



CITY OF SANTA CLARA INITIAL STUDY CHECKLIST

This Initial Study has been prepared by the City of Santa Clara, Planning Division, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations).

1. **Project Title:** Santa Clara Climate Action Plan
2. **Lead Agency Name and Address:**
City of Santa Clara,
1500 Warburton Avenue
Santa Clara, CA 95050
3. **Contact Person and Phone Number:** Payal Bhagat, (408) 615-2450
4. **Project Location:** City of Santa Clara
5. **Existing General Plan Land Use Designation:** citywide (various designations)
6. **Existing Zoning:** citywide (various designations)
7. **Location and Setting:** See page 2 of this Initial Study
8. **Background and Description of Project:** See pages 2 - 5 of this Initial Study
9. **Required Permits and Approvals:** The Climate Action Plan will be adopted by the City of Santa Clara, without oversight or permitting by other agencies.
10. **Environmental Factors Potentially Affected:** The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a Potentially Significant Impact, as indicated by the checklist on the following pages.

- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology & Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology & Water Quality |
| <input type="checkbox"/> Land Use | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population & Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities & Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

INTRODUCTION

Adoption and implementation of the City of Santa Clara's (City's) proposed Climate Action Plan (CAP) is a project under the California Environmental Quality Act (CEQA). The City has prepared this Initial Study (IS) checklist to assess the environmental effects of implementing the proposed CAP. This Initial Study consists of a project description, followed by a description of various environmental effects that may result from implementation of the proposed CAP.

LOCATION AND SETTING

Santa Clara is located in the San Francisco Bay Area, in Santa Clara County. Figure 1 shows Santa Clara's regional location. Santa Clara is situated near the southern end of the San Francisco Bay Peninsula. The city is bordered by the City of Sunnyvale to the north and west, the City of Cupertino to the west, and the City of San Jose to the south, east and north. The city covers approximately 18 square miles.

Interstate 280 and Highway 101 provide access to San Francisco to the north and San Jose to the south. The Lawrence Expressway runs north-south through the city and State Route 82 (El Camino Real) runs east-west through the city. There are two Caltrain stations in Santa Clara with service to San Francisco and San Jose. The Santa Clara Station is located on the eastern border and the Lawrence Station is located near the western border. The city is shown in its local context in Figure 2.

PROJECT BACKGROUND

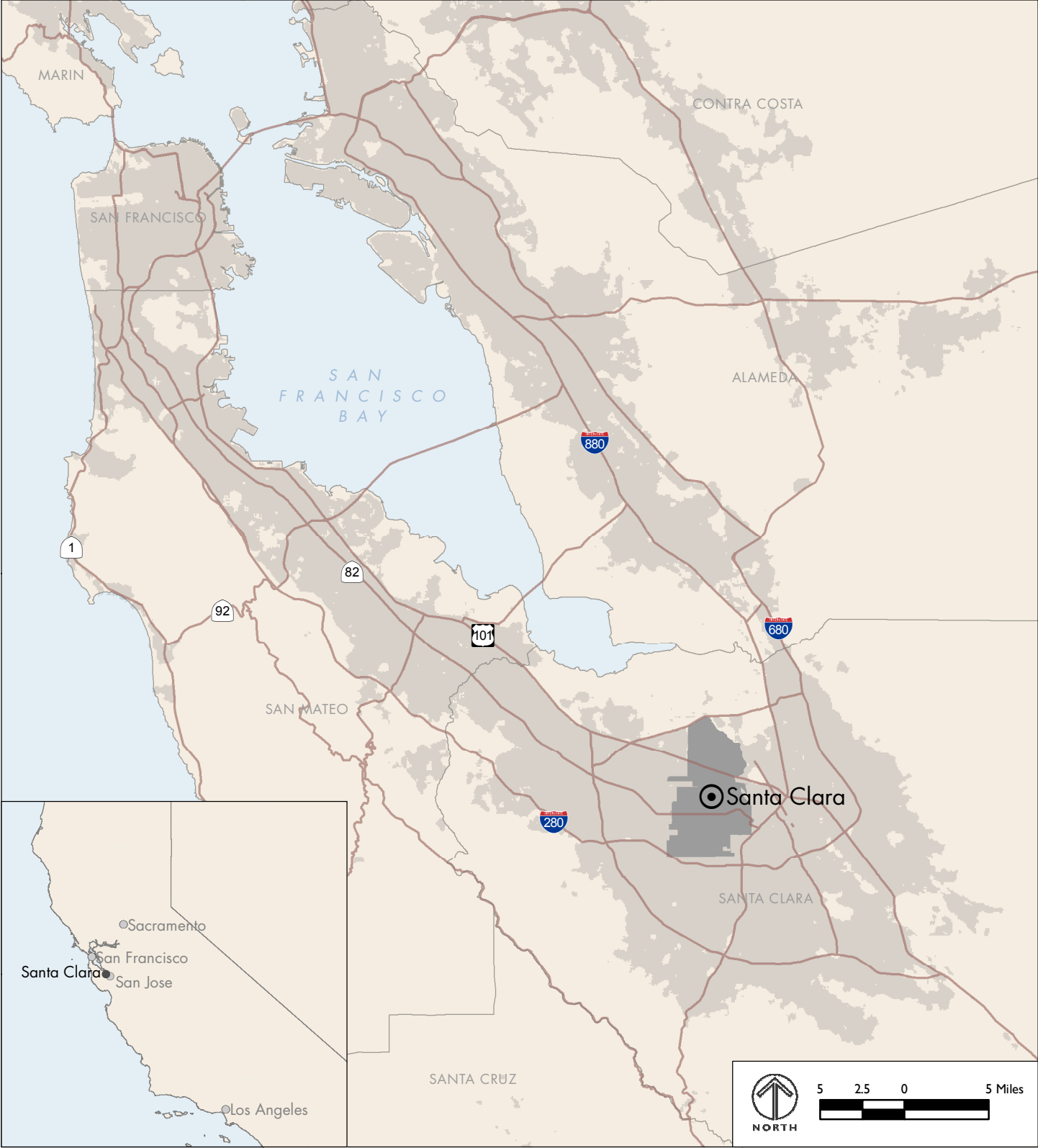
The 2010-2035 City of Santa Clara General Plan requires the adoption of a CAP prior to the year 2015. The proposed CAP will implement the environmental and sustainability goals and policies of the City's 2010-2035 General Plan and provide a strategic action plan necessary to achieve greenhouse gas (GHG) emissions reduction targets.

The proposed CAP builds upon existing efforts of City departments, including Silicon Valley Power, and business and community groups to reduce greenhouse gas emissions and identify future efforts needed to achieve the State goals. The proposed CAP provides performance metrics and tracking mechanisms to monitor future progress towards meeting the City's GHG reduction goals.

The City prepared the proposed CAP to continue its commitment to reduce GHG emissions and to demonstrate consistency with regional and State initiatives and regulations related to climate change by locally reducing GHG emissions. Specifically, the proposed CAP provides strategies to reduce the GHG emission levels to meet legislative requirements outlined in Assembly Bill (AB) 32, The California Global Warming Solutions Act of 2006, and Senate Bill (SB) 375, the Sustainable Communities and Climate Projection Act of 2008, described below.

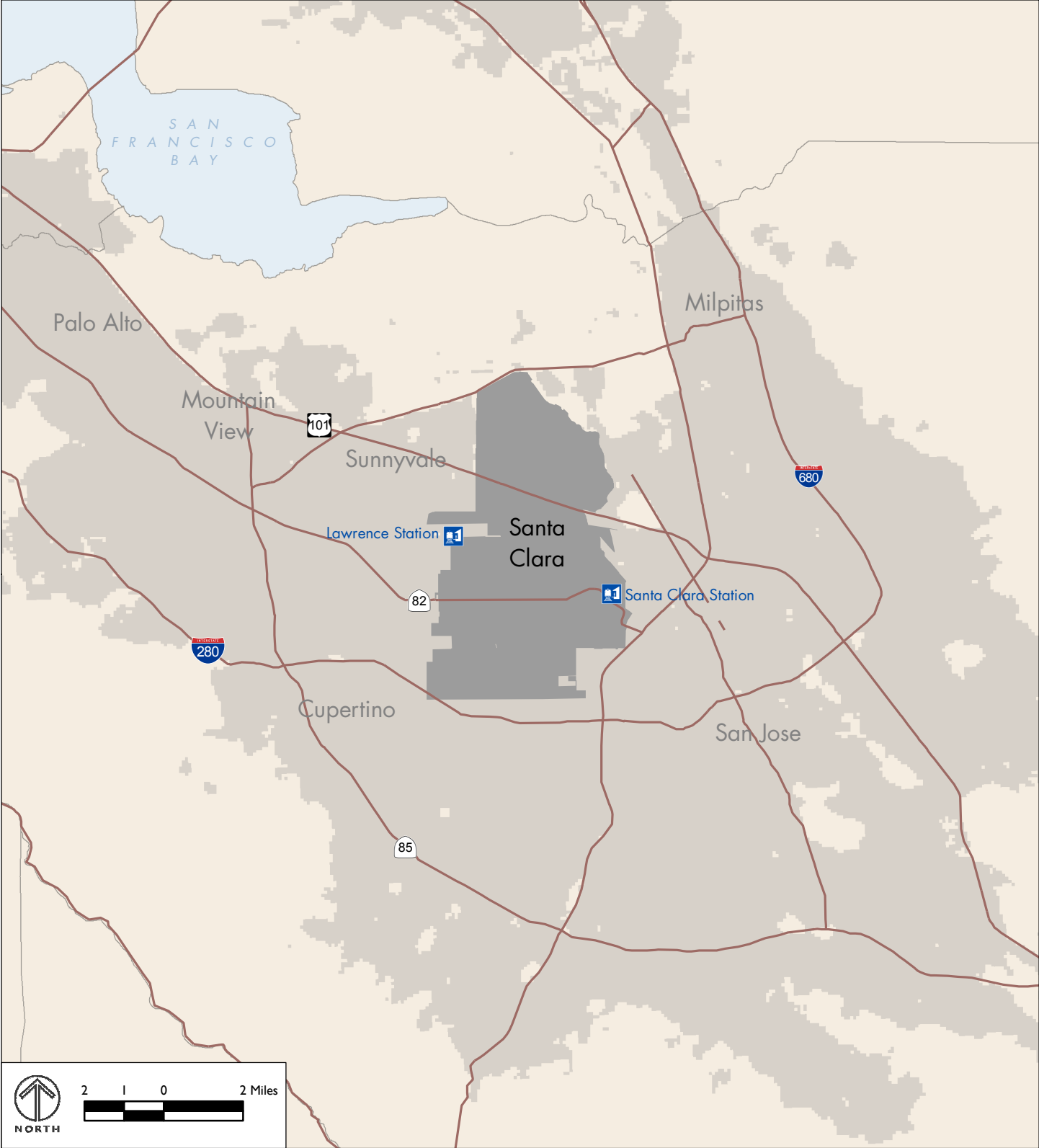
Assembly Bill 32

AB 32, the California Global Warming Solutions Act of 2006, requires California to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 directs the California Air Resources Board (CARB) to develop and implement regulations that reduce statewide GHG emissions. The CARB Climate Change Scoping Plan (Scoping Plan) was approved by CARB in December 2008, and readopted in August 2011. The Scoping Plan outlines the State's plan to achieve the GHG reductions required in



Source: San Mateo County, The Planning Center | DC&E, 2013.

FIGURE 1
REGIONAL LOCATION AND VICINITY



Source: San Mateo County, The Planning Center | DC&E, 2013.

FIGURE 2
LOCAL CONTEXT MAP

AB 32 and encourages local governments to adopt a reduction goal for municipal operations emissions and move toward establishing similar goals for community-wide emissions that parallel the State's commitment to reduce GHGs. Though the specific role local governments will play in meeting the State's AB 32 goals is still being defined, they will nonetheless be a key player in implementing GHG reduction strategies.

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled (VMT). Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO). The Metropolitan Transportation Commission (MTC) is the MPO for the nine-county San Francisco Bay Area region. MTC's targets are a 7 percent per capita reduction from 2005 levels by 2020, and a 15 percent per capita reduction from 2005 levels by 2035.¹

Additionally, the proposed CAP has been prepared to meet the standards of a Qualified Greenhouse Gas (GHG) Reduction Strategy that is consistent with Bay Area Air Quality Management District (BAAQMD) guidelines and reduces emissions at least 15 percent below baseline 2008 levels.

The proposed CAP has identified GHG reduction measures and supporting actions to reduce emissions by 23.4 percent (434,100 MTCO₂e) from baseline 2008 emission levels by 2020. The proposed CAP would achieve this GHG reduction target through a GHG reduction scenario comprised of existing activities at the state and local level, proposed CAP measures for 2020, and other measures to meet 2035 reductions.

PROJECT DESCRIPTION

This Initial Study specifically evaluates the proposed CAP measures to fill the local emissions reduction gap and achieve an emissions reduction target consistent with AB 32 guidance under the following categories:

- Coal Free and Large Renewables
- Energy Efficiency
- Other Measures

The discussion below provides a brief description of the contents of each topic.

Coal Free + Large Renewables

Silicon Valley Power's (SVP) provision of low-cost electricity to customers plays a critical role in sustaining Santa Clara's industrial and high-tech economy. Opportunities to reduce emissions from energy in Santa Clara are focused on reducing overall electricity use, and achieving greater reliance on electricity sources with lower GHG intensities. Since nearly half (48 percent) of Santa Clara's existing

¹ California Air Resources Board (CARB), 2010. *Staff Report Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375*.

emissions result from electricity use, achieving the 33 percent Renewables Portfolio Standard and removing GHG-intensive sources of electricity, such as coal, are key components of the proposed CAP.

Energy Efficiency Programs

SVP has established annual energy efficiency targets for fiscal years 2013-2021, and these targets are updated every three years. On an annual basis, SVP reviews both the residential and nonresidential energy efficiency programs and evaluates new opportunities to incentivize additional energy efficiency in the community. Rather than dictate specific energy efficiency programs or actions, the proposed CAP demonstrates the emissions reduction benefits of SVP achieving the established energy efficiency targets and offers examples of effective programs that can achieve the targets.

Other Measures

Other proposed CAP measures address emissions from the transportation, solid waste, water, and off-road equipment sectors. While a large portion of the proposed CAP addresses energy sources and uses, it is important to identify a balanced set of measures that address emissions from all sectors and activities in the community.

POTENTIAL PHYSICAL CHANGES

The policies and programs in the proposed CAP build upon and support the goals and policies that are sustainably oriented and intended to provide the basis for the future measurement and tracking necessary for General Plan implementation and inclusion in the City's proposed CAP to provide more specific actions for GHG reduction. Some of the actions relate to processes, strategies, analyses, and coordination efforts that would not result in any physical changes to the environment. However, the proposed CAP does include actions that involve promoting energy efficiency upgrades to structures, increasing renewable energy facilities, offsetting coal with natural gas for energy production, and increasing and expanding food waste composting, which could directly or indirectly result in physical changes to the environment. For example, several actions in the proposed CAP promote installing solar photovoltaic panels on residential and commercial structures, as well as other locations. The placement of solar panels where solar panels did not previously exist could be considered a direct physical change in the environment.

As described above, the proposed CAP does not consist of one or more actual development projects involving physical construction. When specific implementing projects are identified, such as the location and size of solar panel projects, the development applications for such individual projects, as required, would be submitted separately to the City for review, and would be subject, if necessary, to separate, site-specific CEQA analysis.

The environmental checklist that follows focuses on reasonably foreseeable potential physical changes and will evaluate whether the physical change is adverse with respect to each environmental issue area, and, if so, whether the adverse change is substantial by comparing the level of change to the appropriate threshold of significance.

The proposed CAP measures have been included as an attachment to this Initial Study.

ISSUES				
I. AESTHETICS. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	
DISCUSSION:				
<p>Though certain facilities or equipment installed pursuant to the proposed CAP, particularly the installation of solar photovoltaic panel projects, could potentially have a certain degree of aesthetic effect, all structures, programs, and projects pursued under the proposed CAP would be subject to the goals and policies of the General Plan, the oversight and review processes envisioned by the City and the regulations established within the Municipal Code. The following discusses the potential impacts of implementing the proposed CAP with respect to aesthetics:</p> <p>a) Neither the General Plan nor the City’s Code officially designates scenic corridors or vistas within in the City of Santa Clara; however, both the General Plan and the City Code seek to protect open spaces as aesthetic resources. As such, the City encourages design components which minimize building heights and massing when located near, or potentially affecting open space. Implementation of the proposed CAP would not require any changes to the City’s General Plan land use designations or zoning districts; therefore, no land designated as Open Space would be directly affected through implementation of the proposed CAP and there would be <i>no impact</i> on scenic corridors or vistas.</p> <p>b) The California Scenic Highway Program, maintained by the California Department of Transportation (Caltrans), protects scenic State highway corridors from changes which would diminish the aesthetic value of lands adjacent to the highways. According to the Scenic Highway Program, there are no State-designated scenic highways passing through or near the City of Santa Clara.² Therefore, the proposed CAP would have <i>no impact</i> on a scenic highway.</p> <p>c) The proposed CAP includes measures that promote the development and installation of alternative energy facilities. Specifically, Measures 1.3, 2.4, and 2.6 call for the installation of solar photovoltaic panels on customer-owned existing and new development projects, customer-owned residential and non-residential structures, and on City-owned facilities. The addition of solar photovoltaic panels on new and existing buildings in the city could potentially change the character of the site and surrounding areas. However, General Plan Policy 5.10.3-P7 requires that the City incorporate criteria for sustainable building and solar access into the City’s ordinances and regulations. Policy 5.3.1-P29 encourages the design of new development to be compatible with, and sensitive to, nearby existing and planned development, consistent with other applicable General Plan policies. Policy 5.3.1-P27 encourages screening of above-ground utility equipment to minimize visual impacts. Furthermore, the placement of solar panels on existing customer-owned, single-family structures is regulated by the City’s Building Inspection Division</p>				

²California Department of Transportation California Scenic Highways Program, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed on June 18, 2013.

and outlined in the Residential (Single-Family) Solar Photovoltaic System Utility Grid-Tie Connection Proposed Guidelines.³ According to the City Code Section 2.70.050, the City’s Solar Energy Construction and Maintenance Division would be responsible for the construction and installation of all authorized projects other than those of private contractors. Therefore, with oversight from these City Divisions and compliance with the General Plan policies, the impacts to the visual character or quality of the city as a result of implementation of the proposed CAP would be *less than significant*.

- d) The proposed CAP requires strategies to reduce heat gain, including through the potential use of low-albedo materials (i.e. light-reflective paving) for parking lots and roofing materials (when consistent with the Building Code), and requires the installation of solar photovoltaic panel projects. While no impacts from light-reflecting paving would occur as a result of implementation of the proposed CAP, implementation of the proposed CAP could increase glare issues in the city as a result of the installation of solar photovoltaic panels. However, the latest solar photovoltaic panel technology applies anti-reflective materials, which when used would further reduce glare impacts. Any proposed renewable energy project, including the installation of solar photovoltaic panels, would be designed and installed in a manner that minimizes solar reflectance and is consistent with the City’s Design Guidelines. As discussed above in criteria c), with oversight from City’s Building Inspection Division and the Solar Energy Construction and Maintenance Division, and with compliance with applicable General Plan policies, any new development of or installation of solar photovoltaic panel projects would minimize glare impacts to a *less-than-significant* level.

II. AGRICULTURE AND FORESTRY	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code				X

³City of Santa Clara, Planning and Inspection, Building Inspection Information and Guidelines, Residential (Single-Family) Solar Photovoltaic System Utility Grid-Tie Connection Proposed Guidelines, June 24, 2013.

section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X
DISCUSSION:				
<p>a) Maps pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency categorize land within the city as Urban and Built-Up Land.⁴ There are no agricultural lands identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the Santa Clara city limits. Therefore, there would be <i>no impact</i>.</p> <p>b) As discussed in response to criteria a), there is no agricultural land within the Santa Clara City limits, and, therefore, implementation of the proposed CAP would not conflict with existing zoning for agricultural use, or a Williamson Act contract. Consequently, there would be <i>no impact</i>.</p> <p>c)-d) According to 2003 mapping data from the California Department of Forestry and Fire Protection, the city does not contain any woodland or forest land cover;⁵ thus, the city does not contain land zoned for Timberland Production and <i>no impact</i> would occur.</p> <p>e) For the reasons provided in response to criteria a)through d), there would be <i>no impact</i> in relation to the conversion of farmland to non-agricultural use or forest land to non-forest use.</p>				
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	

⁴California Resources Agency, Farmland Mapping and Monitoring Program. Santa Clara County Important Farmland 2010, accessed on June 5, 2013.

⁵California Department of Forestry and Fire Protection Fire and Resource Assessment Program, Land Cover map, http://frap.cdf.ca.gov/webdata/maps/statewide/fvegwhr13_map.pdf, accessed on June 5, 2013.

e) Create objectionable odors affecting a substantial number of people?			X	
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DISCUSSION:

The Bay Area Air Quality Management District (BAAQMD) is the regional air quality agency for the San Francisco Bay Area Air Basin (SFBAAB), which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; the southern portion of Sonoma County; and the southwestern portion of Solano County. Accordingly, the City is subject to the rules and regulations imposed by the BAAQMD, as well as the California ambient air quality standards adopted by the California Air Resources Board (CARB) and national ambient air quality standards adopted by the United States Environmental Protection Agency (U.S. EPA).

a) The applicable air quality plan is BAAQMD’s 2010 Clean Air Plan. Large projects that exceed regional employment, population, and housing planning projections have the potential to be inconsistent with the regional inventory compiled as part of the Clean Air Plan. No increase in population, new housing, or vehicular traffic would be generated by implementation of the proposed CAP. The purpose of the proposed CAP is to build upon existing efforts of City departments, including Silicon Valley Power, and business and community groups to reduce greenhouse gas emissions, which would ultimately improve air quality. Accordingly, adoption and implementation of the proposed CAP is not anticipated to worsen any air quality impacts. Rather, implementation of the proposed CAP would contribute to a reduction in air emissions by implementing measures that would reduce regional carbon emissions from the Silicon Valley Power Plant and vehicle miles traveled. While proposed CAP Measure 4.1 has the potential to add waste collection trips as a result of expanding food and composting collection routes to provide composting services to 25 percent of the existing restaurants, this increase would be offset by other proposed CAP measures aimed at reducing vehicular trips (e.g. Measures 6.1 through 6.3), which call for the City to establish Transportation Demand Management (TDM) programs and other standards to decrease drive-alone trips and increase ridesharing, public transit, walking and bicycling opportunities, , worker shuttle programs, car and bike sharing, and provision of transit passes. Therefore, implementation of the proposed CAP would not conflict with or obstruct implementation of the BAAQMD’s 2010 Clean Air Plan, and impacts would be considered *less than significant*.

b) The City’s proposed CAP includes measures that promote the development of alternative energy facilities. Specifically, Measure 1.1 calls for replacement of coal with natural gas in Silicon Valley Power’s portfolio by 2020, and Measures 1.3, 2.4, and 2.6 call for installation of solar photovoltaic panels on customer-owned existing and new development projects, on customer-owned residential and non-residential structures, and on City-owned facilities. While offsetting coal with natural gas for energy production could occur through establishing a new contract with an additional existing natural gas plant, which would not result in a physical change to the environment, replacing coal with natural gas could also occur through increasing natural gas use at an existing natural gas power plant. Construction associated with replacing coal with natural gas in Silicon Valley Power’s portfolio, as well as the installation of solar photovoltaic panels on new and existing buildings and structures in Santa Clara could potentially result in temporary construction-related adverse air quality impacts. Criteria air pollutants generated during construction activities typically include the following sources:

- Exhaust emissions from powered construction equipment;
- Fugitive dust generated by demolition, earthmoving, excavation, and other construction activities;
- Motor vehicle emissions associated with vehicle trips; and
- Reactive Organic Gases (ROGs) from the application of asphalt and architectural coatings.

Air pollutant emissions from construction activities throughout the city would vary daily as construction activity levels change. The BAAQMD’s screening thresholds are not applicable to projects that have overlapping construction phases (e.g. where demolition, grading, paving and building construction would

occur simultaneously), construction of mixed-use projects, projects that require extensive site preparation, or sites that require extensive material transport (i.e. greater than 10,000 cubic yards of import/export). Replacing coal with natural gas in the Silicon Valley Power's portfolio that would occur through increasing natural gas use within an existing Silicon Valley Power Plant would not require extensive construction-related material transport or site preparation. Similarly, installation of solar photovoltaic panel projects on existing and new buildings and structures would also not require extensive construction-related material transport or site preparation. Furthermore, construction-related air quality impacts would be temporary and short-term in nature. Since the proposed CAP is not anticipated to result in an adverse effect on air quality and will decrease carbon emissions, the associated impacts related to exceeding air quality standards and contributing substantially to an existing or projected air quality violation would be *less than significant*.

- c) The SFBAAB is designated as a nonattainment area under the California ambient air quality standards for Suspended Particulate Matter (PM) and as a nonattainment area under both the California and National ambient air quality standards for PM_{2.5}.⁶ Inhalable coarse particles, or PM₁₀, include particulate matter with an aerodynamic diameter of 10 microns (i.e. 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or PM_{2.5}, have an aerodynamic diameter of 2.5 microns or less (i.e. 2.5 millionths of a meter or 0.0001 inch). In addition, the SFBAAB is designated as nonattainment for the 1-hour California ambient air quality standards and 8-hour California and National ambient air quality standards for Ozone (O₃) (i.e. smog). There is no increase in population or new housing, or as discussed under criteria a) above, no substantial vehicular traffic that would be generated by implementation of the proposed CAP, as such no long-term criteria air pollutant emissions would be generated. Consequently, adoption of the proposed CAP would not cumulatively contribute to the nonattainment designations of the SFBAAB, and regional operational air quality impacts would be *less than significant*.
- d) Public exposure to Toxic Air Contaminates (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

Some land uses are considered more sensitive to air pollution/TACs than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases. Residential areas are also considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, schools, and daycare facilities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time.

⁶California Air Resources Board (CARB), 2011. Area Designations: Activities and Maps, <http://www.arb.ca.gov/desig/adm/adm.htm>, accessed on July 9, 2013.

In addition, the working population is generally the healthiest segment of the public.

While implementation of the proposed CAP would include the installation of solar photovoltaic panel projects on customer-owned existing and new development projects, on customer-owned residential and non-residential structures, and on City-owned facilities in close proximity to sensitive receptors, these uses are not considered air pollution generators; therefore, these uses would not elevate concentrations of TACs and would not expose sensitive receptors to substantial pollutant concentrations. Furthermore, implementation of the proposed CAP could result in the increased use of natural gas at an existing power plant. However, General Plan Policy 5.3.1-P21, and Policy 5.3.1-P22 prohibit the location of sensitive land uses and places of assembly near industrial land uses; therefore, implementation of Measure 1.1 would not expose sensitive receptors to substantial pollutant concentrations. As discussed above in criteria c), construction-related activities would not require extensive material transport or site preparation (e.g. excavating and grading, and use of off-road construction equipment such as forklifts, crushing equipment, dump trucks, loaders, rollers, and pavers); thus, construction-related activities would also not elevate TACs in the city. Implementation of the proposed CAP would contribute to a reduction in air emissions by implementing measures that would reduce regional carbon emissions and would not cumulatively contribute to PM_{2.5}, PM₁₀, or O₃, nor result in adverse construction-related air quality impacts. Accordingly, implementation of the proposed CAP would not expose sensitive receptors to substantial pollutant concentrations and impacts would be *less than significant*.

- e) The increased use of natural gas as a result of the proposed CAP may have an impact on odor due to odors added before distribution. In addition, there could be temporary odors generated by construction activities, but these are not expected to cause objectionable odors. However, Section 8.30.060 of the City Code provides regulations allowing for the abatement of conditions that are offensive or annoying to the senses of individuals occupying surrounding properties. Compliance with these existing standards would result in *less-than-significant* odor impacts.

IV. BIOLOGICAL RESOURCES. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife			X	

corridors, or impede the use of native wildlife nursery sites?				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?				X

DISCUSSION:

- a) Special status plants include those listed as “Endangered,” “Threatened,” or “Candidate for Listing” by the California Department of Fish and Wildlife (CDFW); the U.S. Fish and Wildlife Service (U.S. FWS), that are included in the California Rare Plant Rank, or that are considered special-status in local or regional plans, policies, or regulations. Special status animals include those listed as “Endangered,” “Threatened,” or “Candidate for Listing” by the CDFW⁷ or the U.S. FWS⁸, that are designated as “Watch List,” “Species of Special Concern,” or “Fully Protected” by the CDFW, or that are considered “Birds of Conservation Concern” by the U.S. FWS. There are occurrences of plant and animal species with special-status within the city limits.⁹

Implementation of the proposed CAP would result in physical changes to the environment through the replacement of coal with natural gas in Silicon Valley Power’s portfolio by 2020 (Measure 1.1). Under this measure, offsetting coal with natural gas for energy production could occur through establishing a new contract with an additional existing natural gas plant, which would not result in a physical change to the environment; however, replacing coal with natural gas could also occur through increasing natural gas use at an existing natural gas power plant, which could result in a physical change. Furthermore, Measures 1.3, 2.4, and 2.6 call for the installation of solar photovoltaic panel projects on customer-owned existing and new development projects, on customer-owned residential and non-residential structures, and on City-owned facilities.

Implementation of these proposed CAP measures would occur within the built environment or as part of a separate City-approved project. Where solar photovoltaic panels are installed on individual residential units or where increasing natural gas use at an existing natural gas power plant occurs, no impacts to candidate, sensitive or special status species, or modification of a riparian habitat or other sensitive natural community would occur.

However, for larger projects where multiple solar photovoltaic panels are planned to be installed concurrently, construction noise could result in a significant impact. In addition, where existing mature trees are subject to removal, adverse effects to native birds as a result of tree removal could occur. For these projects, compliance with General Plan Policy 5.10.1-P1, which requires environmental review prior to approval of any development with the potential to degrade the habitat of any threatened or endangered species, would reduce impacts to species identified as a candidate, sensitive, or special status species or modification of a riparian habitat or other sensitive natural community to a *less-than-significant* level.

Similarly, where solar photovoltaic panels are installed as part of a new development project, the new development project would, if necessary, also be required to undergo separate environmental review

⁷California Department of Fish and Game, 2009, Special animals, California Natural Diversity Database.

⁸Code of Federal Regulations, 2005, Title 40, Protection of Environment, Part 232.2, Definitions.

⁹California Department of Fish and Game, California Natural Diversity Database, <http://www.dfg.ca.gov/biogeodata/cnddb/>, accessed on July 9, 2013.

consistent with General Plan Policy 5.10.1-P1. Accordingly, implementation of the proposed CAP would have a *less-than-significant* impact on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or U.S. FWS.

- b) As discussed under criteria a), the physical environmental changes that could occur as a result of implementation of the proposed CAP measures would take place within the built environment or as part of a planned City-approved project. Where solar photovoltaic panels are installed on existing buildings or structures or where increasing natural gas use at an existing natural gas power plant occurs, no impact on riparian habitat and sensitive natural would occur. Where solar photovoltaic panels are installed as part of a new development project, the new development project would, if necessary, be required to undergo separate environmental review consistent with General Plan Policy 5.10.1-P1, which requires environmental review prior to approval of any development with the potential to degrade the habitat of any threatened or endangered species. If new projects are proposed in areas of where sensitive natural communities, such as riparian habitat, freshwater marsh, or remnant native grasslands occur, mandatory compliance with local, State and federal regulations would be required. Accordingly, implementation of the proposed CAP would result in *less-than-significant* impacts on riparian habitats and sensitive natural communities.
- c) Wetlands and other waters are protected under the federal Clean Water Act and the State's Porter-Cologne Water Quality Control Act, and are under the jurisdiction of the U.S. Army Corps of Engineers and the San Francisco Bay Regional Water Quality Control Board. Federal and State regulations require avoidance of impacts to the extent feasible, and compensation for unavoidable losses of jurisdictional wetlands and waters. In addition, General Plan Policy 5.10.1-P1 requires environmental review prior to approval of any development with the potential to degrade the habitat of any threatened or endangered species. As discussed under criteria a) and b), implementation of these proposed CAP measures would occur within the built environment or as part of a planned City-approved project, which, if necessary, would undergo separate environmental review consistent with General Plan Policy 5.10.1-P-1. If new projects are proposed in areas of freshwater marsh, seasonal wetlands, or emergent marsh or other wetlands on or adjacent to the site, mandatory compliance with local, State and federal regulations would be required. Therefore, impacts to wetlands or other protected waters would be *less than significant*.
- d) The spatial arrangement of habitat and barriers affects the location, movement patterns, foraging dynamics, and persistence of plant and animal species. The extent of urbanization in the city and adjacent communities, restricts opportunities for movement and dispersal of native wildlife and plant species. Common urban features such as roadways, rail lines, fencing, buildings, and hardscape represent barriers to wildlife movement and dispersal. The best opportunities for animal and fish movement exist along the riparian corridors in the city. In addition, existing mature trees provide nesting opportunities for migratory birds.

Similar to the impact discussion in criteria a) through c) above, implementation of proposed CAP measures that could result in physical changes to the environment would occur within urbanized areas or as part of a planned City-approved project. Indirect impacts as a result of construction noise, which could lead to altered bird behavior, are not anticipated through the installation of solar photovoltaic panels on individual homes or where mature trees are not subject to removal. However, for larger projects where multiple solar photovoltaic panels are planned to be installed concurrently, construction noise could disturb nesting. In addition, where existing mature trees are subject to removal as a result of implementing the proposed CAP, adverse effects to migratory birds or riparian corridors as a result of proposed tree removal could occur. For these projects compliance with General Plan Policy 5.10.1-P1, would reduce impacts to migratory species or other sensitive natural community to a *less-than-significant* level. Additionally, if new projects are proposed in areas of where riparian corridors occur, mandatory

compliance with local, State and Federal regulations would be required. Therefore, *no impact* to wildlife movement or migratory corridors would occur.

e) All structures, programs, and projects pursued under the proposed CAP would be subject to the oversight and review processes envisioned by the General Plan and established within the City Code, including those protecting biological resources. Additionally, the General Plan and City Code are consistent with all other local policies or ordinances protecting biological resources. Therefore, implementation of the proposed CAP would have no conflict with and *no impact* on any local policies or ordinances protecting biological resources.

f) The City of Santa Clara is outside the boundary of and did not participate in the Santa Clara Valley Habitat Conservation Plan; thus, no conflict and *no impact* would occur.¹⁰

V. CULTURAL RESOURCES. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			X	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?			X	

DISCUSSION:

a)-d) Implementation of the proposed CAP would result in physical changes to the environment through the replacement of coal with natural gas in Silicon Valley Power’s portfolio by 2020 (Measure 1.1). Under this measure, offsetting coal with natural gas for energy production could occur through establishing a new contract with an additional existing natural gas plant, which would not result in a physical change to the environment; however, replacing coal with natural gas could also occur through increasing natural gas use at an existing natural gas power plant, which could result in a physical change. Furthermore, Measures 1.3, 2.4, and 2.6 call for the installation of solar photovoltaic panel projects on customer-owned existing and new development projects, on customer-owned residential and non-residential structures, and on City-owned facilities. Implementation of these proposed CAP measures would occur within the built environment or as part of a separate City-approved project, which if necessary, would be subject to separate environmental review pursuant to CEQA. Therefore, while certain facilities or equipment installed pursuant to the proposed CAP could potentially have a certain degree of effect on cultural and archaeological resources, all structures, programs, and projects pursued under the proposed CAP would be subject to the oversight and review processes envisioned by the General Plan and established within the City Code, including those related to historical, archeological, and paleontological resources and human remains. Additionally, projects carried out under the proposed CAP would be obligated to cease construction or other activities, and report any discovery of potentially significant cultural or anthropological resources in compliance with State law (Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code). Accordingly, such discoveries would be subject to the jurisdiction of anthropological or tribal experts, who would be responsible for inspection and

¹⁰City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 118.

potential relocation of discovered cultural resources. Compliance with these existing regulations would therefore neither cause new impacts to cultural resources, nor exacerbate any existing impacts and overall impacts to cultural resources would be <i>less than significant</i> .				
VI. GEOLOGY AND SOILS. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
DISCUSSION:				
<p>a) All structures, programs, and projects pursued under the proposed CAP would be subject to the oversight and review processes and standards that are envisioned by the General Plan, established within the City Code, and/or otherwise required by the California Building Code. Implementation of the proposed CAP would therefore neither cause new geological/soils impacts, nor exacerbate any existing impacts; thus, overall impacts related to geology and soils would be <i>less than significant</i> as described below.</p> <p>i)-iv) There are no earthquake faults, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, within the Santa Clara city limits. The risk of surface fault rupture in the city is considered low.¹¹The city is located in a region characterized by a moderate to high ground shaking hazard</p>				

¹¹City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 183.

and is almost entirely within the zone of liquefaction hazard identified by the County of Santa Clara pursuant to the Seismic Hazards Mapping Act.¹² Because the city is located on gently sloping and nearly flat valley floor topography, it is not subject to risk of landslides; landslide hazard mapping compiled by the County of Santa Clara shows the city is outside the landslide hazard zone.¹³ Policy 5.10.5-P5 in the Santa Clara General Plan regulates development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic, erosion, liquefaction and subsidence dangers. With compliance with these existing regulations, impacts associated with seismic activity would be *less than significant*.

- b) According to the Natural Resources Conservation Service, soil erosion hazards are low throughout the city.¹⁴ The construction associated with the replacement of coal with natural gas in Silicon Valley Power's portfolio by 2020 through increasing natural gas use at an existing natural gas power plant, as well as the installation of solar photovoltaic panels on new and existing buildings in Santa Clara would occur within the existing built environment and would not cause soil erosion or exacerbate conditions that could worsen existing soil erosion conditions. Additionally, all structures, programs, and projects pursued under the proposed CAP would be subject to the oversight and review processes, and standards that are envisioned by the General Plan, established within the City Code, and/or otherwise required by the California Building Code. Therefore, implementation of the proposed CAP would have a *less-than-significant* impact with regard to soil erosion.
- c)-d) Expansive soils have a high shrink-swell potential and occur where a sufficient percentage of certain clay materials are present in the soil. These soil conditions can impact the structural integrity of buildings and other structures. Expansion (shrink-swell) potential is generally moderate in the southern portion of the City's alluvial fan and plain soils and high in the alluvial plain/valley floor soils of the northern portion of the City. Bay margin soils at the City's northernmost edge are identified as compressible or weak by the County of Santa Clara. Weak soils can compress, collapse, or spread laterally under the weight of buildings and fill, causing settlement relative to the thickness of the weak soil. Usually the thickness of weak soil will vary and differential settlement will occur. Weak soils also tend to amplify shaking during an earthquake, and can be susceptible to liquefaction. Permeability (water infiltration rate) is generally very slow in soils of the northern portion of the city. Permeability ranges from slow in the upper floodplain and terrace areas along the south edge of the city to moderate in much of the southern and central portion of the city, and very slow in the fine-textured soils alluvial plain/valley floor soils of the northern portion of the city.¹⁵ As described above in criteria a) and b), any future construction would occur within the existing built environment along with the development of solar energy facilities and would be subject to the oversight and review processes and standards that are envisioned by the General Plan, established within the City Code, and/or otherwise required by the California Building Code. Compliance with these existing regulations would result in *less-than-significant* impacts with regard to unstable soils or seismic hazards.
- e) Implementation of the proposed CAP would not involve the use of septic tanks or alternative waste water disposal systems; thus, *no impact* would occur.

¹²City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 184.

¹³City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 185.

¹⁴City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 182.

¹⁵City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 178.

VII. GREENHOUSE GAS EMISSIONS. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	
<p>DISCUSSION:</p> <p>a) As identified in the proposed CAP, the Santa Clara community emitted 2,037,800 MTCO_{2e} in baseline year 2008. These included point source emissions and rail transit emissions, which are considered informational items beyond the City's direct control. Excluding these emissions, the Santa Clara community emitted 1,854,300 MTCO_{2e} in baseline year 2008. With anticipated population and employment growth, emissions in Santa Clara in 2020 are forecast to increase by 14 percent to 2,109,100 MTCO_{2e}. Implementation of existing statewide and local emissions reduction programs would reduce community-wide emissions in Santa Clara by 4 percent to 1,932,600 MTCO_{2e} in 2020.</p> <p>The proposed CAP provides measures the City can take to reduce GHG emissions. The proposed CAP identifies a reduction target consistent with the <i>AB 32 Scoping Plan</i> and BAAQMD guidance of 15 percent from the baseline year (2008) emissions by 2020. As proposed, implementation of statewide emission reduction programs and local actions identified in the proposed CAP would reduce GHGs by 23.4 percent (434,100 MTCO_{2e}) from baseline 2008 emission levels, exceeding the 15 percent reduction target by 2020. Therefore, the proposed CAP establishes a strategy to directly and indirectly reduce, rather than increase, community-wide GHG emissions. Therefore, this impact would be <i>less than significant</i>.</p> <p>b) The proposed CAP is the primary set of policies adopted for the purpose of reducing the emissions of GHGs in Santa Clara. The City prepared the proposed CAP to continue its commitment to reduce GHG emissions and to demonstrate their consistency with regional and state initiatives and regulations related to climate change by locally reducing GHG emissions. Specifically, proposed CAP measures seek to meet the goal of reducing Santa Clara community-wide GHG emissions 15 percent below baseline 2008 levels by 2020, consistent with guidance provided in the <i>AB 32 Scoping Plan</i> and the BAAQMD June 2010 GHG Plan-level Significance Thresholds. The CAP also includes measures to improve the City's ability to address the potential impacts that climate change may have on the City and its residents. The CAP therefore implements, rather than conflicts with, state regulations to reduce GHG emissions per The California Global Warming Act 2006 (AB 32), and the Sustainable Communities and Climate Protection Act of 2008 (SB 375). Accordingly, the proposed CAP is not in conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions and this impact would be <i>less than significant</i>.</p>				
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and			X	

accident conditions involving the release of hazardous materials into the environment?				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?			X	
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

DISCUSSION:

a)-b) Implementation of the proposed CAP would result in physical changes to the environment through the replacement of coal with natural gas in Silicon Valley Power’s portfolio by 2020 (Measure 1.1). While offsetting coal with natural gas for energy production could occur through establishing a new contract with an additional existing natural gas plant, which would not result in a physical change to the environment, the replacement of coal with natural gas could also occur through increasing natural gas use at an existing natural gas power plant, which could result in a physical change. Furthermore, Measures 1.3, 2.4, and 2.6 call for the installation of solar photovoltaic panel projects on customer-owned existing and new development projects, on customer-owned residential and non-residential structures, and on City-owned facilities. Accordingly, implementation of the proposed CAP could result in a reasonably foreseeable accident involving hazardous materials. The increased use of natural gas required under the proposed CAP would occur at an existing power plant that generates electricity from natural gas and would continue to be subject to local, State, and federal regulations that would reduce or avoid possible hazards from routine transport of and accidental releases of hazardous materials include, but are not limited to, the following:

- California Health and Safety Code, Code of Regulations, RCRA, and CUPA Program (Department of Toxic Substance Control [DTSC], Santa Clara County Department of Environmental Health)
- California Accidental Release Prevention (CalARP) Program
- County Hazardous Waste Management Program
- Santa Clara City Code Section 2.85.070 and Chapters 15.60, 8.25, and 18.50

Implementation of these proposed CAP measures would occur within the built environment or as part of

a separate City-approved project, which if necessary, would be subject to separate environmental review pursuant to CEQA. Therefore, through compliance with mandatory regulation, including General Plan Policy 5.3.1-P21, and Policy 5.3.1-P22, which prohibit the location of sensitive land uses and places of assembly near industrial land uses, impacts related to routine transport and reasonably foreseeable upset and accident of hazardous materials would result in a *less-than-significant* impact.

- c) The construction associated with the replacement of coal with natural gas in Silicon Valley Power's portfolio by 2020 through increasing natural gas use at an existing natural gas power plant, as well as the installation of solar photovoltaic panels on new and existing buildings in Santa Clara would occur within the existing built environment. While it is unknown where the future solar photovoltaic panels would be installed, the installation and operation of the solar photovoltaic panels would not release hazardous materials that could be harmful to sensitive receptors. Accordingly, implementation of the proposed CAP would result in a *less-than-significant* impact related to the proximity to existing and proposed schools.
- d) There are no DTSC sites within the city included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, there are two listed sites within the Central Expressway Focus Area that have land use restrictions (overseen by the RWQCB) due to past contamination.¹⁶ Any future solar photovoltaic panels that may be installed on buildings located on these sites would occur only after appropriate environmental review was completed and the future development was approved by the City. Accordingly, impacts associated with implementation of the proposed CAP regarding hazardous materials sites would be *less than significant*.
- e)-f) The nearest public use airport to the City is the Norman Y. Mineta San José International Airport (Airport), located in San José, California to the northeast of the city. The Comprehensive Land Use Plan (CLUP) for this airport indicates that portions of the city fall within the noise restriction area, height restriction area, and safety restriction areas of the Airport Influence Area (AIA). Activities pursued under the proposed CAP would occur within the existing built environment, with the exception of the development of solar facilities, and would be subject to the oversight and review processes, and standards that are envisioned by the General Plan, established within the City Code, and/or otherwise required by the State/federal regulations. Therefore, compliance with these existing regulations would result in *less-than-significant* impacts related to safety hazards for people residing or working in the city.
- g) The City of Santa Clara Hazardous Materials Division responds to emergency calls related to hazardous materials within the city. The City also participates in the ABAG Local Hazards Plan and has adopted a City of Santa Clara Emergency Plan (2008). The City does not maintain formal evacuation routes, as the most appropriate routes away from an area that may have been affected by a major disaster would be determined by the location and type of incident. While ongoing construction activities such as demolition, material hauling, construction, staging, and modifications to existing buildings in order to implement the proposed CAP would occur, the types of construction activities related to installing solar panels and increasing natural gas use at an existing natural gas power plant would not warrant lane restrictions, closures, and/or detours that could cause an increase in traffic volumes on adjacent roadways, which could affect emergency response routes. Furthermore, there is no increase in population, new housing or vehicular traffic that would be generated by implementation of the proposed CAP; thus, implementation of the proposed CAP would not result in impacts to evacuation or emergency response routes in the city. Overall impacts related to obstructing implementation of the City of Santa Clara Emergency Plan (2008) would be *less than significant*.
- h) The California Department of Forestry and Fire Hazard Protection is responsible for the identification of

¹⁶City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 415.

very high fire hazard severity zones and transmission of these maps to local government agencies. There are no wildfire hazards in the City of Santa Clara.¹⁷ Additionally, all structures and projects pursued under the proposed CAP would be subject to the oversight and review processes and standards that are envisioned by the General Plan, established within the City Code, and/or otherwise required by State/federal regulations. Therefore, compliance with these existing regulations would result in *no impact* with respect to the threat of wildland fires.

VIII. HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

¹⁷City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 409.

DISCUSSION:

- a) The City has an Urban Runoff Management Plan that includes strategies, tasks, and schedules to implement a variety of pollution control measures. Santa Clara is also a member of the Santa Clara Valley Urban Runoff Pollution Prevention Program, which works with participating cities and towns and the Regional Water Quality Control Board on solutions for controlling runoff quality, in compliance with a National Pollutant Discharge Elimination System (NPDES) Municipal Storm Water permit. In addition, General Plan Policy 5.1.1-P3 calls for the City to undertake a comprehensive assessment of water, sanitary sewer conveyance, wastewater treatment, solid waste disposal, storm drain, natural gas, and energy demand and facilities in order to ensure adequate capacity and funding to implement the necessary improvements to support development in the next phase. Additionally, General Plan Policy 5.10.4-P5 calls for the City to prohibit new development that would reduce water quality below acceptable State and local standards. The proposed CAP would have a significant environmental impact if it would violate water quality standards and waste discharge requirements set out in the City's NPDES Permit CAS612008. Violation could occur if the proposed CAP would substantially increase pollutant loading levels in the sanitary sewer system either directly, through the introduction of pollutants generated by construction or industrial land uses, or indirectly, through stormwater pollution. Activities pursued under the proposed CAP would occur within the existing built environment and would be subject to the oversight and review processes, and standards that are envisioned by the General Plan, established within the Municipal Code, and/or otherwise required by the State/federal regulations. Therefore, compliance with these existing regulations would result in *less than significant* water quality impacts.
- b) The proposed CAP would have a significant environmental impact if it would result in a net deficit in aquifer volume or a lowering of the local groundwater table level. Proposed CAP Measure 7.2 calls for the City to require that new uncovered parking lots be constructed with permeable and/or light color pavements, provided it is consistent with the Building Code, which has the potential to *increase* groundwater recharge compared to continued business as usual conditions. Other physical changes that could occur as a result of implementing the proposed CAP would occur within the existing built environment and would not interfere with groundwater recharge. The proposed CAP does not call for any uses that would increase water demand and would not draw on groundwater. As a result, the proposed CAP would have a *less-than-significant* impact on groundwater supplies and recharge capacity.
- c)-d) The proposed CAP would result in a significant environmental impact if it would require modifications to drainage patterns that could lead to substantial erosion of soils, siltation, or flooding. Such drainage pattern changes could be caused by grade changes, the exposure of soils for periods of time during which erosion could occur, or alterations to creekbeds. Physical changes that could occur as a result of implementing the measures under the proposed CAP would occur within the existing built environment and would not involve the direct modification of any watercourse. Construction related to the installation of solar photovoltaic panels and increasing natural gas use at an existing natural gas power plant would not require excessive grading or excavation; however, if unforeseen excessive grading or excavation were required, then pursuant to the State Water Quality Control Board (SWQCB) Construction General Permit, a Storm Water Pollution Prevention Plan (SWPPP) would be required to be prepared and implemented for the qualifying projects under the proposed CAP, which would ensure that erosion, siltation, and flooding is prevented to the maximum extent practicable during construction. Overall, construction and operation associated with implementing policies under the proposed CAP would not result in substantial erosion, siltation, or flooding either on- or off-site, and associated impacts would be *less than significant*.
- e) Physical changes that could occur as a result of implementing the policies under the proposed CAP would occur within the existing built environment and would not increase impervious surfaces that would

create or contribute to runoff water that would exceed the City's stormwater drainage systems. As discussed under criteria b) above, proposed CAP Measure 7.2, which calls for the City to require that new uncovered parking lots be constructed with permeable pavements and/or low albedo materials, provided it is consistent with the Building Code, has the potential to *reduce* stormwater runoff compared to business as usual conditions. Accordingly, impacts associated with stormwater system capacity would be *less than significant* as a result of implementing the proposed CAP.

- f) A principal source of water pollutants is stormwater runoff containing petrochemicals and heavy metals from parking lots and roadways. Given that the proposed CAP would not create such surfaces or increase vehicular use of existing parking lots and roadways, implementation of the proposed CAP would not contribute to these types of water pollutants. As discussed under criteria c) and d), where excessive construction related grading or excavation is required, pursuant to the SWQCB Construction General Permit, a SWPPP would be required to be prepared and implemented for the qualifying projects under the proposed CAP, which would reduce polluted runoff to the maximum extent practicable during construction phases. Furthermore, implementation of the proposed CAP would be subject to the oversight and review processes and standards that are envisioned by the General Plan, including General Plan Policy 5.10.4-P5, which calls for the City to prohibit new development that would reduce water quality below acceptable State and local standards. As such, compliance with these existing regulations would result in *less-than-significant* water quality impacts.
- g) The proposed CAP does not include housing; therefore, *no impact* would occur.
- h) Physical changes that could occur as a result of implementing the proposed CAP would occur within the existing built environment and would not introduce any structures within the 100-year flood hazard area, which could impede or redirect flood flows. As such, *no impact* would occur.
- i) Physical changes that could occur as a result of implementing the proposed CAP would occur within the existing built environment, with the exception of new solar facilities, and would not introduce any new buildings or people to the City. Implementation of the proposed CAP would be subject to the oversight and review processes and standards that are envisioned by the General Plan, including General Plan Policy 5.10.5-P5, which calls for the City to regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic, erosion, liquefaction, and subsidence dangers. Policy 5.10.5-P13 requires that development comply with the Flood Damage Protection Code. Given that measures introduced under the proposed CAP would not contravene any aspects of the General Plan, City Code, or any flood management ordinance; there would not be any increased threat of flooding to people, including flooding as a result of the failure of a levee or dam, and *no impact* would occur.
- j) The City is not located close to a large body of water, tidal, or otherwise that could result in inundation by seiche or tsunami. The city is located approximately 25 miles east of the Pacific Ocean, approximately 5 miles south of San Francisco Bay, and approximately 10 miles northeast of the Lexington Reservoir and Lenihan Dam. Given its distance from these bodies of water, the city is not at risk of inundation in the event of tsunami or seiche. Additionally, the city is located on a gently sloping and nearly flat valley floor topography, and landslide hazard mapping compiled by the County of Santa Clara shows the city is outside the landslide hazard zone.¹⁸ As such, any proposed development that could occur through implementation of the proposed CAP would not be at risk of inundation in the event of mudslide. As such, *no impact* related to inundation by seiche, tsunami, or mudslide would occur as a result of implementing the proposed CAP.

¹⁸City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 185.

IX. LAND USE AND PLANNING. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
<p>DISCUSSION:</p> <p>a) The proposed CAP does not propose any structures, land use designations or other features (i.e. freeways, railroad tracks) that would physically divide an established community. The proposed CAP does not recommend any strategy or measure that would physically divide the community. Rather, the proposed CAP includes strategies and measures to improve connectivity within Santa Clara and to promote alternative transportation methods. Therefore, <i>no impact</i> would result.</p> <p>b) The proposed CAP identifies measures to reduce GHG emissions. Implementing the CAP may require some modification of existing City policies, including the General Plan and Zoning Ordinance. However, proposed CAP measures would generally result in greater avoidance or mitigation of environmental effects, as the CAP is designed to mitigate adverse environmental impacts associated with climate change. For these reasons, although some changes to existing City policies and plans would result from adoption of the proposed CAP, the intent is beneficial. Therefore, the impact would be <i>less than significant</i>.</p> <p>c) The city is outside the boundary of and did not participate in the Santa Clara Valley Habitat Conservation Plan; thus, no conflict and <i>no impact</i> would occur.¹⁹</p>				
X. MINERAL RESOURCES. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
<p>DISCUSSION:</p> <p>a)-b) There are no significant mineral resources and no exploitable oil or gas resources within the city.²⁰ Therefore, implementation of the proposed CAP would have no effect on mineral or gas resources within the city. All structures, programs, and projects pursued under the proposed CAP would be subject to the oversight and review processes and standards that are envisioned by the General Plan, established within the City Code, and/or otherwise required by the State/federal regulations. As such, <i>no impact</i> related to the loss of a mineral or gas resource would occur as a result of implementation of the proposed</p>				

¹⁹City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 118.

²⁰City of Santa Clara, 2010-2035 General Plan, Integrated Final EIR, January 2011, page 182-183.

CAP.				
XI. NOISE. Would the project result in:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?			X	
DISCUSSION:				
a)-f) The Santa Clara General Plan 2010-2035 and its EIR anticipated and directly stipulated the creation, adoption, and implementation of the proposed CAP. The provisions of the proposed CAP would not contravene any aspects of the General Plan, including land use designations, allowed site uses, noise limits, or other restrictions that address noise impacts. Though certain facilities or equipment installed pursuant to the proposed CAP may potentially be noise-generating, all structures, programs, and projects pursued under the proposed CAP would be subject to the oversight and review processes and standards that are envisioned by the General Plan, established within the City Code, and/or otherwise required by the State/federal regulations. Compliance with these existing regulations would ensure that the proposed CAP would neither cause new noise impacts nor exacerbate any existing ones. Accordingly, noise impacts associated with implementing the proposed CAP would be <i>less than significant</i> .				
XII. POPULATION AND HOUSING. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing				X

elsewhere?				
DISCUSSION:				
<p>a) The proposed CAP would be considered to result in a substantial and unplanned level of growth if estimated buildout would exceed local and regional growth projections (e.g., by proposing new homes or businesses). The CAP does not propose any new housing units or non-residential square feet beyond those already anticipated in the City’s general and specific plans, and thus would not directly induce substantial population growth. Additionally, the proposed CAP would not extend roads or other infrastructure, and thus would not indirectly induce substantial population growth. Thus, <i>no impact</i> would occur in relation to population growth.</p> <p>b)-c) Although proposed CAP strategies and measures encourage energy efficient retrofits for existing homes and encourage new affordable housing and transit-oriented development projects, homes would not be displaced. Possible future development activities would likely lead to a greater mix of uses within the City and would result in more homes. Replacement housing would not be necessary. Therefore, <i>no impact</i> would result.</p>				
XIII. PUBLIC SERVICES.	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?				X
ii) Police protection?				X
iii) Schools?				X
iv) Parks?				X
v) Other public facilities?				X
DISCUSSION:				
<p>a)i)-v) The primary purpose of a public services impact analysis is to examine the impacts associated with physical improvements to public service facilities required to maintain acceptable service ratios, response times or other performance objectives. Public service facilities need improvements (i.e. construction of new, renovation or expansion of existing) as demand for services increases. Increased demand is typically driven by increases in population. The proposed CAP would have a significant environmental impact if it would exceed the ability of public service provider to adequately serve the residents of the city, thereby requiring construction of new facilities or modification of existing facilities. As discussed in Section XII, Population and Housing, above, the proposed CAP would not directly or indirectly result in population growth. The proposed CAP does not include the construction of any new public service facilities or expansion of existing facilities. Further, the provisions of the proposed CAP would not contravene any aspects of the General Plan, including land use designations and allowed building intensities that could impact demand for City services. Implementation of the proposed CAP would therefore neither cause new impacts in regard to provision of City services nor exacerbate any existing ones; thus, <i>no impact</i> would occur.</p>				

XIV. RECREATION.	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
DISCUSSION: a)-b) Because implementation of the proposed CAP would not directly or indirectly result in population growth, it also would not increase the use of existing parks or facilities. Additionally, implementation of the proposed CAP does not include nor require the construction or expansion of recreational facilities. For these reasons, implementation of the proposed CAP would have <i>no impact</i> on recreation.				
XV. TRANSPORTATION AND TRAFFIC. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X

DISCUSSION:

- a)-b) Implementation of proposed CAP measures would increase the availability of transit service for Santa Clara residents, add additional bicycle and pedestrian facilities, and discourage single-occupancy vehicle use. Achieving each of these goals would reduce traffic loads, which would reduce the number of vehicle trips, volume to capacity ratios, and intersection congestion throughout the city. New infill and transit-oriented development projects recommended within the proposed CAP would be designed specifically to reduce vehicle trips, and to place more people within walking distance of commercial uses and public transit. Furthermore, no proposed measure would directly increase traffic in relation to the existing traffic load and capacity of the street system. Therefore, the impact would be *less than significant*.
- c) The proposed CAP does not include any strategy or measure that would directly or indirectly affect air traffic patterns. Therefore, *no impact* would result.
- d) The proposed CAP does not include any strategy that would promote the development of hazardous road design features or incompatible uses. Rather, the proposed CAP promotes the development of new bicycle and pedestrian facilities built to current standards, which would provide greater safety for pedestrians, bicyclists, and drivers. Therefore, the impact would be *less than significant*.
- e) The proposed CAP recommends complete streets measures that would increase safety for drivers, pedestrians, and bicyclists and seeks to reduce the number of automobiles on Santa Clara streets, both of which could make access for emergency vehicles easier and more efficient. No measure proposed in the CAP would result in the development of uses or facilities that would degrade emergency access. Therefore, the impact would be *less than significant*.
- f) Supporting and increasing access to alternative transportation is a key objective of the CAP. The CAP would enhance adopted policies, plans, and programs supporting alternative transportation. Therefore, *no impact* would occur.

XVI. UTILITIES AND SERVICE SYSTEMS. Would the project:	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, State, and local statutes and regulations related to solid waste?			X	

DISCUSSION:

a)-c), e) Implementation of the proposed CAP would not introduce uses that would create wastewater effluent or increase storm water runoff. While the San José/Santa Clara Water Pollution Control Plant (WPCP) has existing remaining capacity allocated for the City to handle projected Average Dry Weather Flows (ADWFs) for existing conditions and anticipated future growth under the General Plan,²¹ the construction and operation associated with increasing natural gas use at an existing natural gas power plant, as well as the installation of solar photovoltaic panels on new and existing buildings in Santa Clara would not introduce any physical changes that would result in increased wastewater effluent. Implementing the measures under the proposed CAP would occur within the existing built environment and would not involve any new impervious surfaces. Therefore, construction and operation resulting from implementing the measures in the proposed CAP would have *less-than-significant* impacts with regard to the wastewater treatment requirements of the applicable Regional Water Quality Control Board and the capacity of the WPCP to serve the projected General Plan demand in addition to its existing commitments, nor would it require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

d) The Santa Clara Valley Water District (SCVWD) manages water resources and wholesales treated water to 13 retailers in Santa Clara County, including the City of Santa Clara. According to the SCVWD's Urban Water Management Plan (UWMP), the existing water supply is sufficient to meet the needs of the city's anticipated future growth.²² Implementation of the proposed CAP would not introduce uses that would create a significant demand for water. Proposed CAP Measure 2.3 calls for the City to require new data centers with rack power ratings of 15 *kilowatt* (kW) or more to identify and implement cost effective and energy-efficient practices to achieve a power usage effectiveness (PUE) rating of 1.2 or lower. One method commonly used to achieve such a rating is use of liquid-cooled server technology, which, could increase water demand. However, the implementation of General Plan Policies 5.10.4-P1 through 5.10.4-P10, would ensure there would be adequate water supply for future development anticipated under the General Plan, which includes the preparation of the CAP.²³ Specifically, General Plan Policy 5.10.4-P4 requires an adequate water supply and water quality for all new development in the city. Accordingly, all applicants of qualifying new data centers would be required to determine that the existing water supply is sufficient to meet the needs for the use of any cost-effective and energy-efficient practices, including potential use of liquid cooled server technology. If the existing water supply is found to be insufficient for such practices, then implementation of those practices would be found to be infeasible. Given this, impacts to water supply as a result of implementing the proposed CAP would be *less than significant*.

f)-g) The City currently has a contract with the owners of the Newby Island Landfill, located in San Jose, to provide disposal capacity through 2024. There is sufficient capacity in the existing solid waste disposal facilities serving Santa Clara to accommodate waste proposed by the General Plan through the current contract in 2024.²⁴ Implementation of General Plan Policies 5.1.1-P3, 5.1.1-P8 and 5.1.1-P22, which

²¹City of Santa Clara, 2010-2035 General Plan Integrated Final EIR, page 228 and City of Santa Clara, 2010-2035 General Plan, pages 7-7 and 8.6-1 to 8.6-12.

²²City of Santa Clara Water Utility District May 24, 2011, 2010 Urban Water Management Plan, pages 1 to 18.

²³City of Santa Clara, 2010-2035 General Plan Integrated Final EIR, page 227.

²⁴City of Santa Clara, 2010-2035 General Plan Integrated Final EIR, page 229.

require the City to assess solid waste needs and secure adequate solid waste disposal facilities to serve build out of the General Plan, would ensure the City has access to a landfill with adequate capacity for future growth projected through General Plan build out year 2035. Because the implementation of the proposed CAP would not require any changes to the City's General Plan land use designations or zoning districts, and would not result directly or indirectly in new population growth, impacts related to adequate landfill capacity as a result of implementation of the proposed CAP would be *less than significant*. Furthermore, proposed CAP Measure 4.1 calls for the City to support the expansion of existing food waste and composting collection routes to provide composting services to 25 percent of existing restaurants. Measure 4.2 calls for the City to work with regional partners to increase solid waste diversion by 80 percent. Proposed CAP Measures 4.1 and 4.2, combined with General Plan Policy 5.10.1-P6, which requires the use of local recycling facilities to divert waste from landfills; Policy 5.10.1-P7, which encourages a 50 percent per capita solid waste reduction; and Policy 5.10.1-P8, which encourages curbside recycling and composting of organic and yard local waste would ensure the City would be in compliance with federal, State, and local statutes and regulations related to solid waste, and impacts related to solid waste would be *less than significant*.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X
<p>DISCUSSION:</p> <p>a)-c) The Santa Clara General Plan 2010-2035 and its EIR anticipated and directly stipulated the creation, adoption, and implementation of the proposed CAP. The provisions of the proposed CAP would not contravene any aspects of the General Plan, including land use designations and allowed building intensities, that would lead to increased population or development, impacts to wildlife, cumulative effects, or other substantial adverse effects on human beings. All structures, programs, and projects pursued under the proposed CAP would adhere to the vision established within the General Plan and all subsequent land use and zoning designations. Implementation of the proposed CAP would therefore neither cause new impacts in regard to these issues nor would it exacerbate any existing impacts. The General Plan EIR made no finding of significant impacts in regard these topics, in the time frame covered by the proposed CAP. Therefore, implementation of the proposed CAP would have <i>no impact</i> with the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory, nor have impacts that are individually limited, but cumulatively considerable, nor does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.</p>				

A P P E N D I X

CLIMATE ACTION PLAN
PROPOSED MEASURES



Santa Clara Climate Action Plan

Draft Reduction Measures – September 2013

Measure Evaluation

Many methods are used by jurisdictions to reduce GHG emissions. While Santa Clara has considered best practices in similar or nearby communities, the use of a measure by another community does not necessarily mean that it is practical or appropriate for Santa Clara. This is particularly true given Santa Clara’s unique emissions profile and role as an electricity provider to residential, commercial, and industrial uses. Therefore, a set of criteria was developed to evaluate each measure and identify those most appropriate for Santa Clara.

Effectiveness

The primary goal of the CAP is to identify and quantify the emissions reduction benefit of each measure to achieve the target. All emissions reduction benefits are identified for the year 2020, unless otherwise noted, and are represented in metric tons of carbon dioxide equivalent emissions (MTCO₂e).

Time and Resources

An estimate of the likely expense and staff time that may be necessary to implement each measure can help determine if the measure is a good use of City resources. Three cost ranges are presented for each measure. Additionally, each measure identifies if components are already factored into a department’s budget.

Range	Description	Annual Staff Hours
\$ Low	Minimal staff effort and no consultant assistance would be needed to complete analytical work, coordinate stakeholder/public outreach, or implement the program.	<500
\$\$ Medium	Significant staff effort, some consultant assistance, or supplemental funding for operations or capital projects would be needed to complete analytical work, coordinate stakeholder/public outreach, or implement the program.	500–1,000
\$\$\$ High	Major staff effort, consultant assistance, or supplemental funding for operations or capital projects would be needed to complete analytical work, coordinate stakeholder/public outreach, or implement the program.	1,000+

Lead Department

Specific City departments will implement each CAP measure, as outlined below. Additional staff time and resources may be needed or may already be budgeted to implement each measure.



Community Benefits













Beyond reducing emissions, many measures can also improve quality of life for residents and businesses in Santa Clara. Additional community benefits are identified for each measure as follows.



Santa Clara Climate Action Plan














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Table 1: Draft Climate Action Plan Measures by Focus Area

Measure	2020 GHG Reductions	City Costs	Budgeted Costs?	Time Frame	Lead Department	Co-benefits	Beneficiaries
Focus Area 1: Coal-Free and Large Renewables							
Goal: Eliminate coal from SVP's portfolio and increase use of natural gas and renewable energy.							
1.1 Coal-free by 2020 Replace the use of coal in Silicon Valley Power's portfolio with natural gas by 2020.	-388,800	\$\$\$	Yes	Mid-Term	Silicon Valley Power	 Resources	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
1.2 Renewable energy resources Investigate the use of City-owned property for large-scale renewable energy projects.	No reductions by 2020	\$\$\$	No	Long-Term	Silicon Valley Power	   Economy Technology Resources	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
1.3 Utility-installed renewable Develop up to five solar PV projects with a total installed capacity of 3 to 5 MW.	-1,200	\$\$	No	Mid-Term	Silicon Valley Power	  Economy Resources	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
Focus Area 2: Energy Efficiency Programs							
Goal: Maximize the efficient use of energy throughout the community.							
2.1 Community electricity efficiency Achieve City-adopted electricity efficiency targets to reduce community-wide electricity use by 5% through incentives, pilot projects, and rebate programs.	-27,600	\$\$	Yes	Near-Term	Silicon Valley Power	   Energy Economy Resources	<input checked="" type="checkbox"/> Existing Development <input type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
2.2 Community natural gas efficiency Work with community and social services agencies to provide information from Pacific Gas & Electric (PG&E) to promote voluntary natural gas retrofits in 5% of multi-family homes, 7% of single-family homes, and 7% of nonresidential space through strategic partnerships connecting residents and business owners to available financing resources.	-12,100	\$	n/a	Near-Term	Silicon Valley Power (in coordination with PG&E)	   Energy Economy Resources	<input checked="" type="checkbox"/> Existing Development <input type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
















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Measure	2020 GHG Reductions	City Costs	Budgeted Costs?	Time Frame	Lead Department	Co-benefits	Beneficiaries
2.3 Data centers Encourage new data centers with an average rack power ratings of 15 kW or more to identify and implement cost-effective and energy-efficient practices.	-400	\$	No	Near-Term	Planning & Inspection	 Energy  Technology	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input type="checkbox"/> City Government
2.4 Customer-installed solar Incentivize and facilitate the installation of 6 MW of customer-owned residential and nonresidential solar PV projects.	-1,500	\$\$	Yes	Near-Term	Silicon Valley Power, Planning & Inspection	 Economy  Resources	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input type="checkbox"/> City Government
2.5 Municipal energy efficiency Reduce municipal electricity use by 10% through comprehensive energy retrofits of existing equipment and implementation of previously identified energy efficiency projects with a benefit-cost ratio of one or greater.	-600	\$\$	No	Mid-Term	Public Works	 Energy  Economy	<input type="checkbox"/> Existing Development <input type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
2.6 Municipal renewable Install 1 MW of solar or other renewables at City-owned facilities.	-300	\$\$	No	Mid-Term	Public Works	 Economy  Resources	<input type="checkbox"/> Existing Development <input type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
Focus Area 3: Water Conservation							
Goal: Reduce GHG-intensive water use practices.							
3.1 Urban Water Management Plan targets Meet the water conservation goals presented in the 2010 Urban Water Management Plan to reduce per capita water use by 2020.	-140	\$	Yes	Mid-Term	Water and Sewer Utilities; Planning and Inspection	 Water  Resources	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input type="checkbox"/> City Government
Focus Area 4: Waste Reduction							
Goal: Increase recycling opportunities for all disposed materials.							
4.1 Food waste Support the expansion of existing food waste and composting collection routes in order to provide composting services to 25% of existing restaurants.	-150	\$	Yes	Near-Term	Public Works	 Economy  Technology  Resources	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input type="checkbox"/> City Government





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Measure	2020 GHG Reductions	City Costs	Budgeted Costs?	Time Frame	Lead Department	Co-benefits	Beneficiaries
<p>4.2 Increased waste diversion</p> <p>Work with regional partners to increase solid waste diversion to 80% through increased recycling efforts, curbside food waste pickup, and construction and demolition waste programs.</p>	-20,500	\$\$	Partially	Mid-Term	Public Works	 Education  Resources	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
Focus Area 5: Off-road Equipment							
Goal: Ensure efficient operations of off-road equipment.							
<p>5.1 Lawn and garden equipment</p> <p>Support and facilitate a community-wide transition to electric outdoor lawn and garden equipment through outreach, coordination with BAAQMD, and outdoor electrical outlet requirements for new development.</p>	-100	\$	No	Mid-Term	Planning and Inspection	 Health  Resources	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input type="checkbox"/> City Government
<p>5.2 Alternative construction fuels</p> <p>Require construction projects to comply with BAAQMD best management practices, including alternative-fueled vehicles and equipment.</p>	-6,100	\$	No	Near-Term	Planning and Inspection	 Health  Resources	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
Focus Area 6: Transportation and Land Use							
Goal: Establish land uses and transportation options that minimize single-occupant vehicle use.							
<p>6.1 Transportation demand management program</p> <p>Require new development located in the City's transportation districts to implement a transportation demand management (TDM) program to reduce drive-alone trips.</p>	-4,240	\$\$\$	No	Near-Term	Planning and Inspection	 Education  Resources  Mobility	<input type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input type="checkbox"/> City Government
<p>6.2 Municipal TDM</p> <p>Develop and implement a transportation demand management program for City employees to encourage alternative modes of travel and reduce single-occupant vehicle use.</p>	-400	\$	No	Ongoing	Planning and Inspection	 Education  Resources  Mobility	<input type="checkbox"/> Existing Development <input type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
<p>6.3 Electric vehicle parking</p> <p>Revise parking standards for new multi-family residential and nonresidential development to require that a minimum of one parking space, and a recommended level of 5% of all new parking spaces, be</p>	-1,400	\$\$	Partially	Near-Term	Planning and Inspection	 Economy  Technology  Resources	<input type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government

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Measure	2020 GHG Reductions	City Costs	Budgeted Costs?	Time Frame	Lead Department	Co-benefits	Beneficiaries
designated for electric vehicle charging.							
Focus Area 7: Urban heat Island Effect							
Goal: Mitigate the heat island effect through shading and cooling practices.							
7.1 Urban forestry Create a tree-planting standard for new development and conduct a citywide tree inventory every five years to track progress of the requirements.	-70	\$	Yes	Mid-Term	Planning and Inspection	 Energy  Health	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government
7.2 Urban cooling Revise the Zoning Code to require new parking lots to be surfaced with low-albedo materials to reduce heat gain, provided it is consistent with the Building Code.	-10	\$	No	Near-Term	Planning and Inspection	 Energy  Technology	<input checked="" type="checkbox"/> Existing Development <input checked="" type="checkbox"/> New Development <input checked="" type="checkbox"/> City Government

The reduction measures included in the CAP identify policies and programs that can be implemented to reduce emissions and achieve the reduction target by 2020. Most emissions reductions come from the Coal-Free and Large Renewables focus area, which corresponds to the largest sources of emissions in Santa Clara. The table below summarizes anticipated emissions reductions in 2020.

Table 2: Anticipated 2020 Emissions Reductions from Climate Action Plan Measures

Focus Area	2020 (MTCO ₂ e)
2008 Baseline Emissions	1,854,300
2020 Business as Usual Emissions	2,109,200
State Activities	-176,600
Local Activities	-46,800
2020 Emissions with Existing Activities	1,885,800
Emissions Reduction Measures	
Coal-Free and Large Renewables	-390,000
Energy Efficiency	-42,500
Water Conservation	-140
Waste Reduction	-20,650
Off-Road Equipment	-6,200
Transportation and Land Use	-6,040
Urban Heat Island Effect	-80

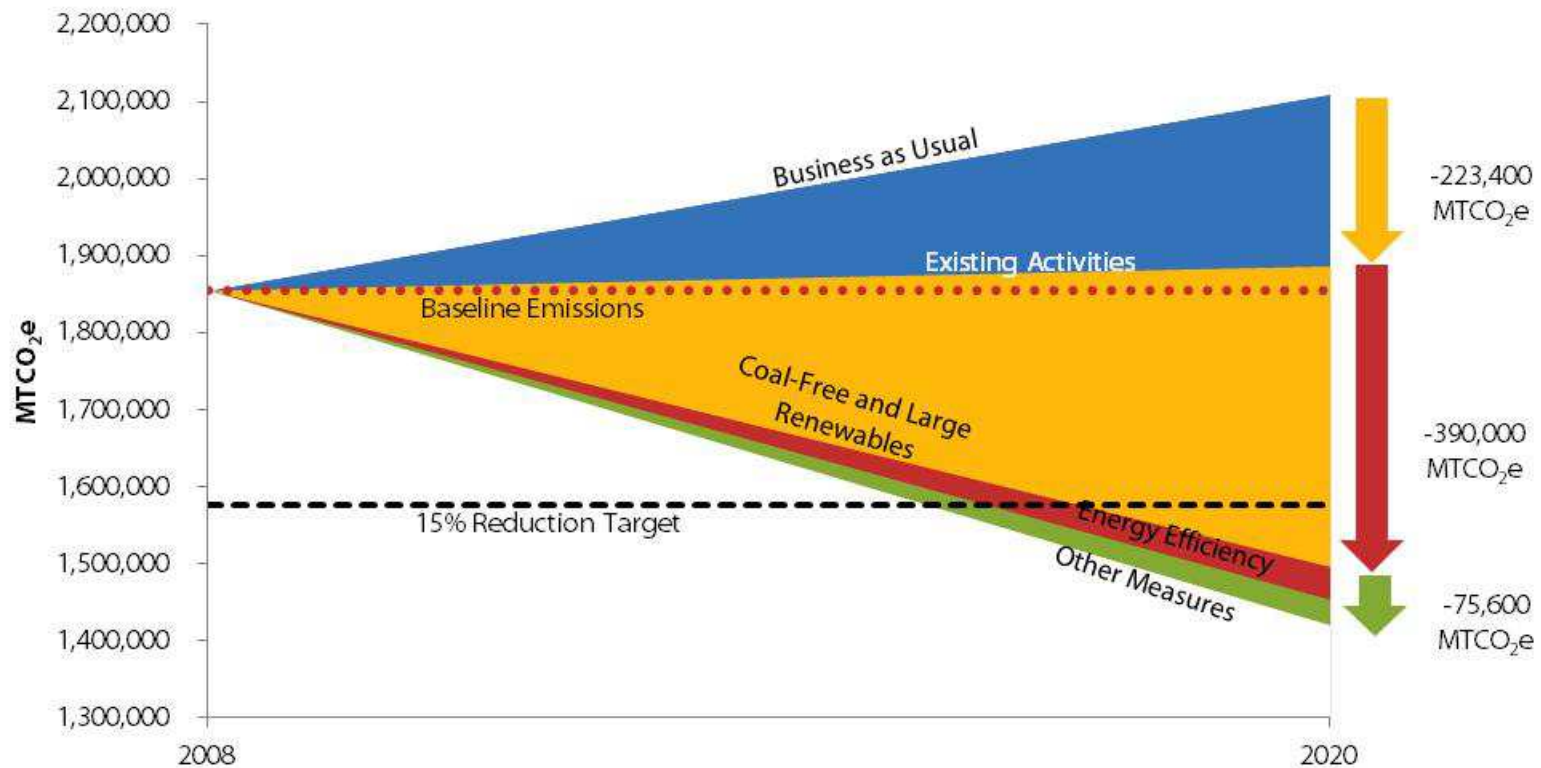
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Total Reductions from new measures*	-465,610
2020 Emissions Level with CAP	1,420,200
% Reduction below Baseline	-23.4%
*Total may not equal the sum of component parts due to rounding.	

Implementing the CAP measures would enable the community to reduce emissions by 23.4% below 2008 levels by 2020. The Figure below illustrates anticipated progress toward achieving and exceeding the reduction target by 2020.

Figure 1: Anticipated 2020 Emissions Reductions



Implementation and Monitoring

Implementing the CAP will require City leadership to execute these measures and report progress. The CAP has been designed to support swift implementation by identifying responsible departments, time frames, and relative costs associated with each measure. Staff will monitor implementation progress using an

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implementation and monitoring tool and will report to the Planning Commission and City Council on annual progress. As part of annual progress reports, staff will assess project compliance with the CAP measures and evaluate the effectiveness of each measure to ensure that anticipated emissions reductions are occurring. In the event that reductions do not occur as expected, the City can modify and add additional measures to the CAP to ensure the reduction target is achieved.

To support effective monitoring and implementation of the CAP, an Excel-based monitoring tool has been developed to support staff assessment and reporting of CAP measure progress. The tool will allow the City to track progress in reducing emissions, vehicle miles traveled, waste generation, and energy use over time using readily available data. The tool is used to collect data, track GHG emissions, and assess the effectiveness of CAP measures.

