4.5 GREENHOUSE GAS EMISSIONS

Based on the analysis in the Initial Study (see Appendix A of this Draft EIR) it was determined that construction and operation of the proposed project could potentially generate greenhouse gas (GHG) emissions that may have a significant effect on the environment and conflict with an applicable GHG plan. Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, would not generate enough GHG emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact. Therefore, the GHG chapter measures the proposed project's contribution to this cumulative impact.

The analysis in this chapter is based in part on the *Greenhouse Gas Emissions Assessment for the proposed Westport Project, in the City of Cupertino, California*, prepared by Kimley-Horn and Associates, and peer reviewed by PlaceWorks, in July 2019. A complete copy of this GHG study is included in Appendix E, Greenhouse Gas Emissions Assessment, of this Draft EIR. A third-party peer review of this report was completed by PlaceWorks.

4.5.1 ENVIRONMENTAL SETTING

4.5.1.1 GREENHOUSE GASES AND CLIMATE CHANGE

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). 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 or global warming.

Table 4.5-1 describes the primary GHGs attributed to global climate change, including their physical properties.

TABLE 4.5-1 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_2O)	N_2O is largely attributable to agricultural practices and soil management. Primary human-related sources of N_2O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N_2O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is

TABLE 4.5-1 DESCRIPTION OF GREENHOUSE GASES

Greenhouse Gas	Description
	approximately 120 years. The Global Warming Potential of N_2O 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.
Sulfur Hexafluoride (SF_6)	SF_6 is an inorganic, odorless, colorless, and nontoxic, nonflammable 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) was added 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 Unites States Environmental Protection Agency (USEPA), *Overview of Greenhouse Gases*, April 11, 2018. (https://www.epa.gov/ghgemissions/overview-greenhouse-gases); USEPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018; IPCC *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; USEPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010.

4.5.1.2 REGULATORY FRAMEWORK

This section summarizes key federal, State and local regulations and programs related to GHG emissions resulting from the proposed project.

Federal

To date, 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.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 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.

United States Environmental Protection Agency Endangerment Finding

The United States Environmental Protection Agency (USEPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The U.S. 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 U.S. Supreme Court's ruling, the USEPA finalized an endangerment finding in December 2009. Based on scientific evidence, the USEPA found that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare. Thus, it is the U.S. Supreme Court's interpretation of the Clean Air Act and the USEPA's assessment of the scientific evidence that form the basis for the USEPA'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 USEPA, 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 USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 to 2016. In 2010, an Executive Memorandum directed the Department of Transportation, Department of Energy, USEPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 to 2025 light-duty vehicles. The proposed standards projected to achieve

163 grams per mile of CO_2 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 to 2021, and NHTSA intends to set standards for model years 2022 to 2025 in a future rulemaking. On January 12, 2017, the USEPA finalized its decision to maintain the current GHG emissions standards for model years 2022 to 2025 cars and light trucks. It should be noted that the USEPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 miles per gallon), canceling any future strengthening (currently 54.5 miles per gallon by 2026). In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014 to 2018.

The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the USEPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines. In August 2016, the USEPA 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 will 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 CO_2 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.

State

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 (CO_2e) in the world and produced 459 million gross metric tons of CO_2e in 2013. The transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The Legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the U.S. Some legislation, such as the landmark Assembly Bill 32 (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. The following describes the major provisions of the legislation.

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 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").[1] The Scoping Plan evaluates opportunities for sector-specific reductions; integrates early actions by CARB and the State 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.[2] Additional development of these measures and adoption of the appropriate regulations occurred through the end of 2013.

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

2017 Scoping Plan Update

On December 14, 2017 CARB adopted a second update to the Scoping Plan. The 2017 Scoping Plan details how the State will 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.

[1] CARB defines business-as-usual (BAU) in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

2 The Climate Action Team, led by the secretary of the California Environmental Protection Agency, is a group of State agency secretaries and heads of agencies, boards, and departments. Team members work to coordinate statewide efforts to implement global warming emissions reduction programs and the State's Climate Adaptation Strategy.

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

Signed into law on September 30, 2008, SB 375 was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. 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.

Assembly Bill 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 USEPA's denial of an implementation waiver. The USEPA subsequently granted the requested waiver in 2009, which was upheld by the 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 to 2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions.

Senate Bill 1078, SB 107, 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 Executive Order S-14-08 was signed, 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, adopted on March 29, 2011, codifies 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 25 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 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 through the use of 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 will 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. In particular, the executive order established a Low Carbon Fuel Standard 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-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 of energy to derive from renewable sources 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 to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California Renewable Portfolio Standard 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 $MMCO_2e$. 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 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, Sections 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 June 1977 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, single family homes would be about 53 percent more energy efficient and nonresidential buildings would be about 30 percent more energy efficient than buildings under the 2016 standards.

Title 24 California Green Building Standards Code.

The California Green Building Standards Code (California Code of Regulations Title 24, Part 11 code) commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics.

Regional

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is the regional agency with jurisdiction over the nine-county region located in the Basin. The Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), county transportation agencies, cities and counties, and various nongovernmental organizations also join in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs.

2017 Clean Air Plan

The 2017 *Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan) provides a regional strategy to protect public health and reduce GHG emissions in the Bay Area. The 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050 and provides a regional climate protection strategy that would put the Bay Area on a pathway to achieve those GHG reduction targets. The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

Local

Cupertino General Plan

The Cupertino General Plan (Community Vision 2015-2040), includes policies that are relevant to the reduction of GHG emissions and applicable to the proposed project. The policies are identified in Chapter 5, Mobility; Chapter 6, Environmental Resources Sustainability; and Chapter 8, Infrastructure, of the General Plan and listed in Table 4.5-2.

TABLE 4.5-2 GENERAL PLAN POLICIES RELEVANT TO GHG EMISSIONS

Policy Number	Policy
Chapter 5, Mobility Element (M)	
Policy M-8.1	**Greenhouse Gas Emissions.** Promote transportation policies that help to reduce greenhouse gas emissions.
Policy M-8.2	**Land Use.** Support development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita Vehicle Miles Traveled (VMT), reducing impacts on the City's transportation network and maintaining the desired levels of service for all modes of transportation.
Policy M-8.5	**Design of new developments.** Encourage new commercial developments to provide shared office facilities, cafeterias, daycare facilities, lunchrooms, showers, bicycle parking, home offices, shuttle buses to transit facilities and other amenities that encourage the use of transit, bicycling or walking as commute modes to work. Provide pedestrian pathways and orient buildings to the street to encourage pedestrian activity.
Policy M-8.6	**Alternative Fuel Charging Stations.** Develop a city-wide strategy to encourage the construction of a network of public and private alternative fuel vehicle charging/ fueling stations

TABLE 4.5-2 GENERAL PLAN POLICIES RELEVANT TO GHG EMISSIONS

Policy Number	Policy
Chapter 6, Environmental Resources and Sustainability (ES)	
Policy ES-1.1	**Principles of Sustainability.** Incorporate the principles of sustainability into Cupertino's planning, infrastructure and development process in order to improve the environment, reduce greenhouse gas emissions and meet the needs of the community without compromising the needs of future generations. ▪ **Strategy ES-1.1.1:** Climate Action Plan (CAP). Adopt, implement and maintain a Climate Action Plan to attain greenhouse gas emission targets consistent with state law and regional requirements. This qualified greenhouse gas emissions reduction plan, by BAAQMD's definition, will allow for future project CEQA streamlining and will identify measures to: • Reduce energy use through conservation and efficiency • Reduce fossil fuel use through multi-modal and alternative transportation • Maximize use of and, where feasible, install renewable energy resources • Increase citywide water conservation and recycled water use • Accelerate Resource Recovery through expanded recycling, composting, extended producer responsibility and procurement practices • Promote and incentivize each of those efforts to maximize community participation and impacts • Integrate multiple benefits of green infrastructure with climate resiliency and adaptation. ▪ **Strategy ES-1.1.2: CAP and Sustainability Strategies Implementation.** Periodically review and report on the effectiveness of the measures outlined in the CAP and the strategies in this Element. Institutionalize sustainability by developing a methodology to ensure all environmental, social and lifecycle costs are considered in project, program, policy and budget decisions. ▪ **Strategy ES-1.1.3: Climate Adaptation and Resiliency.** Conduct a climate vulnerability assessment and set preparedness goals and strategies to safeguard human health and community assets susceptible to the impacts of a changing climate (e.g., increased drought, wildfires, flooding). Incorporate these into all relevant plans, including the Emergency Preparedness Plan, Local Hazard Mitigation Plan, Dam Failure Plan, Climate Action Plan, Watershed Protection Plan, and Energy Assuredness Plan.
Policy ES-1.2	**Regional Growth and Transportation Coordination.** Coordinate with local and regional agencies to prepare updates to regional growth plans and strategies, including the Regional Housing Allocation Needs Allocation (RHNA), One Bay Area Plan, Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS). ▪ **Strategy ES-1.2.1 Local Plan Consistency with Regional Plans.** Update and maintain local plans and strategies so they are consistent with One Bay Area Plan to qualify for State transportation and project CEQA streamlining.
Policy ES-2.1	**Conservation and Efficient Use of Energy Resources.** Encourage the maximum feasible conservation and efficient use of electrical power and natural gas resources for new and existing residences, businesses, industrial and public uses.
Policy ES-3.1	**Green Building Design.** Set standards for the design and construction of energy and resource conserving/efficient building.
Chapter 8, Infrastructure (INF)	
Policy INF-4.13	**Energy and Water Conservation**. Encourage energy and water conservation in all existing and new residential development. ▪ Strategy 1. Enforcement of Title 24. The City will continue to enforce Title 24 requirements for energy conservation and will evaluate utilizing some of the other suggestions as identified in the Environmental Resources/ Sustainability element. ▪ Strategy 2. Sustainable Practices. The City will continue to implement the Landscape Ordinance for water conservation and the Green Building Ordinance that applies primarily to new residential and nonresidential development, additions, renovations, and tenant improvements of ten or more units. To further the objectives of the Green Building Ordinance, the City will evaluate the potential to provide incentives, such as waiving or reducing fees, for energy conservation improvements at affordable housing projects (existing or new) with fewer than ten units to exceed the minimum requirements of the

TABLE 4.5-2 GENERAL PLAN POLICIES RELEVANT TO GHG EMISSIONS

Policy Number	Policy
	California Green Building Code. This City will also implement the policies in its climate action plan to achieve residential-focused GHG emission reductions and further these community energy and water conservation goals.
Policy INF-5.44	**Reducing Waste.** Meet or exceed federal, State and regional requirements for solid waste diversion through implementation of programs. ▪ **Strategy 6. Construction Waste.** Encourage recycling and reuse of building materials during demolition and construction of City, agency and private projects.

Source: Cupertino General Plan (Community Vision 2015-2040).

Cupertino Municipal Code

The Cupertino Municipal Code (CMC) includes various directives to minimize GHG emissions. The provisions related to potential impacts from the proposed project are included in Title 6, Franchises and Title 16, Buildings and Construction, as follows:

- **Chapter 6.24, Garbage, Non-Organic Recycling and Organic Waste Recycling Collection and Disposal.** Section 6.24.037, Mandatory Organic Recycling for Business Structures, includes standards for businesses and multi-family residents to subscribe to and maintain organic material (including food waste) recycling services for each business or individual household in the multi-family dwelling.
- **Chapter 16.58, Green Building Ordinance.** This chapter includes the CALGreen requirements with local amendments for projects in the city. As part of the City's Green Building Ordinance (Section 15.58.220), the City requires new construction over certain sizes (greater than 9 residential units or 25,000 square feet of non-residential development and greater) to build to Leadership in Energy and Environmental Design (LEED) or alternative reference standards. The LEED construction and/or other types of equivalent green building verification systems typically require enhanced building energy efficiency, which reduces heating and cooling requirements of a building and therefore also reduces GHG emissions. Section 15.58.400 requires the installation of Electric Vehicle Supply Equipment for the charging of electric vehicles.
- **Chapter 16.72, Recycling and Diversion of Construction and Demolition Waste.** This chapter establishes regulations to comply with the California Waste Management Act of 1989. The City of Cupertino has adopted construction and demolition debris diversion requirements that are consistent with the new requirements under CALGreen for mandatory construction recycling. Construction and demolition debris recycling requirements vary by project type. Pursuant to the Chapter 16.72, projects that involve the construction, demolition, or renovation of 3,000 square feet or more are required to adhere to the City's construction and demolition diversion requirements. Applicants for any covered project are required to recycle or divert (recycle or salvage) at least 60 percent of all generated construction and demolition debris tonnage. Applicants are required to prepare and submit a Waste Management Plan to the Public Works Department that outlines:
  - The estimated volume or weight of project construction and demolition debris, by material type, to be generated.

- The maximum volume or weight of such materials that can feasibly be diverted via reuse or recycling.
- The vendor that the applicant proposes to use to haul the materials (consistent with the provisions of CMC Chapter 6.24).
- The facility to which the materials will be hauled (approved by the City).
- The estimated volume or weight of construction and demolition debris that will be land-filled.

Cupertino Climate Action Plan

The Cupertino Climate Action Plan (CAP) is a strategic planning document that identifies sources of GHG emissions within the City's boundaries, presents current and future emissions estimates, identifies a GHG reduction target for future years, and presents strategic goals, measures, and actions to reduce emissions from the energy, transportation and land use, water, solid waste, and green infrastructure sectors. The emissions reduction strategies, developed by the City, follow the BAAQMD's CEQA Guidelines[3] and the corresponding criteria for a "qualified GHG Emissions reduction program" as defined by BAAQMD, which in turn were developed to comply with the requirements of AB 32 and achieve the goals of the CARB Scoping Plan. A qualified GHG emissions reduction program adopted by a local jurisdiction should include the elements below, as described in CEQA Guidelines Section 15183.5. The following BAAQMD's CEQA Guidelines[4] provide the methodology to determine whether a GHG reduction program meets these requirements:

- Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
- Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.
- Specify measures or a group of measures, including performance standards, which substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.
- Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels.
- Be adopted in a public process following environmental review.

The City's CAP meets BAAQMD guidelines for a qualified GHG emissions reduction program as follows:

- The CAP quantifies citywide GHG emissions, both existing and projected over the specified time period, resulting from activities within the city as defined by the Cupertino General Plan (Community Vision 2015-2040).

[3] Bay Area Air Quality Management, May 9, 2017, Updated CEQA Guidelines. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

[4] Bay Area Air Quality Management, May 9, 2017, Updated CEQA Guidelines. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

- The CAP establishes a level, based on substantial evidence, below which the contribution of emissions from activities covered by the plan would not be cumulatively considerable.
- CAP policy provisions reduce emissions to 15 percent below 2005 levels by 2020.
- CAP policy provisions reduce emissions to 35 percent below 2005 levels by 2030.
- CAP policy provisions provide a foundation for the City to reach the goal of reducing emissions to 80 percent below 1990 levels by 2050.
- The CAP identifies and analyzes the emissions resulting from specific actions or categories of actions anticipated within the city.
- The CAP specifies measures or a group of measures, including performance standards.
- The CAP establishes a mechanism to monitor its progress toward achieving the level and to require amendment if the plan is not achieving specific levels.

The City of Cupertino's CAP was first published in January 2015. The City has since released a 2015 CAP Progress Report, 2015 GHG Inventory Update, 2016 CAP Progress Report, and 2017 CAP Progress Report. The CAP is a strategy to achieve 15 percent reduction in carbon emissions by the year 2020, 49 percent reduction by 2035, and 83 percent by 2050.

The CAP consists of measures that identify the steps the City will take to support reductions in GHG emissions. The GHG reduction measures proposed in the CAP build on the GHG inventory results and key opportunities prioritized by City staff, members from the community, and elected officials. The CAP consists of goals, measures, and actions that identify steps the City will take to support reducing GHG emissions. The City of Cupertino will achieve GHG emission reductions through a mix of voluntary programs and new strategic measures. The standards presented in the CAP respond to the needs of development, avoid unnecessary regulation, streamline new development, and achieve more efficient use of resources. Community-wide goals and measures from the CAP that are applicable to the proposed project are shown in Table 4.5-3 below.

TABLE 4.5-3 CLIMATE ACTION PLAN GOALS AND MEASURES

Number	Goal/Measure
Goal 1	**Reduce Energy Use.** Increase energy efficiency in existing homes and buildings and increase use of renewable energy community-wide.
Measure C-E-5	**Community-wide Solar Photovoltaic Development.** Encourage voluntary community-wide solar photovoltaic development through regulatory barrier reduction and public outreach campaigns.
Goal 2	**Encourage Alternative Transportation.** Support transit, carpooling, walking, and bicycling as viable transportation modes to decrease the number of single occupancy vehicle trips within the community.
Measure C-T-1	**Bicycle & Pedestrian Environment Enhancements**. Continue to encourage multi-modal transportation, including walking and biking, through safety and comfort enhancements in the bicycle and pedestrian environment.
Measure C-T-6	**Transit-Oriented Development.** Continue to encourage development that takes advantage of its location near local transit options (e.g., major bus stops) through higher densities and intensities to increase ridership potential.
Measure C-T-7	**Community-Wide Alternative Fuel Vehicles.** Encourage community-wide use of alternative fuel vehicles through expansion of alternative vehicle refueling infrastructure.
Goal 3	**Conserve Water.** Promote the efficient use and conservation of water in buildings and landscapes.

TABLE 4.5-3 CLIMATE ACTION PLAN GOALS AND MEASURES

Number	Goal/Measure
Measure C-W-1	SB-X7-7. Implement water conservation policies contained within Cupertino's Urban Water Management Plan to achieve 20 percent per capita water reductions by 2020.
Goal 4	Reduce Solid Waste. Strengthen waste reduction efforts through recycling and organics collection and reduced consumption of materials that otherwise end up in landfills.
Measure C-SW-3	Construction and Demolition Waste Diversion Program. Continue to enforce diversion requirements in City's Construction & Demolition Debris Diversion and Green Building Ordinances.

Source: City of Cupertino, 2015, Climate Action Plan.

4.5.1.3 EXISTING CONDITIONS

Priority Development Area/Transit Priority Area

Plan Bay Area 2040 is the current update of the Bay Area's Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS), which was adopted jointly by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) on July 26, 2017. As part of the implementing framework for *Plan Bay Area*, local governments, including Cupertino, have identified Priority Development Areas (PDAs) to focus growth.[5] PDAs are transit-oriented, infill development opportunity areas within existing communities. In addition to PDAs, *Plan Bay Area* identifies Transit Priority Areas (TPAs), which are areas within one-half mile of a major transit stop (15 minute or less service level frequency) that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

An overarching goal of *Plan Bay Area* 2040 is to concentrate development in areas where there are existing services and infrastructure rather than locating new growth in outlying areas where substantial transportation investments would be necessary to maximize energy conservation and achieve reductions of per capita passenger vehicle trips, vehicle miles traveled (VMT), and associated GHG emissions.

The project site is located in a Santa Clara Valley Transportation Authority City Cores, Corridors & Station Areas PDA. Because the proposed project is in close proximity to existing employment centers, roadways, transit, and bicycle and pedestrian routes, it is also a designated TPA.[6]

Renewable Energy

The current project site is served by both electricity and natural gas connections. Electricity is supplied to the project site via infrastructure maintained by Pacific Gas & Electric (PG&E). Silicon Valley Clean Energy (SVCE), a locally controlled public agency that has a partnership with PG&E, supplies the electricity to the project site. SVCE provides a standard 50 percent renewable energy portfolio, in addition to a 100 percent

[5] City of Cupertino General Plan (Community Vision 2015-2040), Chapter 3, Land Use and Community Design Element, page LU-7.

[6] *Plan Bay Area*, Association of Bay Area Governments (ABAG)/Metropolitan Transportation Commission (MTC) Priority Development Area (PDA) and Transit Priority Area (TPA) Map for CEQA Streamlining, https://www.planbayarea.org/pda-tpa-map, accessed on July 11, 2019.

renewable option that electricity customers can opt into. Natural gas and associated infrastructure are provided and maintained by PG&E.

Existing Emissions

The project site is developed with an approximately 71,250 square-foot shopping center with retail stores, offices, and restaurants that is currently about 85 occupied (or 60,563 square feet) that generate GHG emissions from natural gas use for energy, heating and cooking, vehicle trips associated with the land uses, as well as area sources such as landscaping equipment and consumer cleaning products. The site also generates indirect GHG emissions associated with electricity use, water use and wastewater generation and solid waste disposal. Existing GHG emissions are shown in Table 4.5-4.

TABLE 4.5-4 EXISTING GREENHOUSE GAS EMISSIONS

Category	Existing (MTCO2e)[a]	Percent Total[b]
Area	<1	<1%
Energy	232	16%
On-Road Mobile Sources[c]	1,214	82%
Waste[d]	19	1%
Water/Wastewater	19	1%
Total	1,484	100%

Notes:
a. Emissions were calculated using CalEEMod.
b. Emissions may not total 100 percent due to rounding.
c. The mobile emissions modeled CalEEMod emissions are based on the project total daily trip generation of 2,174 vehicles. Credit for internal trip capture and proximity to transit was applied in the CalEEMod mitigation module (i.e., land use and site enhancement, increase density, and increase diversity). These measures were applied in accordance with the criteria within the California Air Pollution Control Officers Association (CAPCOA), *Quantifying Greenhouse Gas Mitigation Measures* (2010) guidance, and the CalEEMod User's Guide.
d. The waste source emissions include compliance with AB 939 requiring 50 percent diversion of the solid waste stream.
Source: Kimley-Horn and Associates, PlaceWorks, 2019.

4.5.2 THRESHOLDS OF SIGNIFICANCE

4.5.2.1 CEQA GUIDELINES APPENDIX G

The proposed project would result in a significant impact related to GHG emissions if it would:

1. Generate GHG emissions, either directly or indirectly, that may a significant effect on the environment.
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

4.5.2.2 BAAQMD SIGNIFICANCE CRITERIA

BAAQMD has a tiered approach for assessing GHG emissions impacts of a project. If a project is within the jurisdiction of an agency that has a "qualified" GHG reduction strategy, the project can assess consistency of its GHG emissions impacts with the reduction strategy. BAAQMD has adopted screening criteria and

significance criteria for development projects that would be applicable for the proposed project. If a project exceeds the BAAQMD Guidelines' GHG screening-level sizes, the proposed project would be required to conduct a GHG emissions analysis using the BAAQMD significance criteria of 1,100 million metric tons of carbon dioxide equivalent per year per year ($MTCO_2e$ per year).

4.5.3 IMPACT DISCUSSION

4.5.3.1 IMPACT ANALYSIS

GHG-1 The proposed project would not directly or indirectly generate GHG emissions that may have a significant impact on the environment.

The proposed project would include direct and indirect GHG emissions. Direct operational-related GHG emissions for the proposed project would include emissions from area and mobile sources, while indirect emissions are from energy consumption, water demand, and solid waste.

Construction Emissions

Construction of the proposed project would result in direct emissions of CO_2, N_2O, and CH_4 from the operation of construction equipment and the transport of materials and construction workers to and from the project site. Construction GHG emissions are typically summed and amortized over the lifetime of the proposed project (industry standards assume 30 years), then added to the operational emissions.[7] BAAQMD does not have a threshold for construction GHG emissions. Total GHG emissions generated during all phases of construction were combined and are presented in Table 4.5-5. As shown in Table 4.5-5, the proposed project construction when amortized over 30 years would not exceed BAAQMD's threshold of 1,100 $MTCO_2e$ per year. Construction emissions would be *less than significant*.

TABLE 4.5-5 PROPOSED PROJECT CONSTRUCTION PHASE GREENHOUSE GAS EMISSIONS

Category	Construction GHGs ($MTCO_2e$)[a]
Total Mitigated Construction Emissions (2019-2020)	1,730
30-Year Amortized Construction	58
BAAQMD Bright-Line Threshold	1,100 $MTCO_2e$/year
Exceeds BAAQMD Thresholds?	No

Source: Kimley-Horn and Associates, PlaceWorks, 2019.

Operational Emissions

Operational or long-term emissions occur over the life of the proposed project. GHG emissions would result from direct emissions such as project generated vehicular traffic, on-site combustion of natural gas, operation of any landscaping equipment. Operational GHG emissions would also result from indirect

[7] The proposed project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13, August 26, 2009).

sources, such as off-site generation of electrical power over the life of the project, the energy required to convey water to, and wastewater from the project site, the emissions associated with solid waste generated from the project site, and any fugitive refrigerants from air conditioning or refrigerators. Table 4.5-6 summarizes the total GHG emissions associated with proposed project. As shown, the proposed project would generate 1,843 $MTCO_2e$ per year. However, because, the project site is currently developed with approximately 71,250 square-feet of shopping center, which generates 1,484 $MTCO_2e$ per year, the proposed project's emissions would represent a net increase in GHG emissions of 359 $MTCO_2e$ per year. The proposed project would not result in an increase in GHG emissions that exceed the BAAQMD's bright-line screening threshold of 1,100 $MTCO_2e$ per year. Therefore, project related GHG emissions would be *less than significant*.

TABLE 4.5-6 PROPOSED PROJECT GREENHOUSE GAS EMISSIONS

Category	$MTCO_2e$ [a]		
	Existing	Project	Net Change
Area[b]	<1	8	8
Energy	232	648	416
On-Road Mobile Sources[c]	1,214	1,102	-112
Waste[d]	19	33	14
Water/Wastewater	19	51	32
Total[e]	1,484	1,843	359
BAAQMD Bright-Line Threshold	NA	NA	1,100 $MTCO_2e$/year
Exceeds BAAQMD Thresholds?	NA	NA	No

Notes: NA: not applicable
a. Emissions were calculated using CalEEMod.Notes: Emissions may not total to 100 percent due to rounding.
b. The area source emissions include compliance with BAAQMD Regulation 6, Rule 3 (Wood Burning Devices) and were applied in the mitigation tab of CalEEMod.
c. The mobile emissions modeled CalEEMod emissions are based on the project total daily trip generation of 2,174 vehicles. Credit for internal trip capture and proximity to transit was applied in the CalEEMod mitigation module (i.e., land use and site enhancement, increase density, and increase diversity). These measures were applied in accordance with the criteria within the California Air Pollution Control Officers Association (CAPCOA), *Quantifying Greenhouse Gas Mitigation Measures* (2010) guidance, and the CalEEMod User's Guide.
d. The waste source emissions include compliance with AB 939 requiring 50 percent diversion of the solid waste stream.
e. Emissions may not total to 100 percent due to rounding.
Source: Kimley-Horn and Associates, PlaceWorks, 2019.

Significance Without Mitigation: Less than significant

GHG-2 The proposed project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

The following discusses the proposed project consistency with applicable plans adopted for the purpose of reducing GHG emissions, which include CARB's 2017 Scoping Plan, MTC/ABAG's *Plan Bay Area* 2040, and Cupertino's CAP.

2017 Scoping Plan

The 2017 Scoping Plan contains the State's strategy for reducing the State's GHG emissions 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 proposed project's GHG emissions shown in Table 4.5-6 above include reductions associated with statewide strategies such as the Pavley I motor vehicle emission standards, the Low Carbon Fuel Standard, and the 2016 Energy Efficiency Standards. However, the modeling does not incorporate reductions from the Pavley II (LEV III) Advanced Clean Cars Program (extends to model year 2025), the Renewable Portfolio Standards, CALGreen Standards for indoor water use, or the California Model Water Efficient Landscape Ordinance (outdoor water), or the latest 2019 Energy Efficiency Standards (effective January 1, 2020). Therefore, actual emissions would be lower than those shown in Table 4.5-6 with the implementation of the mandatory statewide reduction strategies. Furthermore, the proposed project would develop new buildings that would replace older buildings and would be required achieve the latest Building Energy Efficiency Standards, comply with CMC Chapter 16.58 (Green Building Ordinance), and would be required to build to LEED or an alternative reference standard. Accordingly, the proposed project would not conflict with any statewide strategies to reduce GHG emissions. Therefore, impacts would be *less than significant* in this regard.

Plan Bay Area

As discussed in Section 4.5.1.3, Existing Conditions, the project site is located in the Santa Clara Valley Transportation Authority City Cores, Corridors & Station Areas PDA. Because the proposed project is in close proximity to existing employment centers, roadways, transit, and bicycle and pedestrian routes, it is also a designated TPA.[8] Because the proposed project is an infill residential mixed-use development it would be consistent with the overall goals of *Plan Bay Area* 2040*.* As previously described an overarching goal of *Plan Bay Area* 2040 is to concentrate development in areas where there are existing services and infrastructure, instead of locating new growth in outlying areas where substantial transportation investments would be necessary to maximize energy conservation and achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions. Accordingly, the proposed project would not conflict with the land use concept plan in *Plan Bay Area* 2040 and impacts would be *less than significant*.

Cupertino Climate Action Plan

As discussed in Section 4.5.1.2, Regulatory Framework, the Cupertino CAP identifies sources of GHG emissions within the city's boundaries, presents current and future emissions estimates, identifies a GHG reduction target for future years, and presents strategic goals, measures, and actions to reduce emissions. Furthermore, as described in Section 4.5.1.2, the Cupertino CAP is a qualified GHG reduction program.

[8] *Plan Bay Area*, Association of Bay Area Governments (ABAG)/Metropolitan Transportation Commission (MTC) Priority Development Area (PDA) and Transit Priority Area (TPA) Map for CEQA Streamlining, https://www.planbayarea.org/pda-tpa-map, accessed on July 11, 2019.

The proposed project would be consistent with the overall goals of the Cupertino CAP, which is the City's strategic planning document to reduce GHG emissions. As an infill project on a currently developed site within a designated PDA and TPA (CAP Measure C-T-6, Transit-Oriented Development), the proposed project would support efforts to reduce GHG emissions from VMT (CAP Goal 1, Reduce Energy Use). Consistent with CAP Measure C-T-1, Bicycle & Pedestrian Environment Enhancements, the proposed project would implement the City's 2016 *Bicycle Transportation Plan* and install a Class IV separated bikeway on Stevens Creek Boulevard between Mary Avenue and the northbound SR-85 on-ramp, and a signal control for the westbound right turn movement to improve bike and pedestrian safety, thus, promoting these alternative modes of transportation. The proposed new buildings would achieve the current Building Energy Efficiency Standards and would be constructed in conformance with CALGreen, which requires high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems that would improve energy efficiency. The proposed buildings would comply with Title 24 solar requirements and would meet solar ready standards. While the requirements under Title 24 do not require installation of solar-energy systems, buildings are required to be built to accept the installation of such a system. CAP Measures C-E-5, Community-wide Solar Photovoltaic Development, also encourages voluntary community-wide solar photovoltaic development. Additionally, pursuant to CMC Chapter 16.58 (Green Building Ordinance), the proposed project would be required to build to LEED or an alternative reference standard (CAP Goal 1, Reduce Energy Use) and install Electric Vehicle Supply Equipment for the charging of electric vehicles (CAP Measure C-T-7, Community-Wide Alternative Fuel Vehicles). Consistent with CAP Measure C-W-1, SB-X7-7, the proposed project would comply with SB X7-7, which requires California to achieve a 20 percent reduction in urban per capita water use by 2020. The proposed project would implement best management practices for water conservation to achieve the City's water conservation goals. Water conservation would indirectly contribute to reducing GHG emissions. If less water is used, fewer resources (namely energy) will be used to source, distribute, and treat the water. Since energy consumption leads to the generation of GHG emissions, using fewer resources would help to reduce GHG emissions overall. Furthermore, consistent with CAP Measure C-SW-3, Construction and Demolition Waste Diversion Program, the proposed project would comply with the City's Construction and Demolition Debris Diversion Ordinance, which requires applicable construction projects to divert 60 percent of construction waste. Prior to receiving a final building inspection, a construction recycling report would be submitted to show the tons recycled and disposed by material type. As an infill redevelopment priority housing development on a designated PDA and TPA the proposed project would be consistent with the overall intent of the CAP to support reductions in GHG emissions and the proposed project would not conflict any goals or measures to reduce GHG emissions in the CAP and impacts would be *less than significant*.

Summary

In summary, the proposed project, an infill and mixed-use project within a currently developed area would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions.

Significance Without Mitigation: Less than significant.

4.5.4 CUMULATIVE IMPACTS

GHG-3 The proposed project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to GHG emissions.

As described above, GHG emissions related to the proposed project are not confined to a particular air basin but are dispersed worldwide. Therefore, the analysis under impact discussion GHG-1 and GHG-2 above, also addresses cumulative impacts.

Significance Without Mitigation: Less than significant.