

#	DRAFT Measure and Actions	Source	What do you think?
Community Action (CA) Educate and engage Sunnyvale residents, schools, and businesses in the City's effort to reduce greenhouse gas emissions.			
CA-1	Community Outreach and Involvement. Educate and involve the community regarding actions they can take to reduce energy, water, waste, and fuel consumption. CA-1.1. Create a structure or partner with other groups for volunteers, residents and other organizations to help achieve Sunnyvale's sustainability goals CA-1.2. Provide regular communication with schools, business, faith groups, community organizations, community members and neighborhood groups to increase participation in the City's progress toward sustainability CA-1.3. Hold regular roundtables with interested groups and individuals to discuss the City's progress towards sustainability goals. CA-1.4. Develop and encourage a mechanism for neighborhood resource sharing. CA-1.5. 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. CA-1.6. Develop and implement a City Greenhouse Gas Emissions reduction award program. CA 1.7. Develop and implement a competitive greenhouse gas reduction program between groups of citizens in the City. CA-1.8. Use City operation sustainability initiatives to educate the community by example what can be achieved and how it is done.	Committee and Public Input	
CA-2	School Education and Involvement. Educate local school children about climate change and ways that they and their families can reduce greenhouse gas emissions. CA-2.1. Support a climate action curriculum for local school teachers to teach children about Sunnyvale and climate change, greenhouse gas emissions, and local actions CA-2.2. Continue to provide and improve the bicycle driver education program for elementary, middle, and high school students.	Committee and Public Input, Bicycle Plan	
Energy Efficiency and Conservation (E) Decrease energy consumption by __% by improving energy efficiency and conserving energy throughout the community and City operations.			
E-1	New Construction. Require green building practices in all new residential and commercial development. E-1.1. Evaluate and update the 2009 Green Building Code for single-family, multi-family, and non-residential building construction and major remodels every three to five years. E-1.2. 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. For example deciduous trees should be planted on the south side of the buildings to shade the buildings in the summer and allow sun inside during winter days. E-1.3. Promote living and cool roofs and track the number of such roofs in the city limits with a target of increasing the proportion or number of such roofs by a given number or percentage of total roofs . E-1.4. Reduce permit fees for construction that voluntarily adheres to a higher green building standard that required by the City. E-1.5. Establish 'energy budgets' for new residential homes to cap the limit of energy a new home may consume, regardless of size. E-1.6. Require new homes and businesses to install external electrical outlets for use by electric lawn mowers and other outdoor electrical equipment (e.g. leaf blowers and weed whackers).	Building Code (2009), HE Policy F.6, Design Guidelines B16, Committee and Public Input	
E-2	Existing Buildings. Facilitate energy efficiency improvements and energy conservation within existing homes and businesses with an emphasis on assisting low-income households. E-2.1. Require energy and water audits and/or retrofits at time of sale for residential and commercial properties. E-2.2. Participate in a Property Assessed Clean Energy (PACE) financing program to offer low-interest loans to residents and businesses for energy efficiency upgrades. E-2.3. Reduce permit fees for building improvements that voluntarily use green construction techniques above that which is required by the City. E-2.4. Program annual Community Development Block Grant funds to fund energy efficiency and weatherizing improvements within existing buildings.	Committee and Public Input	
E-3	Lighting. Increase the use of efficient indoor and outdoor lighting technologies such as light-emitting diodes (LEDs) as a cost-effective way to reduce energy E-3.1. Replace City-owned streetlights, park, and parking lot lighting with LED or induction lights as technology becomes more affordable and return on investment is less than five years E-3.2. Provide an illumination bank that provides loans for upfront cost of LED and fluorescent conversions to be paid back over four years.	Industrial Design Guidelines D.4, Committee and Public Input, Building Code	

#	DRAFT Measure and Actions	Source	What do you think?
	E-3.2. Require that outdoor lighting use photosensors.		
E-4	<p>"Cool" Roofs and Pavements. Reduce the amount of dark, non-reflective roofing and paving material in order to mitigate the urban heat island effect and reduce energy associated with heating and cooling.</p> <p>E-4.1. Require all new and resurfaced parking lots, sidewalks, and crosswalks to be made of materials with high reflectivity, such as concrete or reflective aggregate in paving materials.</p> <p>E-4.2. Require new buildings and re-roofing projects to install 'cool roofs' consistent with the California Green Building Code (CalGreen).</p> <p>E-4.3. Study the application of warm mix asphalt paving and consider establishing an objective for use of warm mix.</p>	Committee and Public Input	
Renewable Energy (RE) Increase the amount of energy from renewable sources within the community by __% or __MWh.			
RE-1	<p>Small-Scale Renewable Energy. Increase the number of on-site renewable energy installations in the community.</p> <p>RE-1.1. Require new homes and businesses and major remodels to be 'solar ready' by pre-wiring for solar hot water heating and solar electricity.</p> <p>RE-1.2. Participate in a Property Assessed Clean Energy (PACE) financing program to offer low-interest loans to residents and businesses for renewable energy installations (also included as E-2.2).</p> <p>RE-1.3. Prevent buildings and additions from shading more than 10% of other structures or open space areas for proper solar access.</p> <p>RE-1.4. Allow renewable energy projects in areas designated as open space.</p> <p>RE-1.5. Design for solar facilities above paved parking areas.</p> <p>RE-1.6. Create City incentives for solar installations in new and existing development.</p> <p>RE-1.7. Create a simple permitting process for home wind turbines</p>	Design Guidelines B.3, Committee and Public Input	
RE-2	<p>Renewable Energy Portfolio. Increase the renewable energy portfolio of electricity delivered to Sunnyvale.</p> <p>RE-2.1.a. Create a Community Choice Aggregation (CCA) to transfer power generation to the City of Sunnyvale and increase the amount of renewable power delivered to homes and businesses.</p> <p>OR</p> <p>RE-2.1.b. Work with PG&E to allow residents and businesses in Sunnyvale to increase the amount of renewable power delivered to their home or business.</p>	Committee and Public Input	
Water (W) Decrease Sunnyvale's per capita water consumption by __ gallons per year by 2020 in order to reduce energy consumption and conserve natural resources.			
W-1	<p>Water Supply. Decrease the amount of energy needed to filter, move, and treat water used within Sunnyvale.</p> <p>W-1.1. Prepare a feasibility study for 'purple pipe' (reclaimed water) capture, distribution and safe use.</p> <p>W-1.2. Promote 'purple pipe' (reclaimed water) infrastructure in new construction or major renovation in preparation for a growing, usable network.</p> <p>W-1.3. Create flexible provisions for residents and businesses to collect rainwater and use on-site grey water for irrigation purposes.</p> <p>W-1.4. Increase gray water use (target needed).</p>	General Plan Water Resources Policy A.2, Committee and Public Input	
W-2	<p>Water Conservation. Reduce indoor and outdoor water use in residences, businesses, and industry.</p> <p>W-2.1. Provide Sunnyvale residents access to information on incentives for businesses and residences to use native, drought-tolerant landscaping techniques that meet specific water use guidelines.</p> <p>W-2.2. Require new open space and street trees to be drought tolerant.</p> <p>WW-2.3. Require the use of water-efficient appliances in new development.</p>	GP Water Resources Policy B.1, Design Guidelines A.10, Industrial Design Guidelines A.4, Committee and Public Input	
Solid Waste (SW) Reduce the amount of waste sent to landfill by _80_% by 2020 through increased recycling, composting, and materials management.			
SW-1	<p>Materials Management. Eliminate the use of materials that are not recyclable or that are cost ineffective to recycle.</p> <p>SW-1.1. Eliminate the use of plastic bags at grocery stores and convenience stores in the community.</p> <p>SW-1.2. Eliminate the sale or dispersal of disposable, plastic water bottles and plastic containers at public events permitted by the City.</p> <p>SW-1.3. Eliminate the use of Styrofoam take-out containers at restaurants and fast food facilities.</p>	General Plan Policy 3.2B.2, Committee and Public Input	
SW-2	<p>Recycling and Composting. Increase the amount of waste recycled and composted.</p>	Committee Input	

#	DRAFT Measure and Actions	Source	What do you think?
	<p>SW-2.1. Require multi-family homes to provide recycling and composting bins to building occupants.</p> <p>SW-2.2. Require a minimum construction and demolition diversion of 75% or other figure determined by the zero waste study.</p> <p>SW-2.2. Require restaurants and grocery stores to use separate food waste containers for composting.</p> <p>SW-2.3. Require at public events permitted by the City to have composting receptacles for compostable containers.</p> <p>SW-2.4. Create a municipal compost facility.</p>		
<p>Open Space and Urban Forestry (OS) Increase the amount of open space in Sunnyvale by ___% and achieve an urban tree canopy cover of ___% by 2020 in order to improve air quality, mitigate the urban heat island effect, and decrease water runoff. (TM)</p>			
<p>OS-1</p>	<p>Urban Forestry. Increase the number of native trees planted within the community and protect current, healthy tree stock.</p> <p>OS-1.1. Continue to implement the City's Tree Preservation Ordinance</p> <p>OS-1.2. Develop and implement canopy coverage requirements for City-owned parking lots, with exceptions for solar installations.</p> <p>OS-1.3. Promote tree planting on private property through incentive and support programs.</p> <p>OS-1.4. Expand existing park, open space, and boulevard tree inventory through the replacement of trees with greater number of trees when trees are removed due to disease, park development or other reasons.</p>	<p>General Plan Open Space Element Policy A.4, Zoning Ordinance 19.56</p>	
<p>OS-2</p>	<p>Open Space. Increase the amount of open space in the community.</p> <p>OS-2.1. Support the acquisition of existing vacant land within the City limits for conversion to public open space.</p> <p>OS-2.3. Establish a funding source to acquire and maintain open space.</p> <p>OS -2.4. Establish open spaces with minimal/no grass lawns and/or drought tolerant plants.</p>	<p>General Plan Open Space Element Policy A.11, Committee and Public Input</p>	
<p>Expand Transportation Options (ITO) Replace vehicle miles per year by increasing the convenience and safety of transportations that do not rely upon private motorized vehicles.</p>			
<p>ITO-1</p>	<p>Transportation Planning Create transportation planning guidelines that address in a coherent manner all of the various transportation forms increasing the convenience and safety of those that reduce environmental impacts</p> <p>ITO-1.1. Implement the street space allocation policy in coordination with road reconstruction or resurfacing projects to provide road configurations that accommodate all travel modes.</p> <p>ITO-1.2. Require new developments to link on-site walkways to the public sidewalk system outside the project for ease of pedestrian access.</p> <p>ITO-1.3. Provide pedestrian links between residential developments and nearby employment and shopping centers, schools and parks.</p> <p>ITO-1.4. Codify requirements for cross-parcel access for pedestrians in appropriate locations, especially near nodes.</p> <p>ITO-1.5. Forbid parking on streets and roads without sidewalks to allow safer and more comfortable pedestrian access.</p> <p>ITO-1.5. Review speed limits and lower them where necessary to make walking and biking safer.</p> <p>ITO 1.6. Implement a bike sharing program throughout the community.</p>	<p>Housing Element F.3, Design Guidelines A.8 and A.9, Industrial Design Guidelines A.9, Committee and Public Input</p>	
<p>ITO-2</p>	<p>Bicycle and Pedestrian Travel (Operations). Facilitate safe, efficient and convenient access of bicyclists and pedestrians to destinations in and outside of Sunnyvale.</p> <p>ITO-2.1. Require public areas and new development to provide bike parking consistent with the Valley Transportation Authority (VTA) Bicycle Technical Guidelines, as amended.</p> <p>ITO-2.2. Require supervised bicycle parking at public events.</p> <p>ITO-2.3. Update the City bicycle map to show locations of public and private bicycle parking. Create a web based database that can be updated by members of the public to identify locations of private parking for mapping purposes.</p> <p>ITO-2.4. Fully fund the City's bike and pedestrian improvement plans.</p> <p>ITO-2.5. Remove crossing impediments and improve crossing time at signalized intersections for pedestrians and cyclists. Reduce crossing distances and provide center refuge areas where pedestrians and bicyclists have to cross arterials.</p> <p>ITO-2.6. Develop pedestrian thoroughfares throughout the city which significantly restrict motor vehicle access and greatly expand pedestrian and bicycle access.</p> <p>ITO-2.7. Increase enforcement of pedestrian right of way laws.</p> <p>ITO-2.8. Require drive-through food establishments to serve bicyclists as well as vehicles at times of the night when only the drive-through portion of the establishment is open.</p> <p>ITP-2.9. Dedicate streets and plazas for only pedestrian and/or bicycle access on certain days of the year.</p> <p>ITO-2.10. Establish information link(s) at key city locations with information on alternative modes of transportation along with associated on-line maps.</p>	<p>Bicycle Plan, Committee and Public Input, Design Guidelines A.9, Industrial Design Guidelines A.5.</p>	
<p>ITO-3</p>	<p>Mass Transportation. Facilitate the use of public and private mass transportation such as buses, Caltrain, Amtrak, and shuttles to and from Sunnyvale and within the City.</p>	<p>Committee and Public Input</p>	

#	DRAFT Measure and Actions	Source	What do you think?
	<p>ITP-3.1. Work with the Valley Transportation Authority (VTA) to improve streets for transit efficiency and make Sunnyvale bus stops attractive, safe, and comfortable.</p> <p>ITP-3.2. Explore the feasibility of an employer-funded shuttle or bus service connecting residential areas inside and outside Sunnyvale to commercial centers in Sunnyvale.</p>		
ITO-4	<p>Employer Programs. Decrease the number of single occupancy vehicle trips to and from major places of employment within Sunnyvale.</p> <p>ITO-4.1. Provide financial incentives to employers to encourage or require flexible work schedules that allow employees to telecommute or take off 1-4 days per month.</p> <p>ITO-4.2. Provide employers with an online system for employees to identify carpool opportunities.</p> <p>ITO-4.3. Explore the feasibility of a Santa Clara County guaranteed ride home program for employees that ride transit, bicycles, carpools, or vanpools to work.</p> <p>ITO-4.4. Work with employers to provide parking 'cash out' programs.</p>	General Plan Air Quality Element B.2, Committee and Public Input	
ITO-5	<p>School Commutes. Provide for safe and convenient access to elementary, middle, and high schools in Sunnyvale.</p> <p>ITO-5.1. Create a walking school bus program in coordination with schools and parent organizations.</p> <p>ITO-5.2. Provide schools with an online system for employees to identify carpool opportunities.</p> <p>ITO-5.2. Continue to implement a Safe Routes to School program for increased bicycle and pedestrian safety to and from schools.</p>	Committee and Public Input	

Optimize Vehicular Travel (OVT)
Optimize the efficiency of necessary vehicular travel within Sunnyvale to reduce fuel consumption by ___% by 2020.

OVT-1	<p>Alternative Motor Vehicles and Fuels. Promote the use of alternative motor vehicles and fuels to reduce emissions from vehicular travel.</p> <p>OVT-1.1. Designate preferred parking stalls for electric, hybrid and other alternative fuel vehicles in public parking lots, commercial parking lots and new development.</p> <p>OVT-1.2. Require electric vehicle recharging stations in public parking lots and private parking lots above a certain size.</p> <p>OVT-1.3. Require sufficient electrical service in the garages of new residential development to support electric vehicle charging.</p> <p>OVT-1.4. Increase the number of alternatively-fueled vehicles in the City fleet as turnover permits with the focus on reduction the overall of amount of greenhouse gases emitted. .</p> <p>OVT-1.5. Require all taxi franchises to use low-emissions vehicles such as hybrids, compressed natural gas (CNG) vehicles, biodiesel vehicles, or electric vehicles as fleet turnover permits.</p> <p>OVT-1.6. Provide zoning or other incentives to encourage alternative fuel stations like biodiesel and compressed or liquefied natural gas in place of or in combination with traditional gasoline and diesel fueling stations.</p> <p>OVT-1.7. Subsidize the materials used to convert diesel vehicles to biodiesel fuel.</p>	Committee and Public Input	
OVT-2	<p>Traffic Calming and Efficiency. Improve the flow and efficiency of vehicular traffic throughout the City as to avoid idling and reduce fuel consumption.</p> <p>OVT-2.1. Install traffic calming devices such as landscaped median barriers, traffic circles, and bulb-outs so as to reduce traffic speeds on collectors and arterials.</p> <p>OVT-2.2. Increase signal coordination to facilitate multimodal traffic flow along arterials and major collectors.</p> <p>OVT-2.3. Deploy Intelligent Transportation Systems (ITS) measures for managing traffic of large scale construction projects and major City events.</p> <p>OVT-2.4. Create and enforce an anti-idling ordinance to reduce idling times of gasoline and diesel vehicles beyond state law.</p>	Committee and Public Input	
OVT-3	<p>Carsharing. Promote the use of carsharing in Sunnyvale.</p> <p>OVT-3.1. Work with car sharing and person-to-person carsharing companies such as Zipcar, Gettaround, WeCar and City Car Share to increase the availability of car share programs in Sunnyvale.</p> <p>OVT-3.1. Identify appropriate locations, and require siting of facilities for car share vehicles in new parking garages, gas stations, and commercial establishments.</p> <p>OVT-3.3. Require free car share program membership for new housing and offices.</p> <p>OVT-3.4. Work with car share programs to distribute shared cars throughout the city.</p>	Committee and Public Input	

Reduce Vehicle Miles Traveled
Utilize land use and parking requirements to reduce the need for vehicular travel by ___% by 2020.

PLU-1	<p>Parking. Reduce the amount of free, subsidized parking available within the City as to promote alternative modes of transportation. Work regionally to implement paid parking .</p> <p>PLU-1.1. Consider an electronic parking management system for City owned parking lots in the downtown and in proximity to other commercial areas where parking is currently free.</p> <p>PLU-1.2. Create parking maximums for large commercial developments, shopping centers and residential developments.</p> <p>PLU-1.3. Establish parking meters throughout downtown Sunnyvale to optimize parking availability and reduce unnecessary vehicle circulation.</p>	Committee and Public Input	
--------------	---	----------------------------	--

#	DRAFT Measure and Actions	Source	What do you think?
	<p>PLU-1.4. Allow parking lot sharing and reduced parking requirements for mixed use development that have operational timeframes that reduce parking demand throughout the day.</p> <p>PLU -1.5. Unbundle parking in developments</p> <p>PLU-1.5 Require bundling the cost of a discounted VTA monthly pass into new residential HOA dues.</p>		
PLU-2	<p>Transit-Oriented, Higher Density, Mixed-Use Development. Facilitate development that is transit-oriented, higher density, and mixed-use so as to decrease the need for transportation.</p> <p>PLU-2.1. Continue to direct new residential and commercial development into specific plan areas, near transit, and close to employment and activity centers.</p> <p>PLU-2.2. Provide expanded areas for higher density housing through the conversion of underutilized areas to mixed commercial/residential uses.</p> <p>PLU-2.3. Facilitate the development of affordable housing near transit, specifically elderly and affordable housing.</p> <p>PLU-2.4. Allow and promote the construction of accessory dwelling units in existing residential neighborhoods.</p> <p>PLU-2.5. Require new, large employers to provide on-site amenities such as ATMs, restaurants, and recreation space through the development of a service plan or require developments to have these amenities within 1.4 mile.</p> <p>PLU-2.6. Allow for the development of live/work spaces within the City's zoning code.</p>	General Plan Air Quality Element C.2, Housing Element D.2, D.6, F.6, and D.7, Committee and Public Input	
PLU-3	<p>Urban Agriculture. Increase the amount of food grown or raised within the City of Sunnyvale for local consumption. (TM)</p> <p>PLU-3.1. Amend the zoning code to allow urban farms to be established in residential areas.</p> <p>PLU-3.2. Establish neighborhood community gardens for public use. (TM)</p> <p>PLU-3.3. Allow for residential bee keeping and the raising of small animals such as hens, rabbits, and chickens.</p>	Committee and Public Input	

DRAFT