

4.6 GREENHOUSE GAS

This section of the Environmental Impact Report (EIR) evaluates greenhouse gas (GHG) emissions associated with the SOI Plan update and analyzes Consensus Alternative compliance with applicable regulations. This section considers the SOI Plan update area and consistency with applicable plans, policies, and regulations, as well as the introduction of new sources of GHGs. Information in this section is based on methodologies and assumptions recommended by the Northern Sierra Air Quality Management District (NSAQMD) and information from the City of Nevada City (City).

- Nevada City Energy Action Plan

4.6.1 ENVIRONMENTAL SETTING

Greenhouse Gases and Climate Change

Certain gases in the earth's atmosphere, classified GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere.

Table 4.6-1: Description of Greenhouse Gases describes the primary GHGs attributed to global climate change, including their physical properties.

Table 4.6-1: Description of Greenhouse Gases

Greenhouse Gas	Description
Carbon Dioxide (CO ₂)	CO ₂ is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO ₂ is variable because it is readily exchanged in the atmosphere. CO ₂ is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N ₂ O)	N ₂ O is largely attributable to agricultural practices and soil management. Primary human-related sources of N ₂ O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N ₂ O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. The Global Warming Potential of N ₂ O is 298.
Methane (CH ₄)	Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH ₄ include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH ₄ is about 12 years and the Global Warming Potential is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase-out of Chlorofluorocarbons (CFCs) and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.

Table 4.6-1: Description of Greenhouse Gases

Greenhouse Gas	Description
Sulfur Hexafluoride (SF ₆)	SF ₆ is an inorganic, odorless, colorless, and non-toxic, non-flammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of SF ₆ is 23,900.
Hydrochlorofluorocarbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase-out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.
Nitrogen trifluoride	Nitrogen trifluoride (NF ₃) is to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200.
Source: Compiled from U.S. EPA, <i>Overview of Greenhouse Gases</i> , April 11, 2018 (https://www.epa.gov/ghgemissions/overview-greenhouse-gases); U.S. EPA, <i>Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016</i> , 2018; IPCC <i>Climate Change 2007: The Physical Science Basis</i> , 2007; National Research Council, <i>Advancing the Science of Climate Change</i> , 2010; U.S. EPA, <i>Methane and Nitrous Oxide Emission from Natural Sources</i> , April 2010.	

CO₂ is the reference gas for climate change because it is the predominant GHG emitted. The effect that each of the aforementioned gases can have is a combination of the mass of their emissions and their global warming potential (GWP). GWP indicates, on a pound-for-pound basis, how much a gas is predicted to contribute to global warming relative to how much warming would be predicted to be caused by the same mass of CO₂. For example, CH₄ and N₂O are substantially more potent GHGs than CO₂, with GWPs of 25 and 298 times that of CO₂, respectively.

In emissions inventories, GHG emissions are typically reported in terms of metric tons of CO₂ equivalents (MTCO₂e). MTCO₂e are calculated as the product of the mass emitted of a given GHG and its specific GWP. While CH₄ and N₂O have much higher GWPs than CO₂, CO₂ is emitted in such vastly higher quantities that it accounts for the majority of GHG emissions in CO₂e, both from residential developments and human activity in general.

Potential Effects of Human Activity on GHG Emissions

Fossil fuel combustion, especially for the generation of electricity and powering of motor vehicles, has led to substantial increases in CO₂ emissions (and thus substantial increases in atmospheric concentrations). In 1994, atmospheric CO₂ concentrations were found to have increased by nearly 30 percent above pre-industrial (circa 1860) concentrations.

There is international scientific consensus that human-caused increases in GHGs have contributed and would continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snowpack, sea-level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include the displacement of thousands of coastal businesses and residences, impacts on agriculture, changes in disease vectors, and changes in habitat and biodiversity. As the CARB Climate Change Scoping Plan noted,

the legislature in enacting Assembly Bill (AB) 32 found that global warming would cause detrimental effects to some of the state's largest industries, including agriculture, winemaking, tourism, skiing, commercial and recreational fishing, forestry, and the adequacy of electrical power generation. The Climate Change Scoping Plan states as follows: "The impacts of global warming are already being felt in California. The Sierra snowpack, an important source of water supply for the state, has shrunk 10 percent in the last 100 years. It is expected to continue to decrease by as much as 25 percent by 2050. World-wide changes are causing sea levels to rise – about 8 inches of increase has been recorded at the Golden Gate Bridge over the past 100 years – threatening low coastal areas with inundation and serious damage from storms." AB 32 is discussed further below under Regulatory Setting.

4.6.2 REGULATORY SETTING

The following sections provide federal, state, and local regulations for GHGs and global climate change. These agencies work jointly, as well as individually, to understand and regulate the effects of GHG emissions and resulting climate change through legislation, regulations, planning, policy-making, education, and a variety of programs.

Federal

No national standards have been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Clean Air Act

The Federal Clean Air Act (FCAA) does not specifically regulate GHG emissions; however, on April 2, 2007 the U.S. Supreme Court in *Massachusetts v. U.S. Environmental Protection Agency*, determined that GHGs are pollutants that can be regulated under the FCAA. The EPA adopted an endangerment finding and cause or contribute finding for GHGs on December 7, 2009. Under the endangerment finding, the Administrator found that the current and projected atmospheric concentrations of the six, key, well-mixed GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) threaten the public health and welfare of current and future generations. Under the 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.

Based on these findings, on April 1, 2010, the EPA finalized the light-duty vehicle rule controlling GHG emissions. This rule confirmed that January 2, 2011, is the earliest date that a 2012 model year vehicle meeting these rule requirements may be sold in the United States. On May 13, 2010, the EPA issued the final GHG Tailoring Rule. This rule sets thresholds for GHG emissions that define when permits under the Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. Implementation of the federal rules is expected to reduce the level of emissions from new motor vehicles and large stationary sources.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding

The U.S. EPA authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (carbon dioxide [CO₂], methane [CH₄], nitrous oxide [N₂O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF₆]) constitute a threat to public health and welfare. Therefore, it is the Supreme Court's interpretation of the existing Act and the U.S. EPA's assessment of the scientific evidence that form the basis for the U.S. EPA's regulatory actions.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the U.S. EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the U.S. EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the U.S. EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO₂ in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–

2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking. On January 12, 2017, the U.S. EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks. It should be noted that the U.S. EPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 mpg), canceling any future strengthening (currently 54.5 mpg by 2026).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the U.S. EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.

In August 2016, the U.S. EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program would apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO₂ emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

Clean Power Plan and New Source Performance Standards for Electric Generating Units

On October 23, 2015, the U.S. EPA published a final rule (effective December 22, 2015) establishing the carbon pollution emission guidelines for existing stationary sources: electric utility generating units (80 FR 64510–64660), also known as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO₂ emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel-fired electric generating units: (1) fossil-fuel-fired electric utility steam-generating units and (2) stationary combustion turbines. Concurrently, the U.S. EPA published a final rule (effective October 23, 2015) establishing standards of performance for GHG emissions from new, modified, and reconstructed stationary sources: electric utility generating units (80 FR 64661–65120). The rule prescribes CO₂ emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units. The U.S. Supreme Court stayed implementation of the Clean Power Plan pending resolution of several lawsuits. Additionally, in March 2017, the federal government directed the U.S. EPA Administrator to review the Clean Power Plan in order to determine whether it is consistent with current executive policies concerning GHG emissions, climate change, and energy.

Presidential Executive Order 13783

Presidential Executive Order 13783, Promoting Energy Independence and Economic Growth (March 28, 2017), orders all federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of carbon, nitrous oxide, and methane.

Presidential Executive Order 13693

Presidential Executive Order 13693, Planning for Federal Sustainability in the Next Decade, signed in 2015, seeks to maintain federal leadership in sustainability and greenhouse gas emission reductions. Its goal is to reduce agency Scope 1 and 2 GHG emissions by at least 40 percent by 2025, foster innovation, reduce spending, and strengthen communities through increased efficiency and improved environmental performance. Sustainability goals are set for building efficiency and management, energy portfolio, water use efficiency, fleet efficiency, sustainable acquisition and supply chain greenhouse gas management, pollution prevention, and electronic stewardship.

State

California Air Resources Board

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of carbon dioxide equivalents (CO₂e) in the world and produced 440 million gross metric tons of CO₂e in 2015. In the State, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark AB 32 California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major legislation related to GHG emissions reduction.

California Environmental Quality Act and Climate Change

State CEQA Guidelines

The State CEQA Guidelines are embodied in the California Code of Regulations (CCR), Public Resources Code, Division 13, starting with Section 21000. State CEQA Guidelines section 15064.4 specifically addresses the significance of GHG emissions, requiring a lead agency to make a "good-faith effort" to "describe, calculate or estimate" GHG emissions in CEQA environmental documents. Section 15064.4 further states that the analysis of GHG impacts should include consideration of: (1) the extent to which the project may increase or reduce GHG emissions; (2) whether the project emissions would exceed a locally applicable threshold of significance; and (3) the extent to which the project would comply with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions." The CEQA Guidelines also state that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including plans or regulations for the reduction of greenhouse gas emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located (State CEQA Guidelines

§15064(h)(3)). The State CEQA Guidelines do not, however, set a numerical threshold of significance for GHG emissions.

The State CEQA Guidelines also include the following direction on measures to mitigate GHG emissions, when such emissions are found to be significant:

Consistent with Section 15126.4(a), lead agencies shall consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions. Measures to mitigate the significant effects of GHG emissions may include, among others:

- (1) *Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision;*
- (2) *Reductions in emissions resulting from a project through implementation of project features, project design, or other measures;*
- (3) *Off-site measures, including offsets that are not otherwise required, to mitigate a project's emissions;*
- (4) *Measures that sequester greenhouse gases; and*
- (5) *In the case of the adoption of a plan, such as a general plan, long-range development plan, or plans for the reduction of greenhouse gas emissions, mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions.*

Senate Bill 97 (CEQA: Greenhouse Gas Emissions)

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is a prominent environmental issue requiring analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions and thresholds to analyze the effects of GHG emissions, as required by CEQA, no later than July 1, 2009. The California Natural Resources Agency was required to certify or adopt those guidelines by January 1, 2010. On December 30, 2009, the Natural Resources Agency adopted amendments to the State CEQA Guidelines, as required by SB 97. These State CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. The amendments became effective March 18, 2010.

Assembly Bill 32 (California Global Warming Solutions Act)

AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

CARB Scoping Plan

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that would be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business-as-usual"). The Scoping Plan evaluates opportunities for sector-specific reductions; integrates early actions by CARB and the State's Climate Action Team and additional GHG reduction measures by both entities; identifies additional measures to be pursued as regulations; and outlines the adopted role of a cap-and-trade program. Additional development of these measures and adoption of the appropriate regulations occurred through the end of 2013. Key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent by 2020.
- Developing a California cap-and-trade program that links with other programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions (adopted in 2011).
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets (several Sustainable Communities Strategies have been adopted).
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, heavy-duty truck measures, the Low Carbon Fuel Standard (amendments to the Pavley Standard adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).
- Creating targeted fees, including a public goods charge on water use, fees on gasses with high global warming potential, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation (CARB 2008).

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relied on emissions projections updated considering current economic forecasts that accounted for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This update reduced the projected 2020 emissions from 596 million metric tons of CO₂e (MMTCO₂e) to 545 MMTCO₂e. The reduction in forecasted 2020 emissions means that the revised business-as-usual reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent, down from 29 percent. CARB also provided a lower 2020 inventory forecast that incorporated State-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from business-as-usual needed to achieve the goals of AB 32 is approximately 16 percent.

CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California

and the levels of GHG emissions reductions necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32.

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan. On December 14, 2017, CARB adopted a second update to the Scoping Plan¹. The 2017 Scoping Plan details how the State would reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and support the Clean Power Plan and other federal actions.

SB 375 (The Sustainable Communities and Climate Protection Act of 2008)

Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies.

AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the U.S. EPA's denial of an implementation waiver. The U.S. EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules would be fully implemented, new automobiles would emit 34 percent fewer CO₂ emissions and 75 percent fewer smog-forming emissions.

SB 1368 (Emission Performance Standards)

SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions

¹ California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed November 13, 2018.

of a relatively clean, combined-cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 lbs. CO₂ per megawatt-hour (MWh).

SB 1078 and SBX1-2 (Renewable Electricity Standards).

SB 1078 requires California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the State's load-serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. SBX1-2, which codified the 33 percent by 2020 goal.

SB 350 (Clean Energy and Pollution Reduction Act of 2015)

Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 45 percent by 2027) and to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator (ISO) to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs with executive orders. Although not regulatory, they set the tone for the State and guide the actions of State agencies.

Executive Order S-3-05

Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that would stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07

Issued on January 18, 2007, Executive Order S 01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the Low Carbon Fuel Standard on April 23, 2009.

Executive Order S-13-08

Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-14-08

Issued on November 17, 2008, Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly-owned electricity retailers.

Executive Order S-21-09

Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Executive Order B-30-15

Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MMCO₂e. The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The Executive Order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Regulations

The appliance efficiency regulations (California Code of Regulations Title 20, §§1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

Title 24 Building Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations Title 24, Part 6), was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy-efficient technologies and methods. Energy-efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2016 Building Energy Efficiency Standards approved on January 19, 2016 went into effect on January 1, 2017. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and take effect on January 1, 2020. Under the 2019 standards, homes would use about 53 percent less energy and nonresidential buildings would use about 30 percent less energy than buildings under the 2016 standards.

Among the key mandatory provisions are requirements that new buildings:

- Reduce indoor potable water use by at least 20 percent below current standards;
- Recycle or salvage at least 50 percent of construction waste;
- Utilize low VOC-emitting finish materials and flooring systems;
- Install separate water meters tracking non-residential buildings' indoor and outdoor water use;
- Utilize moisture-sensing irrigation systems for larger landscape areas;
- Receive mandatory inspections by local officials of building energy systems, such as HVAC and mechanical equipment, to verify performance in accordance with specifications in non-residential buildings exceeding 10,000 square feet; and
- Earmark parking for fuel-efficient and carpool vehicles.

Northern Sierra Air Quality Management District

The NSAQMD has not yet established significance thresholds for GHG emissions from project operations. However, the NSAQMD requires quantification of GHG emissions for decision-makers and the public to consider.

Nevada City

Nevada City approved the Energy Action Plan (EAP) in May of 2015, which is a roadmap for expanding energy-efficiency and renewable-energy efforts already underway in the City. The EAP report focused on energy consumed by buildings and municipal operations; and did not address other sectors such as transportation and solid waste. The two primary energy sources in the City are electricity and natural gas. Propane also could be a potentially significant fuel use, but due to data limitations was not addressed in the EAP. The Goals of the EAP address five key areas: 1) Energy efficiency in existing structures; 2) Energy performance in new construction; 3) Expansion of renewable energy options; 4) Energy efficiency in municipal operations; 5) Water conservation which reduces energy needed to transport and treat water. The strategies focus on voluntary measures that can be taken by residents, businesses and the local government. Key components include developing and disseminating information on existing rebate and incentive programs; public outreach via the City’s website and printed materials; training for staff, contractors and developers; and partnerships with PG&E and local and regional organizations. The EAP includes an Implementation Program and provides a matrix with timetable, implementation action, which support strategies are relevant, and City department responsible for oversight to reach the 2020 goals. The success of the EAP is to be measured by evaluation of the EAP as a whole and evaluation of the individual strategies.

Nevada City General Plan

The Nevada City General Plan does not contain a statement regarding air quality.

Nevada City Municipal Code

Title 15 Buildings and Construction lists the purpose of this portion of the code in Chapter 15.04.005 Purpose. The chapter was enacted to provide the minimum standards to safeguard life or limb, health, property and public welfare by regulating building and associated activities consistent with the 2016 edition of the California Building Standards and consistent with and complementary to standards adopted by the County of Nevada. More specifically, Chapter 15.04.015 California Codes Adopted, subsection I states, “the 2019 edition of the California Building Standards Code, known as the California Code of Regulations, Title 24, Part 11 (California Green Building Standards Code), the whole thereof with State amendments.”

4.6.3 STANDARDS OF SIGNIFICANCE

Significance Criteria and Thresholds

Based upon the criteria derived from Appendix G of the CEQA Guidelines, a project minimum would have a significant effect on the environment if it would:

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

NSAQMD 2016 Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects requires GHG emissions to be quantified for decision-makers and the public to consider; however, it does not have thresholds for GHG emissions (NSAQMD 2016). As discussed in Section 15064.4 of the State CEQA Guidelines, the determination of the significance of GHG emissions calls for a careful judgment by the Lead Agency, consistent with the provisions in Section 15064. Section 15064.4 further provides that a Lead Agency should make a good faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. This report provides an assessment of GHG emissions and impacts for informational purposes.

Methodology

Global climate change is, by definition, a cumulative impact of GHG emissions. Because the proposed project consists of a SOI Plan update and no concrete project or plans, there is no project-level analysis. The baseline against which to compare potential impacts of the project includes the natural and anthropogenic drivers of global climate change, including world-wide GHG emissions from human activities almost doubled between 1970 and 2010 from approximately 20 gigatonnes (Gt) of CO₂/yr to nearly 40 GtCO₂/yr. As such, the geographic extent of the climate change and GHG emissions cumulative impact discussion is worldwide.

4.6.4 PROJECT IMPACTS AND MITIGATION

Impacts Discussion Overview

The Impacts Discussion Overview describes the characteristics of the Consensus Alternative, development potential, assumptions for provision of services, and City and environmental review requirements related to greenhouse gas emission. This discussion is applicable to each impact, Impact 4.5-1 and 4.5-2, below, but is provided here to avoid repetitive discussion.

The Consensus Alternative would update the SOI Plan area, and future development projects under City jurisdiction would occur only after being annexed to the City. The majority of these undeveloped areas within the Consensus Alternative area are designated for estate residential, rural residential, or open space with minor areas designated for planned development, employment centers, public uses, or service commercial. Development in these areas is anticipated to be consistent with the existing City designations.

In addition, the six potential development areas identified by the City are discussed throughout this document. These sites do not yet have any development approval and the specific project footprints are unknown. Annexation and the anticipated timeline for built out would occur over a period of time and is anticipated to be at similar densities as to what is shown in the project description and in accordance with existing City planning documents.

Within the Consensus Alternative boundaries there are four priority annexation areas. These areas in general are already developed, are in close proximity to, or are already being served by existing water or wastewater lines. These areas are in logical locations for extension of City municipal services and

represent a logical progression of City boundaries. Given that most of these areas would not require the extension of services such as public sewer or water, disturbance would be low, and given the sites have exiting uses, the potential to generate a new source of greenhouse gas is minimal.

All future City development after annexation within the Consensus Alternative area, including the six potential development areas would be subject to City design and review as part of City's project review process. All projects would be evaluated for consistency with the NCGP, Nevada City Municipal Code, Nevada City Design Guidelines. The City also has authority to prezone all future annexations to Nevada City, and for annexations that include new development, the City would be able to specify conditions to ensure that future projects would incorporate all required elements from regulatory guidance related to GHGs. The project by project review also would include a City led CEQA analysis and as applicable, would require project-specific mitigation measures or binding conditions of approval to reduce impacts related to emissions.

Impact GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that could have a significant impact on the environment?

Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of Greenhouse Gases (GHGs) have a broader, global impact. Global warming associated with the "greenhouse effect" is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the earth's atmosphere. Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors.

The Consensus Alternative would not directly implement any development proposals, new construction, new entitlements or improvements. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources. The Consensus Alternative would not result in any direct impacts to the production or emission of GHGs.

Indirectly, the Consensus Alternative could result in the emission of GHGs from the future annexation and development and eventual operation of projects. At that time construction impacts would occur from future projects could occur as well as from operational sources such as emissions from natural gas usage and automobile emissions, and secondary operations emissions from electricity consumption, water demand, and solid waste generation. Based on the potential development within Consensus Alternative, specifically within the six potential development areas, the CO₂ emissions (CO₂e) were estimated. Because the specific details regarding construction including (grading, earthwork, number of workers, needed equipment, operational hours and days, area of disturbance, etc.) are unknown, it was not feasible to estimate the potential CO₂e that would result from construction activities. However, based on the maximum potential density, the CO₂e from operations of the six potential development projects was calculated. Emissions sources include area, energy, mobile, waste, and water and are shown in Table 4.15-17 *GHG Operational Emissions*.

Table 4.6-2: GHG Operational Emissions

Emission sources	CO₂e* (MT/y)
Area	797
Energy	3,154
Mobile	11,564
Waste	274
Water	146
Total	15,935

Source: CalEEMod Version: CalEEMod.2016.3.2
Abbreviations:
CO₂e- carbon dioxide equivalent – expresses the amount of each different greenhouse gas in terms of CO₂.
MR/y – Metric tons per year

The NSAQMD does not have adopted GHG thresholds; it is typical to reference thresholds applied within other air districts. In this case, many air districts use 10,000 metric tons per year threshold for determining whether a project's GHG impacts are significance. Other air districts use a project's ability to reduce emissions by 29% of Year 2005 emissions. In the absence of adopted thresholds and based on the Consensus Alternative emissions of 15,935 MT/y, the Consensus Alternative is considered to have a potentially significant impact on GHG.

Under Nevada City Municipal Code 15.04.015, the City has adopted the 2016 edition of the California Building Standards Code, known as the California Code of Regulations, Title 24, Part 11 (California Green Building Standards Code), the whole thereof with State amendments. Under this code, the City would require new construction to meet these standards.

It is important to note that LAFCo has a specific policy related to environmental consequences. This policy states that LAFCo shall operate in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Sections 21000. LAFCo shall assess the environmental consequences of its actions and decisions and take actions to avoid or minimize a project's adverse environmental impacts, if feasible, or may approve a project despite significant effects because it finds overriding considerations exist in compliance with the State CEQA Guidelines. While this attention has been given to the Consensus Alternative, the same considerations will be given to future annexation proposals and would similarly reduce the potential for environmental impacts associated with GHG emission.

Lastly, as part of the project approval process the City will evaluate future annexations and development proposals on a project by project basis. As part of this review, the City may as reasonable and feasible impose conditions of approval on future projects. Conditions in regard to GHG emissions can be required prior to project approval. Accordingly, Mitigation Measure GHG-1 details this and lists a number of measures or conditions the City may require reducing GHG emissions that would indirectly result from approval of the SOI Plan update.

Mitigation Measures:

MM-GHG-1: Prior to LAFCo approval of an annexation involving new, non-ministerial development and construction, the City shall ensure the project applicant will implemented, to the extent feasible, measures in compliance with all state and local requirements and policies to reduce the volume of GHGs released from

construction and operation of their project. As part of the required CEQA review for future annexations, as applicable, the City shall provide the applicant with a list of measures that can be included to projects to reduce GHGs. The list shall consist of but not be limited to the following:

Construction-

- Work collaboratively with applicants to obtain low-interest financing to meet minimum energy efficiency;
- Adopt the California Title 24 minimum requirements and require new construction to meet Tier 1 or Tier 2 standard of the CALGreen Code.
- Require the install of SmartMeters on all new construction in the SOI Plan update area;
- Require and enforce state requirements for cool roofs on new projects;
- Encourage the use of native and drought-tolerant landscaping plants;
- Require landscaping to use drip irrigation when feasible;
- Public projects should use high albedo paving materials;
- Use prefabrication when possible to reduce waste materials;
- Encourage new homes and businesses to be pre-wired for solar installation;
- Encourage new construction to use recycled building materials;
- Require the use of No-VOC floor sealant and when feasible, No-VOC building materials;
- Request applicant's plant or replant additional trees to minimize the urban-heat island effect;
 - Set a goal of achieving 50% paved-surface shading within five to ten years of project completion.

Operation

- Provide businesses and residents with information regarding rebate programs;
- Encourage the use of solar installation to power newly completed projects;
- Encourage the use of alternative transportation;
- Require the use of photosensors and time clocks to turn off exterior lighting;
- Require new lighting to provide even light distribution and use LED lamps;
- Require the use of high-efficiency restroom features; and
- Require the use of computerized building management systems for HVAC operation.

The NASQMD has not adopted thresholds related to the emission of GHG. As discussed above, GHG emissions have an impact that reaches across the globe and not just at a regional level. While it is anticipated that due to the relatively small-scale future development that would occur within the City post annexations, GHG emissions, with recommendations shown above would be reduced, it is uncertain if the reduction would be reduced to less than significant. Therefore, the indirect contribution of the proposed project is considered significant and unavoidable.

Level of Impact After Mitigation: Impacts would be significant and unavoidable.

Impact GHG-2: *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The latest CARB Climate Change Scoping Plan (2017) outlines the state's strategy to return reduce state's GHG emissions to return to 40 percent below 1990 levels by 2030 pursuant to SB 32. The CARB Scoping Plan is applicable to state agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

The Consensus Alternative would not directly implement any development proposals, new construction, new entitlements or improvements. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources. The Consensus Alternative would not result in any direct impacts to the production or emission of GHGs. Impacts in this regard would be less than significant.

Regarding the potential for indirect impacts from future annexation and subsequent development projects to result in impacts, these are considered potentially significant. MM-GHG-1 provides a number of reduction measures that the City can require to be implemented in an attempt to meet statewide standards. Additional strategies such requiring project to meet the Pavley I motor vehicle emission standards, the Low Carbon Fuel Standard (LCFS), and the 2016 Title 24 Energy Efficiency Standards, also could be implemented. It should be noted that even if GHG modeling was feasible for the SOI Plan update, the available modeling program(s) do not incorporate reductions from the Pavley II (LEV III) Advanced Clean Cars Program (extends to model year 2025), the Renewable Portfolio Standards (RPS), Green Building Code Standards for indoor water use, or the California Model Water Efficient Landscape Ordinance (outdoor water), or the latest 2019 Title 24 Energy Efficiency Standards (effective January 1, 2020).

The proposed project would not result in changes to existing planning document or increase the land use densities within the overall SOI plan area or the planned land use and densities within likely annexation areas. Potential incorporation to the City would not result in conflicts with land use planning or policy documents meant to avoid or mitigate environmental impacts including those targeted at reducing GHG emissions. As areas are annexed to the City, all applicable plans, policies and permitting requirements aimed at protection of environmental resources would be applied to the areas for which development and use is proposed. Therefore, in addition to the incorporation of MM-GHG-1, conformance to listed standards would help ensure the city will ensure that all future annexations and projects would implement all applicant statewide strategies to reduce GHG emissions. Therefore, impacts would be less than significant in this regard.

Mitigation Measures: Less than significant with Mitigation Incorporated.

4.6.5 CONCLUSION

As described above, the proposed project would exceed operational efficiency metrics should all the likely annexation areas be developed. This impact warrants the implementation of mitigation, but even with mitigation, impacts would remain significant. The proposed project would not conflict with the plans, programs, or policies designed to reduce greenhouse gas emissions. These impacts would be less than significant.

4.6.6 CUMULATIVE IMPACTS

It is generally the case that a SOI update, such as the proposed project, would not result in direct cumulative impacts because there is no associated development. The SOI Plan update; however, has the potential to result in indirect cumulative impacts. Due to the size and nature of the proposed project; it is not possible to specifically account for GHG emissions and to measure the influence climate change or account for if the project would result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. By definition, considering findings by the IPCC and State of California, cumulative GHG emissions are significant and unavoidable. As discussed above, the State has implemented a vast array of regulations, policies, and programs to reduce the State's contribution to global GHG emissions.

As discussed above, the NASQMD does not have any thresholds for GHG emissions and all future development with the potential to generate GHG emissions would be required to demonstrate compliance with applicable federal and state regulatory requirements, including City Municipal Code requiring conformance with title 24. The proposed project also would be consistent with the goals and policies in the CARB Scoping Plan. Lastly, the cumulative impacts to GHG emissions are anticipated to be mitigated on a project-by-project level with implementation of MM-GHG-1. Nonetheless, it is not possible to account for all potential emissions that could occur indirectly from approval of the SOI Plan update. Therefore, these impacts would be cumulatively considerable.

Mitigation Measures: Implement MM-GHG-1.

Level of Impact After Mitigation: Impacts would be significant and unavoidable.