



2014 ANNUAL SUSTAINABILITY AND CLIMATE REPORT

13-AUG-2015

County of Santa Clara Office of Sustainability

2014 Annual Report of the County of Santa Clara's Sustainability, Climate, and Inter-Related Programs

August 2015

Table of Contents

Introduction	I-1
Pillar 1 – Environment	
Office of Sustainability	2
Planning and Development	9
Integrated Pest Management	11
Agriculture and Environmental Management [placeholder for Sept update] ...	17
Parks [placeholder for September update]	18
Fleet and Facilities – Non-Energy Sector Environmental Initiatives	19
Fleet and Facilities – Clean Fleet	23
Pillar 2 – Equity	
The Public Health Department	26
The Office of Women’s Policy	28
Social Services Agency.....	30
Reentry Services	35
Pillar 3 – Economy	
Roads and Airports	38
Asset and Economic Development	41
Office of Procurement	44
Fleet and Facilities	45

County Profile

The County of Santa Clara is a unique for its vibrant history, distinct municipalities, and an unparalleled ethnic, economic, and environmental diversity.

- The County is one of the State's first counties, formed in 1850 at the time of statehood
- The County (1.9 million residents as of 2013) is consistently ranked amongst the top regions for growth in employment, personal income, and real taxable sales
- Nearly 30% of the County's more than 156,000 private firms are women-owned
- However, post-recession disparity among highest and lowest wage-earners has increased
- Average household income increases have lagged behind rent increases by more than 30%
- It is the 4th most ethnically diverse metro area in the U.S.
- Median age is 36.7
- Highly desirable place to live and conduct business
- 2014 gross domestic product exceeded \$200 billion
- Property tax assessment rolls have exceeded \$350 billion
- The region accounts for more than 75% of all California venture capital investment (and roughly 40% of the national investment) and 12%+ of all patents filed nationally
- There are 29 regional parks covering roughly 48,000 acres
- Farmers and ranchers in Santa Clara County grow 100 different crops and contribute \$250 million to the local economy each year



Where Blue and Gold Meets Green

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The ability to meet the needs of the present while living within the carrying capacity of supporting ecosystems and without compromising the ability of future generations to meet their own needs.



Introduction

In 2010, the County formalized its commitment to integrate sustainability standards and behaviors across its departments and offices. Concurrently, the County formed an Office of Sustainability to foster that integration, advance enterprise-wide awareness, design and administer community-facing programs, and to report the County's collective efforts and success.

A number of diverse programs already existed in 2010 across the enterprise that either directly or indirectly produced sustainability-based benefits. In still other sectors, sustainability principles and outcomes were inherent in existing work, even if not completely understood as such. Through a number of actions by the Office of Sustainability (including outreach and direct partnerships), cohesion around sustainability has coalesced across the organization. These efforts were, however, given significant momentum upon adoption of a sustainability impact statement by the Board of Supervisors (the Board), incorporating the statement as a standard element of all staff reports submitted to the Board and its Committees under public agendas.

The Office of Sustainability looks to implement an internal program, during fiscal year 2016, that will develop a broader, enhanced understanding of the reach and depth of the sustainability impacts embodied in their general and special activities, projects, and programs. This will not only promote ownership of sustainability within the organization, but it will provide a reliable and consistent tracking tool for the Office of Sustainability to use throughout the year in recording and reporting the County's sustainability achievements and discoveries.

The Three Pillars of Sustainability

This Report is structured into three sections, aligned with the three components of sustainability: equity, environment, and economy. Enduring, effective sustainability programs and policies are only possible through a dynamic and responsible balancing of these three components, and in fact, the Board has memorialized this balancing standard as the foundation of the County's Sustainability Policy (see attached Appendix A).

In this Report, actions of County offices and departments have been placed under the Sustainability Pillar with the closest alignment to their programs; *however*, it is vitally important to acknowledge that this placement is keyed by primary impact and should not be interpreted as a sole or exclusive impact. In fact, nearly all actions undertaken by County offices and departments not only strategically balance social, economic and ecological considerations, but they also feature cascading impacts and co-benefits that influence and cross over into at least one other Sustainability Pillar. By way of example:

- **The Public Health Department’s** web-based, interactive Social Vulnerability Index has a direct social equity impact in identifying vulnerable populations as part of pre- and post-disaster planning, but also provides economic co-benefits in providing the foundation for advance response and treatment planning. This form of strategic response mapping is far more cost-effective and productive than reactive “triage-based” systems.
- **Roads and Airports** has implemented an advanced traffic signalization technology that tracks and predicts traffic patterns and flow in real time, and adjusts signalization to promote “smart-flow”, reduce idling, and suppress congestion. While the primary impact is economic – conserving fuel and promoting the timely and effective circulation of people, goods, and services – this ground-breaking technology enhances social sustainability (equity) in the reducing the potential for accidents, and delivers environmental co-benefits by minimizing accumulation of greenhouse gas emissions.
- **Facilities and Fleet** continue to implement a robust program that tangibly reduces the cost of government operations (economy), through conversion of the County’s energy mix away from fossil-fuel based sources to renewable sources (environmental). However, that same cost-reduction allows County government to redirect savings and enhance the scope and depth of governmental programs, including social programs .
- **The Office of Sustainability’s** Community Energy Program administers community programs designed to assist residential homeowners and commercial building owners in improving energy efficiency and increasing energy savings (environmental), but these programs utilize incentives and other resources to realize consumer energy savings (economic benefit) and enhance the green jobs marketplace (economic stimulus), with programs (e.g., EFLIC) that are also strategically designed to address low-to-moderate income as well as upper-middle income families (social).

Re-Design of the Annual Sustainability Report

Previous Annual Reports followed an exclusively data-driven design that, while it clearly demonstrated the sustainability efforts of County offices and departments, did not deliver a highly-accessible, translatable, or sharable product. This limitation was illustrated by the marginality of its use by the Board, internal stakeholders, or the public. The Office of Sustainability has completely restructured the Annual Report template to a format that still chronicles performance metric of internal agencies, but also relates their success in the form of vignettes and story-telling. The objectives of the redesign are to:

- Allow for greater public understanding of the County's sustainability actions and outcomes
- Demonstrate that sustainability practices are not limited to the environmental arena, but also promote social and economic objectives
- Deploy a story-based format that is more compelling and conducive to retelling
- Provide for easy tracking and continuous tracking
- Enhance internal sharing and awareness of cross-Pillar co-benefits

As noted above, each Office or Department has been placed in the Report within the Section that represents its most directly-aligned Sustainability Pillar. Representative projects are summarized for their objective(s), design, and functionality. Tracking graphics used by offices and departments augment the program/project summaries. Finally, metrics and outcomes are provided to complete the review and provide transparency in the County's success toward meeting (and exceeding) objectives.

A Fully-Integrated Sustainability Model





ENVIRONMENT

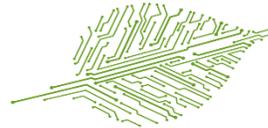
Environmental sustainability is, generally, the management of natural capital in a manner that preserves human welfare. Initially, this term was artificially limited to elements of the world's natural ecology, but is now understood to include the built and movable environment, renewable resources, holding waste by-products within the assimilative capacity of the environment without impairing it, and emerging technologies that promote all of the above. Population dynamics are also embedded within environmental sustainability.

Office of Sustainability

The Office of Sustainability continues to operate a robust programmatic schedule, driven by its success in securing grant funding. In addition, the Office represents the County in special projects and initiatives, such as the Community Choice Aggregation effort, ongoing proceedings at the California Public Utilities Commission and the California Energy Commission, as well as interfacing with regional stakeholders, non-governmental organizations, foundations, academic institutions, federal agencies, research institutions (e.g., NASA-Ames), and public stakeholders relating to the water, energy, and ecosystems services sectors, and in climate mitigation, adaptation and resiliency programs and projects.

More specifically, in 2014 the Office actively worked in the following sectors:

Climate Adaptation and Resilience



Silicon Valley 2.0 - the region's first comprehensive climate adaptation platform, partnered with an unprecedented geo-economic Decision-Support Tool that assesses the impact of anticipated climate change on natural and built infrastructure (the cost of inaction). This Project is funded through a \$981,566 CA Strategic Growth Council Grant and scheduled for completion July 1, 2015. Both the Adaptation Strategy Platform and the Decision-Support Tool are now being opened up for access and scalability to other California governments. See www.sccsustainability.org/programs

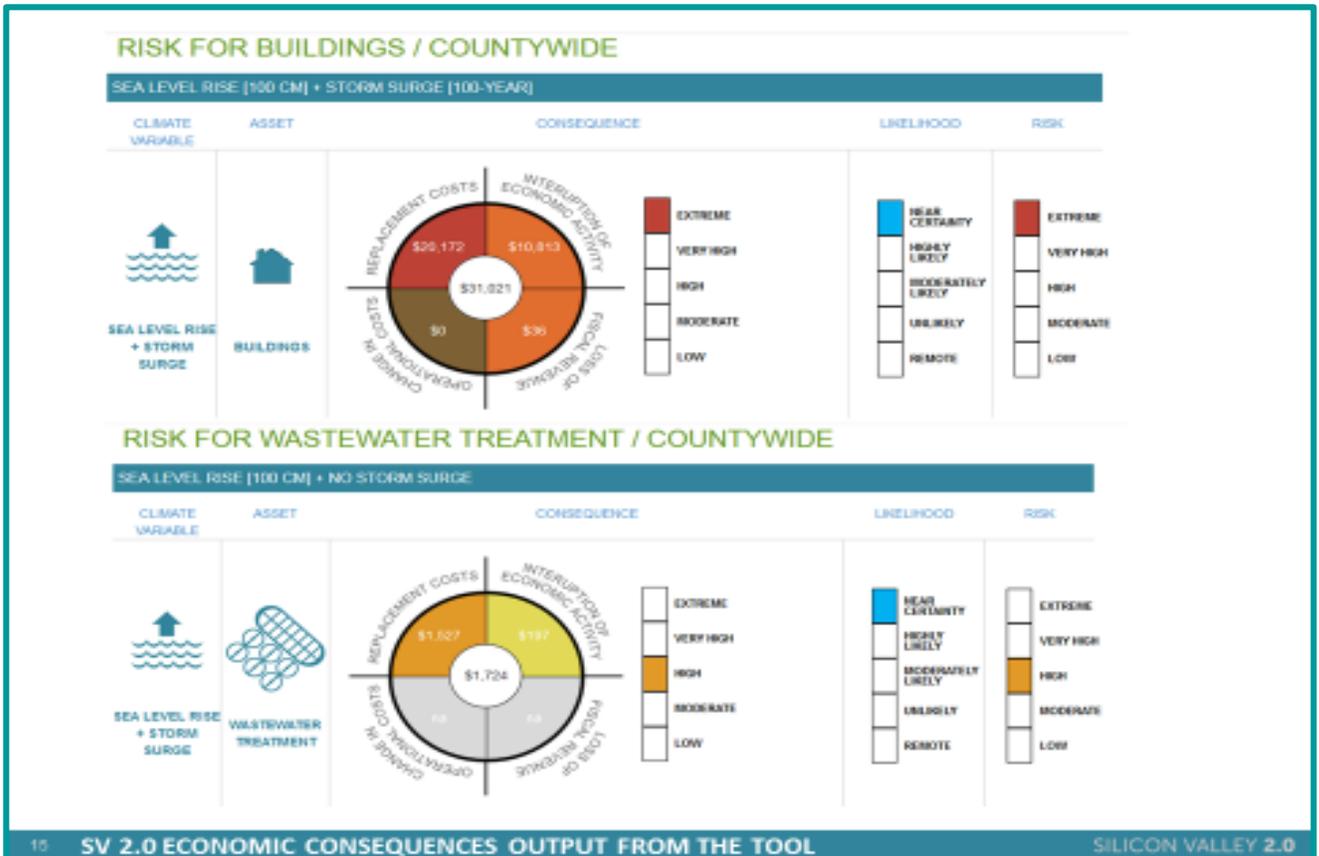
Clean Transportation

Driving to Net Zero - a regional zero-emissions vehicle (ZEV) program that includes a feasibility study, siting plans, convening regional local government planning and fleet departments, developing local government ZEV toolkit, and emissions reductions forecasting. Project is funded through a \$536,000 Grant from CA Strategic Growth Council and will be actively launched Spring 2015.



Office of Sustainability – Silicon Valley 2.0

CLIMATE VARIABLES AND REGIONAL ASSETS		
SILICON VALLEY 2.0 -- IMPACTS AND TARGETS		
Climate Variable	Regional Assets / Infrastructure	
 Sea Level Rise + Surge	Buildings/Parcels	Transportation (roads, airports, trails, etc.)
 Riverine Flooding	Energy Infrastructure	Water & Waste Water
 Wildfire	Shoreline Assets	Communications Infrastructure
 Extreme Heat	Ecosystems	Public Health
		Solid and Hazardous Waste



Screen shot from SV 2.0 Geo-Economic Tool assessment of Countywide impacts from Sea Level Rise (SLR) and SLR/Storm Surge for end-of-century

Energy Efficiency Programs & Actions

Funding of Local Government Programs The Office co-designed and successfully proposed to the California Public Utilities Commission (CPUC), a “regional government alliance” model to both administer and implement energy efficiency programs funded under the CPUC. This establishes “regional energy networks” (or RENs) as administrators, along with the Investor-Owned Utilities and Community Choice Aggregators. To date, the Bay Regional Energy Network (BayREN) has secured more than \$33 million in funding for community programs.



Bay Area Regional Energy Network – a community energy program administrator covering all 9 San Francisco Bay counties, including the County of Santa Clara. The BayREN Program Portfolio currently includes:

“Home Upgrade” Program serving the Single Family Residential Market, allows homeowners up to \$6,800 in rebates for energy efficiency upgrades, as well as marketing, outreach and education.

Multi-family Program provides a \$750/unit incentive to multifamily building owners based upon a threshold of at least 10% energy savings.

Codes and Standards Program: - the Office leads the 9-county BayREN Codes Program, which offers city and county building officials in trainings and process evaluation to assure compliance with building codes.

Financing Program: A “toolkit” program in support of Commercial PACE Programs across the 9-county region; plus contractor training.

PG&E Public-Private Partnership

In 2014, the Office of Sustainability completed a gaps analysis and needs assessment for regional energy programs, and developed a countywide matrix of all energy-sector measures and strategies adopted by local governments under general, energy action, sustainability, and climate action plans.

Also, the Office has partnered with PG&E in development of a statewide energy efficiency financing pilot that couples a reasonably-rated, unsecured energy loan product from Union Bank with convenient pay-back as a line item on monthly energy bills. The County is one of 3 pilot statewide pilot partners on this Energy Financing Line Item Charge (EFLIC) Project, which is scheduled to launch in 2015. EFLIC has been designed to serve low-to-moderate income households.



Energy Efficiency Programs & Actions



Community Choice Aggregation The Office of Sustainability leads the County's partnership with the Cities of Sunnyvale, Mountain View and Cupertino, in the analysis and development of a potential Community Choice Aggregation District, which would allow local governments to act as the supplier of energy to citizens, increase the local share of renewable energy sources, drive greenhouse gas reductions targets, and stimulate the local energy-sector economy and employment.

California Public Utilities Commission Transition to an Energy Efficiency "Rolling Portfolio" The Office of Sustainability serves on a statewide committee that is redesigning the CPUC's existing energy funding portfolio from a 2- and 3-year program to a continuous funding program (which also funds local government community energy programs). This CPUC proceeding is expected to conclude in 2016.

PACE (Property Assessed Clean Energy) The Office of Sustainability is the lead agency in the County's engagement of Commercial and Residential PACE options.



Other Office of Sustainability Projects & Actions

Update to County's Climate Action Plan The existing Climate Action Plan for Government Operations will expire this year, with an updated version tentatively scheduled for pre-Board consideration completion in 2015. The Office of Sustainability has managed an update of the government operations greenhouse gas emissions inventory, and will partner with all key County departments to record progress and create a new plan effective through 2030.

Green Procurement The Office of Sustainability previously partnered with the Procurement Office in a highly-successful process to fulfill the Board's environmental restrictions against use of expanded polystyrene (Styrofoam) in County food service operations. In 2014, the Office again partnered with Procurement to expand the Board's sustainability and environmental goals throughout County WashWare operations.

Water Conservation/Efficiency and Drought Initiatives The Office of Sustainability serves on the County Executive's Committee to monitor drought conditions, explore and assess water conservation and efficiency policies and measures, and to research emerging water conservation and efficiency technologies.

Cross-Jurisdictional Projects In 2014, the Office of Sustainability (Project Director) completed a 3-year, 7-jurisdiction project to update municipal greenhouse gas inventories and to develop or update government operations and community climate action plans. The Project was primarily funded through the County's partnership with PG&E and a grant from the Utility.

Note that all Office of Sustainability Programs, Projects and Actions have cross-sector, cross-value benefits.



Office of Sustainability – Sample Metrics & Impacts

Funding/Grants

Since its inception in November 2010, the Office of Sustainability has secured nearly \$5.3 million in direct grant funding to the County, and additional community program and incentives funding of approximately \$10.5 million.

BayREN Program (since 2014)

- 895 county residents have attended 22 homeowner workshops to date; 6 more are planned to reach at least 300 additional homeowners.
- Over 400 Home Upgrade projects completed, with an average project cost of \$14,500
 - Direct economic stimulus of more than \$6M
 - Additional 22 Santa Clara County-based contractors recruited and trained to participate in the Home Upgrade Program
 - More than \$1M in incentives to Santa Clara County homeowners
 - Projected energy savings (over life of measures) equal ~ 3.2 million miles driven or more than 600 tons of coal burned
- County leads the Multifamily Program performance with 2,407 units in 37 complexes **completed**, representing approximately \$3.3M in incentives and more than \$4M in direct economic stimulus
 - kWh saved equal to 1,600,475 miles driven or 722,108 lbs. of coal burned
 - An additional 7,657 units in 81 additional buildings **in the pipeline**, projected to distribute \$4.4M in incentives and more than \$6M in direct economic stimulus
- Office of Sustainability served as the 9-County Residential Program Lead
- Office of Sustainability served as the Lead for Regional Marketing, Education & Outreach (ME&O)
- Office of Sustainability serves as the BayREN representative to the CPUC's Statewide ME&O Committee
- Office of Sustainability served as the BayREN Financing Program Lead
- Office of Sustainability serves as BayREN Codes & Standards Co-Lead
- Under the Codes/Standards Programs, 29 trainings have been completed within the County, resulting in 346 City and County local building officials trained
- Office of Sustainability co-developed slate of 14 regional forums focused on regional energy issues and new energy code requirements
- Enrolled 3 County Building Departments to develop and analyze regional energy code compliance tools – the Permit Resource Opportunity Program (PROP)
- Piloting regional energy efficiency plan check program to support resource constrained building departments with energy code plan checks and inspections
- Developing Residential Energy Conservation Toolkit streamline and reduce costs for local governments to adopt single-family energy conservation policies

Silicon Valley 2.0

Conferences/Forums – featured project

California Adaptation Forum (3 Panels)

National Adaptation Forum

VERGE 2014

SPUR

Urban Land Institute National Conference/Board White Paper

National Association of Flood Plan Managers Conference

Federation of Earth Science Information Partners

Testimony/Reference Project for Addressing Climate Adaptation

Assembly Member Wieckowski re AB 246

Congresswoman Eshoo/CA Senator Gordon NASA-Ames Forum

White House Committee on Environmental Quality/NOAA

SV 2.0 Tool and Resources now being used by (sampling):

Santa Clara Valley Water District

Valley Transit Authority

More than 10 cities in the San Francisco Bay region

San Mateo County

Multiple Santa Clara County Departments and Offices

NASA-Ames

Joint Venture Silicon Valley

Sustainable Silicon Valley

Request from U.S. EPA for an access account to the Tool

Planning and Development

Electric Vehicle Pre-Wiring Ordinance NS-1100.118

This Ordinance was developed in response to a Board referral requesting that the County enact local amendments to the California Green Building Standards Code to require that all new construction and rebuilds of existing construction be installed with pre-wiring necessary to install electric vehicle chargers. The new Ordinance (annexed as Appendix B), requires pre-wiring for Electric Vehicle charging systems in new buildings in unincorporated Santa Clara County, and the installation of Level 2 Charging systems in large

multi-family and non-residential buildings and parking lots. The Ordinance also allows for flexibility in installing pre-wiring and charging systems in situations where there are shared parking lots among many buildings, such as at Stanford University.



Public outreach was conducted regarding the proposed Ordinance including meetings with developers and applicants, the Farm Bureau and agricultural interests, representatives of Stanford University, and other County stakeholders. In addition, the proposed Ordinance was presented at the Cities Association of Santa Clara County, resulting in an adopted resolution supporting the County's approach as a model for requiring the pre-wiring for electric vehicle charging systems in new buildings.

Water Bottle Filling Station Ordinance NS 1100.121



This Ordinance was developed in response to a Board referral requesting that the County enact amendments to the Building Standards Code requiring the installation of Water Bottle Filing Stations in new Commercial Buildings. The Ordinance requires that water bottle filling stations be installed in new commercial buildings (such as offices) where drinking fountains are required, at a ratio of one water bottle filling station per floor of the building. The Ordinance is intended to promote the visibility of water bottle filing stations to increase access to potable water as an alternative to bottled water or other types of sugar flavored drinks. The proposed Ordinance was presented at the Cities Association of Santa Clara County, resulting in an adopted resolution supporting the County's approach as a model for requiring water bottle filling stations within green building regulations.

Updated from 2014 Initiatives-in-Progress

Health Element

The Health Element is a proposed new element of the General Plan that incorporates and updates certain subject matter and policies from the existing Health and Safety Chapters of the General Plan and provides a renewed emphasis on collaborative, comprehensive approaches to planning for community health. It emphasizes issues of health equity, access, and sustainability, including sections and policies on Air Quality and Climate Change, Active and Sustainable Transportation, and Healthy Eating, Food Access, and Sustainable Food Systems.

The Health Element is in the final stages of project approval and adoption, with the Board of Supervisors tentatively scheduled to consider the Health Element and related General Plan amendments August 25, 2015.

Green Building Requirements

Santa Clara County's Green Building Requirements were recently updated and streamlined to ensure new construction meets the highest and most innovative green building standards. Specifically, the County amended its regulations to eliminate the requirements that private building construction meet LEED and Green Point Rated systems, and instead require construction to comply with the State's CALGreen Mandatory Measures and Tier I green building performance standards in new construction. These changes simplify plan review, compliance and reporting requirements for applicants and the County, using a uniform set of state codes (CALGreen), which have been updated over time to meet or exceed the County's requirements through Build it Green and LEED programs.

Integrated Pest Management

The Santa Clara County Integrated Pest Management (IPM) Program, implemented in 2002, helps protect the health and safety of County employees and the general public, the environment, and water quality, as well as prevent and solve pest problems on County property with the least unintended impacts on people and their surroundings. The Program seeks to eliminate or reduce pesticide applications on County property to the maximum extent feasible through available non-pesticide alternatives, where feasible.



The program draws best information from IPM research across the World on managing pests using safe and effective techniques and strategies. These techniques and strategies are the basis of integrated pest management, or IPM.

IPM is a sustainable approach to preventing and suppressing pest problems while minimizing risks to human health and the environment. IPM practitioners use a judicious blend of biological, cultural, mechanical and chemical controls.

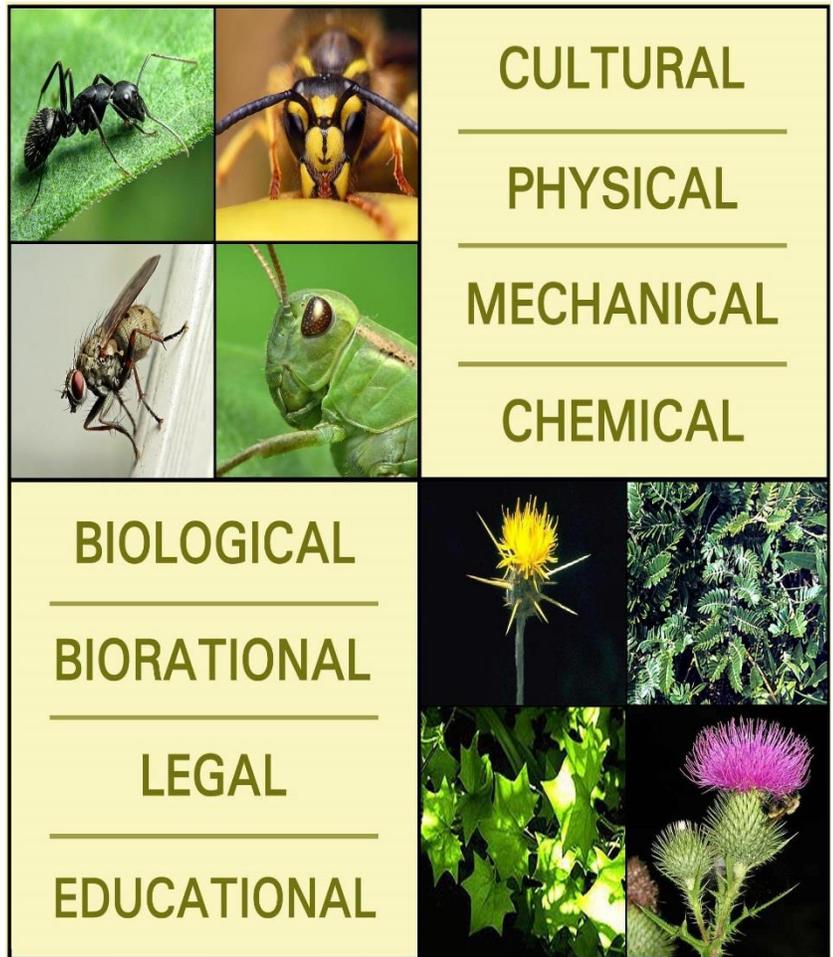
The overall mission of the IPM Program is to prevent pesticide pollution (both source and non-point source) through increased utilization of ecologically based reduced risk integrated pest management practices. Effective leadership in IPM including building coalitions and partnerships, outreach to IPM practitioners and public, increasing the predictability and effectiveness of pest management techniques, and developing science based pest management projects that are low-risk, sustainable, affordable, and socially appropriate will help accomplish this mission.

This report serves as living document and describes many of the program's accomplishments since inception which include IPM projects undertaken, training, development of outreach material, extension of IPM projects to practitioners, and collaborations to solve important pest problems facing on County owned urban and natural resource environments.

Pesticide Use Reduction

- ✓ *Pesticide use in structures* has been significantly reduced and can be stated as “minuscule use (statistically insignificant) of reduced risk pesticides”. Regular site inspections followed by building occupant education, sanitation, housekeeping and maintenance improvements, has helped to alter many pest situations that would have otherwise resulted in pesticide applications.

- ✓ **Pesticide use in urban landscapes** has been significantly reduced and can be described as “minuscule use (statistically insignificant) of reduced risk pesticides”. With only one warranted exception for a unique invasive species and pathogen, since 2008 no pesticide has been used in urban landscapes around County office complexes.
- ✓ **Parks without Pesticide Use** In 2002, a pilot project was launched at Ed Levin Park (approx. 1,500 acres) using reduced risk pest management strategies, and eliminating use of all conventional pesticides, with a plan to adopt the model in all 27 Regional Parks representing ~46,000 acres of recreational, open space, and rangelands. Presently, virtually all total landscapes under regional parks are managed without using pesticides.
- ✓ **Vertebrate Pest Control:** Since 2003, no rodenticide was used in open space of 28 regional parks. Vertebrate control (e.g. ground squirrels, pocket gophers, feral pigs) throughout park system is also managed non-chemically.
- ✓ **Aquatic pest management:** Since 2002, no pesticide has been used by Department of Parks and Recreation on County-owned ponds, lakes, creeks to control aquatic weeds except what is reported under Arundo Donax control project managed by Santa Clara Valley Water District. With the guidance and help from the Agriculture Department and USDA-Agriculture Research Service, bio-agents (Arundo wasp and Arundo Armored scale) are being explored as additional components in the IPM-Tool Box to control Arundo Donax (an invasive cane species).
- ✓ **Roadside Right-of-Way vegetation management:** Since 2002, significant acreage reduction has been achieved under chemical management as well as use of herbicides to control vegetation on Road’s rights-of-way.
- ✓ **General Aviation Airports** did not use any pesticides 2007-2014.



Water Conservation and Drought Mitigation Committee



Integrated Pest Management is part of a cross-departmental committee formed to investigate, assess, and report back with recommendations on policies, best management practices, emerging technologies, and water systems management methodologies for the conservation and efficiency of water use, and strategies for mitigating local drought impacts, both present and projected.

Landscape Weed Management – the “Integrated Approach”

Improving turf and landscape care can reduce the use of pesticides and that managing water avoids runoff and improves water quality.

In 2009, the County adopted the “7 Principles” of bay-friendly landscaping and gardening and joined the Bay-Friendly Coalition to strengthen and promote sustainable landscaping practices. The Coalition works in partnership to reduce waste and pollution including pesticides, conserve natural resources, and create vibrant landscapes and gardens.

Since 2009, Facilities and Fleet gardeners continue their efforts of transforming landscapes on County properties by using sustainable practices and improving plant health care. Mulch, recycled (commonly on-site) from County forestry operations, is deployed as an alternative to herbicides to control weeds. In addition, non-functional lawns were also converted to resilient landscapes by conversion to drought-tolerant plants.



This further helps improve soil conditions in favor of desired plant community and less reliance on chemical inputs for pest management. This approach has produced compound financial benefits in eliminating nearly all herbicide applications, but also reducing weed growth and associated maintenance. In terms of cascading benefits, trees in the mulched areas throughout have also shown remarkable recovery as mulch helped maintain soil moisture, increase fertility, and improve soil structure, aeration and drainage.

Since 2009, approximately 12.66 acres of urban landscape around County facilities were mulched. Installation of weed barrier and mulch on this acreage is projected to save thousands of labor hours annually on recurring weed-removal work using physical/mechanical methods. In addition, an estimated total of 4,080 irrigation valves on these landscapes were shutoff over three years (2010-2013), now **saving approximately 41 million gallons of irrigation water annually**, should these be allowed to run on regular schedules.

The sustainable landscaping practices are gradually taking roots, growing and yielding progressive qualitative and quantitative results.



These irrigation water savings were reflected in the County's overall water conservation activities which was recognized in 2013 by the Silicon Valley Water Conservation Awards Coalition for its efforts and leadership in water conservation. - Jason Gorman, Lead Gardener.

Bio-Maintenance Goats are useful animals, providing us with milk, meat and wool. In today's world, some goats have found new ways to help humans get through the day. One goat activity that is gaining interest in our County operations is weed control. Weeds are tasty to most goats, which are natural browsers. They can eat 25% of their body weight per day. This makes goats an excellent method to control unwanted vegetation without the use of herbicides or heavy equipment. This method of keeping weeds to a minimum, called "mitigation," helps reduce the risk of brush fires. The goats can also do the heavy lifting on the restoration project by grazing up hills and down gullies that are too steep for mowers or machines. This amazing animal is a voracious consumer of poisonous plants like Hemlock, Poison Oak, Pampas Grass, Blackberry bushes, Yellow Staff Thistle, Mustard species, and many more.

The Department of Parks and Recreation and Facilities and Fleet are working their way to adopt this new Bio-Control agent in their operations, which is helping them in managing invasive weed in parks and creating fire-breakers on hilly terrains of communication towers. Since 2013, the Goats were engaged to help control weeds in over 31 acres of land. Beside goats, controlled/managed grazing by domestic livestock, a sustainable alternative to herbicide or mowing for control of invasive plants in natural areas, is also practiced in approximately 15,000 acres of land spread over several regional parks.



Extending IPM to Urban Audiences



Outreach to Nursery Outlets and Local Landscapers: The important focus of IPM outreach has been the urban audience through distribution of information about how to manage pests using sustainable landscape practices, promoting structural sanitation, housekeeping and maintenance to manage or control pests. Since 2011, several IPM trainings were conducted by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), of which the County is a member. In 2013, twenty five gardeners were trained under Advanced Green Gardener training project of which 10 took the training in English and 15 in Spanish. Additional thirty eight gardeners were recertified. Currently, the Santa Clara Valley Green Gardener List includes 105 Green Gardeners. Of these, 70 are professional landscape main-

tenance contractors. The list of Green Gardeners is distributed to consumers at outreach events, advertising on radio and is also made available online.

In FY 2013-14, SCVURPPP also implemented IPM Store Partnerships in 14 local establishments, training 105 employees about environmentally-friendly pest control products and services. The program continues to maintain literature racks displaying less-toxic pest management literature at several hardware retail stores and nurseries in the Santa Clara Valley. The goals of this project are to increase awareness, transform behaviors, and make to mainstream green products.

Extending IPM to Pest Control Professionals

Annual IPM-Pesticide Applicator Safety Education: Reaching pest control with science-based information about how to manage pests is a key goal of IPM outreach. Under this program, eighty seven county employees received integrated management training, including invasive weed management, IPM for urban forestry, monitoring and reporting, methods for tackling pest problem wisely, and for safe pesticide application.

Workshop hosted by Pesticide Applicators Professional Association of California: The IPM Program presented “Pesticide Applicator Laws and Regulations”, to pest control professionals under this education and outreach program. The Pesticide Applicators Professional Association provides continuing education in safe and effective pest control techniques.

Annual Pest & Disease Symposium hosted by Western Chapter of International Society of Arboriculture: On December 10, 2013, the IPM Program presented “Element of Spatial Mapping and Data Management Necessary for Effectively Executing IPM” to arborist, trees workers and pest management professionals. The WCISA promotes planting and preservation of trees and practice of arboriculture.

Agriculture and Environmental Management

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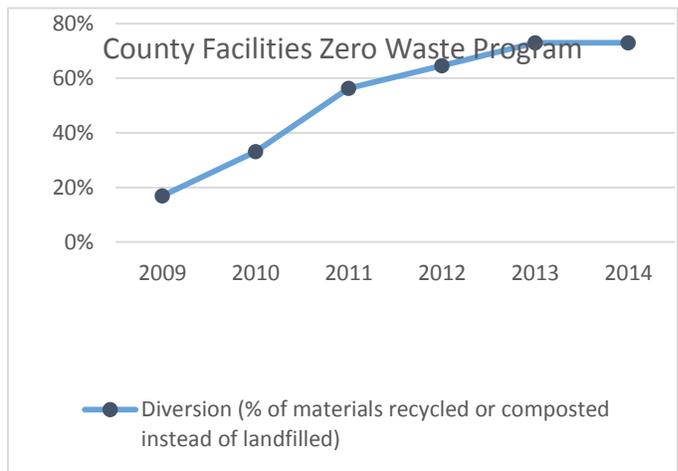
Parks

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September 2015 Update to Draft Report

Fleet and Facilities – Non-Energy Sector Environmental Initiatives

County Facilities Zero Waste Program

The County facilities Zero Waste Program (ZWP) met the County's 75% diversion goal in October of 2014. The diversion has increased from 17% in 2009 to the current 75% diversion. Facilities and Fleet Department (FAF) continues to work with individual departments to improve the ZWP by providing technical assistance, presentations and trainings. The ZWP provided outreach to thousands of employees at over 23 events in 2014.



Sustainable Landscaping at County Facilities

The County continues to use best practices for weed abatement projects. A herd of goats successfully handled the weeds at Communications Hill again this year. Other sites were mowed or mechanically weeded to reduce fire risk.



FAF hosted the Qualified Water Efficient Landscaper (QWEL) training in August of 2014, a collaborative effort between San Jose Water Company, Santa Clara Valley Water district, the City of Palo Alto Utilities, and their contracted instructor. The training taught water-efficient landscape practices such as water-efficient landscape designs, irrigation system operation and maintenance in the classroom and in the field.

Water Conservation Efforts

FAF partnered with Santa Clara Valley Water District's (SCVWD) Water Conservation Program to implement ongoing water conservation efforts. Over 60 toilets and 20 urinals have been replaced with high efficiency models by SCVWD's program. FAF replaced all showerheads at Juvenile Hall with low-flow models and retrofitted toilets in a dorm at Elmwood Correctional Complex as part of a pilot project. In addition, more than 70,000 square feet of turf and 1,000 conventional sprinklers were converted to drought tolerant landscaping and water efficient irrigation systems in 2014. Most notable is the project at Juvenile Hall which converted 13,600 square feet of underutilized turf to a recreational space that includes drought tolerant landscaping and a patio area with picnic tables. This project also received a rebate from the Santa Clara Valley Water District. The projects mentioned above resulted in a projection of approximately 8 million gallons of water a year.



Elmwood Correctional Complex's Sustainability in Jails Project

The Sustainability Project at Elmwood supports the County's focus on reducing recidivism. The Project includes efforts to educate, provide certificates and offer job-related experience to offenders, while also integrating sustainability practices into Elmwood's operations. To support the landscaping training, an educational curriculum has been developed by Elmwood's partner, Milpitas Adult Education. The curriculum includes classroom and field training. The curriculum's participants began composting some of its yardwaste and food waste in 2014.



Photo by Deputy Jose Morales

The end product, compost (on the far right), is not only used to boost soil health but also as an education tool.)

Green Cleaning Microfiber Implementation

The Clean section of Clean and Green (C&G) had a successful pilot project involving the use of microfiber mops and cloths, ergonomic poles and toilet brushes. FAF janitors received formal green cleaning and microfiber cleaning equipment trainings from a green cleaning professional and equipment manufacturer. With the success of the pilot project and trainings, the cleaning team transitioned to the new microfiber cleaning equipment in July of 2014. The new equipment will save water and chemicals, reduce injuries and reduce drying times for bathroom floors. Microfiber mops and cloths also clean more effectively and have long lives, which reduces ongoing costs.

Several departments contract for custodial services. A new contract for these services began on June 1, 2014, which introduced a new green cleaning program that utilizes green chemicals and microfiber cleaning equipment and is in compliance with the Board Policy 8.3-Green Cleaning Policy.

Our City Forest Tree Planting Project

FAF manages the community tree-planting project with Our City Forest (OCF). To date, OCF has planted a total of 516 trees. Planting locations have primarily taken place in unincorporated Burbank and Alum Rock/ East Foothills, however, recent tree plantings have expanded to Cambrian and other unincorporated areas. OCF have conducted follow-up tree care workshops in July and August of 2014 for the Burbank, Alum Rock and East Foothills neighbors who have received trees from this project.

Bicycle Lockers



The County of Santa Clara was awarded a grant in July of 2014 from the Bay Area Air Quality Management District's (BAAQMD) Transportation Fund for Clean Air Program (TFCA) Regional Fund Program for the installation of electronically operated bicycle lockers. A total of 16 electronically operated bicycle lockers will be installed at Charcot, Elmwood, Berger, and San Jose Downtown Health Center campuses. This grant encourages public agencies to expand their inventory of safe, effective, and long-term bicycle infrastructure within their jurisdiction.

Fleet and Facilities – Clean Fleet

Greening Maintenance. The majority of the County's fleet runs on re-refined motor oil. In vehicles that require a different spec oil we use a full synthetic product. We recycle our engine coolant and use recycled engine coolant in most of our vehicles. We have changed our wheel weights from lead to non-hazardous steel and composite weights.

Fleet contracted with its Fleet Pool Vehicle Washing vendor to convert to a new waterless product for light duty cars and small trucks that has performed successfully, and returned cost, travel, and water-use savings.

Fleet has replaced all petroleum naphtha solvent tanks with an aqueous-based sink style parts washer's and also larger high pressure aqueous parts washers; and replaced brake cleaner in spray cans with permanent refillable brake cleaner canisters. For the clean-up of oil spills Fleet uses oil absorbent pads that are laundered and successively reused, eliminating use and disposal of hazardous by-products resulting from prior products.

Greening the Fleet. The County's low-emissions vehicles fleet has grown to 270 alternative fuel vehicles for FY 2016:

- 194 Hybrid's
- 5 CNG Busses
- 71 Electric Vehicles

Fleet is completing a capital installation project to establish a new CNG fueling station located at the main Fleet facility. This station will be open to the public as well as utilized by Fleet to fuel fleet CNG vehicles and promote green vehicle use. The Department will be expanding the CNG, Hybrid and Electric vehicle count in the FY 2017 budget year and moving into the future.



Fleet is partnering with the Office of Sustainability to support the *Driving to Net Zero* Project, which will deliver a feasibility study, siting plan, policy facilitation across the County, and training for County and municipal Fleet departments. Through these collective efforts, the Fleet Department looks to lead by example, and promote the adoption of electric vehicles by our employees and the general public.

Fleet Recycling. One hundred percent of Fleet’s used tires are recycled. In addition, Fleet recycles all of scrap metal as well as all batteries (both dry cell and wet lead acid models). Technician uniforms, shop towels, and other fabric-products used by Fleet are laundered and returned for successive reuse.

Fleet has also operationalized its software program to be a paperless system. The Department estimates savings of over 70,000 sheets of paper annually.





EQUITY

In terms of sustainability, “equity” is achieved through both human and social goals and resilience.

Human sustainability means maintaining human capital, or the private good of individuals, rather than between individuals or societies. Health, education, skills, knowledge, leadership and access to services constitute human capital.

Social sustainability means maintaining social capital, or the investments and services that create the basic framework for society. Cohesion of community for mutual benefit, connectedness between groups of people, reciprocity, tolerance, compassion, patience, forbearance, fellowship, commonly accepted standards of honesty, discipline and ethics.

Human and societal sustainability also optimize operation of the community mechanisms, and have cascading, positive economic impacts.

Public Health Department



Public Health and Climate Preparedness

The Santa Clara County Public Health Department has begun to embed climate change into its departmental planning processes. The 2015-18 Strategic Plan includes a goal to build community resilience to mitigate and address climate change health effects.

Work is also being done by Public Health Preparedness to merge existing cold weather and extreme heat plans into one extreme weather plan. The Epidemiology and Data Management Unit along with The County Information Services Department is developing a **Social Vulnerability Index** based on the Center for Disease Control and Prevention's (CDC) Social Vulnerability Index for Disaster Management. This index will help emergency managers and planners identify vulnerable populations in the county at a census tract level to allow for pre and post disaster planning, including the effects of climate change. The index will be presented as an interactive online mapping tool once completed.

Silicon Valley 2.0 Climate Resilience Platform – Technical Advisory Committee and Key Sector Working Group



The Department served on the Silicon Valley 2.0 Technical Advisory Committee, and lead a Key Sector Working Group for the Public Health Sector in developing the geo-economic Decision-Support Tool and 16 public health adaptation strategies that emphasize the effect of climate on the most vulnerable populations.



Public Health Element - General Plan

The Public Health Department has a multi-pronged approach to climate change that emerged from its Center for Chronic Disease and Injury Prevention. Initially, department staff was exposed to climate issues through programs, organizations, and collaboratives that focus on the upstream determinants of health. Early work included strategies to increase active transportation and food access, which have co-benefits for improving community health and reducing greenhouse gas (GHG).

One of the department's most important engagement outcomes emerged from its Health in All Policies (HiAP) efforts, which included creating a health element for the county's *General Plan* with specific language addressing climate change. The health element is instrumental in framing other aspects of the *General Plan*, which will inform the county's overall operations and land use planning for the next 10 to 20 years. In collaboration with the Department of Planning, Public Health co-authored a County General Plan Health Element that addresses the connection between health and climate change among other topics. If approved by the Board of Supervisors, it will be the most comprehensive free-standing health element in the state.

Programs for Healthy Communities

With the Center for Chronic Disease and Injury Prevention (CDIP) in the lead, Public Health continues to provide funds to cities to implement strategies and environmental improvements to increase walking, biking and use of transit, most recently through a CDC funded **Partnerships to Improve Community Health** grant. In addition, CDIP has helped to organize events and trainings for cities and community organizations such as the "Let's Get Moving, Silicon Valley Transportation Choices and Healthy Communities Summit," held at De Anza College in March and the "How to Create Safer and Healthier Streets" event in Sunnyvale in May.

The **Safe Routes to School** (SRTS) program, which is active in school districts in Campbell, Cupertino, Gilroy, Los Gatos, San Jose, Santa Clara, and Sunnyvale, encourages youth to walk or bike to school and promotes health, safety, educational achievement, community cohesiveness, and a cleaner environment. In collaboration with the **Traffic Safe Communities Network** (TSCN), the department also helps to coordinate efforts among other county SRTS programs, including those operated by Cupertino, Mountain View, Palo Alto, San Jose, and Santa Clara. Public Health received California Active Transportation Program Cycle 1 funding, which will greatly expand SRTS efforts in Gilroy in 2016. Public Health and TSCN have produced a report on "Bicycle Transportation and Safety in Santa Clara County" that compiles and analyzes county bike data and collision hot spots and makes recommendations to improve bicycle transportation and safety.

In the spring, the department presented at a conference in Portland on the climate efforts of public health departments and health systems and at a NASA Ames summit, sponsored by Assemblyman Rich Gordon, on the challenges of sea level rise in Santa Clara County.

Commercially Sexually-Exploited Children (CSEC) Response Team

The Office of Women's Policy administered and had oversight of implementation of a pilot specialized CSEC Service Response Team that served the needs of commercially sexually-exploited children. The CSEC Service Response Team served 59 youth with case management, emergency/crisis intervention response, stabilization, and long-term stability and sustainability. The objectives are secured through a comprehensive agenda of peer-counseling, linkage to personal resources crisis intervention, development of goals, safety planning, and therapy. In addition, the CSEC Program monitored and track data on the CSEC population, and provide trainings on trauma-informed services, identification and referral of youth at risk for CSE, and prevention specific to CSE youth. The findings of this pilot effort have proven valuable to the County's efforts, particularly in light of recent legislation mandating the identification, placement and tracking of CSEC youth by child welfare agencies across California. Multi-disciplinary and inter-departmental collaboration is central to these efforts. As a result of this first year, there is a better understanding the problem of CSEC, characteristics of the youth and this will increase the County's ability to intervene and prevent instances of child trafficking.



County of Santa Clara
Office of Women's Policy

Ending Violence Against Women

The Office of Women's Policy provides staffing and serves in a policy advisory function to the County's Domestic Violence Council, Human Trafficking Commission and soon an Intimate Partner Violence Blue Ribbon Task Force. Additionally, there is a long-standing partnership with the Domestic Violence Advocacy Consortium to examine and highlight the needs and services for survivors, domestic violence shelter-based services in Santa Clara County, and promoting victim-centered, trauma-informed services, systems, and policies. The OWP also provides key technical assistance to County departments, law enforcement agencies, first responders, municipalities, and organizations on domestic violence and intersections with other forms of violence against women. Efforts to reduce domestic and other forms of violence in our community through prevention and intervention efforts promotes safety and stability for families in our community and offset the enormous cost of this crime to government and businesses.

Eco-Chaplaincy Component (Sustainability in Jails Program)

A pilot Eco-Chaplaincy Pilot Program was championed and managed by the Office of Women's Policy at the Elmwood Jail Complex for both men and women.. This was an expansion of the Department of Correction's Sustainability in Jails Project. The Sustainability in Jail project implemented a new, long-term landscaping project and ongoing teams of men and women inmates at Elmwood and raised awareness of water consumption, recycled water use, healthy soil, ecosystems and natural approaches to pest and weed control. Training to care for the land will be an educational, job-training opportunity as well as an opportunity to reorient perspectives and increase emotional wellbeing.

The Pilot's Eco-Chaplain implemented a multi-tiered counseling and training program that provided wellness and behavioral mentoring, meditation series, ecological programs in natural landscapes and composting, special program lectures and teachings (the water cycle, food systems, plant ecology, environmental justice), and visiting lectures and out-of-doors training (e.g., the Audubon Society). The over-arching objective of the program was to develop understanding of and connect inmates to their environment, and to provide effective tools to identify themselves beyond the events that brought them to the facility. The Program reached 428 Level 1 (minimum security) women, 371 Level 1 men, and 41 high-security lock-down women, with enthusiastic polling and surveys from participants.

Social Services Agency



Employment and Benefit Services

The mission of Social Services Agency's Department of Employment and Benefit Services (DEBS) is to transition public assistance recipients to employment and eventual self-sufficiency and to ensure that low-income individuals and families receive necessary health, nutrition, and employment services. The department's activities all foster social equity for a broad array of diverse needy residents in the County. Services are delivered to eligible residents in a manner that is culturally sensitive and encourages personal responsibility.

DEBS goals are to:

- Assist cash assistance recipients in obtaining and retaining employment and help them advance in their careers so that individuals and families may eventually become self-sufficient;
- Ensure that basic needs are met through the accurate and timely issuance of cash assistance, food stamps, and Medi-Cal to eligible families and individuals;
- Reduce the number of hungry children/adults/families by outreaching and conducting community-wide food/nutrition campaigns to make nutrition services more accessible and available to more food stamp and Food Bank clients;
- Ensure healthy families and individuals by promoting strategies to increase the number of eligible children/adults/families who receive health coverage; and
- Promote various housing assistance programs in order to help eligible, low-income families move into permanent housing.

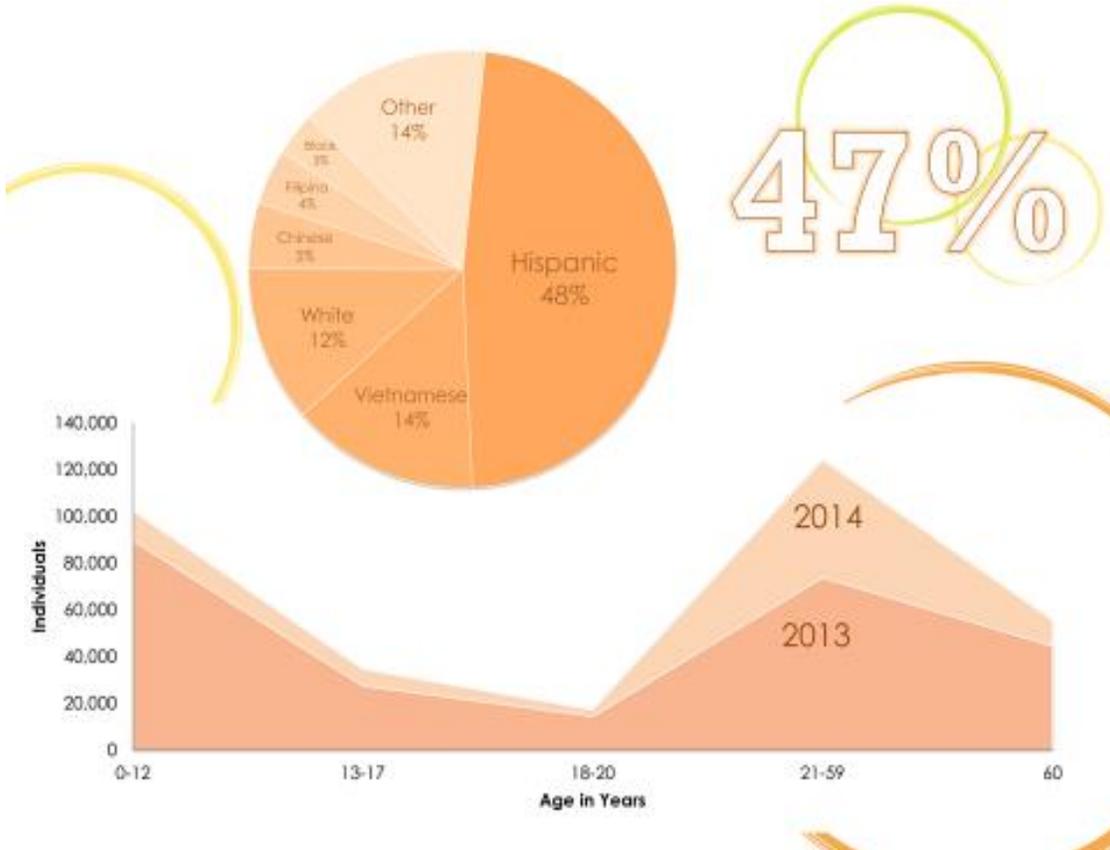
It is noteworthy that State studies tracking where purchases are made with Electronic Benefit Transfer (EBT) Cards indicate that over 90% are made locally. Residents receiving cash and/or food assistance primarily make their purchases within Santa Clara County.

During 2014 DEBS achieved unprecedented milestones and expanded services to meet the needs of many disenfranchised residents in the County.

Medi- Cal Enrollment Increase



The Affordable Care Act (ACA), frequently referred to as ObamaCare, was designed to provide quality health care for all citizens, allowing individuals and families control over their health care choices. On January 1, 2014, an estimated 1.4 million people were eligible for Medi-Cal in California. ACA expanded Medi-Cal to include all individuals between the ages of 19 and 64 whose income falls below 138% of the Federal Poverty Level (FPL). These sweeping changes dramatically increased the demand for Medi-Cal services and the number of recipients in the County surged by 47%, with the largest increase among individuals age 21-59. 48% of recipients were Hispanic, 14% were Vietnamese, 5% were Chinese, 4% were Filipino and 2% were Black.



CalFRESH Food Assistance

Every parent strives to put fresh and health foods on the table for their family. Low income households are no exception, but rent and other costly expenses often make this difficult for families living paycheck to paycheck. In Santa Clara County, a family of four with no other income may receive up to \$632 per month in food assistance. Benefits are loaded on an Electronic Benefits Transfer card for families to purchase food at markets as well as seeds and plants to grow food for household use. Thanks in part to the joint outreach efforts of the Social Services Agency and Second Harvest Food Bank, Santa Clara's CalFRESH caseloads increased by 9.2% this last year. 49% of which are minor children.



CalWORKs Family Stabilization

One of the State's newest initiatives available for families with children age 18 or younger is Family Stabilization Services, a part of the California Work Opportunity and Responsibility to Kids (CalWORKs) program. The primary goal of these services is to provide CalWORKs families who are currently or at risk of becoming homeless with wrap-around support services that offer short term interventions or resolutions to help them resolve root causes of their housing crises. In 2014 DEBS engaged in restructuring and expanding services to better meet client needs in the future.

CalWORKs Family Stabilization

- Health Alliance
- Housing Assistance
- Social Work Services
- Support Services
- Welfare-to-Work Activities
- Domestic Violence Counseling



CalWorks Employment Services and Subsidized Employment

Employment Connection is the one stop resource for CalWORKs job seekers looking to transition into the workforces. Approximately 200 clients are hosted by the Employment Connection every month, to engage in the rigorous pursuit of employment. 578 participants were placed in full-time and part-time jobs throughout the last fiscal year, an average of 48 each month. New hires worked approximately 31 hours per week at a wage of \$12.74 per hour.

Employment Connection

578

total job placements

200

total partner employers

31

average hours worked per week

2,400

total clients served

\$12.74

average hourly starting wage

The CalWORKs Employment Connection introduced its latest endeavor, a new subsidized employment program named EC Works. With this program, Employers receive a minimum wage reimbursement to offset the cost of hiring and training a new employee. After three months, each subsidized position is expected to transition into a permanent, unsubsidized job. In its inaugural year, the Employment Connection created new job opportunities for clients in a wide variety of professions, including: office support, retail, healthcare, food service and home care industries. Positions ranged from entry-level to skilled professional and over 75% of the hires made were for full-time jobs with an average wage of \$11.37 per hour.

CalWORKs EC Works



- Subsidized employment
- 200+ employers
- Specialized recruitments
- Minimum wage reimbursement
- Three-month subsidy
- 75% full-time jobs
- \$11.37 average starting wage

Office of Reentry Services

Reentry Resource Center

The Reentry Resource Center provides comprehensive services to assist AB109 reentry clients transitioning from incarceration to productive lives. Envisioned as a one-stop-shop, multiple services are provided in one convenient location for this historically underserved population:

- Mental Health and Substance Abuse screening and assessments by a Behavioral Health clinician;
- Medi-Cal and CalFresh application support provided by Social Services Agency's eligibility worker;
- Primary health care and psychiatric services provided by Ambulatory Care's Reentry Mobile Clinic;
- Dental Health services provided by Mobile Dental Clinic;
- Peer support services and linkages to health-related programs;
- Probation support to link and refer clients to community-based services
- Job preparation training.



Reentry Mobile Medical Clinic Data September 2013 - December 2014

655 Total Unduplicated Patients

- 77% male
- 40% on AB109 Public Safety Realignment Classification
- 31% of AB109 patients at moderate or high risk level to re-offend
- 9% of the patients re-arrested after their initial service appointment

Medi-Cal Enrollment from March 1, 2014 – March 30, 2015

The program has been initiating MediCal enrollment 30 days prior to inmates release from Main Jail and Elmwood.

1,652 Applications Processed

- 1,339 Applications Approved
- 94 Applications Cancelled
- 62 Applications Denied
- 57 Applications Discontinued

Parole Reentry Program

The newest partner to join the Reentry Resource Center in 2014 is the Parole Reentry Program, which hit the ground running and received 318 referrals from parole agents and began case management with 141 clients recently released from prison from July to December. A team consisting of a Rehabilitation Counselor and Peer Mentor develop a client service plan with a client focused on reintegrating back into the community. Plans include education, housing, employment, substance abuse treatment, anger management, family wellness, computer literacy and other employment skills.





ECONOMY

Environmental sustainability is, generally, the management of natural capital in a manner that preserves human welfare. Initially, this term was artificially limited to elements of the world's natural ecology, but is now understood to include the built environment, renewable resources, holding waste by-products within the assimilative capacity of the environment without impairing it, and emerging technologies that promote all of the above. Population dynamics are also recognized as a variable or influencing factor within environmental sustainability.

Roads and Airports Department

The Roads and Airports Department continues its efforts to be cost effective and environmentally protective and has embarked upon several new innovative projects that support the County's sustainability goals.

Using Technology to Reduce Traffic Congestion

The newest areas of sustainability advancement include next generation signal coordination ("15 minutes in the future") which predicts traffic patterns in real time and adjusts traffic signals to optimize the flow of traffic and minimize carbon emissions from vehicles waiting at signals or in congested traffic. Roads and Airports put together a video which was played in Detroit at a conference of autonomous vehicle interests (automakers and specialty vendors), where the program was considered for a prize. The only other entity known to be attempting implementation of this concept for traffic signals is Cologne, Germany, and their system differs substantially. So the County is a national leader in this application of technology.

<https://www.youtube.com/watch?v=IKICUgPKje8&feature=youtu.be>



SMART Signal
Technologies

Repurposing Tires for Weed Abatement Stretches County Dollars

Another interesting and important sustainability initiative came out of the R&A Maintenance Division. They have been asked to do more with higher cost materials and falling revenues, which result in staffing reductions through attrition. The only way to accomplish that is to be very good at grants or in some other way do something for no cost. A constant source of complaint from neighborhoods is the seasonal weeds that grow so quickly while Maintenance responds methodically with all available resources including inmate labor. But without using the herbicides that were previously used, the weeds simply grow faster than the department can respond.

To solve this problem R&A secured a state grant for replacement of soil medians on Lawrence Expressway with ground scrap tires, repurposing material that would otherwise be in landfill. The weed abatement project diverted 56,667 tires away

from the landfills by using these shredded tires in the weed abatement project. This has proven to be very effective at abating weeds and extremely cost effective given limited staff.

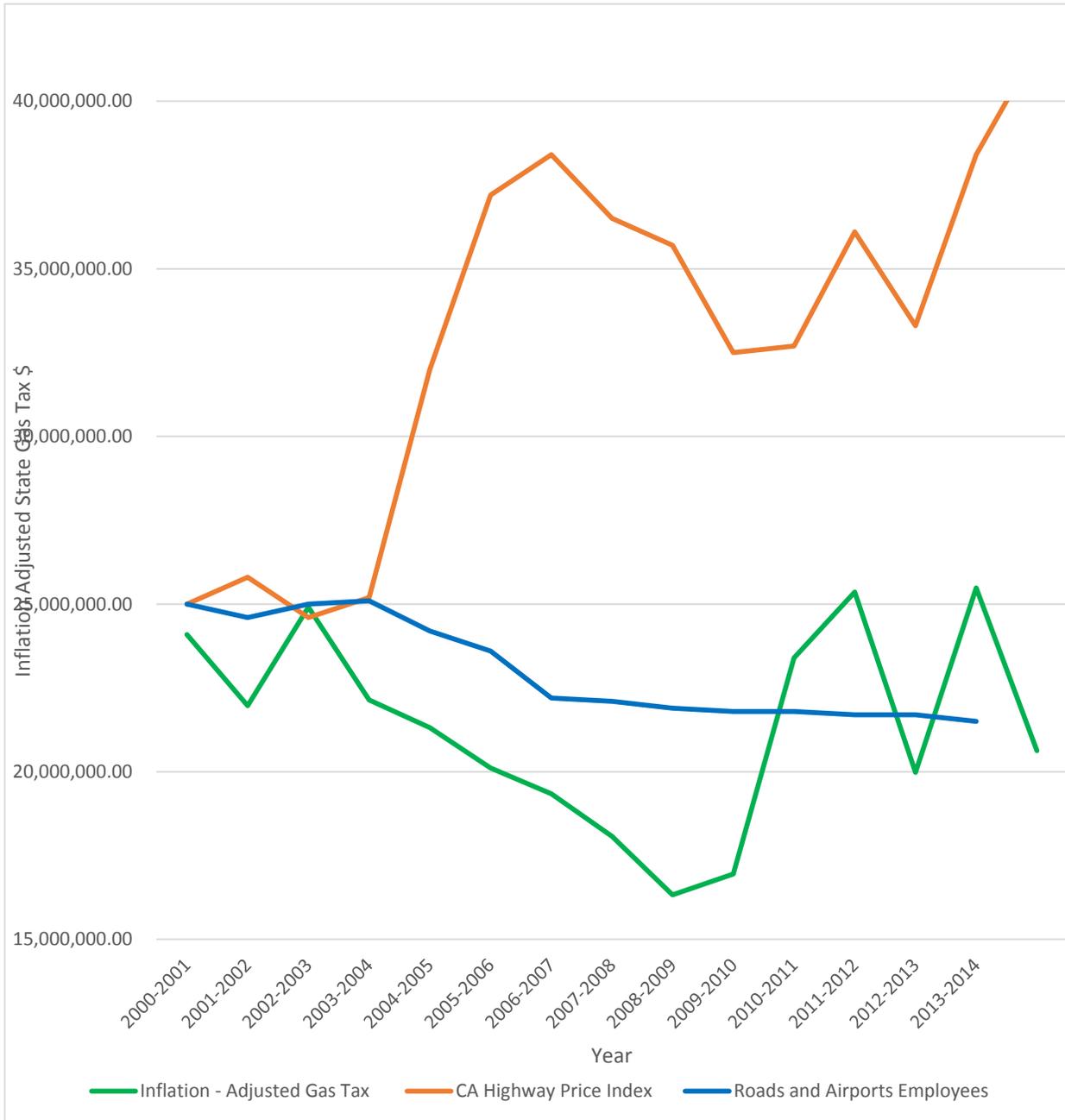


Using Drought Tolerant Landscaping

As part of its sustainability initiative, R&A also converted approximately 29,000 SF of normal irrigated lawn at the East Maintenance Yard to drought tolerant landscaping and drip irrigation. It was mostly funded by a grant from the Santa Clara Valley Water District. This lawn conversion reduces the water consumption significantly, up to an estimated 80%.



CA Highway **Price Index Up** - Inflation Adjusted State **Gas Tax Flat** - Roads Department **Employees Down**



Asset and Economic Development



Fostering Small Businesses

The County's Office of Asset and Economic Development (AED) partnered with the Small Business Administration's Small Business Development Center (SBDC) and the Enterprise Foundation/Hispanic Chamber of Commerce of Silicon Valley (HCCSV) to implement a new technical assistance program with the goal of sustaining existing small businesses, creating new small businesses, and promoting economic justice and opportunity throughout the County. The County provides a match to the funding that SBDC receives from the Small Business Administration in addition to collaborative planning and oversight. This effort created additional business loans to Hispanic and underserved commerce sectors, increased sector sales, maintained existing jobs, and stimulated the creation or retention of over 420 jobs.

During Calendar year 2014, \$11.7 in loans were given out, resulting in 39 new business starts, 301 new jobs, 126 jobs retained, and a \$14.2M increase in business sales.



Small Business Loans Yield

- *39 new businesses*
- *301 new jobs*
- *126 jobs retained*
- *\$14.2M increased sales*

Healthy Corner Stores Initiative

Expanding upon this collaborative effort to help small businesses thrive, during 2014, with \$400,000 funding from the Health Trust, the program implemented the first year of a two year program to support transformation of corner stores in low-income neighborhoods, matching enhanced economic opportunity with health equity in access to healthy foods.

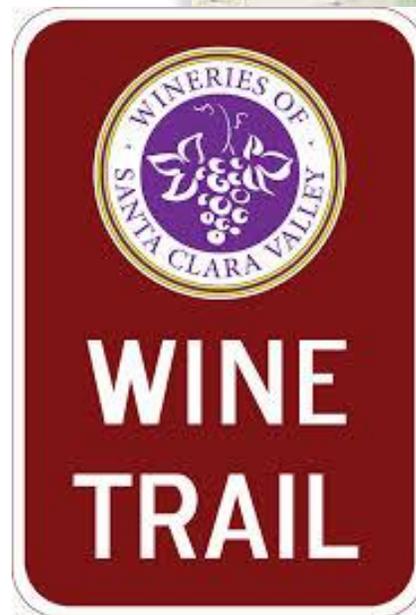
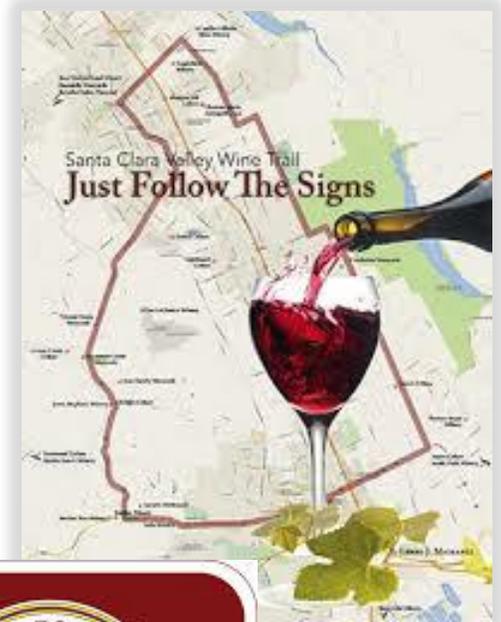
The Healthy Corner Stores Initiative is working with operators of 40 small stores in the city of San Jose to undertake a “healthy makeover” involving such initiatives as offering new healthy products, changing product placement, employing new retail marketing strategies, changing equipment, and converting the physical space to increase the purchasing of more affordable healthy food. Working Partnerships USA is also involved to encourage community support of the program and to foster loyalty for the participating stores.



Santa Clara County Wine Trail

In 2014, the County completed the first phase of its Wine Trail by the creation of a 29 mile Wine Trail in San Martin, Morgan Hill and Gilroy in order to market and enhance viability of south County wineries. 35 signs were placed within these three cities and unincorporated county areas to mark the way to the wineries. AED took the lead in coordinating the collaborative effort with the County Roads and Airports Department, Santa Clara Valley Winery Association, the Association of Santa Cruz Mountain Wine Growers, and the cities of Gilroy, Morgan Hill and Saratoga. In Fall of 2014, AED initiated planning with the City of Saratoga for extension of the Wine Trail into the Cupertino/Saratoga /Los Gatos area.

Enhanced marketing and awareness of local winery opportunities will improve stability of the local economy and tend to supplant / reduce automobile travel to other more distant wine tourist destinations. Wineries anecdotally report significant increases in sales since the Wine Trail was established.



Government Center Master Plan

During 2014 the County completed a significant phase of its master planning for a new Government Center that will incorporate green building standards in its design with the goal of receiving a Leadership in Energy and Environmental Design (LEED) designation. In April 2014, the County entered into a Predevelopment Facilities Agreement with Lowe Enterprises, and in September 2014, the Board of Supervisors indicated support for planning for 1.15 million square feet of existing and new public buildings. Negotiation of a proposed Master Development Agreement with Lowe enterprises is underway.



During the next phase of the planning process, an Energy Efficiency Strategy will be developed, focusing on demand reduction, passive strategies, progressive active strategies, district level energy systems, energy recovery and renewable energy. The strategy will include assessments of the optimal consumption balance of electrical and other demands, building massing and orientation, micro-climate impacts, and options for on-site energy generation to off-set carbon emissions.

A Water Strategy will also be developed to determine how optimally to address water supply, waste water and storm water. The strategy will include demand reduction and renewable water supply, use of potable and alternative non-potable supply, treatment options for waste water onsite or offsite and potential for reuse of wastewater, and managing and treating storm water run-off to minimize adverse water quality impacts on-site and downstream. The strategies will all be in compliance with Water Resources Control Board requirements.

Procurement



Replacement of Expanded Polystyrene (Styrofoam) Food Service Ware

Following a research and development partnership with the Office of Sustainability, the Procurement Office executed an agreement that fulfilled the Board's environmental standard to remove expanded polystyrene (EPS), commonly referred to as styrofoam, from the use and waste stream of its food serviceware procurement and operations. EPS persists in landfills, represents a tangible share of roadside and open space litter, and has been connected with adverse health impacts not only to fish, birds and wildlife, but potentially to workers employed in its manufacture.

A prior effort was abandoned for failing to 1) replace all EPS food service-ware products used by the County's principal end-users: the Department of Corrections, Department of Probation, and the Valley Medical Center Complex; and 2) to meet the County's standards for balancing fiscal impacts and environmental objectives.

Procurement's partnership with the Office of Sustainability resulted in a proposal that replaced EPS food service-ware with either recyclable or compostable substitutes that met functional criteria standards and a cost impact roughly 20% of projected increases under the initial investigation.

Environmentally-Sound Procurement of WashWare Products

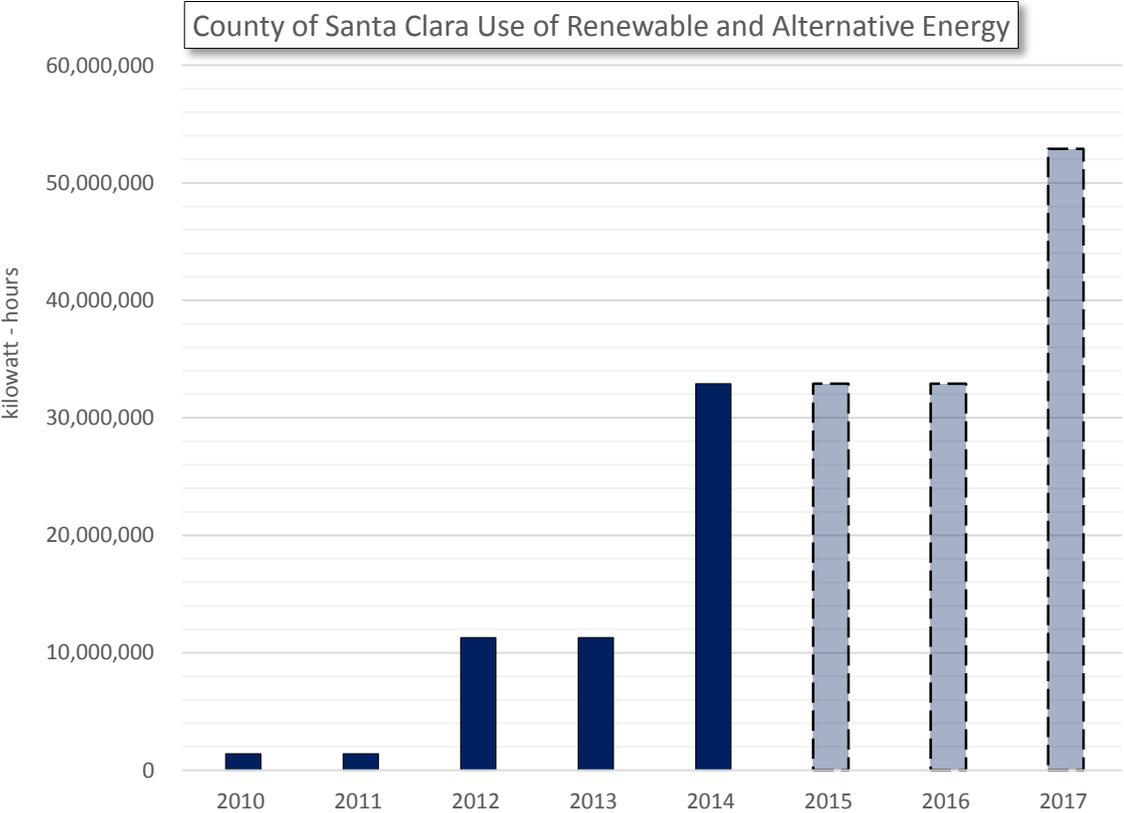
In 2014, Procurement launched a second partnership with the Office of Sustainability to design and execute a competitive process for promoting the use of environmentally-friendly food washware products (products used to clean and treat any and all surfaces that come into contact with food, food service, and food disposal, such as containers, counters, and food preparation and disposal areas). The team assembled an Evaluation Committee comprised of representatives from principal end-users (once again, the Department of Corrections, the Department of Probation, and the Valley Medical Center Complex), resulting in a recommendation that once again matches environmental objectives with cost-effectiveness. Procurement anticipates moving forward with an agreement in Summer 2015.

Facilities and Fleet - Cost-Effective Energy Innovation

Renewable and Alternative Energy Use

Overview

Between 2010 and 2014, the County of Santa Clara has increased its use of renewable and alternative energy from 1.4 million kilowatt-hours (kWh) per year in 2010 to 32.9 million kWh per year, or 27% of the County’s total energy consumption, in 2014. From 2012 – 2014, the period when the majority of the renewable / alternative energy systems became operational, they have provided the County approximately \$3 million in net utility cost savings. Additionally, the County has 11.4 megawatts-dc (MW-dc) of solar photovoltaic systems scheduled to be constructed and operational by the end of 2016.



Below are more detailed accounts of the County's various renewable and alternative energy generation projects.

Phase 1 Solar Project - 2012

Under the Phase 1 Solar Project, in 2012 the County installed eight (8) solar photovoltaic systems on the rooftops and parking lots of some of its largest facilities including Elmwood Jail, Berger Service Center, the County's Civic Center and several large office and health clinics. The County funded the four (4) largest systems using Qualified Energy Conservation Bonds and the rest under third-party financed, power purchase agreements (PPAs). In total, the eight (8) systems have a capacity of 5.7 MW-dc and generate approximately 10 million kWh of renewable energy per year. The County's Phase 1 Solar Project is estimated to provide the County \$26 million in net utility cost savings over the solar systems' 20 and 25 year lifetimes.

The County's Phase 1 Solar Project was part of a larger, regional, collaborative procurement of 14 MWs of solar energy that was led by the County, and which involved eight (8) other South Bay public agencies. For its innovation in renewable energy procurement, the County received multiple awards for its Phase 1 Solar Project including an Association of Bay Area Governments 2013 Growing



Smarter Together Award (<http://abag.ca.gov/smarter/2013/smarter13.html>) and an Environmental Protection Agency (EPA) 2013 Green Power Partner Award for on-site renewable energy generation (<http://www.epa.gov/greenpower/awards/winners2013.htm#santaclara>).

Fuel Cell Project – 2014

Fuel cells are distributed generation technologies that produce energy through an electro-chemical, combustion-free process. In 2014, the County installed four (4) fuel cells at some of its largest facilities including two jails, its Civic Center and a large office / service center. In total, the four (4) systems have a capacity of 2.6 MW-dc and generate approximately 21.6 million kWh of electricity per year. Over their 20 year lifetimes, the fuel cell systems are expected to provide the County \$8 million in net utility cost savings.



Figure 2: One megawatt fuel cell installation at Elmwood Jail.

Phase 2 Solar Project –2016

Under the Phase 2 Solar Project, the County will be installing six (6) solar photovoltaic systems at some of its underutilized spaces including a closed landfill, two airports, a highway frontage property and two undeveloped parcels. The Phase 2 Solar Project systems will have a capacity of 11.4 MW-dc and generate an estimated 20 million kWh of renewable energy per year. The systems are expected to be constructed and operational towards the end of 2016. When the Phase 2 Project is complete, the County of Santa Clara will receive approximately 44% of its energy from on-site renewable and alternative energy sources and will be ranked by the EPA as one of the top organizations nationally for on-site renewable energy generation, comparable to companies such as Coca Cola and SC Johnson (<http://www.epa.gov/greenpower/toplists/top30onsite.htm>). The County's Phase 2 Solar Project is anticipated to provide the County \$55 million in net utility cost savings over its 25 year lifetime.

Energy Efficiency

LED Lighting and Lighting Controls Project - 2014

In 2014 the County retrofitted seven (7) of its largest facilities with LED lighting and lighting controls - devices which automate lighting to avoid unnecessary usage. The facilities retrofitted include two correctional facilities, the County's crime lab and four (4) office / service center facilities, which together represent over one (1) million square footage of facility space. The lighting and controls retrofits are anticipated to provide the County with 28 million kWh in energy savings and \$2.8 in net utility cost savings over the Project's 14 year lifetime.

Battery Storage Project – 2015

A trend in electricity costs in recent years has been rapidly increasing demand charge rates charged by utility companies. Demand charges rates are rates applied to the highest 15-minute average electricity usage recorded at an account within a given month. At many County facilities, demand charges make up over a 1/3 of a facility's total electricity costs. To mitigate these charges, in 2015 the County installed 54 kilowatt (kW) intelligent battery systems at three (3) of its facilities. The systems utilize predictive software to anticipate when demand charges will occur at a facility and disperse the battery's energy into the facility at such time. The intelligent battery storage systems are anticipated to provide the County with \$190,000 in net demand charge savings over the 10 year Project lifetime.

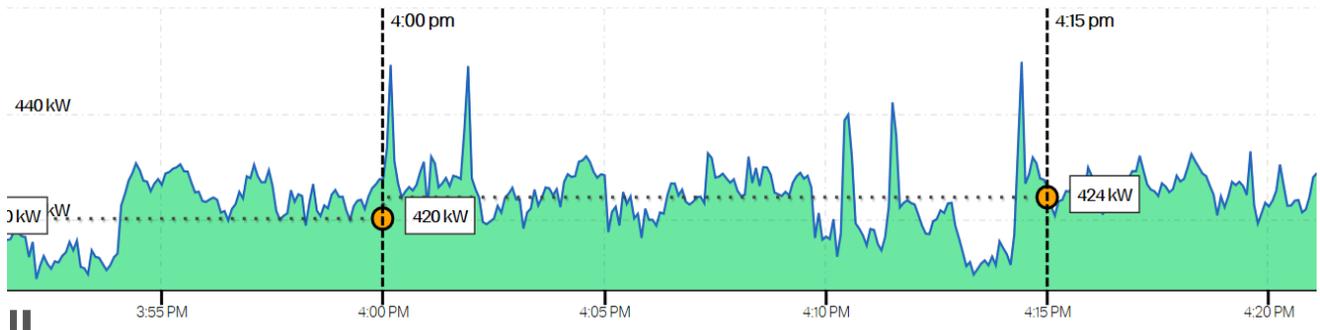


Figure 3: Snapshot of real time monitoring of facility energy usage by intelligent battery storage system.

Comprehensive Energy Efficiency Retrofit at Civic Center – 2016

In 2016 the County will be implementing comprehensive energy efficiency measures at its 400,000 square foot, Civic Center facility. Measures will include:

Plug Load: replacement/consolidation of individual appliances such as under-desk refrigerators, and personal microwaves and coffee pots. Appliances will be replaced with energy efficiency devices.

Lighting: replacement of lighting fixtures and the installation of lighting controls. The lighting fixture retrofits will include a combination of LED and more efficient fluorescent fixtures.

HVAC: repairs, retrofits, and the implementation of efficiency measures such as variable frequency drive installations and persistent optimization controls.

When complete, the efficiency measures will reduce the Civic Center's energy usage by 3 million kWh per year and provide net utility cost savings of \$5 million over the 15 year lifetime of the Project. This Project is a part of a larger effort to convert the Civic Center to a facility that operates 100% on renewable energy. A one (1) MW-dc solar photovoltaic system and 400 kW fuel cell are also currently providing energy to the Civic Center.



Acknowledgements

Board of Supervisors

District 1 Supervisor Mike Wasserman

District 2 Supervisor Cindy Chavez

District 3 Supervisor Dave Cortese

District 4 Supervisor Ken Yeager

District 5 Supervisor Joe Simitian

County Executive Office

County Executive Jeffrey V. Smith

Deputy County Executive Sylvia Gallegos

Offices and Departments

Agriculture and Environmental Management Lisa Rose, Rob D'Arcy, Jim Blamey, Amy Brown

Asset and Economic Development Glen Williams, Bruce Knopf

County Executive Office Kyle Larson

Fleet and Facilities Joanne Yee, Dennis Brooks, Brad Vance, Lin Ortega, David Snow

Integrated Pest Management Naresh Duggal

Office of Sustainability Daniel Degu, Juan Romero, Natalie DeLeon, Sharlene Carlson

Office of Women's Policy Esther Peralez-Dieckmann

Parks Tamara Clark-Shear, Melissa Hippard, Janet Hawks, Rob Courtney

Planning and Development Rob Eastwood

Procurement David Noreiga, May Garcia, Caroline Kho, Carolyn Ferrari, Jenti Vandertuig

Public Health Department Susan Stuart, Aimee Reedy

Reentry Services Javier Aguirre, Buu Thai

Roads and Airports Dawn Cameron, Daniel Collen

Social Services Administration Denise Boland, Rafaela Perez

**2014 ANNUAL SUSTAINABILITY REPORT
ATTACHMENT 2
PROPOSED 2015-16 WORK PLAN**



Sustainability Sector	Proposed Activity	Time Frame	Policy Alignment	2013 Purpose/Application	Resources
Energy Efficiency/Renewables	Bay Regional Energy Network Single Family EUC Program	CPUC Extension through 2015 of the 2013-2014 Energy Efficiency Cycle CPUC Proposed Decision on 2016 extension expected Fall 2015	Environmental / Economic	<ul style="list-style-type: none"> • Extension of Energy Upgrade California Community Energy Programs • Features Basic Path (moderate income) Program redesigned by the IOUs and RENs for 2013-2014 Cycle • Advanced Path Retrofit Program for deeper energy savings • REN-driven workforce component targeted at specialty contractors (e.g., HVAC contractors) • Stimulation of local economy • Consequential reduction of greenhouse gas emissions 	<ul style="list-style-type: none"> ▪ Grant Funded
	Bay Regional Energy Network Multifamily EUC Program	CPUC Extension through 2015 of the 2013-2014 Energy Efficiency Cycle CPUC Proposed Decision on 2016 extension expected Fall 2015	Environmental / Economic	<ul style="list-style-type: none"> • Extension of Energy Upgrade California Community Energy Programs • Multifamily Program structured to serve middle-income residents (includes incentives and a credit enhancement element to facilitate projects) • Program structured to serve building owners and tenants to remedy the “split-incentive” barrier 	<ul style="list-style-type: none"> ▪ Grant Funded
	Bay Regional Energy Network Codes & Standards Program	Extended through 2015. CPUC Proposed Decision on 2016 extension expected Fall 2015	Environmental / Economic / Social	<ul style="list-style-type: none"> • Provides funding, consultants and resources for convening jurisdictions for uniform adoption of energy efficiency codes. • Can also support development of Electric Vehicle infrastructure codes 	<ul style="list-style-type: none"> ▪ Grant Funded
	Bay Regional Energy Network EE Financing Program	Extended through 2015. CPUC Proposed Decision on 2016 extension expected Fall 2015	Environmental / Economic / Social	<ul style="list-style-type: none"> • The CPUC reserved a \$3.65 million Single Family Loan Loss Reserve Fund (credit enhancement to lenders) • The CPUC reserved a \$2 million Capital Advance Fund as an incentive to building owners & tenants, and as a credit enhancement to incent lenders to participate • The Financing Program includes implementation and ME&O funds to support the BayREN Commercial PACE Program • Includes a Water-Energy Nexus Subprogram (Pay-As-You-Save, or PAYS), to underwrite pilots with Water Districts 	<ul style="list-style-type: none"> ▪ No expectation of additional resources needed ▪ Fully Grant Funded ▪ Funding includes Management & Implementation fees to Office of Sustainability to serve as regional



					Financing Program Manager
Energy Efficiency/Renewables	EFLIC – Energy Financing Line Item Charge (On-Bill) Repayment Pilot for low-to-moderate income households	2016-2017	Environmental / Economic / Equity	Partnered with PG&E, Union Bank, and the Center for Sustainable Energy as one of 3 pilots statewide. Unique program designed for an underserved community market, to support energy and cost savings.	Funded under CPUC Energy Efficiency Portfolio
	PG&E Partnership	2015-2016	Environmental / Economic	Ongoing partnership with PG&E for special projects. At present, the current scope is to create case studies for multiple markets, and to support outreach to regional municipalities.	Funded under CPUC Energy Efficiency Portfolio
	Community Choice Aggregation – Silicon Valley Community Choice Energy Partnership	2015-2016	Environmental / Economic / Equity	Supports community choice, increased renewable energy mix, opportunity to submit countywide energy efficiency application to CPUC, economic stimulus and clean-energy job creation, and attainment of GHG reductions goals	Budget Work Plan as previously provided
Transportation	Driving to Net Zero: Decarbonizing Transportation in Silicon Valley	2015-2017 Project	Environmental / Economic / Social	Includes regional feasibility study, siting plan, facilitation for regional ordinance development, staff training, marketing, and GHG emissions savings projections	Strategic Growth Council match, with ancillary match (already budgeted)
Smart Growth – Sustainability and Adaptation Planning	Silicon Valley 2.0 Phase 2 Potential implementation of “no-regrets” strategies	Ongoing; explore grant opportunities	Environmental / Economic / Social	Project meets multiple Board sustainability policies and Board directives on role and objectives of the Office. Project deliverable is model Sustainability & Adaptation Plan, with supporting metrics.	No expectation of additional resources – but all subject to grant award(s)
Climate Action Planning	Update County Government Operations Climate Action Plan	2015-2016	Environmental / Economic / Social	Based upon the County’s updated greenhouse gas inventory, completed by the office in 2014, initial cross-departmental convening has occurred, and a master list of potential sector-specific strategies and measures has been created to form the basis of the next round of internal stakeholders meetings. The updated CAP will reflect regulatory, technology, and operational changes since development of the original CAP in 2009.	No present expectation of additional resources.
Sustainability Outreach (internal and community)	Website redevelopment, social media, special events, internal outreach, create OOS public listserve, expand website to include resources that cross over multiple sectors, e.g., water, climate, transportation, case studies, etc.	Early launch September 2015, ongoing development	Environmental / Economic / Social	To meet community and internal information, resource, and cross-communication needs	No expectation of additional resources needed



Water Conservation and Resources Planning	Support CEO Cross-Departmental Committee for Water Conservation and Drought Mitigation Strategies	Continuing	Environmental / Economic / Social	Includes policy, programs, partnerships, assessment of emerging technologies and integrated water management systems, develop BMPs, etc.	
OTHER REPRESENTATIVE AND PROJECT ACTIVITIES	Continuing work on Boards (JVSV, SSV, BACC, and LGSEC); and on Advisory and Task Force Groups (Urban Sustainability Directors Network) for project and policy development	Throughout calendar year	Environmental / Economic / Social	These alliances serve the Board's directive for County representation and participation at the regional, state and national level. They also provide abundant resources in the form of shared pilots, studies, data and best management practices. These groups also provide information regarding, or a direct venue for, alternative funding.	No expectation of additional resources needed
	Green Procurement Potential to expand partnership with the Office of Procurement related to updating environmental stewardship in across product categories	2015-2016	Environmental / Economic / Social	Meets the Board's objectives to increase performance of goods and services, in balance with environmental and economic sustainability standards.	No expectation of additional resources needed.