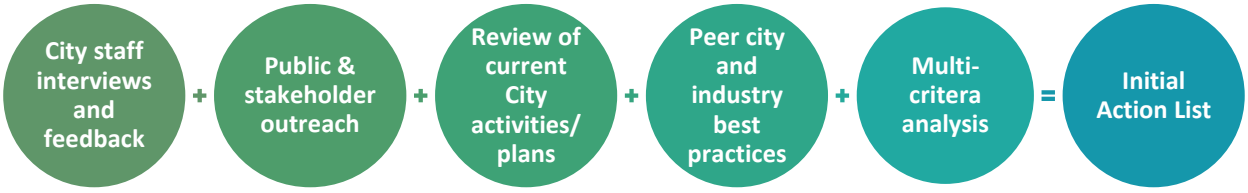
To:	Nimisha Agrawal, City of Santa Clara
From:	Andrea Martin, Cascadia Consulting Group
Date:	November 2020
Subject:	**Initial Actions List for City of Santa Clara Climate Action Plan Update**

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:

Buildings & Energy

Transportation & Land Use

Materials & Consumption

Natural Systems & Water Resources

Community Resilience & Wellbeing

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/Sub-criteria
	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	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, 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 NET-ZERO CARBON BUILDINGS.

Action	Description						Priority Score
Electrification incentives & financing	Expand current financial incentives to accelerate electrification in new and existing buildings, which could include (1) options for low- or zero-interest financing; and/or (2) targeted upstream and midstream incentives to distributors and contractors. 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, which could include creation of a clearinghouse of trained/certified contractors and professionals.	2	3.5	4.5	4	3	3.3
Electrification retrofit upon sale	Require electric panel upgrades upon sale and/or rental turnover for low-rise residential, and small multifamily and commercial buildings to facilitate the transition to clean electricity buildings and vehicles.	3.5	3.5	1.5	3	3	3.0
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
Reach codes for new construction[1]	Implement proposed reach codes requiring: • All new single-family residences to be all electric OR mixed fuel buildings at least 10 Energy Design Rating (EDR) points less than the calculated total for the Standard Design Building.	3.5	3.5	3.5	3	3	3.4

[1] Note that all actions related to Reach Codes reflect the latest available draft Reach Codes, proposed by City Staff (updated July 2020). These codes have not yet been approved by Santa Clara City Council and are still considered to be under development.

Action	Description						Priority Score
	• All new multi-family residences 3 stories or less to be all electric OR mixed fuel buildings at least 11 EDR points less than the calculated total for the Standard Design Building. • All new non-residential/commercial construction (except office and retail) or new multi-family residences over 3 stories to be all electric OR mixed fuel buildings 6% more efficient than the 2019 State Energy Code. • All new office or retail construction over 3 stories to be all electric OR mixed fuel buildings 14% more efficient than the 2019 State Energy Code.						

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
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).	4	3.5	3	3	3	3.4
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
SVP Integrated Resource Plan (IRP)	Examine resource procurement and cost scenarios to provide 100% carbon neutral electricity to all customers sooner than the state mandate in SVP's next Integrated Resources Plan.	5	2.5	2.5	3	5	3.6
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 expanding the City's 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
Alternative fuel backups for data centers	Provide information and technical assistance to data centers to transition from diesel to lower-carbon backup generators (e.g., renewable diesel).	2	3.5	4	3	2	2.9
Data center renewable electricity options	Support convening of a data center working group to identify and implement renewable electricity purchasing options for commercial customers.	2	3.5	4	3	2	2.9

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. Priority actions include: • Expanding multi-unit dwelling and low-income charging availability. • Electrifying City fleets. • Expand public charging availability. • Electrify transit fleets.	3	3	4	3	4	3.4
Multi-family EV chargers	Implement proposed Reach Code to require all new multi-family units (20 or less) to install one Level 2 EV ready charging stations per unit. Require all new multi-family units (over 20) to install 25% of parking spaces Level 2 EV ready and 75% of parking spaces Level 1 EV ready.	3	3	4	3	4	3.3
Single family and two-family townhomes	Implement proposed Reach Code to require all new single family and two-family townhomes with: • 1st parking space to install Level 1 EV charging circuit. • 2nd parking space to install Level 2 EV charging circuit.	4	2.5	3.5	3	3	3.3
Commercial EV chargers	Implement proposed Reach Code to require all new commercial units (excluding office use) to install Level 2 charging stations at 6% of parking spaces and Level 1 circuits at 5% of parking spaces.	2.5	4	3	3	3	3.2
Office EV chargers	Implement proposed Reach Code to require all new commercial office units to install Level 2 charging stations at 10% of parking spaces, Level 1 circuits at 10% of parking spaces, and 30% EV capable.	4	2.5	3.5	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	4	3	3	3.3
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	2.9

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
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	4	3.5	3	4	3.7
Target sustainable development in underutilized commercial strips	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	3.25	3	4	3.2

Transit-oriented development	Introduce requirements and/or incentives to encourage transit-oriented development (TOD) in transit centers such as the Santa Clara BART station.	3.5	3	3.5	3	4	3.4
City-owned telecommuting centers	Expand telecommuting options. For example, by extending City-owned facilities such as libraries, supporting improvements to fiber infrastructure, extending remote work options to City employees.	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	4	3	2	3.1
C&D requirements	Expand requirements for C&D waste diversion beyond the current 5,000 square foot minimum.	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	3.5	4	4	3.6
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 and low-albedo 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	3.2
Support for schools on low-carbon alternatives and solutions	Partner with Santa Clara Unified School District and SVP 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	3.0

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	2.75	4	3	3.2
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 develop a procedure for retiring and replacing trees (when they are dying or creating hazards), with an emphasis on species that maintain tree canopy, and prevent unintended consequences, such as sidewalk uplifts from tree root growth.	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	3.5	4	2	3.3
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 wastewater managers.	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) and drought-tolerant native plants.	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	3.5	3	2	3.2

Action	Description						Priority Score
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	3.5	3	2	3.2

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
Support for people experiencing homelessness	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	3	4	3	3.4
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 more sustainable pavement materials (e.g., low-albedo, permeable pavement, e-pavement, etc.) to reduce heat gain during extreme heat events, reduce energy consumption related to cooling, and reduce stormwater runoff.	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