



Agenda Report

20-402

Agenda Date: 8/26/2020

REPORT TO PLANNING COMMISSION

SUBJECT

STUDY SESSION: Climate Action Plan (CAP) Update

BACKGROUND

The City's current CAP, adopted in December 2013, identifies measurable actions the City can implement through the year 2020 to reduce Greenhouse Gas (GHG) emissions to 1990 levels, as required by California's Global Warming Solutions Act of 2006 (Assembly Bill 32).

The City is now in the process of comprehensively updating the CAP to extend the City's Greenhouse Gas (GHG) reduction goals through 2030, and to address new State requirements imposed since the CAP was adopted. The City hired a consultant team led by Cascadia Consulting Group and including Raimi + Associates and David J. Powers and Associates, to provide professional services to assist with the CAP Update.

Regulatory Background

Since 2013 California has adopted a number of laws that add requirements for local jurisdictions to assess climate change, analyze and reduce GHG emissions and their effects, and prepare for the impacts of a warming planet. The following State policies are being addressed through the CAP update:

- **AB32, SB32, EO B-55-18:** AB 32 (2006) set California's first GHG target to reduce emissions to 1990 levels by 2020. SB 32 (2016) extended the goals of AB 32 and established a mid-term 2030 goal of reducing emissions 40% below 1990 levels and a long-term goal of reducing emissions 80% below 1990 levels by 2050. In 2018, Executive Order B-55-18 set the target of statewide carbon neutrality by 2045.
- **California Renewable Portfolio Standard Program:** This law requires that electrical utilities provide an increased amount of electricity from eligible renewable sources. SB350 (2015) established new clean energy, clean air, and greenhouse gas (GHG) reduction goals for 2030. SB100 (2018) sets targets for the Renewable Portfolio Standard, including sourcing 60% of all electricity sales from clean, renewable sources by 2030. In November 2018, Silicon Valley Power (SVP) adopted an Integrated Resource Plan (IRP) for the City of Santa Clara consistent with the goals and targets of both SB350 and SB100.
- **CBSC Energy Efficiency standards:** Title 24, the California Building Standards Code (CBSC), is a statewide set of construction codes applied by local agencies through the issuance of building permits. Part 6 of the CBSC, the California Energy Code, contains energy and water efficiency requirements for newly constructed buildings, additions to existing buildings, and alterations to existing buildings. California has set a goal for zero-net energy new construction by 2030.
- **California Clean Car Standards:** These state standards require that vehicles sold in California meet minimum fuel efficiency requirements, and that over time, fuel sold in the state

emits less GHGs during production and use.

- **SB 1383 (2016):** This law requires that food scraps and other organic material is diverted from landfill disposal. The State goal is that 75% of organic material is diverted from landfills by 2025.

DISCUSSION

At the study session on August 26, 2020, staff will provide information on the following:

2013 CAP Progress Summary

The consultant team conducted several interviews with City staff and key community and business stakeholders to prepare a progress report on the adopted measures in the 2013 CAP, the CAP Measures Status Memo, which is provided with this report as Attachment 1. Seven out of the 19 measures in the 2013 CAP have been completed.

Forecast and Overarching Targets

The City's Greenhouse Gas (GHG) emission trends were analyzed and a series of focus group interviews were conducted with City staff and key stakeholders. Key findings are summarized in the Forecast and Targets Memo, which is available with this report as Attachment 2. The memo summarizes the GHG forecasts and provides options for the overall reduction target for the CAP Update. The memo further recommends that the City adopt the goal of carbon neutrality by 2045 to align with the State and peer cities in the Bay Area. This would require the City of Santa Clara to adopt strategies and take actions to reduce the GHG emissions to zero, including offsets for any remaining emissions that cannot be eliminated.

Staff will be asking the Planning Commission to provide input on the appropriate reduction target for the CAP. The choices include:

1. Santa Clara adopts the goal of carbon neutrality by 2045. This target is based on Former Governor Brown's Executive Order B-55-18.
2. Santa Clara adopts the State's emissions reduction targets set forth in SB 32. These targets include a mid-term and long-term goal of reducing GHG emissions 40% below baseline levels by 2030 and 80% by 2050.
3. Santa Clara chooses to set targets that are more stringent than State guidance, such as achieving carbon neutrality earlier than 2045.
4. Santa Clara sets a target that is less than the State's long-term reduction goals. This would have the drawback of not achieving the CEQA streamlining benefit of the adoption of a qualified Climate Action Plan.

Potential Strategies and Actions

An initial list of actions has been developed and is available with this report as Attachment 3. This list has been developed through an iterative development and review process that included interviews with City staff, outreach to targeted stakeholders and the public, a review of current City planning documents and activities, consideration of peer city and industry best practices, and a qualitative multi-criteria prioritization analysis. The action list is divided into five focus areas:

- Buildings and Energy;
- Transportation and Land Use,
- Materials and Consumption,
- Natural Systems & Water Resources, and
- Community Resilience & Wellbeing.

At the meeting, staff will be asking the Commission as a whole to weigh in on their top priority actions on the first two focus areas, Buildings and Energy, and Transportation and Land Use, as they are more related to the Planning Commission's purview. Also, indicate if any potential actions should be removed from consideration. Comments on other focus areas can be sent to the staff through email.

ENVIRONMENTAL REVIEW

This is an informational report only and no action is being taken by the Planning Commission and no environmental review under the California Environmental Quality Act ("CEQA") is required at this time.

FISCAL IMPACT

There is no additional cost to the City other than staff time and expense.

COORDINATION

This report has been coordinated with the City Attorney's Office and the Community Development Department.

PUBLIC CONTACT

Over the first week of April 2020 the consulting team hosted a series of stakeholder focus group calls in lieu of the first Community Workshop for the Climate Action Plan Update. The first series of focus groups were held as online webinars. Overall, they spoke with 10 community members representing various community organizations, sectors, and opinions.

The City completed an online survey on the CAP, with nearly 400 responses received. The City also conducted a virtual community workshop on July 16, where people were asked to provide input on the City's climate goals and strategies. The 38 participants actively engaged in discussions on variety of topics including Land Use and Transportation, Buildings and Energy, Materials and Consumption, Natural systems and Water Resources, and Community Resilience and Wellbeing. The [presentation <https://www.santaclaraca.gov/home/showdocument?id=69321>](https://www.santaclaraca.gov/home/showdocument?id=69321) from this workshop has been posted on the CAP webpage on the City's website. Summaries of the responses from the survey and the discussions during the Community Workshop have also been posted on the [CAP webpage. <https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/climate-action-plan>](https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan/climate-action-plan)

A second online survey on the Climate Action Plan will be posted in August to further engage the community in the process.

Public contact was also made by posting the Council agenda on the City's official-notice bulletin board outside City Hall Council Chambers. A complete agenda packet is available on the City's website and in the City Clerk's Office at least 72 hours prior to a Regular Meeting and 24 hours prior to a Special Meeting. A hard copy of any agenda report may be requested by contacting the City Clerk's Office at (408) 615-2220, email clerk@santaclaraca.gov [<mailto:clerk@santaclaraca.gov>](mailto:clerk@santaclaraca.gov) or at the public information desk at any City of Santa Clara public library.

OUTCOME

The goal of the study session is to get Commission's confirmation on the recommended GHG target for CAP update. The staff will also seek the Commission's input on the initial action list by asking the

Commission as a whole to indicate their top priority actions and to indicate if there are actions that should not be included in the CAP Update. Given that the Planning Commission's purview is more related to Building and Energy, and Transportation and Land Use, we will discuss actions related to these two focus areas during the study session.

Staff

Reviewed by: Reena Brilliot, Planning Manager

Approved by: Andrew Crabtree, Director of Community Development

ATTACHMENTS

1. CAP Measures Status Memo
2. Forecast and Targets Memo
3. Initial Actions List

TO: Nimisha Agrawal, City of Santa Clara
FROM: Andrea Martin and Angela Pietschmann, Cascadia Consulting Group
SUBJECT: Progress Analysis of the City of Santa Clara’s 2013 Climate Action Plan
DATE: April 2020

INTRODUCTION

Cascadia Consulting Group reviewed the City of Santa Clara’s 2013 Climate Action Plan (CAP), 2016 and 2018 CAP progress reports, and other related documents to assess the City’s progress in implementing CAP measures and reducing greenhouse gases against the recommended baseline. This review was supplemented with a series of interviews in March 2020 with the following City staff and key stakeholders:

- Ann Hatcher - Assistant Director of Electric Utility
- Carol Shariat - Principal Transportation Planner
- Craig Johnson – Building Official
- Dan Sunseri – Fleet Manager
- Dave Staub – Deputy Director of Public Works
- Diane Asuncion- Acting Compliance Manager, Water & Sewer Utilities
- Michelle Templeton – Sustainability Manager
- Shilpa Mehta - Engineering Services Division Manager, Water and Sewer Utilities
- Sudhanshu Jain – Planning Commissioner

The following tables summarize progress to date across the 2013 CAP’s 19 climate action measures.

PROGRESS AS OF MARCH 2020

FOCUS AREA 1: COAL-FREE AND LARGE RENEWABLES

Goal: Eliminate coal from SVP’s portfolio and increase use of natural gas and renewable energy.

| Ref | Measure | Performance target | Lead Department | 2020 Status |
|-----|--|---|--|--|
| 1.1 | Coal-free by 2020 Replace the use of coal in Silicon Valley Power’s (SVP) portfolio with natural gas by 2020. | 100% of coal power replaced with natural gas. | <ul style="list-style-type: none"> • Silicon Valley Power | Completed. As of January 1, 2018, SVP (1) has completely divested from coal, eliminating the amount of coal in the City’s energy mix; and (2) provides all residential customers with carbon-free energy. |
| 1.2 | Renewable energy resources Investigate the use of City-owned property for large-scale renewable energy projects. | N/A | <ul style="list-style-type: none"> • Silicon Valley Power | Since the 2013 CAP was adopted, SVP developed a 20 MW wind farm in the Altamont Pass area and a 20 MW solar installation in Kern County. |

| Ref | Measure | Performance target | Lead Department | 2020 Status |
|-----|---|---|--|---|
| 1.3 | Utility-installed renewables Develop up to five solar PV projects with a total installed capacity of 3 to 5 MW. | New solar PV projects generating a total of 5 MW. | <ul style="list-style-type: none"> Silicon Valley Power | By 2016, SVP installed 515 kW of solar projects in Santa Clara. Additional projects to date include: Hope Rehabilitation Services (4.0 kW), YMCA of Silicon Valley (30.450 kW), Pacific Autism Center for Education (47.150 kW), Belovida Santa Clara (32.400 kW), Muslim Community Association (35.020 kW). Three additional projects are currently in progress. |

FOCUS AREA 2: ENERGY EFFICIENCY PROGRAMS
Goal: Maximize the efficient use of energy throughout the community.

| Ref | Measure | Performance target | Lead Department | 2020 status |
|-----|---|---|--|---|
| 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. | (2020): 159,100 MWh electricity savings. | <ul style="list-style-type: none"> Silicon Valley Power | Completed. Combined savings from 2008 to 2017 amount to 165,260 MWh of community energy savings through incentives, pilot projects, and rebate programs, exceeding the original goal of 159,100 MWh. |
| 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. | 1,700 single-family homes, 1,000 multi-family homes, 410 commercial accounts, and 130 industrial accounts complete natural gas efficiency upgrades. | <ul style="list-style-type: none"> Silicon Valley Power PG&E | While SVP is a municipally owned utility, PG&E is not, making progress on this measure challenging. The City will pursue more effective measures as part of the 2020 CAP update. |
| 2.3 | Data centers Encourage new data centers with an average rack power rating of 15 kW or more to identify and implement cost-effective and energy-efficient practices. | 10% of new data centers utilizing energy-efficient practices. | <ul style="list-style-type: none"> Planning & Inspection | Completed. 100% of new data centers since 2013 have utilized energy-efficient economizers, exceeding the goal of 10% of new data centers. |

| Ref | Measure | Performance target | Lead Department | 2020 status |
|-----|--|--|---|---|
| 2.4 | Customer-installed solar Incentivize and facilitate the installation of 6 MW of customer-owned residential and nonresidential solar PV projects. | New solar PV projects generating 6 MW in total installed capacity on homes, nonresidential buildings, parking garages, parking lots, and other feasible areas. Equivalent to 900 residential and 330 nonresidential installations. | <ul style="list-style-type: none"> • Silicon Valley Power • Planning & Inspection | Completed. 16.1 MW of commercial and residential solar were installed between 2013-2018. |
| 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. | Replace inefficient equipment in 50% of municipal buildings and facilities. Complete all previously identified cost-effective identified energy efficiency projects. | <ul style="list-style-type: none"> • Public Works | Most City facilities are equipped with energy efficient computers, printers and air-cooled air conditioning units. The City installs/retrofits with LED lighting. When motors, boilers, and chillers are replaced (due to age or condition), the City uses energy efficient models. The City will continue efforts and investigate ways to participate in energy efficient programs. |
| 2.6 | Municipal renewables Install 1 MW of solar or other renewables at City-owned facilities. | New solar PV projects generating 1,000 kW in total installed capacity. | <ul style="list-style-type: none"> • Public Works | The City has begun the process of completing this measure; two City facilities have been selected to attain solar panels, the Northside Library and the Police Department building. These solar panels are planned for installation by the end of 2020. The City will continue to determine other City facilities that could install solar panels and reach the goal of 1MW solar installs. |

FOCUS AREA 3: WATER CONSERVATION

Goal: Reduce GHG-intensive water use practices.

| Ref | Measure | Performance target | Lead Department | 2020 status |
|-----|---|---|--|---|
| 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. | Meet the water conservation goals presented in the 2010 Urban Water Management Plan to reduce per capita water use by 2020. | <ul style="list-style-type: none"> Water & Sewer Utilities Planning & Inspection | Completed. The City saved 6,328 acre-feet (2,060,000,000 gallons) of water from 2008 through 2016. |

FOCUS AREA 4: WASTE REDUCTION

Goal: Increase recycling opportunities for all disposed materials.

| Ref | Measure | Performance target | Lead Department | 2020 status |
|-----|---|--|--|--|
| 4.1 | Food waste collection Support the expansion of existing food waste and composting collection routes in order to provide composting services to 25% of existing restaurants. | Participation of 120 restaurants in Santa Clara. | <ul style="list-style-type: none"> Public Works | While 124 businesses are currently signed up for the commercial organics program, only 30 are restaurants. However, this total includes hotels, grocery stores, and other businesses with a food service component. The City expects its new relationship with Green Waste Recovery's mixed waste processing facility (beginning in 2021) will be more effective than this measure's attempt to source-separate organics from garbage. |
| 4.2 | Increased waste diversion 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. | Increase the waste diversion rate from 58% to 80%. | <ul style="list-style-type: none"> Public Works | The City's current diversion rate is approximately 58%. The City expects its new relationship with Green Waste Recovery's mixed waste processing facility (beginning in 2021) will be more effective than this measure's attempt to increase diversion through source-separation. |

FOCUS AREA 5: OFF-ROAD EQUIPMENT

Goal: *Ensure efficient operations of off-road equipment.*

| Ref | Measure | Performance target | Lead Department | 2020 status |
|-----|--|--|---|---|
| 5.1 | <p>Lawn and garden equipment 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> | Exchange 1,170 leaf blowers and 130 lawn mowers with electric models. | <ul style="list-style-type: none"> Planning & Inspection | As of 2016, only three residents used the program successfully. The program is no longer operational due to limited interest. The City will explore alternative strategies for off-road equipment as part of the 2020 CAP update. |
| 5.2 | <p>Alternative construction fuels Require construction projects to comply with BAAQMD best management Practices, including alternative-fueled vehicles and equipment.</p> | 30% of construction equipment switches from conventional technologies to hybrid, compressed natural gas (CNG), electric, or biodiesel. | <ul style="list-style-type: none"> Planning & Inspection | <p>As of July 2016, 12% of construction equipment (defined as forklifts, backhoes, loaders, rollers, chippers, stump grinders, cranes, concrete saws, and mowers) were upgraded to use alternative fuel technologies, nearly halfway to the 30% conversion target established in the CAP.</p> <p>All development approvals have requirements in their environmental documents to use BAAQMD best management practices, which includes the encouragement of fuel switching to alternative fuels.</p> <p>The City can make further progress on this measure by adding the use of alternative fuels in construction vehicles to the conditions of approval for new development permits and updating project monitoring software to account for the type of fuel used for construction vehicles at each development site. The City conducts pre-construction meetings to review developments' plans prior to construction; to further the progress of this measure; the City can open these meetings to include building and planning staff to ensure completion of CAP measures.</p> |

FOCUS AREA 6: TRANSPORTATION AND LAND USE

Goal: Establish land uses and transportation options that minimize single-occupant vehicle use.

| Ref | Measure | Performance target | Lead Department | 2020 status |
|-----|--|--|---|--|
| 6.1 | <p>Transportation demand management program Require new development located in the city's transportation districts to implement a TDM program to reduce drive-alone trips.</p> | <p>TDM reporting results in a 1% overall reduction in citywide VMT, with individual projects achieving a minimum 5% to 10% reduction in VMT based on implementation of TDM best practices.</p> | <ul style="list-style-type: none"> Planning & Inspection | <p>Since the CAP's adoption, 46 new developments have been required to have a TDM Plan, and from those, 11 have been constructed and occupied, and two have implemented a TDM plan. The developments are required to create annual reports on their TDM plans to provide information to calculate overall VMT reduction. The City will continue to require TDM Plans in their conditions of approval for all new developments in transportation districts as well as monitor developments' annual report submissions.</p> |
| 6.2 | <p>Municipal transportation demand management Develop and implement a transportation demand management program for City employees to encourage alternative modes of travel and reduce single-occupant vehicle use.</p> | <p>Achieve a 20% reduction in commute related VMT from City employees</p> | <ul style="list-style-type: none"> Planning & Inspection | <p>The City has taken steps to start a program by collecting and analyzing baseline data regarding employee commutes. The collected information expressed that 85% of employees drive alone to work resulting in approximately 102 MTCO2 emissions from City employee commutes. The City has also collected information regarding different departments' employee work schedule and has begun compiling possible TDM actions to reduce VMT. With the baseline data for City employee commute patterns, the City can begin development and implementation of targeted TDM measures.</p> |
| 6.3 | <p>Electric vehicle parking Revise parking standards for new multi-family residential and nonresidential development to allow that a minimum of one parking space, and a recommended level of 5% of all new parking spaces, be designated for electric vehicle charging.</p> | <p>430 parking spaces in new commercial, industrial, and multi-family development that utilize EV charging stations.</p> | <ul style="list-style-type: none"> Planning & Inspection | <p>Completed. The City of Santa Clara completed this measure as of 2018 with 455 charging stations installed in public spaces.</p> |

FOCUS AREA 7: URBAN HEAT ISLAND EFFECT

Goal: *Mitigate the heat island effect through shading and cooling practices.*

| Ref | Measure | Performance metric | Lead Department | 2020 status |
|-----|--|---|---|--|
| 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. | Each new development incorporates a minimum of two shade trees near south-facing windows for a total tree-planting goal of 2,500. | <ul style="list-style-type: none"> Planning & Inspection | Completed. The City created a mandatory 2:1 replacement rule for developments, requiring 2 trees to be planted for every 1 tree removed during new construction. The City surpassed this goal by 2016 with the planting of 3,792 trees. |
| 7.2 | Urban cooling Require new parking lots to be surfaced with low-albedo materials to reduce heat gain, provided it is consistent with the Building Code. | All new uncovered parking lots and spaces utilize light-colored and/or permeable pavements. | <ul style="list-style-type: none"> Planning & Inspection | While the City has not yet required new parking lots to be surfaced with low-albedo materials, the 2019 California Green Building Standards Code includes guidance in its "Non-residential Voluntary Measures." |

NEXT STEPS

The consultant team will use the updated information summarized above to support development of targets, strategies, and actions in the updated CAP in 2020.

Memo

To: City of Santa Clara
From: Raimi + Associates
Date: 7/28/20
Re: Task 2.3 Recommend and Forecast GHG Targets

The following memorandum summarizes the greenhouse gas (GHG) forecasts developed by Raimi + Associates for the City of Santa Clara through 2050 and presents recommendations for GHG reduction targets to be incorporated into the updated Climate Action Plan. Our review assesses the City's GHG emissions trends, the City's current emissions profile, and community focus group input.

Key Findings

- Projections based on ABAG demographics data show that by 2050, the City's population is estimated to grow by 28% and the number of jobs in the city is estimated to increase by 172% from 2016.
- In 2016, nonresidential energy use accounted for 61% of total emissions.
- The Business-as-Usual forecast shows GHG emissions are projected to increase by 126% in 2050 from 2008 baseline levels.
- The Adjusted Business-as-Usual forecast shows GHG emissions are projected to decrease by 45% in 2050 from 2008 baseline levels.
- Initial community outreach demonstrates support for adopting State emissions targets (40% reduction in GHG emissions by 2030 and 80% by 2050 or carbon neutrality by 2045), at a minimum.

California's Regulatory Landscape

California has been a leader in climate action since early 2000. AB 32 set California's first GHG target to reduce emissions to 1990 levels by 2020. Greenhouse gas reduction targets can be defined as emission reduction levels that governments set out to achieve by a specified time. In this memo, the terms goals and targets are used interchangeably; however, the term "goals" is also used to refer to desired climate action achievements more broadly. California is on track to exceed its 2020 climate target, while the economy continues to grow. SB 32 extended the goals of AB 32 and established a mid-term 2030 goal of reducing emissions 40% from 2020 levels and a long-term goal of reducing emissions 80% by 2050. In 2018, Executive Order B-55-18 set the target of statewide carbon neutrality by 2045.

The reduction targets specified by the State are consistent with substantial scientific evidence published by the IPCC and the United Nations Framework Convention on Climate Change (UNFCCC) regarding the need to ultimately reduce global GHG emissions down to 80% below 1990 levels by 2050. This consistency is important for creating a "qualified" CAP. The concept of having a "qualified" CAP means that a CAP meets the criteria specified in CEQA Guidelines Section 15183.5(b) for a plan for the reduction of greenhouse gas emissions, such that a



raimi+
associates

www.raimiassociates.com

Berkeley

1900 Addison Street, Suite 200
Berkeley, CA 94704
510.666.1010

Los Angeles

706 South Hill Street, 11th Floor
Los Angeles, CA 90014
213.599.7671

Riverside

3600 Lime Street, Suite 216
Riverside, CA 92501
951.801.5350

“qualified” CAP may then be used for the specific purpose of streamlining the analysis of GHG emissions in subsequent projects. Local governments have discretion on what levels or targets are established in a “qualified” CAP, provided they are based on substantial evidence.

Furthermore, some GHG reduction measures applicable to new development can be implemented through codes, ordinances, or other rating systems. GHG reduction measures in a CAP that are determined to be applicable at the project-level and could be used for tiering by future projects should be specified as mandatory in the CAP (through building performance standards or building code requirements, for example), and not as voluntary measures that may not be enforced during development review. Ultimately, local agencies should put forth their best efforts to make sure that GHG reductions associated with the primary measures in a CAP are quantifiable and based on substantial evidence.

2050 Emission Forecasts

R+A developed two emissions forecasts through the year 2050, Business-as-Usual (BAU) and Adjusted Business-as-Usual (ABAU), to show future emissions trends for the City of Santa Clara. The forecast is based on changes to the number of people who live and work in Santa Clara. As the population grows and there are more jobs in the community, there will be an increase in the amount of energy used, vehicle miles traveled (VMT), trash generated, and other activities that produce GHG emissions. R+A utilized the City’s most recent GHG inventory from 2016 and demographics projections from the Association of Bay Area Government’s (ABAG) Plan Bay Area program. Table 1 shows the assumed demographic changes.

Table 1. Santa Clara Demographics Projections (2020-2040)

| | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---------------------------|---------|---------|---------|---------|---------|---------|---------|
| Population | 131,655 | 137,215 | 142,425 | 151,715 | 159,500 | 167,285 | 175,070 |
| Jobs | 143,565 | 151,310 | 165,255 | 169,590 | 170,575 | 171,560 | 172,545 |
| Housing Units | 50,505 | 51,590 | 52,675 | 55,720 | 58,190 | 60,660 | 63,130 |
| Service Population | 275,220 | 288,525 | 307,680 | 321,305 | 330,075 | 338,845 | 347,615 |

The Business-as-Usual forecast shows how the City’s emissions would change over time due to projected growth without any climate action at the local or State levels. Climate action is the implementation of various strategies and measures that reduce greenhouse gas emissions. Strategies and measures are programs, policies, or standards that reduce the GHG emissions of activities (i.e. minimum energy efficiency standards for appliances or Transportation Demand Management programs). The analysis shows that the City’s BAU emissions are projected to increase from 1,862,824 MTCO₂e in 2008 to 4,246,957 MTCO₂e in 2050, a 126% increase. Table 2 shows the forecasted emission levels for each sector in future years.

Table 2. Forecasted Business-as-Usual Total Annual Community GHG Emissions 2020-2040 (in MTCO2e)

| Sector | 2008 | 2016 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 | Percent Change (2008-2050) |
|----------------------------|------------------------------|------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------------|
| Residential electricity | 68,818 | 60,132 | 65,370 | 66,775 | 68,179 | 72,120 | 75,317 | 78,514 | 81,711 | 19% |
| Residential natural gas | 84,279 | 72,780 | 79,120 | 80,820 | 82,519 | 87,290 | 91,159 | 95,029 | 98,898 | 17% |
| Residential Energy | 153,200 | 132,912 | 144,490 | 147,594 | 150,698 | 159,410 | 166,476 | 173,543 | 180,609 | 18% |
| Nonresidential electricity | 805,360 | 980,317 | 2,364,897 | 2,364,897 | 2,582,851 | 2,650,604 | 2,665,999 | 2,681,394 | 2,696,789 | 235% |
| Nonresidential natural gas | 304,181 | 99,945 | 228,764 | 241,106 | 263,326 | 270,234 | 271,804 | 273,373 | 274,943 | -10% |
| Nonresidential Energy | 1,109,541 | 1,080,262 | 2,593,662 | 2,606,003 | 2,846,177 | 2,920,838 | 2,937,803 | 2,954,768 | 2,971,732 | 168% |
| On-Road Transportation | 523,000 | 505,989 | 774,137 | 811,561 | 865,440 | 903,764 | 928,432 | 953,101 | 977,769 | 79% |
| Landfilled Waste | 36,686 | 38,744 | 56,861 | 59,610 | 63,568 | 66,382 | 68,194 | 70,006 | 71,818 | 96% |
| Wastewater Treatment | 9,200 | 24,292 | 35,651 | 37,375 | 39,856 | 41,621 | 42,757 | 43,893 | 45,029 | 389% |
| Off-Road | 31,300 | 8,634 | - | - | - | - | - | - | - | |
| TOTAL | 1,862,824¹ | 1,790,833² | 3,604,801 | 3,662,143 | 3,965,739 | 4,092,016 | 4,143,663 | 4,195,310 | 4,246,957 | 126% |

¹ Difference in emissions from 2013 CAP due to addition of business waste tonnage.

² Difference in emissions from 2018 CAP progress report due to addition of business waste tonnage and off-road emissions.

It is important to note that the BAU forecast may overestimate the emissions due to electricity because it assumes the utility’s emission factor from 2016 remains constant. The carbon intensity of SVP energy in 2016 was significantly higher than subsequent years because the utility still procured energy from a coal-fired power plant. SVP exited this coal contract in 2017, which greatly reduced their emissions. R+A will update this forecast with a more realistic emissions factor if one becomes available.

Additionally, the Adjusted Business-as-Usual (ABAU) forecast is presented to show how Santa Clara’s emissions are anticipated to change accounting for the impacts of adopted State policies if no action is taken at the local level. There are four major policies that the State has adopted to reduce GHG emissions at the local level:

1. **Renewables Portfolio Standard (RPS):** This law requires that electrical utilities provide an increased amount of electricity from eligible renewable sources. SB 100 requires that 33% of electricity sold by utilities in 2020 be renewable, 60% be renewable in 2030, and 100% be carbon-free in 2045.

2. **Title 24:** Title 24 is the set of regulations that specifies how new buildings must be constructed, including specifying minimum energy efficiency standards. These standards are updated triennially to be more stringent. California has set a goal for zero-net energy new construction by 2030.
3. **Clean Car Standards:** These standards require that vehicles sold in California meet minimum fuel efficiency requirements, and that fuel sold in the state emits less GHGs during production and use.
4. **SB 1383:** This law requires that food scraps and other organic material is diverted from landfill disposal. The State goal is that 75% of organic material is diverted from landfill by 2025.

The measures listed above and their associated GHG reductions are counted toward Santa Clara’s overall community emissions reductions and progress towards targets. Based on the results of the ABAU forecast, emissions are expected to fall from 1,862,824 MTCO₂e in 2008 to 1,028,249 MTCO₂e in 2050, a decrease of 45%. Table 3 shows the forecasted ABAU emission levels for each sector in future years. The ABAU forecast illustrates the importance of supporting the State’s climate targets to reduce emissions statewide and kickstart local actions.

Table 3. Forecasted Adjusted Business-as-Usual Total Annual Community GHG Emissions 2020-2050 (in MTCO₂e)

| Sector | 2008 | 2016 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 | Percent Change (2008-2050) |
|----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------------|
| Residential electricity | 68,818 | 60,132 | 25,711 | 20,646 | 18,559 | 15,612 | 11,193 | 6,747 | 1,892 | -97% |
| Residential natural gas | 84,279 | 72,780 | 76,521 | 80,123 | 81,823 | 85,334 | 89,573 | 93,442 | 97,311 | 15% |
| Residential Energy | 153,200 | 132,912 | 102,232 | 100,768 | 100,382 | 100,946 | 100,766 | 100,189 | 99,203 | -35% |
| Nonresidential electricity | 805,360 | 980,317 | 629,907 | 716,787 | 676,169 | 578,692 | 401,943 | 233,583 | 63,257 | -92% |
| Nonresidential natural gas | 304,181 | 99,945 | 157,914 | 234,318 | 251,105 | 266,435 | 270,940 | 272,519 | 274,079 | -10% |
| Nonresidential Energy | 1,109,541 | 1,080,262 | 787,820 | 951,105 | 927,274 | 845,127 | 672,883 | 506,093 | 337,336 | -70% |
| On-Road Transportation | 523,000 | 505,989 | 593,606 | 511,767 | 480,335 | 470,138 | 458,688 | 477,609 | 491,181 | -8% |
| Landfilled Waste | 36,686 | 38,744 | 56,861 | 48,074 | 51,271 | 53,546 | 55,010 | 56,474 | 57,938 | 58% |
| Wastewater Treatment | 9,200 | 24,292 | 35,374 | 37,085 | 39,547 | 41,298 | 42,425 | 42,572 | 42,590 | 363% |
| TOTAL | 1,862,821 | 1,790,833 | 1,575,894 | 1,648,799 | 1,598,809 | 1,511,055 | 1,329,771 | 1,182,936 | 1,028,249 | -45% |

Community Input

Over the first week of April 2020 Raimi + Associates hosted a series of stakeholder focus group calls in lieu of the first Community Workshop for the Climate Action Plan Update. The first series of focus groups were held as online webinars. Overall, R+A spoke with 10 community members representing various community organizations, sectors, and opinions. Each focus group was asked the following questions:

1. What climate issues are important to you and your industry/organization?
2. What does a climate friendly Santa Clara look like to you?
3. How much should Santa Clara strive to reduce its emissions? How ambitious should the City be relative to peer cities?
4. Should the City apply the existing State targets? 50% by 2030? 80% by 2050? or carbon neutrality by 2045?
5. What barriers or challenges do you think could prevent the City from reaching its emissions reduction targets?
6. What do you see as Santa Clara's biggest climate threat?

Overall, participants on the focus group calls were generally excited to hear the City of Santa Clara was updating its CAP and making climate action a priority for the City. However, many expressed a lack of knowledge about the topic and ways to reduce emissions. Common themes from across each sector are summarized below:

- Current imbalance between the number of jobs and housing units – there is a need for housing in the City to balance the large number of jobs and to improve regional mobility and mobility options. By 2040, the jobs to housing ratio will be almost 3:1.
- Lack of knowledge and awareness about the City's current climate action efforts and future GHG reduction strategies
- As companies establish their own climate goals, SVP's ability to provide an increasing amount of carbon-free energy or collaborate with companies on renewables solutions will be critical for business retention
- Santa Clara's GHG reduction targets should be aligned with peer cities and State regulation
- The City should consider sector-specific targets and total annual and per capita GHG targets
- Any near-term targets should set the City up to achieve long-term targets
- Climate related threats include: sea level rise, lack of awareness, lack of city/regional coordination, and political will

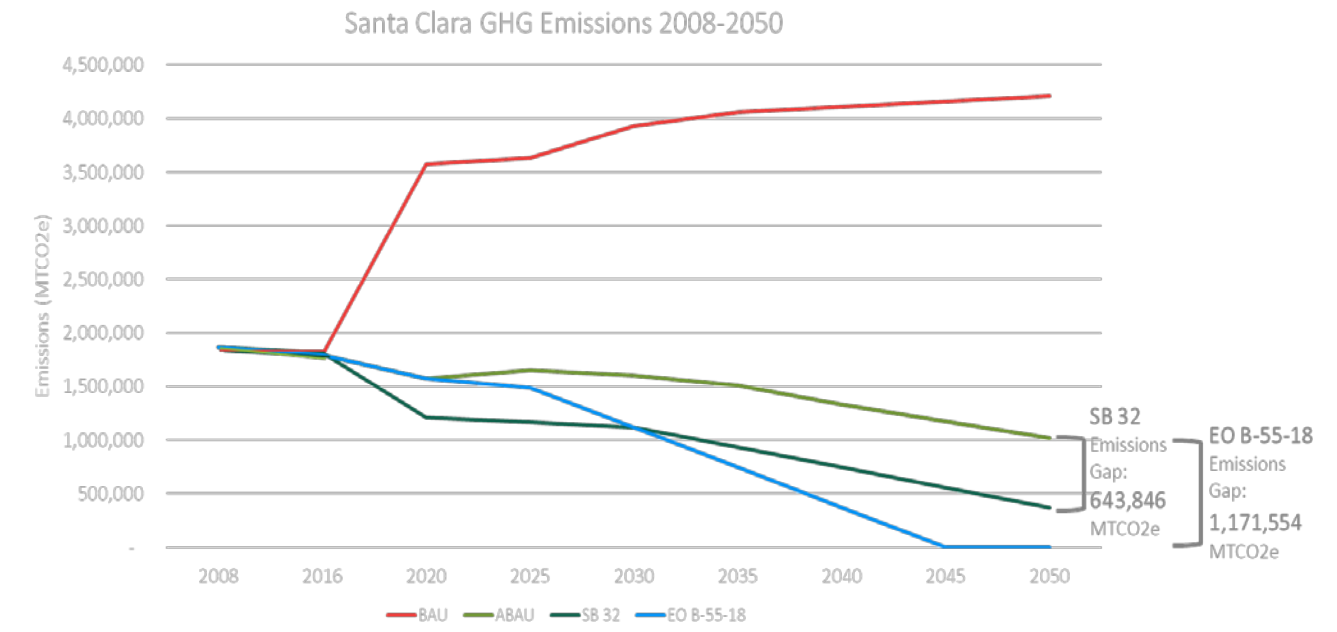
Recommended GHG Targets

Based on the review of the City's GHG forecasts and community input, there are four options for climate targets.

Option 1: Santa Clara adopts the goal of carbon neutrality by 2045. This target is based on Former Governor Brown's Executive Order B-55-18, which is likely to become law based on the State's current trends and actions around climate change. Many local jurisdictions have already adopted the goal of carbon neutrality including the cities of Fremont, San Luis Obispo, Sacramento, Menlo Park, and the County of Santa Clara. Furthermore, this target would create a stronger basis on which to qualify the CAP in terms of CEQA and provide for future streamlining and tiering of projects. By 2045, the City would need to implement additional local climate action measures to close the 1,171,554 MTCO₂e emissions gap. This is the recommended option because it aligns the City with the State as well as its peer cities in the Bay Area and cities across California.

Option 2: Santa Clara adopts the State's emissions reduction targets set forth in SB 32. These targets include a mid-term and long-term goal of reducing GHG emissions 40% below baseline levels by 2030 and 80% by 2050. Figure 1 shows the City's emissions gap between the BAU, ABAU, and state emissions targets through 2050. Reductions resulting from the State policies included in the ABAU forecast count toward Santa Clara's overall emissions reductions. The City should adopt measures in their CAP that close the gap in emissions between ABAU and State target emissions, 643,846 MTCO₂e by 2050.

Figure 1. Graph showing the City’s Emissions Gap between BAU, ABAU, and State Emissions Targets



Option 3: Demonstrate leadership by setting a target in excess of State guidance. For example, carbon neutrality by 2035. This is a realistic goal for some cities that have access to 100% carbon-free and/or renewable electricity. Thus, the implications for Santa Clara would be to aggressively transition SVP to procuring carbon-free energy, which would be difficult due to existing energy generation infrastructure, contracts, and pricing structures.

Option 4: Set a target that is less than the State’s emissions reduction goals. For example, 50% reduction in baseline GHG levels by 2050. There is currently no requirement that the City match the State’s climate goals and there are currently no repercussions for not meeting these targets. Although setting a lower target is an option available to the City, there are some drawbacks and it is not recommended. If the City were to set GHG reduction targets less than those adopted by the State, the CAP would not be eligible for CEQA streamlining so responsibility would fall on individual projects to demonstrate that their mitigated impacts are in alignment with State GHG standards, which can be very burdensome, including for City projects.

In addition to thinking about these reduction targets as total reductions in the community’s overall emissions, to acknowledge Santa Clara’s projected growth in population and jobs through 2050, these forecasts and targets can be expressed as per capita and per service population estimates. Table 4 presents the BAU, ABAU, and State targets in terms of Santa Clara’s projected population and service population.

Table 3. Forecasted Per Capita and Per Service Population Annual Community GHG Emissions 2020-2050 (in MTCO2e)

| | | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 | Percent Change (2008-2050) |
|-----------------------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|----------------------------|
| Business-as-Usual | Per Capita | 27.14 | 26.45 | 27.60 | 26.73 | 25.74 | 24.85 | 24.03 | 45% |
| | Per Service Population | 12.98 | 12.58 | 12.77 | 12.62 | 12.44 | 12.27 | 12.10 | 4% |
| Adjusted Business-as-Usual | Per Capita | 11.97 | 12.02 | 11.23 | 9.96 | 8.34 | 7.00 | 5.81 | -65% |
| | Per Service Population | 5.73 | 5.71 | 5.20 | 4.70 | 4.03 | 3.46 | 2.92 | -75% |
| SB 32 | Per Capita | 9.20 | 8.48 | 7.85 | 6.14 | 4.67 | 3.34 | 2.13 | -87% |
| | Per Service Population | 4.40 | 4.04 | 3.63 | 2.90 | 2.26 | 1.65 | 1.07 | -91% |
| B-55-18 | Per Capita | 11.97 | 10.86 | 7.85 | 4.91 | 2.34 | - | - | -100% |
| | Per Service Population | 5.73 | 5.17 | 3.63 | 2.32 | 1.13 | - | - | -100% |

The consultant team is recommending that the City adopt Option 1, the State’s emissions reduction targets set forth in Executive Order B-55-18, which best positions it to adapt to future State climate guidance and regulations. As the CAP update process continues and climate action measures are identified, the consultant team will determine whether it would be helpful for the City to incorporate sector or measure specific goals (i.e. incorporate specific mode split goals from the City’s Bicycle Plan) into the CAP.

Sources

Association of Bay Area Governments: <http://projections.planbayarea.org/>

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https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017_es.pdf

California Department of Finance: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/>

California Energy Commission:

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=205065&DocumentContentId=21592>

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City of Santa Clara 2008 and 2016 Community Inventories

Silicon Valley Power 2018 IRP: <https://www.siliconvalleypower.com/home/showdocument?id=62481>

US Census Bureau American Factfinder:

https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_DP04&prodType=table

US Census Bureau On the Map: <https://onthemap.ces.census.gov/>

To: Nimisha Agrawal, City of Santa Clara

From: Andrea Martin, Cascadia Consulting Group

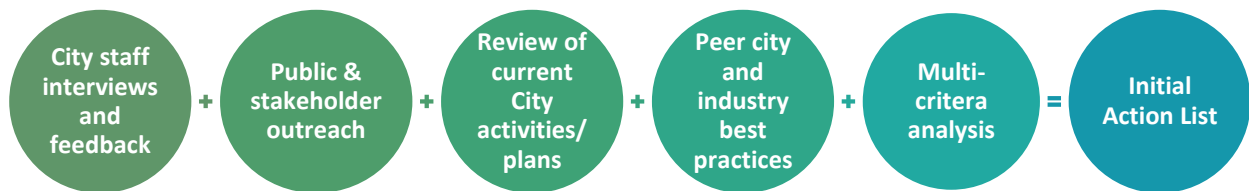
Date: August 20, 2020

Subject: **Initial Actions List for City of Santa Clara Climate Action Plan Update**

Introduction

This memorandum presents the initial list of actions for consideration in the Climate Action Plan (CAP) Update. This action list represents the culmination of an iterative development and review process that included interviews with City staff, outreach to targeted stakeholders and the public, a review of current City planning documents and activities, consideration of peer city and industry best practices, and a qualitative multi-criteria prioritization analysis (see Figure 1 below).

Figure 1. Development and Review Process for Initial Action List Development



Focus Areas

The initial action list is organized into the following focus areas:








Multi-Criteria Analysis






The criteria evaluated through the multi-criteria analysis (MCA) are presented in Table 1 below. Criteria were assigned relative weights based their perceived importance in meeting CAP objectives.

For each potential action, the consultant team assigned numerical rankings of 1 to 5 based on how well the action aligned with that criterion (1=very low alignment and 5= very high alignment). These rankings then underwent a weighted summation based on the criterion’s assigned weight to arrive at an overall priority score for each action. The initial action list presented in this memorandum presents the top priority actions identified through this process.

Table 1. Criteria Evaluated in the Multi-Criteria Analysis of Potential Actions






| | Criterion | Weight | Definition/Subcriteria |
|---|---------------------------|------------|---|
|  | Impact | 0.3 | How likely is it the action will work to address plan goals and targets? |
| | | | Is the action addressing a major sustainability need (e.g., high GHG emissions source)? |
|  | Cost-effectiveness | 0.2 | How affordable is the action to residents/businesses? |
| | | | How affordable is the action to the City of Santa Clara? |
|  | Feasibility | 0.2 | Is there strong support for action from the resident and business community? |
| | | | Are there regulatory, political, or technological constraints? |
|  | Equity | 0.2 | Do the benefits of the action reduce historical or current disparities among communities of color, low-income populations, and/or front-line populations? |
|  | Co-benefits or synergies: | 0.1 | Does the action address multiple goals, other City or community objectives, and/or other City/community plans? |
| | TOTAL | 1.0 | |

An example of how these criteria rankings result in action priority scores is presented below. Below are two actions Cascadia evaluated to prepare the City of Everett’s (WA) CAP. While both actions have the same impact, cost-effectiveness, and co-benefits scores, the second action is substantially more feasible and somewhat more equitable. As a result, the second action received an overall higher score and better achieves Everett’s climate action goals.






| Action |  |  |  |  |  | Priority Score |
|---|---|--|---|---|---|----------------|
| Advocate for regional congestion pricing authority. | 4 | 4 | 2 | 1 | 3 | 2.6 |
| Accelerate “Complete Streets” policy implementation. | 4 | 4 | 4 | 2 | 3 | 3.4 |






Buildings & Energy

STRATEGY 1: SHIFT TO ELECTRIC FUELS IN NEW AND EXISTING BUILDINGS TO ACHIEVE ZERO-NET CARBON BUILDINGS.






| Action | Description |  |  |  |  |  | Priority Score |
|--|--|---|---|---|---|---|----------------|
| Electrification incentives | Expand current financial incentives to accelerate electrification in new and existing buildings. Rebates could be structured by income level and prioritized for rental units to be used for panel upgrades, passive home design features, electric appliances, heat pumps, and renewable energy generation coupled with storage. | 3.5 | 3 | 3.5 | 4 | 2 | 3.4 |
| Electrification outreach | Continue to promote commercial and residential energy efficiency and electrification through education and outreach. | 2 | 3.5 | 4.5 | 4 | 3 | 3.3 |
| Electrification retrofit upon sale | Provide electric panel upgrades upon sale for low-rise residential, and small multifamily and commercial buildings to facilitate the transition to clean electricity buildings and vehicles. | 3.5 | 3.5 | 2 | 3 | 3 | 3.1 |
| Municipal Electrification Action Plan | Work with regional energy partnerships to develop and implement an Electrification Action Plan for City facilities. This will include new and existing buildings, incorporate strategies to address energy storage, focus on highlighting any hurdles or solutions that would be applicable to the broader community, and leverage existing rebates. | 2 | 3 | 3 | 3 | 5 | 2.9 |

STRATEGY 2: MANAGE ENERGY DEMAND AND IMPROVE ENERGY EFFICIENCY.

| Action | Description |  |  |  |  |  | Priority Score |
|-----------------------------------|---|---|---|---|---|---|----------------|
| Municipal energy retrofits | Continue to conduct comprehensive energy retrofits of existing City equipment and implementation of previously identified energy efficiency projects with a benefit-cost ratio of one or greater. | 2 | 5 | 3.5 | 3 | 3 | 3.2 |
| Equitable clean energy | Continue to provide free home-energy audits and upgrade incentives for low-income households and affordable housing developers and property owners. | 2 | 3.5 | 4 | 4 | 3 | 3.2 |






| Action | Description |  |  |  |  |  | Priority Score |
|--|---|---|---|---|---|---|----------------|
| Energy-efficient & electric-ready building code | Update local building code to increase energy efficiency standards and require electric-ready construction (e.g., electric wiring at appliance locations). | 3 | 3.5 | 3 | 3 | 3 | 3.1 |
| Pilot distributed energy resources at the City | Pilot technologies like energy storage, vehicle-to-grid charging stations, web-enabled devices and microgrids within City facilities evaluate their ability to reduce utility costs and carbon emissions. | 2.5 | 3 | 2.5 | 3 | 4 | 2.9 |

STRATEGY 3: MAXIMIZE RENEWABLE ENERGY GENERATION AND STORAGE CAPACITY.






| Action | Description |  |  |  |  |  | Priority Score |
|---|--|---|---|---|---|---|----------------|
| City-owned renewable energy projects | Continue to investigate the use of City-owned property for additional large-scale renewable energy projects. | 5 | 3 | 3.5 | 3 | 4 | 3.8 |
| Renewable installations at municipal facilities | Install solar or other renewables at City-owned facilities. | 3.5 | 3.5 | 3 | 3 | 3 | 3.3 |
| Property owner access to renewable energy generation & storage | Expand financial assistance options to residents to increase the implementation of renewable energy generation systems and energy storage infrastructure, including streamlining of project permitting and developing a solar grant program. | 3.5 | 3 | 3.5 | 3 | 3 | 3.3 |
| Promote grid improvements for SVP | Work with SVP on accelerating improvements to the energy grid or storage to ease the transition to renewable energy. These improvements may include subsidy and grant programs for electrification in existing buildings to reduce the cost of battery storage and electric vehicle charging/storage system installations. | 3.5 | 3 | 3.5 | 3 | 3 | 3.3 |






Transportation & Land Use

STRATEGY 1: TRANSITION VEHICLES TO ELECTRIC ALTERNATIVES.






| Action | Description |  |  |  |  |  | Priority Score |
|---|---|---|---|---|---|---|----------------|
| Implement EV Blueprint | Implement the EV acceleration program in SVP's EV Blueprint. | 3 | 3 | 4 | 3 | 4 | 3.4 |
| Multi-family EV chargers | Require all new multi-family units to install, at a minimum, Level 2 EV chargers at 10% of parking spaces and level 1 EV chargers at 40% of parking spaces. | 3 | 3 | 4 | 3 | 4 | 3.3 |
| Commercial EV chargers | Require all new commercial units to install level 2 and level 1 chargers at of parking spaces with a minimum of 30% of spaces to be EV capable. | 2.5 | 4 | 3 | 3 | 3 | 3.3 |
| Electrification of municipal fleet | Adopt a policy requiring a minimum percentage of new standard light-duty, medium-duty, and heavy-duty City fleet vehicles to be electric vehicles or use alternative fuels. | 2.5 | 2.5 | 3 | 3 | 3 | 3.1 |
| Heavy duty electric trucks | Partner with businesses and industries to accelerate transition of heavy duty trucks to electric through incentives or local tax credits. | 3 | 3 | 4 | 3 | 4 | 2.8 |

STRATEGY 2: EXPAND USE OF NON-SOV TRANSPORTATION MODES.

| Action | Description |  |  |  |  |  | Priority Score |
|---|--|--|--|--|--|--|----------------|
| Pedestrian and Bicycle Master Plan | Fund and accelerate implementation of the Pedestrian Master Plan and Bicycle Master Plan, focusing on 1) closing gaps in the bicycle network with a focus on high demand arterials; 2) installing painted buffers and physical buffers on high stress roadways; and 3) implementing spot improvements in high traffic areas (e.g., bicycle detection, parking, and wayfinding elements). | 3 | 3 | 4 | 3 | 4 | 3.3 |
| Improve curb management | Incentivize projects that optimize curbside areas for low-carbon modes and reduce VMT, such as designated rideshare parking and loading zones, scooter and bike share docks, bike parking, electric vehicle charging stations, and autonomous vehicle loading zones. | 3 | 3 | 4 | 3 | 4 | 3.3 |






| Action | Description |  |  |  |  |  | Priority Score |
|--|--|---|---|---|---|---|----------------|
| Improve bike mobility | Increase public access to bikes, including electric bikes, implementing a bikeshare program, expanded bike parking, electric bike rebates, and other opportunities. The City should look to prioritize low stress facilities to encourage increased ridership. | 3 | 3 | 4 | 3 | 4 | 3.3 |
| Transit gap and improvement study | Partner with VTA to conduct a public transit gap study to increase transit use within the City. | 2.5 | 3 | 3.5 | 4 | 3 | 3.2 |

STRATEGY 3: ADVANCE SUSTAINABLE LAND USE.






| Action | Description |  |  |  |  |  | Priority Score |
|--|--|---|---|---|---|---|----------------|
| TDM requirements | Require plans for reducing vehicle miles traveled for all new developments over a square footage threshold (i.e., transportation demand management plans). | 4 | 2.5 | 3.5 | 3 | 4 | 3.4 |
| Target sustainable development in underutilized commercial strips | Expand on SB50 to require higher density development in underutilized commercial strips. These developments should include increased building heights, allowing projects to build out to approved densities, zoning changes to higher-density mixed residential, and consider opportunities for mixed land use and/or transit oriented development. Quantify the net benefits of specific plans. | 3.5 | 2.5 | 3.5 | 3 | 4 | 3.3 |
| Transit-oriented development | Create standards and/or incentives to facilitate transit-oriented development (TOD) in transit centers such as the Santa Clara BART station. | 2 | 3 | 3.5 | 3 | 4 | 2.9 |
| City-owned telecommuting centers | Expand the use of City-owned facilities such as libraries to enhance community and City employee telecommuting options. | 2 | 3 | 4.5 | 3 | 2 | 2.9 |






Materials & Consumption

STRATEGY 1: INCREASE WASTE DIVERSION.






| Action | Description |  |  |  |  |  | Priority Score |
|---|---|---|---|---|---|---|----------------|
| Comply with state solid waste ordinances | Comply with state solid waste ordinances, including AB1826, AB341, and SB1383. | 4 | 2 | 3.5 | 4 | 4 | 3.5 |
| Waste diversion pricing signals | Explore or promote existing incentives for recycling and composting and discourage landfill waste; for example: --University of California Cooperative Extension Compost Education program. --Environmental Days provided by Recology, household hazardous waste drop-off events, and battery recycling stations at City Hall, Corp Yard, and Fire Stations. --Collect used motor oil/oil filters/batteries/CFLs curbside. --Recyclestuff.org. --Countywide Bring Your Own Cup campaign, Reusable vs. Disposable, A La Carte, and South Bay Green Gardens. | 3 | 3 | 3.5 | 3 | 2 | 3.0 |
| C&D requirements | Expand requirements for C&D waste diversion beyond the current 5,000 square foot minimum project size. | 3 | 3.5 | 4 | 2 | 2 | 3.0 |

STRATEGY 2: REDUCE LANDFILLED FOOD WASTE.

| Action | Description |  |  |  |  |  | Priority Score |
|--|---|---|---|---|---|---|----------------|
| Technical assistance to top food generators | Provide education, outreach, and technical assistance to top food producers such as hotels, hospitals, corporate cafeterias, and campuses to prevent food waste, increase surplus food donations, and comply with SB1383. Options include food waste tracking software and food donation pickup services. | 4 | 2.5 | 4 | 4 | 4 | 3.7 |






| Action | Description |  |  |  |  |  | Priority Score |
|--|--|---|---|---|---|---|----------------|
| Food recovery and donation | Continue to partner with local agencies to implement an Edible Food Recovery Program as required under SB 1383. Establish an excess edible food baseline and then assist food recovery organizations in establishing pickup and redistribution. | 3 | 3.5 | 4 | 4 | 4 | 3.6 |
| Food recovery organization partnerships | Participate in regional partnerships for promoting food waste reduction, recovery, and security, such as Loaves and Fishes, A La Carte, Silicon Valley Food Recovery, Second Harvest of Silicon Valley, and the Santa Clara County Food System Alliance. | 3 | 3.5 | 4 | 4 | 4 | 3.6 |

STRATEGY 3: ENHANCE SUSTAINABLE PRODUCTION AND CONSUMPTION.






| Action | Description |  |  |  |  |  | Priority Score |
|---|---|---|---|---|---|---|----------------|
| Reuse of salvageable building materials | Promote organizations in Santa Clara County that process and sell salvageable building materials to building contractors. | 2 | 4 | 4 | 4 | 3 | 3.3 |
| City property consumption and waste diversion | In all City contracts and event permits, require that all third-party vendors provide and utilize compostable and/or reusable food service items to serve 50 or more people, and provide recycling and composting infrastructure. | 3 | 3.5 | 4 | 3 | 2 | 3.2 |
| Municipal Sustainable Procurement Policy | Implement a municipal Sustainable Procurement Policy to prioritize improvements for the highest emissions reduction impact purchasing decisions within each department, including vehicle and fuel purchases and low-carbon concrete. | 3 | 3 | 4 | 3 | 2 | 3.1 |
| Carbon-smart building materials | Educate architects, designers, and contractors to enable and promote carbon-sequestering building materials in new construction and renovations. This could include requirements for the disclosure and/or limit the embodied carbon emissions of buildings through whole-building or material specific policies. | 2.5 | 3 | 4 | 3 | 3 | 3.1 |
| Support for schools on low-carbon alternatives and solutions | Partner with Santa Clara Unified School District to implement low-carbon solutions. This may include working with the schools on energy efficiency and electrification, waste reduction and recycling, and sustainable purchasing. | 2.5 | 3.5 | 4 | 3 | 2 | 3.1 |

Natural Systems & Water Resources






STRATEGY 1: INCREASE TREE CANOPY COVER

| Action | Description |  |  |  |  |  | Priority Score |
|--|--|---|---|---|---|---|----------------|
| Right-of-way tree planting | Require residential tree planting in the right-of-way (between sidewalk and road) at time of sale. | 3.5 | 2.5 | 3 | 4 | 3 | 3.3 |
| Tree rebate program | Support private property planting of trees on currently paved surfaces through partnerships with current programs such as Our City Forest. Advertise services on the City website. | 3 | 3.5 | 4 | 3 | 2 | 3.2 |
| Plan for retiring trees and sidewalk uplift | Update City Tree Ordinance to address retiring trees and unintended consequences such as sidewalk uplifts. | 2 | 3 | 4 | 4 | 3 | 3.1 |

STRATEGY 2: ENHANCE ECOSYSTEM RESILIENCE.






| Action | Description |  |  |  |  |  | Priority Score |
|--|--|---|---|---|---|---|----------------|
| Carbon farming on open space lands | Partner with resource conservation districts to increase carbon farming, creek restoration, wetland restoration, and local offset opportunities in open space lands. | 4 | 3.5 | 4 | 3 | 4 | 3.7 |
| Partnerships for compost management | Establish partnerships with organizations such as conservation districts to manage and utilize compost products from organics processing in compliance with SB1383. | 3.5 | 3.5 | 4 | 3 | 3 | 3.5 |
| Tree planting guide | Support local organizations (e.g., ReScape California) in developing a planting guide that prioritizes increasing available soil, carbon sequestration, resilience, and other equitably-distributed co-benefits. The guide could include information on native and climate-adaptive plants, how to properly apply compost and mulch, reducing synthetic fertilizers to support soil health, how to store more water in the ground, and how to store carbon in soil, plants, and trees. | 1 | 3.5 | 4 | 3 | 2 | 2.6 |

STRATEGY 3: IMPROVE WATER SUPPLY & CONSERVATION.






| Action | Description |  |  |  |  |  | Priority Score |
|---|---|---|---|---|---|---|----------------|
| Incentives for community water fixture retrofits | Encourage participation in Santa Clara Valley Water District's water conservation rebate programs. Expand the City's rain barrel and landscape rebate programs. | 3 | 3.5 | 4 | 4 | 2 | 3.4 |
| Fixture replacement | Expand replacement of inefficient water fixtures and appliances in high-end sectors (i.e., commercial, multi-family, and single-family). | 3 | 3.5 | 4 | 4 | 2 | 3.4 |
| Water data accessibility | Facilitate the sharing of geospatial data from the Silicon Valley 2.0 tool with Valley Water and the owners of the Regional Wastewater Facility. | 3 | 3.5 | 4 | 3 | 3 | 3.3 |
| Water-efficient landscaping requirements | Expand requirements for water-efficient landscaping practices, including requirements for cooling (trees, green roofs). | 4 | 2.5 | 3 | 3 | 4 | 3.3 |
| Diversify the community water portfolio | Continue collaboration with agency partners such as South Bay Water Recycling, Valley Water, BAWSCA, and SFPUC to diversify water supply portfolio and expand current sources. Diversified water portfolio towards drought resiliency could include utilizing a varying mix of surface and groundwater and requiring the increased use of recycled urban water in applicable sectors (e.g., irrigation, groundwater recharge, dual pump, cooling towers). | 3.5 | 3 | 3 | 3 | 2 | 3.1 |
| Require recycled water connections for new development | Require the use of recycled water for all non-potable uses where recycled water is available, per City Code 13.15.160. Require all new development where applicable to connect to the recycled water distribution system in order to provide recycled water for approved uses at the development site. | 3.5 | 3 | 3 | 3 | 2 | 3.1 |

Community Resilience & Wellbeing

STRATEGY 1: IMPROVE COMMUNITY RESILIENCE.

| Action | Description |  |  |  |  |  | Priority Score |
|---|---|---|---|---|---|---|----------------|
| Community resilience networks | Support neighborhood-based organizations and businesses in development of Neighborhood Resilience Hub Programs to prepare residents and respond to climate change. Identify suitable locations for resilience hubs, cooling centers, disaster assistance and supplies. These locations will also need to develop backup power sources in the event of a power outage. | 3.5 | 3 | 4 | 4 | 4 | 3.7 |
| Homeless support | Expand support services to people experiencing homelessness during all extreme weather and hazard events (e.g., extreme heat, flooding, wildfires). | 3 | 3 | 3 | 5 | 4 | 3.5 |
| Community climate action grant | Establish an annual micro-grant program to support local citizen-led projects and programs that will reduce emissions, adapt to climate change, and enhance equity. | 2.5 | 4 | 4 | 4 | 3 | 3.5 |
| Incentives for adaptation upgrades | Offer rebates and/or other financial incentives to encourage adaptation upgrades (e.g., cool roofs, green roofs, cool pavement) and installation of low-emissions space-cooling devices (e.g., ceiling fans, heat pumps), which increase resilience cost-effectively and with a lower environmental impact. | 3 | 3 | 4 | 3 | 2 | 3.1 |

STRATEGY 2: PREPARE FOR CLIMATE CHANGE.

| Action | Description |  |  |  |  |  | Priority Score |
|---|--|---|---|---|---|---|----------------|
| Restrict high-hazard development | Restrict development in high-hazard areas. | 3.5 | 4 | 4 | 3 | 3 | 3.6 |
| On-site & natural stormwater systems | Integrate natural stormwater systems within site and building design to expand on-site stormwater management capacity. | 3.5 | 3.5 | 4 | 3 | 3 | 3.5 |
| Reduce urban-wildland fire risk | Reduce wildfire risk in natural landscapes by investigating opportunities within zoning, home construction, and fire safe building and landscape codes for the urban-wildland interface. Ensure that vegetation management incorporates habitat management principles. | 3 | 3.5 | 4 | 3 | 3 | 3.3 |
| Low-albedo parking lots | As part of conditions of approval, require new parking lots to be surfaced with low-albedo materials to reduce heat gain during extreme heat events and to reduce energy consumption related to cooling. | 3.5 | 3 | 4 | 3 | 2 | 3.3 |
| Climate Resilience Capital Improvement Program (CIP) | Revise design standards to require climate considerations in development of discretionary CIP projects. Ensure that the infrastructure being developed will be designed with forecasted changes in climate (precipitation, temperature, wildfire, sea level rise) in mind. | 3.5 | 3 | 3.5 | 3 | 2 | 3.2 |
| Planned retreat strategies | Identify and consider relocation opportunities for critical facilities (i.e., planned retreat for structures at risk of recurring damages). | 3 | 3.5 | 3 | 3 | 3 | 3.1 |