facilities, additional public space, and aesthetic streetscape improvements. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The Specific Plan Area is located adjacent to the Nipomo URL in an area planned for growth, including expansion of transit service. Collector A would be designed to include transit stops, a Park and Ride lot, commercial uses, and the higher-density residential developments. Proximate land uses include the local high school and elementary school, the Tefft Street commercial corridor, the public library, and Nipomo Regional Park.

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
Complete Streets and Multi-Modal Transportation Options		
29. Support local jurisdictions' incorporation of complete streets policies as part of periodic circulation element updates. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The DRSP backbone roadway infrastructure would be designed and constructed in accordance with County Public Improvement Standards to include interconnected pedestrian and bicycle facilities that also connect with public transit.
30. Encourage local jurisdictions to establish and maintain a mix of transit, bicycle, and pedestrian access choices. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The DRSP backbone roadway infrastructure would be designed and constructed in accordance with County Public Improvement Standards to include interconnected pedestrian and bicycle facilities that also connect with public transit.
31. Support the incorporation of design features and infrastructure in new projects that support active transportation and transit users. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The DRSP backbone roadway infrastructure would be designed and constructed in accordance with County Public Improvement Standards to include interconnected pedestrian and bicycle facilities that also connect with public transit.
Resource Protection		
38. Work with federal, state, and local agencies and other stakeholders to identify priority areas for protection; enhancement of sensitive resources; carbon sequestration opportunities; and/or provide mitigation banking opportunities/funds for mitigating adverse impacts to the environment associated with transportation improvements. (Ongoing)	This strategy is focused on reducing VMT, and ultimately GHG, criteria air pollutant, PM, and TAC emissions by promoting coordinated planning efforts that focus on development of mixed-use communities and multimodal transportation systems, coupled with transportation demand strategies.	**Potentially Consistent.** The DRSP backbone roadway infrastructure would be designed and constructed in accordance with County Public Improvement Standards and would avoid identified on-site sensitive resources, such as the oak trees, and any resources at off-site locations for infrastructure improvements.

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
Funding Mechanisms		
46. Prioritize funding toward existing communities to improve the effectiveness of public investments; and support community revitalization through such strategies as encouraging redevelopment and mixed-use development along existing corridors and emerging transit corridors. (Ongoing)	This strategy is focused on soliciting input for refinements to the local circulation system as part of larger regional efforts to relieve traffic congestion, improve air quality and reduce VMT and to also ensure that future development contributes fair share costs for services and infrastructure.	**Potentially Consistent.** Improvements would require the payment of development fees by each prospective developer, including fair share contributions for needed off-site transportation improvements. Additionally, the existing Road Improvement Fee Ordinance No. 2379 (1988) allows the County to collect fees to fund road construction projects that are needed to mitigate cumulative traffic impacts.

4.8.3 Thresholds of Significance

Pursuant to the State CEQA Guidelines, the project would be considered to have a significant effect on GHG emissions if the effects exceed the significance criteria described below:

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

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Each of these thresholds is discussed under Section 4.8.6, *Project-Specific Impacts and Mitigation Measures*, below.

4.8.4 Impact Assessment and Methodology

The following impact discussion is based, in part, on the *Air Quality and Greenhouse Gas Impact Assessment* prepared for the DRSP (AMBIENT 2022). A significant impact related to GHGs would occur if the proposed project would generate GHG emissions that exceed established SLOAPCD thresholds or conflict with a plan, policy, or regulation related to GHG emissions.

4.8.5 Project-Specific Impacts and Mitigation Measures

WOULD THE PROJECT GENERATE GREENHOUSE GAS EMISSIONS, EITHER DIRECTLY OR INDIRECTLY, THAT MAY HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT?

Specific Plan Area

GHG Impact 1: The project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Impacts would be less than significant with mitigation (Class II).

CONSTRUCTION

The exact schedule for buildout of the Specific Plan Area is currently unknown but is anticipated to occur over a span of 6 years beginning in 2024 (see Table 2-11 in Chapter 2, *Project Description*). During construction for proposed buildout, fossil fuels and natural gas would be used by construction vehicles and equipment. Estimated increases in GHG emissions associated with the construction activities for buildout of the Specific Plan Area are summarized in Table 4.8-4.

Table 4.8-4. Construction-Related GHG Emissions Without Mitigation

Construction Year	GHG Emissions ($MTCO_2e$/year)
2023	747.5
2024	4,323.0
2025	4,311.1
2026	4,558.1
2027	4,159.7
2028	4,075.3
2029	4,009.3
2030	3,434.7
Construction Total	**29,618.8**
Amortized Construction Emissions[1]	**987.3**

Source: AMBIENT (2022)

[1] Amortized emissions are quantified based on a minimum 30-year project life. Refer to EIR Appendix D for modeling assumptions and results.

Based on Table 4.8-4, construction-related GHG emissions would total approximately 29,618.8 $MTCO_2e$. Amortized GHG emissions, when averaged over the assumed 30-year life of the project, would total approximately 987.3 $MTCO_2e$ per year. There would also be a small amount of GHG emissions from waste generated during construction; however, the total amount is not known. During construction of the Specific Plan Area, the project would be required to comply with CALGreen Sections 4.408 and 5.408, which require the diversion of at least 65% of the construction waste generated during construction, concurrently reducing GHG emissions from construction waste disposal. Actual emissions may vary, depending on the final construction schedules, equipment required, and activities conducted. Amortized construction-generated GHG emissions are included in the operational GHG emissions impact discussion provided below.

OPERATION

Buildout of the Specific Plan Area would result in the construction of 831 new residential single-family units, 458 new residential multi-family units, 152 ADUs, and approximately 203,000 square feet of land dedicated to commercial, hotel, education, and light industrial development. Full buildout of the Specific Plan Area is anticipated to generate a total population of 4,554 residents and 272 new employees (4,826 people) and approximately 18,662 additional daily trips (CCTC 2021). In addition, buildout of the Specific Plan Area includes development of a new 10-acre public park, a 1-acre equestrian staging area, and 8.5 to 12 acres of neighborhood pocket parks. Estimated long-term increases in GHG emissions associated with the proposed project (without mitigation) for operational year 2030 are summarized in Table 4.8-5.

Table 4.8-5. Operational GHG Emissions Without Mitigation

Operational Year/Source	2030 GHG Emissions ($MTCO_2e$/year)
Area Source[1]	32.9
Energy Use[2]	2,477.2
Motor Vehicles[3]	13,836.04
Waste[4]	368.2
Water[5]	169.6
Total Operational Emissions	16,884.0
Amortized Construction Emissions	987.3
Total with Amortized Construction Emissions	17,871.3
Service Population (SP)[6]	4,826
$MTCO_2e$/SP	**3.7**
GHG Efficiency Significance Threshold	**3.4**
Exceeds Threshold?	**Yes**

Source: AMBIENT (2022)

Note: Refer to EIR Appendix D for modeling assumptions and results.

[1] Area source includes emissions associated primarily with the use of landscape maintenance equipment.

[2] Includes adjustment for California Renewable Portfolio Standards requirements and a minimum average reduction of 70% in residential electricity use with installation of on-site residential solar PV systems and compliance with applicable building energy-efficiency standards (PG&E 2022). Does not include reduction for mitigated natural gas use.

[3] Based on default fleet mix for nonresidential land uses contained in California Emissions Estimator Model (CalEEMod) for San Luis Obispo County. Fleet mix for residential land uses based on the vehicle distribution for residential land uses obtained from the San Joaquin Valley Air Pollution Control District (SJVAPCD) and applied to San Luis Obispo County default fleet mix, per SLOAPCD recommendations (SJVAPCD 2019; SLOAPCD 2019). Includes CH_4, N_20, and CO_2 mobile source emissions expressed in CO_2e.

[4] Based on an average annual waste diversion/recycling rate of 50% based on statewide averages.

[5] Incudes use of low-flow water fixtures and water-efficient irrigation systems, per current building code requirements.

[6] Based on the estimated number of residents and employees served by the proposed project (SWCA 2021).

As shown in Table 4.8-5, operational GHG emissions, with the inclusion of amortized construction GHG emissions (see Table 4.8-2), would total approximately 17,871.3 $MTCO_2e$ per year and the calculated GHG efficiency for the proposed project would be 3.7 $MTCO_2e$ per service population per year, which would exceed the SLOAPCD significance thresholds of 3.4 $MTCO_2e$ per service population per year.

Operational GHG emissions would primarily be associated with energy use and the operation of motor vehicles. Other sources of GHG emissions also include solid waste generation and water use. The County provides solid waste diversion requirements for organic waste and recyclable materials, which would reduce some GHG emissions from operational solid waste generated by the Specific Plan Area. Further, project-generated GHG emissions are projected to decrease in future years due largely to improvements in energy efficiency and vehicle fleet emissions.

Mitigation Measures AQ/mm-3.1 and AQ/mm-3.3, included in Section 4.3, *Air Quality*, Mitigation Measure TR/mm-3.1, included in Section 4.17, *Transportation*, and GHG/mm-1.1 have been included to further reduce GHG emissions. Specifically, implementation of Mitigation Measure AQ/mm-3.1 would include measures that would reduce short-term construction emissions of GHGs, including emissions of black carbon. Mitigation Measures AQ/mm-3.3 and TR/mm-3.1 would include measures that would reduce long-term operational emissions of GHGs, including emissions associated with energy and motor vehicle use. Mitigation Measures AQ/mm-3.3 and GHG/mm-1.1 would be included to further reduce emissions associated with energy use and to ensure compliance with current building standards. The installation of electrically powered appliances and building mechanical equipment in place of natural gas-fueled equipment would further reduce on-site emissions of GHGs. In some instances, however, comparable electrified commercial equipment may not be available or practical, such as for backup emergency power generation.

Electricity for the Specific Plan Area would be provided by PG&E, which has historically been the primary electricity provider within San Luis Obispo County. Approximately 39% of electricity provided by PG&E is sourced from renewable resources and an additional 47% is sourced from nonrenewable GHG-free resources (PG&E 2019).

Following implementation of the identified mitigation measures, the GHG efficiency threshold for the proposed project would be 3.0 $MTCO_2e$ per service population per year. Mitigated operational year 2030 GHG emissions are included in Table 4.8-6.

Table 4.8-6. Operational GHG Emissions With Mitigation

Operational Year/Source	2030 GHG Emissions ($MTCO_2e$/year)
Area Source[1]	32.9
Energy Use[2]	2,080.5
Motor Vehicles[3]	10,821.6
Waste[4]	368.2
Water[5]	169.6
Total Operational Emissions:	13,472.7
Amortized Construction Emissions:	987.3
Total with Amortized Construction Emissions:	14,460.0
Service Population (SP)[6]	4,826
$MTCO_2e$/SP	3.0
GHG Efficiency Significance Threshold:	**3.4**
Exceeds Threshold?	No

Source: AMBIENT (2022)

Note: Refer to EIR Appendix D for modeling assumptions and results.

[1] Area source includes emissions associated primarily with the use of landscape maintenance equipment.

[2] Includes adjustment for California RPS requirements and a minimum average reduction of 70% in residential electricity use with installation of on-site residential solar PV systems and compliance with applicable building energy-efficiency standards (PG&E 2022).

[3] Based on default fleet mix for nonresidential land uses contained in the California Emissions Estimator Model (CalEEMod) for San Luis Obispo County. Fleet mix for residential land uses based on the vehicle distribution for residential land uses obtained from the San Joaquin Valley Air Pollution Control District (SJVAPCD) and applied to San Luis Obispo County default fleet mix, per SLOAPCD recommendations (SJVAPCD 2019; SLOAPCD 2019). Includes CH_4, N_20, and CO_2 mobile source emissions expressed in CO_2e.

[4] Based on an average annual waste diversion/recycling rate of 50% based on statewide averages.

[5] Incudes use of low-flow water fixtures and water-efficient irrigation systems, per current building code requirements.

[6] Based on the estimated number of residents and employees served by the proposed project (SWCA 2021).

As shown in Table 4.8-6, mitigated operational emissions would total approximately 14,460 $MTCO_2e$ per year and the project's GHG efficiency would be reduced to approximately 3.0 $MTCO_2e$ per service population per year, which is below the corresponding SLOAPCD efficiency threshold of 3.4 $MTCO_2e$ per service population per year for ensuring consistency with SB 32 GHG-reduction requirements. With implementation of Mitigation Measures AQ/mm-3.1, AQ/mm-3.3, GHG/mm-1.1, and TR/mm-3.1, operation of the Specific Plan Area would have a less-than-significant impact on the environment related to GHG emissions. Therefore, potential operational impacts would be *less than significant with mitigation.*

GHG Impact 1 (Class II)
The project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
Mitigation Measures
Implement Mitigation Measures AQ/mm-3.1, AQ/mm-3.3, and TR/mm-3.1.
GHG/mm-1.1 *The following measures shall be implemented to reduce project-generated emissions of greenhouse gases:* *1. To the extent practical, the proposed project shall reuse and recycle construction waste, including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard.* *2. The servicing of residential development by natural gas shall be prohibited. To the extent possible, nonresidential development shall install electrically powered appliances and building mechanical equipment in place of natural gas-fueled equipment.* *3. Encourage future land uses to participate in Central Coast Community Energy as the electricity provider if it is an option that would be available at the time of occupancy.* *4. The project shall provide organic waste pick up and shall provide the appropriate on-site enclosures consistent with County requirements.* *5. The project shall be designed to incorporate drought-resistant and native plants.* *6. The project shall be designed to incorporate water-efficient irrigation systems.* *7. The project shall be designed to incorporate low-flow water fixtures.* *8. The project shall install high-reflectance roofing materials (e.g., U.S. Environmental Protection Agency "Energy Star"-rated), to the extent practical, to reduce building heat absorption and summer energy costs.* *9. The electrical systems for single-family homes shall be designed with sufficient capacity to accommodate Level 2 residential-use electric vehicle chargers.*
Residual Impacts
With implementation of Mitigation Measures AQ/mm-3.1, AQ/mm-3.3, GHG/mm-1.1, and TR/mm-3.1, potential impacts related to short- and long-term GHG emissions would be less than significant (Class II).

Off-Site Improvements

GHG Impact 2: Off-site improvements could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Impacts would be less than significant with mitigation (Class II).

Proposed off-site transportation, water, and wastewater improvements would require short-term, intermittent construction activities that have the potential to result in ozone precursor emissions, including ROG and NOx, through construction and worker vehicle and equipment use. Proposed improvements are

anticipated to occur incrementally and would reduce the amount of total ozone precursor emissions that may result from proposed off-site improvement activities. Construction emissions are anticipated to be limited; however, the exact development plan, including the number and type of construction equipment and vehicles, is currently not known. Therefore, Mitigation Measure AQ/mm-3.1 has conservatively been included to reduce potential ozone precursor emissions during vehicle and equipment use where feasible. Therefore, construction-related emissions associated with off-site improvements would be *less than significant with mitigation*.

Operation of off-site improvements would result in a limited number of vehicle trips to proposed improvement areas for as-needed maintenance and repair trips. Operation of proposed off-site improvements would generate limited ozone precursor emissions and would be similar to existing ozone precursor emissions associated with transportation facility and NCSD maintenance activities within the community of Nipomo; therefore, operational impacts would be *less than significant*.

GHG Impact 2 (Class II)
Off-site improvements could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
Mitigation Measures
Implement Mitigation Measure AQ/mm-3.1.
Residual Impacts
With implementation of Mitigation Measure AQ/mm-3.1, potential impacts related to short- and long-term GHG emissions would be less than significant (Class II).

WOULD THE PROJECT CONFLICT WITH AN APPLICABLE PLAN, POLICY OR REGULATION ADOPTED FOR THE PURPOSE OF REDUCING THE EMISSIONS OF GREENHOUSE GASES?

Specific Plan Area

GHG Impact 3: The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Impacts would be significant and unavoidable (Class I).

As noted in Tables 4.8-4 and 4.8-5, operational GHG emissions of the proposed project would primarily be associated with energy use and mobile sources, which account for roughly 14% and 79% of the project's total operational GHG emissions, respectively. Implementation of recommended mitigation measures and compliance with current building standards would substantially reduce GHG emissions associated with energy use; therefore, project-generated GHG emissions would not exceed statewide year 2030 GHG-reduction targets, per SB 32 requirements. In addition to the statewide GHG reductions established by SB 32.

The County's *2019 Regional Transportation Plan/Sustainable Communities Strategy* was adopted by the SLOCOG Board in June 2019. The SCS component outlines how the region will meet or exceed its GHG-reduction targets as required by SB 375 through the promotion of a variety of transportation demand management and system management tools and techniques to maximize the efficiency of the transportation network. Consistency with SB 375 ensures consistency with the GHG-reduction targets set by the CARB. The 2019 SCS was found to be consistent with SB 375 and is also consistent with the general plans of the region's jurisdictions (SLOCOG 2019).

Estimated regional average VMT modeling results are summarized in Table 4.3-7 in Section 4.3, *Air Quality*. Regional average VMT per employee would decrease from 27.0 to 26.9 and VMT per capita would increase from 29.8 to 30.0 with implementation of the proposed project; therefore, VMT would exceed the significance threshold of 25.7 VMT per employee and 27.2 VMT per capita and the proposed project would not be consistent with VMT projections in the 2019 RTP/SCS. For this reason, the proposed project has the potential to conflict with regional and statewide GHG-reduction efforts, specifically those related to reductions in mobile-source GHG emissions, such as the 2019 RTP/SCS. Mitigation Measure TR/mm-3.1 in Section 4.17, *Transportation*, has been identified to reduce VMT; however, the effectiveness of transit system improvement management strategies and tailored transportation demand management strategies in reducing VMT to the extent needed to be at 15% below regional averages is not certain. Therefore, this impact would remain *significant and unavoidable*.

GHG Impact 3 (Class I)
The project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
Mitigation Measures
Implement Mitigation Measures AQ/mm-3.1, AQ/mm-3.3, GHG/mm-1.1, and TR/mm-3.1.
Residual Impacts
Implementation of Mitigation Measures AQ/mm-3.1, AQ/mm-3.3, GHG/mm-1.1, and TR/mm-3.1 would reduce potential impacts related to operational GHG emissions from the proposed project. However, the project would generate VMT in a manner that would be inconsistent with SLOCOG's 2019 RTP/SCS and the effectiveness of the identified mitigation to reduce this impact below applicable thresholds is not certain. Therefore, with implementation of identified mitigation, potential impacts would be significant and unavoidable (Class I).

Off-Site Improvements

GHG Impact 4: Off-site improvements could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Impacts would be less than significant (Class III).

Construction and operation of proposed off-site transportation, water, and wastewater infrastructure improvements would result in limited GHG emissions. Construction activities would be required to comply with state and local diesel idling restrictions and other equipment standards to reduce the GHG emissions during construction activities. Implementation of proposed off-site improvements would not result in new residential, commercial, or other buildings that would be subject to the CBC or CALGreen. Further, operational vehicle trips would be limited to as-needed maintenance and repair trips and would not generate VMT that would exceed any established thresholds. Therefore, construction and operation of proposed off-site improvements would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs and impacts would be *less than significant*.

GHG Impact 4 (Class III)
Off-site improvements could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
Mitigation Measures
Mitigation is not necessary.

GHG Impact 4 (Class III)
Residual Impacts
Based on required compliance with existing regulations, residual impacts would be less than significant (Class III).

4.8.6 Cumulative Impacts

GHG Impact 5: The project would result in a cumulatively considerable impact to greenhouse gas emissions. Cumulative impacts would be significant and unavoidable (Class I).

As discussed in Chapter 3, *Environmental Setting*, the cumulative impact analysis is based on the County's cumulative projects list. Cumulative projects would generate residential, industrial, and commercial development within the county. Project-specific impacts related to the generation of short- and long-term GHG emissions would be less than significant with mitigation. Based on required compliance with existing diesel idling requirement, the CBC and CALGreen, and the County's solid waste reduction goals, reasonably foreseeable future projects are not anticipated to result in short- or long-term GHG emissions that would conflict with established thresholds. Nevertheless, reasonably foreseeable future projects would be subject to separate environmental review to determine potential impacts related to GHG emissions and reduce GHG emissions, as necessary. Therefore, impacts would be *less than cumulatively considerable*.

The project would generate VMT that would exceed the significance threshold of 25.7 VMT per employee and 27.2 VMT per capita; therefore, the proposed project would be inconsistent with the 2019 RTP/SCS and the effectiveness of identified mitigation included to reduce this impact is not certain, thus it would remain significant and unavoidable. Reasonably foreseeable future projects would likely contribute to VMT within the vicinity of the Specific Plan Area. Individual future projects would be subject to separate environmental review to determine individual impacts related to consistency with the 2019 RTP/SCS and implement reduction measures as necessary and feasible. Other reasonably foreseeable future projects are not anticipated to generate population growth or VMT of this scale; however, reasonably foreseeable future projects within the vicinity of the Specific Plan Area still have the potential to contribute VMT and further exceed established thresholds. Since other reasonably foreseeable future projects are anticipated to generate substantially less population growth and VMT, implementation of long-term VMT reduction strategies would likely mitigate impacts to below established VMT thresholds. However, due to project-specific significant impacts, cumulative impacts would be *significant and unavoidable*.

GHG Impact 5 (Class I)
The project would result in a cumulatively considerable impact to greenhouse gas emissions.
Mitigation Measures
Implement Mitigation Measure TR/mm-3.1.
Residual Impacts
Cumulative impacts related to generation of substantial GHG emissions would be avoided through compliance with existing regulations and identified project-specific mitigation; no additional mitigation is needed to avoid or minimize potential cumulative impacts. However, the project would generate VMT in exceedance of applicable thresholds and identified mitigation included to reduce this impact is not certain. Therefore, the project would be inconsistent with the 2019 RTP/SCS and residual impacts would be significant and unavoidable (Class I).