

CITY OF SUNNYVALE

Climate Action Plan



Work Plan 2020

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Attachment

CAP Work Plan 2020 Implementation Matrix

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I. Introduction

In May 2014, the Sunnyvale City Council adopted the Climate Action Plan (CAP), which establishes the path to significant greenhouse gas reductions from the Sunnyvale community and provides a framework for responding to the effects of climate change. This work plan operationalizes the Implementation Program included as Chapter 5 of the adopted Climate Action Plan. The scope of this work plan includes activities targeted for implementation in the “near” and “mid” terms, which in their aggregate are aimed to achieve the 2020 greenhouse gas reduction target.

II. Monitoring and Reporting

PROGRAM MONITORING

The Environmental Services Department will lead monitoring and tracking of the CAP, coordinating and supporting the reporting of various departments. The City is contracting with PMC Consultants, the same firm that developed the CAP, to develop a tracking tool for Sunnyvale. The Tracking Tool will aggregate performance indicators, such as community electricity usage, to evaluate performance of the plan. The Tracking Tool will also document programmatic outcomes, such as number of trees planted, square feet of green building space constructed, participation in energy audits or energy efficiency programs, and percent of homes participating in renewables energy program offerings.

PROGRAM REPORTING

The City will prepare and provide biennial monitoring and implementation reports. These reports will be timed to coincide with Earth Day in 2016, 2018, and 2020. The biennial report will include updates on the following:

- Emissions reductions using direct indicators such as per capita electricity use and vehicle miles traveled (VMT) as well as the performance metrics identified in the CAP implementation program;
- Status of CAP GHG emission reduction measures and actions (e.g., policies implemented, actions completed, and participation information);
- Work plan for the following two-year cycle; and
- Update on funding sources.

IMPLEMENTATION MEASURE 1: MONITORING AND TRACKING SYSTEM

- Action 1.1 Provide support to City staff to facilitate implementation of measures and actions.
- Action 1.2 Prepare a biennial progress report for review and consideration by the City Council, Planning Commission, Sustainability Commission, and other applicable advisory bodies. First progress report is scheduled for April 2016.
- Action 1.3 Work with PMC Consultants to develop and utilize a monitoring and reporting tool to assist with biennial reports. Monitor and track progress on a regular basis throughout the year.
- Action 1.4 Identify key staff responsible for reporting and monitoring.
- Action 1.5 Integrate the results of regular monitoring and reporting into the community conditions indicator report that is presented annually with the City budget.

III. Updating the Plan

As the City reports on progress implementing the CAP, staff will evaluate the effectiveness of each measure to ensure that the anticipated GHG reductions are occurring. In the event that the GHG reductions do not occur as expected, the City will be able to adjust and add further policies to the CAP to ensure the City meets the 2020 reduction target. These reporting intervals will also serve as opportunities to realign work plans based on implementation results or policy study findings.

The City will update the greenhouse gas emissions inventory at a minimum of every five years, with the first update to occur no later than 2015 to be included with the first biennial report in 2016. While emission indicators and program parameters can be collected and compiled every two years, a complete update of the GHG inventory is more involved, and best practices and tools available for such work are evolving. The City may update the inventory more frequently if practical. The City will also track new and emerging technology, programs, and policies that effectively reduce GHG emissions, and will evaluate their incorporation into the CAP at the appropriate reporting and update interval.

Revisions to CAP reduction measures can be proposed by community members, City staff, City Council, or related commissions. Proposed CAP changes will follow the biennial reporting process, whereby staff would a follow-up report for City Council consideration which would identify the following:

- Evaluation of the impact of proposed changes on GHG reductions, CAP goals, and program resources;
- Recommendations to incorporate proposed changes into the CAP Work Plan based on benefit and feasibility.
- Possible metrics for quantifying and monitoring the proposed changes;
- Prepared Study Issue paper if ranking in the next Study Issue process is required.

Based on the evaluation report, the City Council can determine and take action to adopt, drop, or study the proposed modifications. Some modifications may require CEQA analysis. Proposed modifications would first be considered by the related commissions and then by the City Council.

IMPLEMENTATION MEASURE 2: UPDATE GHG INVENTORY AND PLAN

- Action 2.1 Inventory GHG emissions no later than 2015 with most recent data available and update at minimum of every five years.
- Action 2.2 Update the Climate Action Plan to incorporate new technology, programs, and policies to reduce GHG emissions.
- Action 2.3 Consider updating and amending the Plan, as necessary, should the City find that the specific reduction measures are not meeting the intended GHG reductions.

IV. Collaborative Partnerships

IMPLEMENTATION MEASURE 3: COLLABORATIVE PARTNERSHIPS

Continue to leverage existing partnerships and develop new partnerships that support implementation of the Climate Action Plan. This includes:

- Membership and participation in local and regional organizations
- Partnerships with neighboring jurisdictions on projects of mutual benefit

- Partnerships with local schools, faith based organizations, and community organizations that can serve as important conduits into the community to assist with public education and engagement.
 - Action 3.1 Continue formal memberships and participation in local and regional organizations that provide tools and support for energy efficiency, energy conservation, greenhouse gas emissions reductions, adaptation, education, and implementation of this Plan.
 - Action 3.2 Continue to engage, coordinate, and partner with regional program providers, neighboring jurisdictions, and local community organizations to deliver energy efficiency, energy conservation, greenhouse gas emissions reductions, adaptation, education programs identified in this Plan.

V. Funding Strategies

For the near and mid-term actions staff has worked to identify the appropriate funding source for each of reduction measure and activity. In some cases, full implementation will be preceded by a formal Study Issue which will include a more specific and timely scoping of the measure, evaluation of approach, and analysis of costs and impacts. In those cases, and if known, the cost to conduct the Study Issue is included in the estimated cost range or identified as absorbed with the responsible department's budget, and the source of funding is identified.

SOURCES OF FUNDS

The City has limited options with respect to local funding for CAP reduction measure implementation, which include the City's General Fund or several enterprise funds.

The General Fund is the City's major operating fund that accounts for all financial resources necessary to carry out basic government activities such as public safety, street maintenance, libraries and parks and open space maintenance.

Enterprise Funds are used to account for programs and activities that are either fully or partially self-supporting by way of user charges and fees for service. Enterprise Funds that are identified as funding specific reduction strategy implementing include:

- Water Supply and Distribution Fund
- Wastewater Management Fund
- Solid Waste Management Fund
- Development Enterprise Fund

For each of the CAP reduction measures, staff aligned the reduction measure implementation with the most appropriate source of funding available for implementation.

Department Budgets

Where implementation was initiated early and is already underway, or where implementation costs are considered nominal and department has capacity, implementation of some of the reduction measures will be absorbed within the responsible departments operating or projects budget.

GRANTS AND LEVERAGED RESOURCES

Cap and Trade Auction Proceeds

In 2012, the Legislature and Governor Brown established the Greenhouse Gas Reduction Fund to receive proceeds from California’s cap-and-trade auctions and to provide the framework for how the auction proceeds will be administered. A three-year investment plan, developed by the California Department of Finance, ensures that the Cap and Trade proceeds reduce GHG emissions while maximizing job creation, public health and other co-benefits, and direct investment toward the most disadvantaged communities and households in the state. For 2014-2015, the legislature has budgeted \$832M to various State agencies for program implementation in the following categories:

- Sustainable Communities and Clean Transportation
- Energy Efficiency and Clean Energy
- Natural Resources and Waste Diversion

The following is an excerpt from the Cap and Trade Expenditure Plan section of the California State Budget 2014-2015:

The Budget provides \$832 million of Cap and Trade proceeds to support existing and pilot programs that will reduce GHG emissions and meet SB 535 goals (see Figure CAP-01). This expenditure plan will reduce emissions by modernizing the state’s rail system including high-speed rail and public transit, encouraging local communities to develop in a sustainable manner with an emphasis on public transportation and affordable housing, increasing energy, water, and agricultural efficiency, restoring forests in both urban and rural settings, and creating incentives for additional recycling. The Budget permanently allocates 60 percent of future auction proceeds to public transit, affordable housing, sustainable communities, and high-speed rail. The remaining proceeds will be allocated in future budgets.

Figure CAP-01
Cap and Trade Expenditure Plan
(Dollars in Millions)

Investment Category	Department	Program	2014-15	Ongoing
Sustainable Communities and Clean Transportation	High-Speed Rail Authority	High-Speed Rail Project	\$250	25 percent
	State Transit Assistance	Low Carbon Transit Operations Program	\$25	
	Caltrans	Transit and Intercity Rail Capital Program	\$25	35 percent
	Strategic Growth Council	Affordable Housing and Sustainable Communities Program	\$130	
	Air Resources Board	Low Carbon Transportation	\$200	Annual Appropriations
Energy Efficiency and Clean Energy*	Department of Community Services and Development	Energy Efficiency Upgrades/Weatherization	\$75	
	Energy Commission	Energy Efficiency for Public Buildings	\$20	Annual Appropriations
	Department of Food and Agriculture	Agricultural Energy and Operational Efficiency	\$15	
Natural Resources and Waste Diversion	Department of Fish and Wildlife	Wetlands and Watershed Restoration	\$25	
	Department of Forestry and Fire Protection	Fire Prevention and Urban Forestry Projects	\$42	Annual Appropriations
	Cal Recycle	Waste Diversion	\$25	
Total			\$832	

* Emergency drought legislation enacted in February 2014 included \$40 million of Cap and Trade funds for water use efficiency projects.

Other Grant Opportunities

In addition to California’s Cap and Trade Auction proceeds, there are other funding opportunities that may be well aligned with CAP implementation activities including the state grants, federal grants, national foundation grants, and others. The following list highlights some of the grant opportunities that could be pursued to fund CAP Implementation.

Table 1. Grant Funding Opportunities

Resource Area	Grant Program and Funding Agency
Energy	California Energy Commission <ul style="list-style-type: none"> ■ Electric Program Investment Charge Program ■ Natural Gas Research and Demonstration Program The vast majority of the funds are used to develop new clean technologies and for demonstration projects (e.g., microgrids, local scale renewable generation)
Water Resource Management and Water Conservation	Department of Water Resources <ul style="list-style-type: none"> ■ Integrated Regional Water Management Grant Program provides funding for projects that assist local public agencies meet long term water needs of the state including the delivery of safe drinking water and the protection of water quality and the environment. These projects should also have co-benefits that address climate change mitigation and climate change adaptation.
Climate Studies	Ocean Protection Council, Coastal Commission, and Coastal Conservancy <ul style="list-style-type: none"> ■ \$4.5 M for local governments to conduct climate studies
Transportation	Metropolitan Transportation Commission <ul style="list-style-type: none"> ■ One Bay Area Grant Program which receives federal funding for local programming through the State from federal surface transportation legislation. This includes Surface Transportation Program (STP), Congestion Mitigation and Air Quality Improvement (CMAQ) and Transportation Alternatives (TA) Program funds. Project types include: <ul style="list-style-type: none"> - Local Streets and Roads Preservation - Bicycle and Pedestrian Improvements - Transportation for Livable Communities - Safe Routes to School - Priority Conservation Areas - CMA Planning Activities
Sustainable Communities	Strategic Growth Council: <ul style="list-style-type: none"> ■ Urban Greening Grant Program ■ Sustainable Communities Planning Grants and Incentives Air Resources Control Board: <ul style="list-style-type: none"> ■ Sustainable Communities research program grants
Emergency Response and Hazard Mitigation	Federal Emergency Management Agency: <p>Several Hazard Mitigation Assistance grant programs that are designed to provide funding to protect life and property from future natural disasters.</p> <ul style="list-style-type: none"> ■ Hazard Mitigation Grant Program (HMGP) assists in implementing long-

Resource Area	Grant Program and Funding Agency
	<p>term hazard mitigation measures following a major disaster.</p> <ul style="list-style-type: none"> ■ Pre-Disaster Mitigation (PDM) provides funds for hazard mitigation planning and projects on an annual basis. ■ Flood Mitigation Assistance (FMA) provides funds for projects to reduce or eliminate risk of flood damage to buildings that are insured under the National Flood Insurance Program (NFIP) on an annual basis.

Staff will actively monitor Cap and Trade and other grant solicitations and pursue grant funding for CAP reduction measure implementation projects that have good alignment with specific funding solicitation goals and objectives with the goal of maximizing external funding for Sunnyvale CAP implementation.

Regional Energy Efficiency Programs

Energy efficiency programming is currently offered through several regional providers including the County of Santa Clara, which administers the Bay Area Regional Energy Network, the Silicon Valley Energy Watch Program, and PG&E. These programs can be leveraged to carry out or complement the CAP’s energy efficiency reduction strategies. Staff will continue to work with these, and similar, organizations to maximize participation and benefit for Sunnyvale residents and businesses.

Another potential source of funding and implementation of the CAP’s energy efficiency and renewable energy related reduction measures is through participation in a Community Choice Aggregation Program. The City Council has prioritized a Study Issue to evaluate Sunnyvale’s participation in a Community Choice Aggregation Program. The scope of the study includes identifying which CAP reduction measures can be funding and implemented by a CAA.

IMPLEMENTATION MEASURE 4: IDENTIFY FUNDING STRATEGIES

- Action 4.1 Identify potential funding for reduction measures as part of biennial reporting.
- Action 4.2 Ensure implementation through the inclusion of emissions reduction and adaptation measures in department budgets, the capital improvement program, and other plans as appropriate.
- Action 4.3 Pursue local, regional, state, and federal grants to assist with potential costs to the City and the community, and support successful implementation of the CAP.

VI. Work Plan Matrix

The Work Plan Matrix provides a detailed view of the implementation schedule for the near and mid-term reduction measures. The Work Plan Matrix contains the reduction measure description and the following information for each reduction measure:

- **Responsible Department:** The City departments that are responsible for implementing and reporting progress on the selected measure. The first department listed is the lead department and is responsible for coordinating with the other departments.
- **Status:** Denotes the implementation status of the measure. Status includes:
 - I = In progress
 - O = On-going

- N = Not Started
 - C = Completed
 - J = Just Do It Items (these were measures that were presented in the May staff report as actions that can be initiated by staff as conditions of approval in discretionary projects without further Council consideration if the CAP is adopted.)
- **Cost Range:** These are planning level cost estimates were developed to allow for comparison between measures. These costs are based on the best available information at the time the CAP was developed and are representative in total annual costs by 2020. For measures that will require action in an upcoming Operation or Projects budget process or require a study, a more specific cost estimated will be prepared at that time.

Estimated Cost	Range
\$ 0	Minimal
\$ 1 - \$25,000	Low
\$ 25,000 - \$ 100,000	Low-Medium
\$ 100,000 - \$ 200,000	Medium
\$ 200,000 - \$ 500,000	Medium-High
\$ 500,000 - \$ 1,000,000	High
Over \$ 1 million	Very High

- **Funding Source:** Identifies what City fund or other source will support implementation of the measure.
- **Funding Notes and Assumptions:** Indicates how implementation will be funded. Options include:
 - Absorbed within existing department budget and resources
 - Operating Budget Proposal
 - Projects Budget Proposal
 - Potential for external funding through grants or partnerships
- **Implementation Year:** Shows the year in which implementation of the measure is scheduled to begin.
- **GHG Metric:** The performance indicators and implementation targets of a reduction measure. The target metric represents the implementation goal that was used to estimate the effectiveness of the measure and resulting GHG reductions in metric tons of CO2 equivalent (MTCO2e).
- **GHG Reduction:** The estimated GHG reduction benefit resulting from successful implementation of the measure. The methodology for determining the GHG reduction benefit from each measure is detailed in the GHG technical Appendix B of the CAP, which summarizes the sources and assumptions used to estimate the GHG reductions from each measure.

Measure ID	Activity ID	Activity Description	Dept (Lead listed first)	Status	Remaining Steps	Cost Range	Funding Source	Funding Status	2014	2015	2016	2017	2018	2019	2020	GHG Metric 2020	2020 GHG Reduction MTCO2e
OS-2	OS-2	Provide availability and access to outdoor space for recreation or social purposes, including access to public open spaces on privately owned property such as retail shopping centers.	CDD	O	May also require zoning code amendments for non-residential uses	Minimal	Development Enterprise Fund	Already budgeted.		●	●	●	●	●	●	Supportive Measure	Supportive Measure
OS-3	OS-3.1	Continue to implement the City's Tree Preservation requirements.	CDD	O	Complete, implementation ongoing	Medium	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●	7,400 trees planted	290
OS-3	OS-3.2	Develop and implement canopy coverage requirements for City-owned parking lots, with exceptions for solar installations.	PW	O	Urban Forestry Management Plan addresses canopy coverage in private parking lots and includes monitoring of canopy cover in parking lots subject to the City's parking lot shading standards. Developing standards for public parking lots may be reviewed as part of study to revise Municipal Code requirements related to City trees.	Medium	General Fund	Already budgeted.	●	●	●	●	●	●	●		
OS-3	OS-3.3	Promote tree planting on private property through incentive and support programs.	CDD	N	Study needed to develop incentive program. Currently promote parking lot shading requirement. Will be balanced and prioritized with other non-CAP related work.	Medium	Development Enterprise Fund/General Fund	Already budgeted (Planning staff time for studies).			●	●	●	●	●		
OS-3	OS-3.4	Expand existing park, open space, and boulevard tree inventory through the replacement of trees with a greater number of trees when trees are removed due to disease, park development, or other reasons.	PW	O	Consolidated General Plan and the Urban Forestry Management Plan address tree replacement.	Medium	General Fund	Already budgeted.	●	●	●	●	●	●	●		
OS-3	OS-3.5	Clarify codes and policies to maximize the preservation of the largest longest-living trees, and ensure the expansion of the urban forest over time as appropriate for the site.	PW	O	City Municipal Code already addresses this. Can be strengthened and could be done as part of study of municipal codes requirements related to City Trees per OS-3.2.	Medium	General Fund	Already budgeted.	●	●	●	●	●	●	●		
EC-1	EC-1.1	Replace City-owned streetlights and park and parking lot lighting with energy-efficient lighting such as light-emitting diode (LED) or induction lights as technology becomes more affordable and when return on investment is less than five years.	PW	O	A pilot study is currently in progress to retrofit all remaining city-owned street lights. New lights due to private development and City projects are LED. Continue to seek grants or partner funding. Current estimates are approximately a 7 to 9 year pay back. Will continue to monitor costs and consider implementation when ROI is less than 5 years, when grant funding is available, or as directed by City Council.	Very High	General Fund Grants Private development funded	Partially funded in Projects Budget for City projects with new lights. Continue to pursue grants or partner funding.	●	●	●	●	●	●	●	75% Streetlights retrofit to LED	220
EC-1	EC-1.2	Participate in an illumination bank that provides loans for upfront cost of energy-efficient lighting technologies to be paid back over three to seven years.	PW/FIN	N	Need to research illumination bank availability, services, and requirements to determine feasibility for City.	Unknown	General Fund	Research can be absorbed by existing staff and will determine future funding needs.			●						
EC-1	EC-1.3	Require new private parking lot lighting to use energy efficient lighting technologies.	CDD	O	Currently as COA for discretionary projects. Title 24 requires this already.	Minimal	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●		

Measure ID	Activity ID	Activity Description	Dept (Lead listed first)	Status	Remaining Steps	Cost Range	Funding Source	Funding Status	2014	2015	2016	2017	2018	2019	2020	GHG Metric 2020	2020 GHG Reduction MTCO2e		
EC-2	EC-2.1	Evaluate and update the 2009 Zoning Code for Green Buildings for single-family, multi-family, and non-residential building construction and major remodels every three to five years.	CDD	O	In Process. We are on third update to Green Building Code. Ongoing updates as directed by Council.	Low	Development Enterprise Fund/General Fund	Already budgeted.	●			●			●	Compliance with Green Building Ordinance and CalGreen	4,440		
EC-2	EC-2.2	Continue to require energy efficient siting of buildings. Buildings should be oriented and landscape material should be selected to provide maximum energy efficiency for the buildings.	CDD	O	Citywide Design Guidelines include a site design guidelines to consider energy efficiency in the siting of buildings (1. B15). To strengthen CAP measure would require study issue to evaluate codes and design guidelines. Provide training, Create handouts.	Low	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●				
EC-2	EC-2.3	Continue to provide incentives for new construction and remodels to adhere to a higher green building standard than required by the City.	CDD	O	Ongoing when projects apply for high FAR. Green Building Code	Low	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●				
EC-3	EC-3.1	Establish a residential energy conservation program that encourages or incentivizes homeowners to perform energy and water audits, with an emphasis on leveraging homeowner decision-making during home sale, purchase, and remodel.	ESD	N	Benchmark efforts in other areas. Engage key stakeholders to discuss collaboration and partnership opportunities.	Medium-High	General Fund	Projects Budget Proposal for program implementation.		●	●	●	●	●	●	TBD	TBD		
EC-3	EC-3.2	Participate in a Property Assessed Clean Energy (PACE) or similar financing program to offer low-interest loans to residents for energy-efficiency upgrades.	ESD	I	CA First Rolling out program in Sunnyvale beginning in Aug '14. Monitor progress and determine if additional outreach or programs are needed.	Low	General Fund	Projects Budget Proposal for additional outreach support.	●	●	●	●	●	●	●	15% participation in PACE	4,160		
EC-3	EC-3.3	Prioritize non-general funds to assist low-income home owners achieve energy efficient improvements. Program annual Community Development Block Grant (CDBG) funds to fund weatherization programs.	Housing	O	Have funding, but challenge with finding eligible participants.	Medium-High	CDBG Funds	Already budgeted.	●	●	●	●	●	●	●				
EC-4	EC-4.1	Consistent with California AB 1103, require all nonresidential building owners to disclose building energy consumption and building energy ratings upon sale or lease of building.	ESD/CDD	C	AB 1103 (energy disclosure and benchmarking law) is in effect as of Jan 1, 2014. See ab1103.com for implementation schedule. Need to review requirements and connect/link with PACE financing or other incentives.	Low	General Fund	Projects Budget Proposal for additional outreach support.	●	●	●	●	●	●	●	10% participation in PACE	47,900		
EC-4	EC-4.2	Participate in a Property Assessed Clean Energy (PACE) or similar financing program to offer low-interest loans to businesses for energy efficiency upgrades.	ESD	I	CA First Rolling out program in Sunnyvale beginning in Aug '14. Monitor progress and determine if additional outreach or programs are needed.	Low	General Fund	Projects Budget Proposal for additional outreach support.	●	●	●	●	●	●	●				
EC-4	EC-4.3	Create an ordinance to facilitate energy efficiency improvements in non-residential buildings through incentives and regulations that may include energy performance reports, time of sale upgrades, and/or innovative partnerships to reduce energy use.	CDD	N	Included in parts of Green Building code. Addresses existing buildings not new construction. Will require study Issue to expand beyond Green Building code. Consider for study issue in 2015.	High	Development Enterprise Fund General Fund	Already budgeted.				●	●	●	●				

Measure ID	Activity ID	Activity Description	Dept (Lead listed first)	Status	Remaining Steps	Cost Range	Funding Source	Funding Status	2014	2015	2016	2017	2018	2019	2020	GHG Metric 2020	2020 GHG Reduction MTCO2e
EC-4	EC-4.4	Identify businesses that are likely to be the largest consumers of energy within the city and target City outreach to these businesses.	OCM/ESD/CDD	N	Provide information. Create information program. Coordinate with Economic Development.	Low	General Fund	Projects Budget Proposal.				●					
EC-5	EC-5.1	Require new construction and major remodels to install interior real-time energy monitors.	CDD	N	This is not currently part of the California or Sunnyvale green building codes. Can determine if study issue needed for 2016-2019. Codes may require this by then. Assumes minimal staff time to outreach to businesses. An outreach measure to educate about CAP and programs available to encourage reduction in energy costs.	Low	Development Enterprise Fund	Already budgeted (Planning staff time for studies).				●	●	●	●	50% existing and 75% of new homes; 50% existing and 75% new businesses participate in a monitoring program	10,300
EC-5	EC-5.2	Connect businesses and residents with rebate programs that give priority to appliances with smart grid technology.	ESD	N	Need to research programs and work with PGE, Silicon Valley Energy Watch, and County to develop program.	Medium-High	General Fund Grant Regional Program	Projects Budget Proposal, if needed.						●	●		
EC-5	EC-5.3	Inform the community of metering options, such as online applications and in-home monitors.	ESD	N	Research applications and monitoring programs. Develop outreach materials. Check in with Mountain View on their program. May include as part of Georgetown University Energy Prize Challenge	Medium	General Fund Grant Regional Program	Projects Budget Proposal, if needed.			●	●	●	●			
EC-6	EC-6.2	Require new multi-family buildings and re-roofing projects to install 'cool roofs' consistent with the current California Green Building Code (CalGreen) standards for commercial and industrial buildings.	CDD	O	This is already a requirement for multi-family projects. A Study Issue would be required to establish for single-family to review different aesthetic standards for residential roofs.	Low	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●	15% of all new parking lots, crosswalks, and sidewalks are made of high albedo content	470
EP-1	EP-1.1	Create a Community Choice Aggregation (CCA) program for the City of Sunnyvale in order for the City to take control of power generation for its residents and businesses.	ESD	O	Current Study Issue.	Medium-High	General Fund Partner Funding	Projects Budget Proposal.	●	●	●					60% "light green" participants 20% "dark green" participants "Light green" option delivers 50% renewable energy "Dark green" option delivers 100% renewable energy	233,400
EP-2	EP-2.1	Require new homes and businesses and major remodels to be "solar ready" by pre-wiring for solar water heating and solar electricity.	CDD	N	There is currently no code requirement for pre-wiring. The current building code addresses reserving "solar ready area" on roof tops of some projects such as single family projects of 10 or more units and low rise apartments of 10 or fewer stories. Study to be coordinated with Green Building Update 2017.	Low	Development Enterprise Fund	Already budgeted.				●	●	●	●	15% residential participation rate 10% non-residential participation rate	20,980
EP-2	EP-2.2	Participate in a Property Assessed Clean Energy (PACE) or similar financing program to offer low-interest loans to residents and businesses for renewable energy installations.	ESD	O	CA First Rolling out program in Sunnyvale beginning in Aug '14. Solar Road Map and CASE-SV effort underway Monitor progress and determine if additional outreach or programs are needed.	Low	General Fund Grant Regional Program	Projects Budget Proposal if additional outreach is needed.	●	●	●	●	●	●	●		

Measure ID	Activity ID	Activity Description	Dept (Lead listed first)	Status	Remaining Steps	Cost Range	Funding Source	Funding Status	2014	2015	2016	2017	2018	2019	2020	GHG Metric 2020	2020 GHG Reduction MTCO2e
EP-2	EP-2.3	Prevent buildings and additions from shading more than 10% of roofs of other structures.	CDD	O	This is already a code requirement.	Low	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●		
EP-2	EP-2.4	Continue to allow and encourage solar facilities above paved parking areas.	CDD	O	Current code allows for this.	Low	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●		
EP-2	EP-2.5	Maintain incentives for alternative energy installations in new and existing development, including solar and small-scale wind turbines.	CDD	O	Current code provides an FAR incentive.	Low	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●		
EP-2	EP-2.6	Advocate for the development of a regional or statewide feed-in tariff that further encourages the development of mid-sized renewable energy installations.	ESD	I	Monitor legislative and CPUC rule making processes and engage as appropriate.	Low	General Fund	Projects Budget proposal to align funding.	●	●	●	●	●	●	●		
WC-2	WC-2.1	Require new development to reduce potable indoor water consumption by 30% (Tier 1 CALGreen) and outdoor landscaping water use by 40%.	CDD/ESD	N	Study, to be coordinated with Green Building Update 2017. The City chose to use Build It Green instead of Tier 1 CalGreen in Sunnyvale's green building program. Will need to evaluate the % reduction from Build It Green to determine if it reaches the 30% reduction in potable indoor water consumption same as Tier 1 Cal Green. May require a study if City chooses to change our green building code. Our WELO landscaping code gets us to about a 20% reduction in new projects based on the state program it was based on so a study is needed to see how a higher percent can be reached. Developers can also voluntarily choose some landscape points under Build it Green but again we need to evaluate if it gets us to 40% reduction when used voluntarily.	Low	Development Enterprise Fund	Already budgeted.				●	●	●	●	Gallons per capita per day (gpcpd) water consumption	750
WC-2	WC-2.2	Revise development standards to ensure the use of greywater, recycled water, and rainwater catchment systems is allowed in all zones.	CDD/ESD	N	Requires a Study. CDD has setback and height standards for accessory structures in all zones. The zoning code does not specifically address any water quality or safety standards for dealing with water that is reclaimed or reused on site. Additional standards specific to these systems may need to be identified be studied for possible adoption.	Low	Development Enterprise Fund	Already budgeted.			●	●	●	●	●		
WC-2	WC-2.3	Require new open space and street trees to be drought tolerant.	PW	C	Recently adopted Urban Forestry Management Plan addresses this and requires low-water use trees.	Low	General Fund	Already budgeted.	●	●	●	●	●	●	●		
WC-2	WC-2.4	Implement the City's Urban Water Management Plan to facilitate a 20% reduction in per capita water use by 2020.	ESD	O	The UWMP has been adopted. Implement Plan.	Low	Water Supply and Distribution System Fund	Already budgeted.	●	●	●	●	●	●	●		

Measure ID	Activity ID	Activity Description	Dept (Lead listed first)	Status	Remaining Steps	Cost Range	Funding Source	Funding Status	2014	2015	2016	2017	2018	2019	2020	GHG Metric 2020	2020 GHG Reduction MTCO2e
LW-1	LW-1.1	Reduce the use of plastic bags at grocery stores and convenience stores in the community through incentives or requirements.	ESD	C	Ordinance is currently in place.	Low-Medium	Solid Waste Management Fund	Already budgeted.	●	●	●	●	●	●	●	Supportive Measure	Supportive Measure
LW-1	LW-1.2	Ban the sale or dispersal of disposable, single use plastic water bottles at public events permitted by the City. Was originally identified as a long-term measure and have accelerated conduct study in 2019.	ESD	N	Study Issue has proposed by Sustainability Commission to ban sale on City property and public events which is broader than a ban at City permitted events.	Low-Medium	Solid Waste Management Fund	Study Issue to determine implementation costs.						●	●		
LW-1	LW-1.3	Ban the use of expanded polystyrene (EPS) take-out containers at restaurants and fast food facilities.	ESD	C	Council adopted ordinance in 2013 to ban EPS use by food providers by April 2014 and ban retail sale of EPS food containers by April 2015. Staff is currently doing outreach to affected food providers and stores. This is expected to require \$5000 of the amount remaining in Project #828980. About \$19,000 is expected to be left unspent and returned to the Solid Waste and Sewer funds.	Low-Medium	Solid Waste Management Fund	Already budgeted.	●	●	●	●	●	●	●		
LW-2	LW-2.1	Require multi-family homes to participate in the City's Multi-family Recycling Program	ESD	I	Staff has distributed MFD recycling bags and bins to all properties. Continuing to conduct outreach and work with properties.	Medium	Solid Waste Management Fund	Already budgeted.	●	●	●	●	●	●	●	1.5 lb./day disposal rate	53,960
LW-2	LW-2.2	Select materials to be targeted for diversion and diversion methods, services, or technologies based on the results of the Zero Waste Strategic Plan.	ESD	I	Current (2012) diversion is 65%. On April 23, 2013, Council adopted staff recommendation to target diversion levels of 70% by 2015, 75% by 2020 and 90% by 2030. Staff is currently implementing various measures (see RTC 13-085).	Very High	Solid Waste Management Fund	Some funding already budgeted. Projects Budget Proposal in future years, if needed.	●	●	●	●	●	●	●		
OR-2	OR-2.1	Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), or less. Clear signage will be provided at all access points to remind construction workers of idling restrictions.	CDD/ PW	J	Actions have been added as COAs of discretionary projects through CDD. This does not yet capture PW contractors doing public projects. Gas Leaf Blower Ban (Study Issue) would meet the goal for this measure and possibly offset the lawnmower related goals as well. CDD implemented Water Efficient Landscape Ordinance in 2010. Build It Green points are gained for reduced turf.	Minimal	Development Enterprise Fund for private development.	Projects Budget Proposal , if needed.	●	●	●	●	●	●	●	40% of construction equipment is efficient or alternatively fueled; Local idling restrictions are met 50% of the time	7,400
OR-2	OR-2.2	Construction equipment must be maintained per manufacturer's specifications	CDD	J	Actions have been added as COAs of discretionary projects through CDD. This does not yet capture PW contractors doing public projects.	Minimal	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●		

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OR-2	OR-2.3	<p>Planning and Building staff will work with project applicants to limit GHG emissions from construction equipment by selecting one of the following measures, at a minimum, as appropriate to the construction project:</p> <p>a. Substitute electrified or hybrid equipment for diesel- and gasoline-powered equipment where practical.</p> <p>b. Use alternatively fueled construction equipment on-site, where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.</p> <p>c. Avoid the use on on-site generators by connecting to grid electricity or utilizing solar-powered equipment.</p> <p>d. Limit heavy-duty equipment idling time to a period of 3 minutes or less, exceeding CARB regulation minimum requirements of 5 minutes.</p>	CDD	J	Actions have been added as COAs of discretionary projects through CDD. This does not yet capture PW contractors doing public projects.	Minimal	Development Enterprise Fund	Operating Budget Proposal, if needed for enforcement.	●	●	●	●	●	●	●		
CA-1	CA-1.1	Create a structure or partner with other groups for volunteers, residents, and other organizations to help achieve Sunnyvale's sustainability goals.	ESD	I	Develop comprehensive CAP Community Engagement Program, identify key outreach strategies including how leverage and use volunteers or other organizations to engage the community.	Medium-High	General Fund	Projects Budget Proposal.	●	●	●	●	●	●	●	Supportive Measure Number of community events related to sustainability	Supportive Measure
CA-1	CA-1.10	Use the City's Sustainability Commission and outreach staff as a structure to coordinate with other groups for volunteers, residents, and other organizations to help achieve Sunnyvale's sustainability goals.	ESD	I	Coordinate with Sustainability Commission	Low	General Fund	Projects Budget Proposal	●	●	●	●	●	●	●		
CA-1	CA-1.11	Actively engage with Sunnyvale businesses to identify areas for GHG reduction and financial savings.	ESD	N	Create Program. Collaborate with Economic Development	Medium-High	General Fund	Projects Budget Proposal.		●	●	●	●	●	●		
CA-1	CA-1.2	Provide regular communication with schools, business, faith groups, community members and neighborhood groups to increase participation in the City's progress toward sustainability.	ESD	I	Expand on existing program and develop and provide information in support of sustainability initiatives.	Medium-High	General Fund	Projects Budget Proposal.	●	●	●	●	●	●	●		
CA-1	CA-1.3	Develop and encourage a mechanism for neighborhoods to share equipment and resources to improve sustainability.	ESD	N	Develop Information Presentation	Medium-High	General Fund	Projects Budget Proposal.		●	●	●	●	●	●		
CA-1	CA-1.4	Provide a toolkit of resources, including web based efficiency calculators, for residents and businesses to analyze their greenhouse gas emissions in comparison to their neighborhood, the city, and the region.	ESD	N	Create Climate Change Web Page with Toolkit	Medium-High	General Fund	Projects Budget Proposal.		●	●	●	●	●	●		
CA-1	CA-1.5	Develop and implement a competitive greenhouse gas reduction program between groups of citizens in the City with an award component.	ESD	N	Create Award Program/Competition	Medium-High	General Fund	Projects Budget Proposal.		●	●	●	●	●	●		
CA-1	CA-1.6	Use sustainability initiatives within City operations to educate the community of ways to achieve sustainability by example.	ESD	N	Create Climate Change Web Page/Quarterly Report	Medium-High	General Fund	Projects Budget Proposal.		●	●	●	●	●	●		

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CA-1	CA-1.7	Actively promote use of alternative modes of transportation as safe modes of travel. When applicable, promote on the City's web site and publications about viable programs sponsored by 511, the Air District and other recognized agencies.	ESD DPW	I	Create Climate Change Web Page Quarterly Report	Medium-High	General Fund	Projects Budget Proposal.	●	●	●	●	●	●	●		
CA-1	CA-1.8	Through selected projects and efforts to improve City operations, demonstrate how sustainability efforts are possible and successful.	ESD	N	Create Climate Change Web Page/Quarterly Report	Medium-High	General Fund	Projects Budget Proposal.		●	●	●	●	●	●		
CA-1	CA-1.9	Make comparison an intrinsic part of consumption. Bring awareness of how our consumption compares to other communities, regions, and others in our neighborhood.	ESD	N	Create Climate Change Web Page /Quarterly Report	Medium-High	General Fund	Projects Budget Proposal.		●	●	●	●	●	●		
CA-2	CA-2.1	Recommend and advocate for schools to use the Air District curriculum or other programs for local school teachers to teach children about climate change, greenhouse gas emissions, and local actions.	ESD LCS	I	Create Outreach Program with Schools	Medium	General Fund	Projects Budget Proposal.			●	●	●	●	●	Supportive Measure Number of school outreach events conducted	Supportive Measure
CA-2	CA-2.2	Continue to provide and improve the bicycle driver education program for elementary, middle, and high school students.	DPS	O	Coordinate with DPS to continue Program	Medium	General Fund Grant Funds	Already budgeted.	●	●	●	●	●	●	●		
LUP-1	LUP-1.1	Build and maintain an electronic parking management system for City-owned parking structures in the downtown and consider expanding to other City lots in the downtown and in proximity to other commercial areas.	PW	N	A study would be required to evaluate the costs and benefits of a parking management system. Technically the City does not currently own any downtown parking structures - two are owned by the RDA successor agency, others are privately owned.	Medium	General Fund	Projects Budget Proposal							●	10% reduction in parking provision compared to a parking generation rate \$10 monthly parking cost	4,970
LUP-1	LUP-1.2	Create maximum parking requirements and reduce minimum parking requirements for mixed-use development. Require parking lot sharing for mixed-use or commercial development with complementary hours of operation.	CDD	C	Done with recent parking code adoption. Will be reemphasized with mixed use tool kit.	Low	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●		
LUP-1	LUP-1.3	Implement parking management tools for residential uses such as decreased or flexible standards, unbundled parking and shared parking plans.	CDD	N	Requires a Study.	Low	Development Enterprise Fund	Already budgeted (Planning staff time for studies).							●		
LUP-1	LUP-1.5	Retain a residential parking permit program for residential areas adjacent to commercial areas of the City where parking is in higher demand.	PW	O	This is an existing program we plan to continue.	Medium	General Fund	Already budgeted.	●	●	●	●	●	●	●		
LUP-1	LUP-1.6	Designate street parking stalls in the vicinity of key commercial and multi-family residential locations for efficient or alternatively fueled vehicles.	PW/CDD?	N	A study would be needed to determine the location and number of spaces as well as cost for additional signage.	Medium	General Fund	Projects Budget Proposal pending Study Issue.				●	●				
LUP-2	LUP-2.1	Continue to plan for most new residential, commercial and industrial developments in specific plan areas, new transit, and close to employment and activity centers.	CDD	O	Changes were recently made to DSP to allow more housing. Studies underway. LSAP. Housing Element. Draft Land Use and Transportation Element.	Unknown	Development Enterprise Fund	Already budgeted (Planning staff time for studies).	●	●	●	●	●	●	●	15% of new housing units are deed-restricted below market rate	14,010

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LUP-2	LUP-2.2	Continue to identify underutilized areas that can support higher density housing and mixed-use development.	CDD	O	Incorporate policies into General Plan or area plans such as Lawrence Station Area Plan and Precise Plan for El Camino Real.	Unknown	Development Enterprise Fund	Already budgeted (Planning staff time for studies).	●	●	●	●	●	●	●		
LUP-2	LUP-2.3	Facilitate the development of affordable housing near transit.	CDD	O	Utilizing State Density Bonus as incentive for affordable housing in new multi-family development in DSP. LSAP study in progress and Precise Plan for ECR to be updated.	Unknown	Development Enterprise Fund	Already budgeted (Planning staff time for studies).	●	●	●	●	●	●	●		
LUP-2	LUP-2.4	Expand the zoning opportunities for the construction of accessory dwelling units in existing residential neighborhoods near transit as a means to increase affordable housing near transit.	CDD	N	Study required.	Unknown	Development Enterprise Fund	Already budgeted (Planning staff time for studies).			●	●	●	●	●		
LUP-2	LUP-2.5	Continue to allow for the development of live/work spaces in commercial zoning districts and mixed-use residential zoning districts.	CDD	O	Currently evaluated on a case by case basis as part of development review. Determine if this should be strengthened as a Study Issue. Study Issue will be proposed prior to 2016.	Unknown	Development Enterprise Fund	Already budgeted (Planning staff time for studies).	●	●	●	●	●	●	●		
LUP-4	LUP-4.1	Support the retention and expansion of local anchor and growth industries.	OCM/ED	O	Continue efforts.	Unknown	General Fund	Already budgeted.	●	●	●	●	●	●	●	Jobs to housing ratio: 1.5	900
LUP-4	LUP-4.2	Review land use plans and regulations and revise as needed to support additional live/work opportunities and home occupations, provided they are compatible with the existing neighborhood.	CDD	N	Requires a Study Issue. Study Issue to be proposed prior to 2016.	Unknown	Development Enterprise Fund	Already budgeted.					●	●	●		
LUP-5	LUP-5.1	Encourage the establishment and even distribution of neighborhood-serving facilities such as day care providers, banking/ATM locations, markets and drug stores in existing residential, commercial, and industrial areas in order to reduce the need for vehicle trips.	CDD	O	Existing General Plan,MPSP and DSP policies support this. To strengthen would require a Study Issue.	Low	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●	New residential development permits issued; additional commercial and industrial square footage	
LUP-5	LUP-5.2	Require new development to reduce the need for external trips by providing useful services/facilities on-site such as an ATM, vehicle refueling, shopping.	CDD	O	Existing General Plan,MPSP and DSP policies support this. To strengthen would require a Study Issue.	Low	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●		
CTO-1	CTO-1.1	Incorporate the provisions of AB 1358, the California Complete Streets Act of 2008, into all roadway design, construction and maintenance activities.	PW	O	Done. We have adopted a complete streets policy.	Very High	General Fund	Completed. Will be implemented with Project Budgets for future roadway projects.	●	●	●	●	●	●	●	Miles of bike lanes and sidewalks installed	4,070
CTO-1	CTO-1.2	Implement the street space allocation policy in coordination with road reconstruction or resurfacing projects to provide road configurations that accommodate all travel modes.	PW	O	This is current City policy. Some improvements done at time of new development. Striping studies by staff at resurfacing.	Very High	General Fund Developer funded	Already budgeted.	●	●	●	●	●	●	●		

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CTO-1	CTO-1.3	Require new development to provide cross-parcel access and linkages from the development entrance to the public sidewalk system, transit stops, nearby employment and shopping centers, schools, parks, and other parcels for ease of pedestrian and cyclist access.	CDD/PW	O	The Precise Plan for El Camino Real includes policy to minimize curb cuts and encourage use of shared driveways and pedestrian planning guidelines. Citywide Design Guidelines include policies to strengthen on-site pedestrian connections in new development. Accomplished through project review on case by case basis.	Unknown	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●		
CTO-1	CTO-1.4	Improve pedestrian safety and comfort through design elements such as landscaped medians, pedestrian level amenities, sidewalk improvements, and compliance with Americans with Disabilities Act (ADA) design standards, particularly for areas serving high volumes of traffic	PW	O	City has completed Pedestrian Safety and Opportunity Study. Some implementation is ongoing.	Very High	Private developer funded as new projects occur	Private developer funded as new projects occur.	●	●	●	●	●	●	●		
CTO-1	CTO-1.5	Improve bicycle facilities and perceptions of comfort through pavement marking/coloring, physical separation specialized signs and markings, and other design elements.	PW	I	City has completed Pedestrian Safety and Opportunity Study. Some implementation is ongoing.	Very High	General Fund Grants	Partially funded in Projects Budget. Need additional funding to complete and for maintenance.	●	●	●	●	●	●	●		
CTO-1	CTO-1.6	Require sidewalks to be a minimum of six feet wide in order to allow side by side walking at identified locations that currently serve high pedestrian traffic volumes, or locations planned to serve high pedestrian traffic.	PW	O	New 6 foot DPW Standard in place.	Low	Private development Grants	Private developer funded as new projects occur.	●	●	●	●	●	●	●		
CTO-1	CTO-1.7	Actively promote intermodal linkages to and from regional transit options by establishing or improving well-defined, convenient intermodal hubs in downtown and specific plan areas. Work with city planning and the Valley Transportation Authority (VTA), Peninsula Corridor Joint Powers Board (PCJPB), the Advisory Committee on Accessibility (ACA), and others to establish best places for these locations.	CDD/PW	O	Downtown multi-modal station complete. LSAP in progress. Linkages typically developed and paid for by developers.	Very High	Private development Grants	Already budgeted.	●	●	●	●	●	●	●		
CTO-2	CTO-2.1	Require public areas and new development to provide bicycle parking consistent with the Valley Transportation Authority (VTA) Bicycle Technical Guidelines, as amended.	CDD/PW	O	Bicycle parking requirements are already in the SMC. Standard COAs for new development require adhering to VTA guidelines.	Low	Development Enterprise Fund Private developer funded	Already budgeted.	●	●	●	●	●	●	●	Supportive Measure Number of bicycle support facilities Miles of bikeways	
CTO-2	CTO-2.2	Require secure bicycle parking at public and large private events.	PW	N	This would seem to require a study issue and Council support prior to implementation.	Low-Medium	General Fund Private event sponsors	If adopted by Council based on Study Issue, funding would be borne by event sponsor.					●				
CTO-2	CTO-2.3	Increase awareness of the city's bicycle facilities by updating the city bicycle map to show locations of public and private bicycle parking, creating a web-based application for members of the public to identify locations of private parking, and establishing information kiosks at key city locations to provide maps and highlight alternative modes of transportation.	PW	N	Updating the City's bike map is a funded project in FY 15-16. Creating a web based map would be a new project that is unfunded. A bike facilities map could potentially be accommodated with the GIS update being planned by including a publicly accessible bike layer.	Low-Medium	General Fund Grants	Already budgeted.		●							

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CTO-2	CTO-2.4	Fully fund the City's bicycle and pedestrian improvement plans for completion by 2035.	PW	I	Some projects already included in Projects Budget and are being implemented. Continue to identify projects and pursue grant and partner funding.	Very High	General Fund Grants Partner funding	Already partially budgeted in Projects Budget.	●	●	●	●	●	●	●		
CTO-3	CTO-3.1	Continue sponsoring projects to provide transit rider amenities at bus stops and rail stations.	PW	O	Already completed Frances Street bus stops, and Caltrain station re-building. Improved access to the north Caltrain platform with two different projects. Participate in the VTA's bus shelter advertising program which provides bus shelters. Require developers to improve bus stops. Shelter program pays City money, one Caltrain platform access paid for by a developer. There are no definitive plans for future improvements. Future investments would be as opportunities arise and would be at the discretion of the City Council. Certain improvements such as shelters should be included in conditions of approval for large development projects. Goals should be evaluated as part of ongoing specific plans for Peery Park, Lawrence Station, and El Camino.	Low	General Fund Grants	Some portions already funded. Seek grants/partnerships for additional actions.	●	●	●	●	●	●	●	80% new development participating in GreenTrip program VTA transit ridership in Sunnyvale	5,920
CTO-3	CTO-3.2	Work with the Valley Transportation Authority and neighboring jurisdictions to provide transit priority signal timing in order to decrease travel time.	PW	I	Coordinate with DPW/Transportation Division. Install equipment on signals and buses. Timing is unknown since VTA would be the project led. Signal priority would be included with El Camino BRT if implemented.	Low	General Fund	Already budgeted.	●	●	●	●	●	●	●		
CTO-3	CTO-3.3	Work with other agencies to provide High Occupancy Toll (HOT) lanes, and support expenditure of HOT lane revenue on projects that reduce vehicle miles traveled in Sunnyvale. Support regional congestion pricing measures.	PW	I	Track and advocate as needed.	Low	General Fund	Already budgeted.	●	●	●	●	●	●	●		
CTO-3	CTO-3.4	Advocate for transit service improvements by area transit providers consistent with established performance standards, with an emphasis on coordinating public transit schedules and connections and for subsidies for a higher level of transit service and/or more transit passes for residents and/or employees.	PW	I	Track and advocate as needed.	Low	General Fund	Already budgeted.	●	●	●	●	●	●	●		
CTO-3	CTO-3.5	Partner with GreenTRIP and other local or regional organizations to implement trip reduction programs in new residential, commercial, and mixed use developments.	PW	I	Create Program/Partnership. Add COA on New Projects.	Low	General Fund Partner Funding	Already budgeted.				●					

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CTO-4	CTO-4.1	Require existing and future major employers to utilize a variety of transportation demand management (TDM) measures such as flexible work schedules, telecommuting, guaranteed rides home, low- or no-cost transit passes, parking "cash-out" incentives, and other programs that provide employees with alternatives to single-occupant commutes.	CDD/PW	O	TDM is a requirement for new employment development. It is programmed and ongoing implementation is done at employers cost. City staff monitor TDM annual reports provided by employers. TDM programs are currently a typical condition of approval on large development projects. A project is underway to better measure program results.	Low-Medium	Development Enterprise Fund	Already budgeted.	●	●	●	●	●	●	●	Participation in commute trip reduction programs	5,420
CTO-4	CTO-4.2	Create a TDM program for City staff to promote alternative transportation modes and carpooling to the greatest extent possible.	PW	N	Would require a new part time TDM coordinator position within PW to implement. A study would be required to evaluate measures and costs for the City.	Low-Medium	General Fund	Projects Budget Proposal.					●				
CTO-4	CTO-4.3	Continue to provide density and other zoning incentives or procedural or financial incentives to developments for establishment of alternative transportation infrastructure within the private as well as adjacent public right-of-way, such as increased bicycle parking, separated sidewalks, bike lanes and signage, and change and shower facilities.	CDD	O	These incentives are already included in CDD codes and policies used for development review.	Low-Medium	Development Enterprise Fund	Absorbed in CDD budget.	●	●	●	●	●	●	●		
CTO-4	CTO-4.4	Explore programs to encourage large employers to hire Sunnyvale residents.	CDD/ED	N	Requires a Study Issue by the Economic Development Division. Study Issue to be proposed prior to 2016.	Low-Medium	Economic Development Budget	Already budgeted (Planning staff time for studies).			●	●	●	●	●		
CTO-5	CTO-5.1	Support the creation of walking school bus programs in coordination with schools and parent organizations.	PW	I/O	Sunnyvale is already partnering with the Santa Clara County Health Department and Sunnyvale School District to promote alternative transportation modes to school. (VERBS Grant)	High	Grant funded	Already budgeted. Continue to pursue grant funding to continue.	●	●	●	●	●	●	●	Commute to school mode share (35% reduction in school commute-related VMT)	1,250
CTO-5	CTO-5.2	Encourage schools to link employees and guardians of students with an online system such as 511.org that provides carpool matching.	PW	I/O	Sunnyvale is currently partnering with the Santa Clara County Health Department and Sunnyvale School District to promote alternative transportation modes to school. (VERBS Grant)	High	Grant funded	Already budgeted. Continue to pursue grant funding to continue.	●	●	●	●	●	●	●		
CTO-5	CTO-5.3	Continue to implement a Safe Routes to School program for increased bicycle and pedestrian safety to and from schools.	PW	I/O	Reduce school VMT 35% by 2020, 50% by 2035.	High	State and Federal grants	Already budgeted. Continue to pursue grant funding to continue.	●	●	●	●	●	●	●		
OVT-1	OVT-1.4	Increase the number of efficient or alternatively fueled vehicles in the City fleet as vehicles are turned over.	PW	O	Fuel efficiency is already a significant factor in selecting new City vehicles; alternative fuels vehicles are higher cost and not typically purchased. Would need to review that purchasing policy.	High	Varies depending on use of vehicles	Additional incremental costs for alternative fuel vehicles not yet budgeted.	●	●	●	●	●	●	●	1,500 NEVs in operation 2,660 new electric vehicle charging stations	7,860

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OVT-3	OVT-3.1	Increase signal coordination as warranted to facilitate traffic flow along arterials and major collectors.	PW	O	This is an ongoing effort as funds permit.	High	General Fund	Already budgeted.	●	●	●	●	●	●	●	40% Reduction in vehicle idling times. Vehicle miles traveled in weekdays	4,110
OVT-3	OVT-3.2	Deploy intelligent transportation systems measures for managing traffic of large-scale construction projects and at major City and private events.	PW	O	Changeable message signs could be used to better direct event traffic to parking similar to current practices at Levis Stadium. Traffic near construction projects could be better managed through specific conditions of approval and/or through the encroachment permit process. Additional study would be needed to better understand costs and opportunities for implementation at City events.	High	General Fund	Partially budgeted.	●	●	●	●	●	●	●		
A-1	A-1.1	Appoint a staff liaison to attend and participate in regional meetings focusing on adaptation and resilience and to report back to staff on a regular basis.	ESD	I	Need to determine appropriate staff to participation and set up mechanism for reporting out for City specific actions and follow-ups.	Minimal	General Fund Grant Fund	Absorbed in existing budget resources.	●	●	●	●	●	●	●		
A-2	A-2.1	Regularly train and inform the Department of Public Safety Office of Emergency Services (OES) on potential climate change risks and hazards.	DPS	N	Present CAP to DPS and discuss opportunities for integrating climate adaption and resiliency into emergency preparedness plans and materials.	Low	General Fund Grant Fund	Absorbed in existing budget resources.		●							
A-2	A-2.2	Update the City Emergency Plan and Emergency Preparedness Workbook to address climate change impacts.	DPS	N	Determine schedule for next update of Plan.	Low	General Fund Grant Fund	Projects Budget Proposal.		●							
A-3	A-3.1	Analyze and disclose possible impacts of climate change on the project or plan area with an emphasis on sea level rise.	CDD/ESD	I	Requires analysis and adoption of climate change data specifically to Sunnyvale and creation of adoption of adaptation assumptions. Continue participation in Silicon Valley 2.0 Project. Submitted application to Rockefeller 100 Resilient Cities Challenge that would fund Chief Resiliency Officer to develop resiliency plan.	Unknown	Regional Program Grant General Fund	Continue regional participation. Pursue grants.	●	●	●	●	●	●	●		
A-3	A-3.2	Integrate climate change adaptation into future updates of the Zoning Code, Building Code, General Plan, and other related documents.	CDD	N	Create Adaptation Plan or adopt adaptation assumptions. Consult CAP and Adaptation Plan when updating codes. See A-3.1	Unknown	Regional Program Development Enterprise Fund	Continue regional participation. Pursue grants.					●				
A-4	A-4.1	Dedicate a page of the City's website to climate change and climate change adaptation.	ESD	N	Create Climate Change Web Page. Fully interactive webpage following citywide webpage redesign project.	Low	General Fund Grant Fund	Projects Budget Proposal.			●	●	●	●	●		
A-4	A-4.2	On a regular basis, assess adaptation efforts of the City, region, and state and identify goals or gaps to be addressed.	ESD	N	Prepare Information RTC. Incorporate Study Issue scope, potentially report out with bi-annual update	Unknown Potentially Very High	General Fund Grant Fund	Continue regional participation. Pursue grants.			●		●		●		
IM-1	IM-1.1	Provide support to City staff to facilitate implementation of measures and actions.	ALL	O	Quarterly CAP implementation coordination meetings.	Low-Medium	Multiple	Projects Budget Proposals will be developed to support CAP Implementation.	●	●	●	●	●	●	●		

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IM-1	IM-1.2	Prepare a biennial progress report for review and consideration by the City Council, Planning Commission, Sustainability Commission, or other applicable advisory bodies.	ESD/ALL	N	Work with PMC Consultants to develop CAP tracking and monitoring system and reporting templates.	Low-Medium	General Fund	Projects Budget Proposal.			●		●		●		
IM-1	IM-1.3	Work with PMC Consultants to develop and utilize a monitoring and reporting tool to assist with bi-annual reports. Monitor and track progress on a regular basis throughout the year.	ESD/ALL	I	Need to execute PO with PMC to begin work.	Low-Medium	General Fund	Budget Modification with CAP Implementation Plan.	●	●	●	●	●	●	●		
IM-1	IM-1.4	Identify key staff responsible for reporting and monitoring.	ESD/ALL	I	Work with PMC Consultants to develop CAP tracking system.	Minimal	Various	Absorb in existing budget resources.	●	●	●	●	●	●	●		
IM-1	IM-1.5	Integrate the results of regular monitoring and reporting into the community conditions indicator report that is presented annually with the City budget.	ESD/FIN	N	Work with PMC Consultants to develop CAP tracking and monitoring system and reporting templates. Then identify indicators to add to City budget document.	Minimal	General Fund	Absorb in existing budget resources.			●	●	●	●	●		
IM-2	IM-2.1	Inventory GHG emissions no later than 2015 based on most recent data available and update at minimum of every 5 years.	ESD	N	Need to ID funding/resources to conduct. Potential Civic Spark or CC Fellow project.	Low	General	Projects Budget Proposal.		●					●		
IM-2	IM-2.2	Update the Climate Action Plan to incorporate new technology, programs, and policies to reduce GHG emissions.	ESD/All	N	First update will be with initial bi-annual report.	Low	Various	Absorb in existing budget resources.			●		●		●		
IM-2	IM-2.3	Consider updating and amending the Plan, as necessary, should the City find that the specific reduction measures are not meeting the intended GHG reductions.	ESD/All	N	First update will be with initial bi-annual report.	Low	Various	Absorb in existing budget resources.			●		●		●		
IM-3	IM-3.1	Continue formal memberships and participation in local and regional organizations that provide tools and support for energy efficiency, energy conservation, greenhouse gas emissions reductions, adaptation, education, and implementation of this Plan.	ESD/All	O	City is already participating in several organizations and regional programs. Need to inventory, budget, and review participation in other organizations of benefit.	Low	General Fund	Operating Budget Proposal.	●	●	●	●	●	●	●		
IM-3	IM-3.2	Continue to engage, coordinate, and partner with regional program providers, neighboring jurisdictions, and local community organizations to deliver energy efficiency, energy conservation, greenhouse gas emissions reductions, adaptation, education programs identified in this Plan.	ESD	O	City is already participating in several organizations and regional programs. Need to inventory and review participation opportunities.	Low	General Fund	Absorb in existing budget resources.	●	●	●	●	●	●	●		
IM-4	IM-4.1	Identify potential funding for reduction measures as part of biennial reporting.	All	O	Each department should access implementation requirements and resources, and prepare budget proposals as needed.	Low	Various	Absorb in existing budget resources.	●	●	●	●	●	●	●		
IM-4	IM-4.2	Ensure implementation through the inclusion of emissions reduction and adaptation measures in department budgets, the capital improvement program, and other plans as appropriate.	ESD/FIN/All	N	Need to scope how this should be done, and integrate into budget documents and decisions.	Low	Various	Absorb in existing budget resources.		●	●	●	●	●	●		
IM-4	IM-4.3	Pursue local, regional, state, and federal grants to assist with potential costs to the City and the community, and support successful implementation of the CAP. ESD can track solicitations, department support needed with application development.	ESD/All	N	Need to identify appropriate grant opportunities, develop applications, and in most cases also have local match funding available. Consider funding grant writing consultant/support.	Low-Medium	Various	Projects Budget Proposal.	●	●	●	●	●	●	●		