



County of Santa Cruz

Planning Department

701 Ocean Street, 4th Floor, Santa Cruz, CA 95060
Phone:(831) 454-2580 Fax:(831) 454-2131 TDD: (831) 454-2123
Kathleen Molloy Previsich, Planning Director

Meeting Date: April 18, 2017
Date: March 29, 2017
To: The Board of Supervisors
From: Kathy Previsich, Planning Director
Subject: Climate Action Strategy Annual Report

On February 26, 2013 your Board adopted a resolution approving the Climate Action Strategy (CAS). Your Board also directed the Planning Department to oversee implementation of the CAS and to report on implementation of the CAS in April of each year. This effort is led by the Sustainability and Special Projects division of the Planning Department under the direction of the County's Sustainability Manager, and involves a team approach to coordinating inter-departmental activities associated with implementing the Climate Action Strategy (CAS) and other sustainability initiatives.

On April 19, 2016 your Board accepted the 2016 annual report on implementation of the Climate Action Strategy, and directed staff to take steps to publicize the contents of the report more widely in the community, including placing this report on your Boards regular agenda. Following presentation of this report to your Board staff will work with the County Public Information Officer to promote the report.

As staff to the Commission on the Environment (COE), the Planning Department presented the annual report to the COE at their meeting on March 22, 2017, and the COE accepted the report. The Commission recommended that, in the future, this report include information on next steps and priority initiatives to pursue. Staff will work with the COE to evaluate and prioritize actions from among those included in the CAS.

Interdepartmental Climate Action Planning

To assist the County to achieve the adopted emissions reduction targets of 80 percent below 1990 levels by 2050, an implementation plan was included in the CAS. The plan facilitates periodic evaluation of the activities that are being relied upon to reduce greenhouse gas emissions and prepare for the impacts of climate change. The Planning Department oversees implementation of the strategy to ensure that all departments are part of the implementation process and that the effort is coordinated across our various areas of expertise and function. Representatives from Planning, Public Works, General Services, the Health Services Agency (including Environmental Health Services) and the Agricultural Commissioner (also representing University of California Cooperative Extension) participate in this effort coordinated by staff in the Sustainability and Special Projects section of the Planning Department.

This year, in addition to compiling information on the activities of the departments that implement the CAS, resources were focused on periodic evaluation of greenhouse gas emissions in the community. Your Board may recall last year's report included an evaluation of greenhouse gas emissions from major county facilities. Last year's updated emissions inventory for major county facilities showed measurable reductions in energy use and related emissions reductions, and this year's update of the community emissions inventory also shows measurable reductions in both energy use and emissions (Attachment 1).

Annual Progress Report

The CAS lists a number of specific actions to implement each emissions reduction strategy, and a set of possible adaptation actions, or strategies, for each of the climate change vulnerabilities and impacts that have been recognized and evaluated. In addition to the updated greenhouse gas emissions inventory, this report highlights actions by the County and the community that are facilitating the observed emissions reductions. A list of highlighted actions of each Department to reduce emissions and prepare for climate change is provided below and further described in Attachment 2. While many of the programs and projects were not conceived specifically to implement the CAS, they address various aspects of emissions reduction and climate change adaptation and are included in the CAS.

Highlights

Energy Efficiency and Renewable Energy

- The County has continued to lead a grant-funded, regional collaboration to study Community Choice Energy (CCE) for the Monterey Bay Area to reduce the use of fossil fuels to generate electricity. The Monterey Bay Community Power Authority has been formally established. (Board of Supervisors, County Administrative Office, General Services, Planning, County Counsel, Economic Development)
- The Planning Department in 2016 led the effort to adopt the State building code (CalGreen) on the regular code adoption cycle (effective January 1, 2017). (Planning)
- Since June 2015 the General Services Department has served as the lead agency in the Monterey Bay Region Solar Collaborative Procurement Initiative and the Sustainable Energy and Economic Development Fund Program (Seed Fund) to establish solar power at County facilities. Contract negotiations are in process for installation at seven County sites (Government Center, the Emeline campus, Simpkins Swim Center, Brommer Yard, Animal Services, Center for Public Safety and the Men's Detention Center). (General Services, Public Works)
- The County continues to certify green businesses, including the County itself, as part of the Green Business Program. (Public Works)
- Continued production of electricity with captured landfill gas, and improvements to gas capture systems. (Public Works)
- Continued support of environmental education programs in local schools (Green Schools Program). (Public Works)
- GSD implement energy efficiency measures at major County facilities including Emeline buildings, the main jail and Juvenile Hall, and the Government Center (General Services)
- Evaluation of purchasing policy and practices continued in an effort to update "green" preferences and monitor the new accounting system to verify efficiencies.

- The County continues to implement water conservation programs requiring installation of water conservation devices at time of property transfer and prohibiting wasteful water use, and facilitating greywater and rain catchment systems. (Environmental Health)
- Increased efficiencies using various techniques to reduce the use of petroleum-based mosquitocides and reduce fuel use in surveillance, applications, and other department practices (Agricultural Commissioner)
- Designed and launched a job training program to prepare veterans and at-risk youth to be employed in positions related to energy efficiency. (Workforce Development Board)

Transportation

- Over the next two years, the County will continue working to implement the Sustainable Santa Cruz County land use and transportation plan as part of an overall Sustainability Policy and Regulatory Update. (Planning)
- In 2015 the Office of Economic Development was created within the County Administrative Office. The creation of local jobs will reduce vehicle miles traveled to out of county job centers. (Economic Development)
- The Boulder Creek elementary school Safe routes to School project was implemented. Submitted grant applications totally \$9 million for Safe Routes to School projects at 7 schools throughout the County. (Public Works)
- Continued promotion of alternative commuting by bicycle, bus, and vanpool. (General Services)
- The Community Traffic Safety Coalition continues to receive grant funding from the RTC and other sources to carry out programs to improve pedestrian and bicycle traffic safety and encourage walking and riding. (Health Services Agency)
- Installed an additional electric vehicle charging station at the Government Center to serve newly purchased electric vehicles, continued seeking grant opportunities and purchasing low and zero emissions vehicles for the County fleet. (General Services)

Solid Waste

- The County has met its 75% waste reduction goal and continues to be a leader in recycling and the reduction in the amount of waste being disposed, as well as spearheading efforts to minimize upstream impacts on materials through sustainable manufacturing and consumerism. In 2016 the Board of Supervisors adopted the Zero Waste Plan to serve as a guide for future efforts. (Public Works)

Adaptation

- Continued efforts to update General Plan Safety Element policies and related ordinances to address a range of planning issues related to sea level rise, including participation in a grant-funded project studying sea level rise vulnerability in the Monterey Bay. (Planning)
- Continued to work with the U.S. Army Corps of Engineers, County of Monterey, and City of Watsonville to develop a feasible flood control alternative for the Pajaro River. (Public Works)
- Continued to work on drainage improvements in Rio Del Mar Esplanade with a grant in the amount of nearly \$1 million. (Public Works)
- Continued County efforts to provide a comprehensive and integrated approach to countywide water resources management at the local level. (Environmental Health)

- Continued activities involved with prevention, preparation, and response to fire emergencies, with emphasis on prevention measures in light of increased fire risk due to climate change. (Fire Agencies)
- Continued coordination with area fire chiefs to assure that staffing, training, exercise, planning and equipment needs are addressed. (Office of Emergency Services)
- Operated the County Emergency Operations Center during emergency events. (Office of Emergency Services)
- Continued outreach and education to assist growers to adapt to climate change. (University of California Cooperative Extension)

Emissions Reduction

Monitoring changes in emissions is a way of tracking the County's overall progress toward meeting the greenhouse gas reduction goals for 2020, 2035, and 2050. The strategy tables in Chapter 3 of the CAS and the Monitoring Program summarized in Table 4-2 show the performance indicators for each strategy. Last year staff completed a partial update of the municipal emissions inventory covering major County facilities. This year staff completed a partial update of the community emission inventory involving residential and commercial energy use in the unincorporated area of the County. The updated emissions inventories for major county facilities and residential and commercial energy use all show reductions in energy use and related emissions.

The community emissions inventory update calculates the amount of carbon dioxide (CO₂) produced as a result of electricity and natural gas use in homes and businesses in the community. Using data obtained from PG&E through the Association of Monterey Bay Area Governments Energy Watch Program on electricity and natural gas usage in 2005, 2009, and 2015 (latest available data set), and applying emissions factors that vary from year to year for electricity but remain constant for natural gas, the overall emissions are calculated for each year (Attachment 1). This update includes all homes and businesses in the unincorporated County area that are PG&E customers. The results show that overall community emissions have decreased by 18 percent in 2015 compared to the baseline year of 2005. This rate of reduction exceeds the rate that will be needed in the energy sector to meet the 2035 emissions reduction goals in the CAS.

The primary reasons for emissions reduction in the community are a reduction in energy use and the assumption that electrical energy supplied in 2015 was less carbon intensive compared to previous years. The reduction in customer consumption of both electricity and natural gas can be attributed to energy conservation and energy efficiency as a result of regulatory and non-regulatory programs, individual actions, and environmental factors such as water conservation during drought and reductions in natural gas use for building space heating during warmer climate conditions. Programs such as weatherization programs for low income households, appliance energy efficiency standards, public awareness, building standards, and AMBAG Energy Watch programs, are achieving the desired result of reduced and more efficient use of energy.

For comparison, 2015 emissions were also calculated using the emissions factor that would be expected if the Monterey Bay Community Power CCE was in place and generating power, rather than PGE. The calculation shows a 45 percent reduction in emissions from electricity consumption compared to 2005, and 28 percent reduction in overall emissions (Attachment 1).

Adaptation

The Climate Action Strategy presents a set of possible adaptation actions, or strategies, for each of the vulnerabilities and impacts that were recognized and evaluated. The strategies include a broad range of approaches for protecting people, infrastructure, and natural resources. While adapting to climate change presents significant challenges, the County is taking a number of steps to meet the challenge as highlight above and described in detail in the attachment.

The County of Santa Cruz also developed a Local Hazard Mitigation Plan (LHMP) to create a safer community. The LHMP represents the County's commitment to reduce risks from natural and other hazards, and serves as a guide for decision-makers as they commit resources to reducing the effects of potential hazards. Many of the adaptation strategies outlined in the CAS reference strategies already included in the approved LHMP. In addition, the County recently updated the LHMP and included many additional adaptation strategies from the CAS.

Next Steps

This report highlights many actions by County Departments that are resulting in emissions reduction and intended to improve quality of life. Actions such as County facilities energy efficiency projects, pursuing solar power on County facilities, and transportation and land use planning initiatives are ongoing, multi-year efforts. A major effort to establish a CCE program in the tri-county area is entering a new phase in which County staff will continue to support and build the new organization until it is self-supporting. In addition, staff will continue to work with the COE to evaluate and prioritize additional actions from among those in the CAS that could be pursued in the future. The analysis in the CAS indicates that a time of sale energy efficiency ordinance, similar to the existing time of sale water conservation ordinance, would reduce emissions, for example. Staff will also continue planning for sea level rise impacts along the coast by continuing to work on an update of the General Plan Safety Element.

Conclusion

To implement the CAS, the Planning Department collaborates with other County departments to ensure that the effort is coordinated across our various areas of expertise and function. The annual report demonstrates that the County is engaged in a wide variety of activities by many County departments that are addressing the issues of greenhouse gas emissions reduction and preparation for the anticipated impacts of climate change. Periodic evaluation of greenhouse gas emissions shows these efforts are resulting in measurable emissions reductions at major County facilities. Community-wide emissions reductions indicate that energy conservation and energy efficiency as a result of regulatory and non-regulatory programs and individual actions are achieving the desired result.

It is therefore **RECOMMENDED** that your Board accept and file the Annual Climate Action Strategy Report.

Submitted by:


Kathy Previsich, Planning Director 4/13/2017

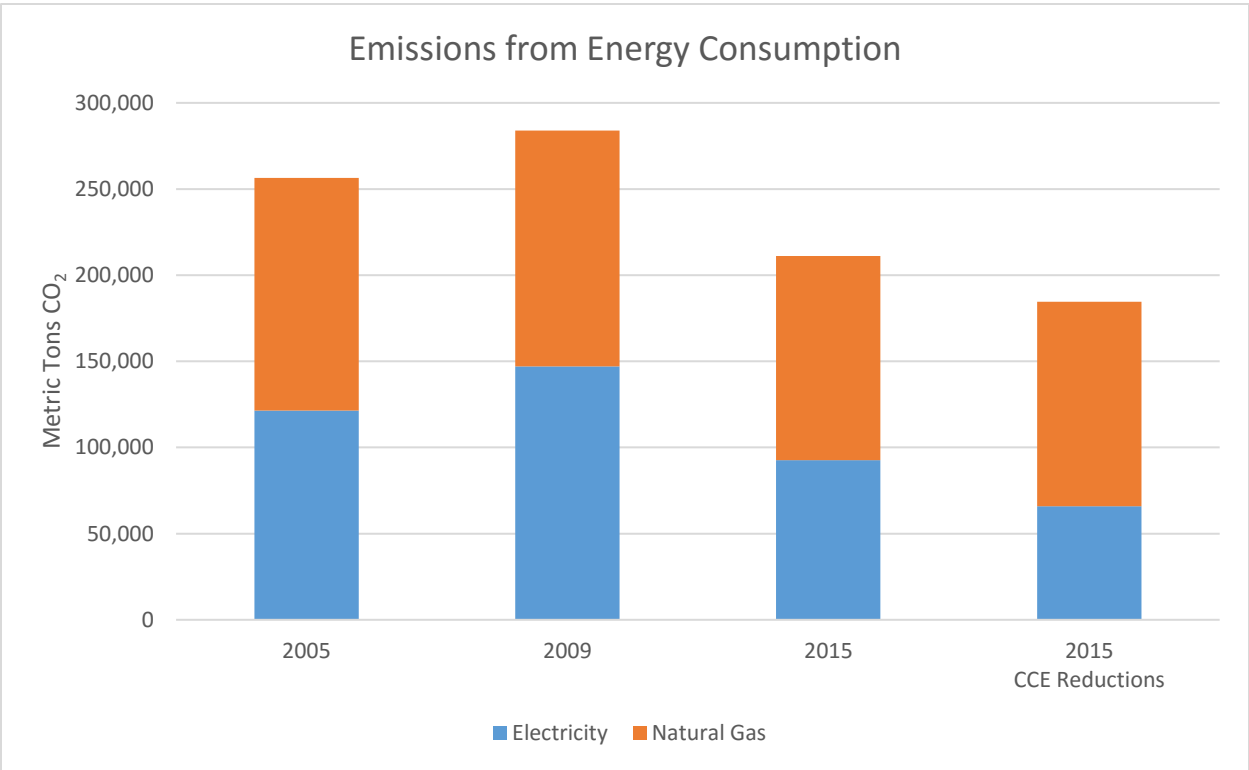
Recommended:

Carlos J. Palacios, Assistant County Administrative Officer

Attachments:

Community Emissions Inventory

Highlights of Emissions Reduction and Climate Change Adaptation Actions



Inventory	2005	2009	2015	2015 CCE Reductions	Percent Change 2005-2015	Percent Change CCE Reductions 2005-2015
Natural Gas	135,010	136,777	118,530	118,530	-12.21%	-12.21%
Electricity	121,486	147,128	92,701	65,991	-23.69%	-45.68%
Emissions (MT CO ₂)	256,495	283,906	211,232	184,521	-17.65%	-28.06%

Highlights of Emissions Reduction and Climate Change Adaptation Actions

Energy Efficiency and Renewable Energy

- The County has continued to lead a regional collaboration to study Community Choice Aggregation for the Monterey Bay Area to reduce the use of fossil fuels to generate electricity. Using County resources, grant funding, and a volunteer team the project progressed beyond the completion of the peer reviewed technical study outreach, education, and formation activities. With leadership from the office of Supervisor McPherson and the County Administrative Office and assistance from County Counsel and Economic Development, the General Services Department, in collaboration with Planning, has successfully brought a proposed Joint Powers Agreement to every jurisdiction in the tri-county area of Santa Cruz, Monterey, and San Benito Counties. Nearly all jurisdictions have approved the agreement and it is expected that all 21 jurisdiction will approved it. The Monterey Bay Community Power Authority has been established. (Board of Supervisors, County Administrative Office, General Services, Planning, County Counsel, Economic Development)
- The Planning Department in 2016 led the effort to adopt the State Building Code (CalGreen) on the regular code adoption cycle (effective January 1, 2017), and adopt local amendments that exceed State standards for energy efficiency and renewable energy. (Planning)
- Since June 2015 the General Services Department has participated in the Monterey Bay Region Solar Collaborative Procurement Initiative and the Sustainable Energy and Economic Development Fund Program (Seed Fund) for solar assessments to determine potential locations for solar power at County facilities. On March 8, 2016 the County of Santa Cruz was selected to serve as the Lead Agency and on August 16, 2016 General Services issued the Request for Proposal for solar photovoltaic projects. The proposals, which included design, procurement of materials, permitting, installation, and all associated maintenance and warranties of the systems were submitted November 10, 2016. Six proposals for Santa Cruz County sites were received. The vendor selection committee reviewed the proposals and vendor interviews were held on December 15, 2016. After selecting the top candidates, a meeting of County Counsel, County Administrative Office and Auditor's Office Staff was held to offer input and feedback on these proposals. Based on the outcome of these deliberations a final vendor will be selected. In an effort to continue progress, Optony, Inc. submitted interconnection applications for all Santa Cruz County sites. Also, General Services has executed a Limited Site Assessment Agreement (LSAA) in the amount of \$352,374 with SunPower Corporation, Systems to move forward and perform due diligence activities which will include geotechnical investigations, topographical surveys and surveys for underground utilities on a parallel path with contract negotiations for the seven County sites (Government Center, the Emeline campus, Simpkins Swim Center, Brommer Yard, Animal Services, Center for Public Safety and the Men's Detention Center). (General Services, Public Works)
- Continue ongoing promotion, and refinement of Green Business Program collaboration. The County continues to certify green businesses. (Public Works)
- Continue to produce electricity with captured landfill gas, and make improvements to gas capture systems. (Public Works)
- In 2003, the Board of Supervisors mandated Public Works to start a County-wide Green Business Program and in 2006 the County of Santa Cruz obtained its Green Business certification status. The recertification process occurs every three years and is currently in process coordinated by the Sustainability Coordinator in Public Works. Working with liaisons in each County Department the recertification seeks to educate employees and

implement best practices to conserve energy, water, and materials, and prevent pollution and waste in County operations. (Public Works, All Departments)

- Continue to support environmental education programs in local schools (Green Schools Program) with solid waste, storm water, and sanitation program funding. In total there are approximately 75 elementary and high schools in Santa Cruz County, and 21 alternative education schools. The Green Schools program is currently reaching approximately 25 schools. (Public Works)
- 1) Installation of direct digital controls at the 1400 Emeline building allowing more energy efficient programming of the air conditioning units and the boilers; 2) Boiler plant upgrades at 1080 Emeline, the Main Jail and Juvenile Hall as well as a boiler plant upgrade at the Government Center; 3) Over the last several months General Services' staff has been working with Ecology Action and Pacific Gas & Electric to implement a lighting retrofit project at the County Government Center. This project, which would replace the current overhead lighting with energy efficient LEDs, would utilize PG&E's On-Bill Financing Program. (General Services)
- Continue to evaluate County purchasing processes and procedures in the new County accounting and procurement system to maximize "green" factors, including, but not limited to: recycled content, sustainable wood content, energy star rating, "green" custodial products, and local food preference (General Services)
- Continue to implement water conservation programs requiring installation of water conservation devices at time of property transfer and prohibiting wasteful water use, and facilitating greywater and rain catchment systems. County staff responded to reports and observations of excessive or unpermitted water use at private residences, commercial properties and agricultural operations throughout the county. Staff also performed follow-up checks to monitor the implementation of agricultural water conservation measures required as a condition of agricultural well permits. (Environmental Health)
- Reducing use of petroleum-based larvicides because of greater effectiveness and duration of biological larvicide formulations. Handheld device mapping (GIS) apps enable real-time breeding source measurements for improved efficiencies in treatments. For the planned 640 Capitola office remodel: Green building techniques will be employed (heat pump, LED lighting, renewable flooring, etc). Encouraging the permitted use of UAS technology (as a member of the Mosquito and Vector Control Association of CA) and legislation will be considered this year (AB527 Caballero) making permitted use more possible. This would increase surveillance and operations efficiency and take some guesswork out of treatments. Webinars are reducing the need to travel for continuing education requirement (Agricultural Commissioner)
- Designed and launched a job training program to prepare veterans and at-risk youth to be employed in positions related to energy efficiency utilizing a \$50,000 Proposition 39 pre-apprenticeship grant. The first phase resulted in a small group of individuals trained. The goal of the second phase of the Proposition 39 project is to bolster the economic competitiveness of the Monterey Bay region by fully implementing the energy efficiency focused job training and placement program created with the 2014 grant. (Workforce Development Board)

Transportation

- The *Sustainable Santa Cruz County* land use and transportation plan is focused on reducing transportation related emissions. The Board of Supervisor accepted the plan in October 2014, and directed staff to return to the Planning Commission and the Board during September 2015 with a proposed work program that would identify which suggestions in the Plan should be considered for further development and implementation Elements of the

SSCC Plan that have been selected for further development and implementation include new GP and Zoning designation to address modern workplace and housing needs, especially along transportation corridors, and to encourage reduction in vehicle miles traveled. These new designations will be combined with an overall update of existing codes as part of a comprehensive code modernization project. During 2017, county staff will continue working to finalize the elements of a Sustainability Policy and Regulatory Update, and to prepare an Environmental Impact Report on the package, which will include amendments/updates of the **Land Use, Circulation** and **Community Design** Elements to incorporate sustainability policies and land use designations, many as articulated in the Sustainable Santa Cruz County Plan. After completion of the EIR, the proposed changes are expected to be considered at public hearings by the Planning Commission and Board of Supervisors starting in early 2019. This project is underway and will be the subject of an EIR. (Planning)

- In 2015 the Office of Economic Development was created within the County Administrative Office and a Director and two Coordinators have been hired. The goal of the Economic Vitality Strategies, accepted by the Board of Supervisors in November 2014, is to promote local jobs and reduce commute trips and overall vehicle miles traveled. (Economic Development)
- In 2016 a contract was awarded to complete the Boulder Creek Elementary School Safe Routes to School Project. This project is funded through a Federal Safe Routes to School (SRTS) grant of \$350,000 and with Transportation Development Act (TDA) funds of \$124,900. In June of 2016 the Department of Public Works prepared seven applications which total over \$9 million dollars of Safe Routes to School projects throughout the County. The projects are located at San Lorenzo Valley Schools campus, Main Street Elementary School, Rio del Mar Elementary School, Pacific Elementary, Valencia Elementary School, St. Francis High School, and Amesti Elementary School.
- Continue to promote alternative commuting by bicycle, bus, and vanpool. Bike lockers are continually maintained and upgraded for security and weather protection. General Services works with Ecology Action to present bicycle safety information and continues to offer zero interest bike loans and emergency ride home services. General Services will investigate grant opportunities for bike lockers at other County buildings. Upgrades of the shower and changing facilities in the County Government Center are in process. Continue to provide bus passes vanpool services to County employees. (General Services)
- The CTSC continues to receive grant funding from the RTC and other sources to carry out programs to improve pedestrian and bicycle traffic safety and encourage walking and riding. (Health Services Agency)
- Installed an additional electric vehicle charging station at the Government Center to serve newly purchased electric vehicles. Continue seeking grant opportunities and purchasing low and zero emissions vehicles for the County fleet. (General Services)

Solid Waste

- In 2005 the Board established, by resolution, Zero Waste as a long-term goal for the County and set a 75 percent diversion rate by the year 2010 as a milestone toward meeting that goal. The County has met that goal and continues to be a leader in the reduction in the amount of waste being disposed as well as spearheading efforts to minimize upstream impacts on materials through sustainable manufacturing and consumerism. Outreach and education for County residents on subjects from recycling to home composting have been conducted, including materials in both English and Spanish. Green Building, Green Business and Green Schools Programs have been established. A pilot program for composting food waste was begun, and plans for a more comprehensive composting facility

are under way. A number of County ordinances have been enacted to reduce waste and increase recycling, including bans on plastic bags and styrofoam and new standards for the recycling of electronic waste. New retail take-back or other diversion programs have been created for such problematic products as used oil, batteries, carpet, mattresses, fluorescent light bulbs, propane canisters and paint. Efforts to increase recycling of Styrofoam are underway. Recently the Board approved the first extended producer responsibility ordinance in the County to encourage proper disposal of drugs and sharps. In 2016 the Board adopted a Zero Waste Plan to serve as a guide for future efforts. (Public Works Zero Waste Plan)

Climate Change Adaptation

- Continue efforts to update of General Plan Safety Element policies and related ordinances to address a range of planning issues related to sea level rise, including participation in a project studying sea level rise vulnerability in the Monterey Bay. (Planning)
- The Pajaro River Bench Excavation project was completed in 2015. The project improved flood control characteristics of the Pajaro river levee system. Continue to work with the U.S. Army Corps of Engineers, County of Monterey, and City of Watsonville to develop a feasible flood control alternative to reduce the potential overtopping of the Pajaro River levees. (Public Works)
- Implement construction of drainage improvements in Rio Del Mar Esplanade provided for in the FEMA/OES grant received in the amount of nearly \$1 million. Continue to reduce storm water runoff through development policies and ordinance requirements. (Public Works)
- Consideration of sea level rise in the design of the Twin Lakes beachfront project and other projects along the coast. (Public Works)
- Implementing grant funded projects to improve wastewater collection and reduce sewer leaks and infiltration of groundwater. (Public Works)
- Continue to implement the Runoff and Pollution Control Ordinance and seek grant funds to implement projects in the Storm Drain Facilities Drainage Master Plan. (Public Works)
- Approximately \$57,600 worth of warning guide signs meeting current state specifications were purchased through a federal Highway Safety Improvement Project (HSIP) grant, and were installed by the County road crews. County road crews continuously clear vegetation from around traffic control signs to maintain sign visibility. In addition, Public Works installed tsunami warning signs along the coastal areas in cooperation with Emergency Services. (Public Works)
- Ongoing outreach and education to assist growers to adapt to climate change. Work continued in 2015 on developing the “CropManage” online irrigation and nutrient management tool, and workshops are being held in 2017. (University of California Cooperative Extension)
- A number of key actions regarding water resources management occurred in 2016 at the local level (Environmental Health):
 - In January 2016, LAFCO in partnership with the County, the Cities, the large public water systems, and the Regional Water Management Foundation hosted a public event at New Brighton Middle School called “Connecting the Drops: Working Together for Water.” The event was designed to inform the public about all of the ways the local agencies partner on managing water for the benefit of everyone. The event was very well attended.
 - Santa Cruz County partner agencies continue to work together on integrated regional water management, with the Regional Water Management Foundation (RWMF) serving as a hub for the 12 partner agencies. The County and all of the cities and public agencies dealing with water are signatories to the Santa Cruz IRWM

Memorandum of Agreement, which was updated in 2016. The agencies contribute \$80,000 annually toward maintenance of the IRWM efforts.

- The Santa Cruz IRWM region received partial drought funding under Proposition 84 to help expand recycled water use in Davenport, help fund treatment for hexavalent chromium in Soquel Creek Water District and replace aging wells for the City of Santa Cruz water supply.
- The County also continues to participate in the Pajaro IRWM region, which encompasses the Pajaro River Watershed. The Pajaro Valley Water Management Agency is completing the construction of a recycled water storage tank at the City of Watsonville wastewater treatment plant, which will allow significantly increased use of recycled water for irrigation and reduction of groundwater pumping.
- The County is actively engage with the other water agencies to implement the Sustainable Groundwater Management Act in the Santa Margarita Groundwater Basin and the Santa Cruz Mid-Mid-county Groundwater Basin.
- The County received a grant from the Department of Water Resources for \$250,000 to assist with outreach and Groundwater Sustainability Plan Development for the Mid-County Groundwater Basin. Funds will be used for further development of a groundwater model for the basin, update of the database on wells and non-municipal water users, outreach and services targeted to private well owners, and maintenance of the website
- County staff have participated with all of the county water agencies in the Water Conservation Coalition of Santa Cruz County to increase outreach and education to the public. The Coalition participated in numerous tabling events including Earth Day and the County Fair, and maintained the website www.watersavingtips.org.
- HSA-Environmental Health in partnership with Parks, the UC Master Gardeners, the City of Watsonville, the California Conservation Corps, and the California Landscape Contractors Association, implemented a turf replacement project at the Freedom Campus located at 1430 Freedom Blvd. Fifteen thousand square feet of turf was torn out and replaced with drought tolerant plants, mulch, pathways, and large boulders. This project will save over 300,000 gallons of water per year.
- The County has been working on a \$99,000 grant from the Department of Conservation for the development of a voluntary Rotational Cover Crop Plan for the Pajaro Valley, in partnership with the Resources Conservation District and the Community Water Dialogue. Highland Economics has been brought in to quantify the costs and benefits of cover cropping.
- The County received a grant from the Wildlife Conservation Board Streamflow Enhancement Program to develop a San Lorenzo Watershed Conjunctive Use and Baseflow Enhancement Plan in partnership with the San Lorenzo Valley Water District.
- In order to be eligible for storm water funding through Proposition 1, the State Water Board is requiring the development of Storm Water Resources Plans (SWRP) with the hope of changing the perception of stormwater from a nuisance, to a resource. HSA-Environmental Health led the effort to write a SWRP for the Santa Cruz region. County staff worked closely with representatives from the four cities, the RCD, Ecology Action, and UCSC. The SWRP can be found online at: <http://www.santacruzirwmp.org/resources/swrp>.
- The County, City of Santa Cruz, and Scotts Valley Water District completed the Proposition 84 stormwater grant funds to implement projects that reduce stormwater runoff and increase groundwater recharge by infiltrating runoff from impervious surfaces. In 2016 the City of Scotts Valley completed a parking lot retrofit at the

- transit center. Both of the County projects, one at the Heart of Soquel Park and one at Brommer Street Park, were monitored during the rainy season.
- County staff maintain ongoing efforts for water quality protection through septic system management, monitoring, and investigation, funded by County Service Area (CSA) 12. Properly functioning onsite sewage systems are a good method of groundwater recharge and contribute to approximately 10% of the San Lorenzo River's summer baseflow.
 - The County is actively engaged with the other water agencies to implement the Sustainable Groundwater Management Act in the Santa Margarita Groundwater Basin and Santa Cruz Mid-County Groundwater Basin.
 - HSA-EH are working closely with the Resource Conservation District and water agencies to develop additional groundwater recharge projects to enhance recharge to overdrafted groundwater basins.
 - Continue to work with water agencies to incorporate projected increases in irrigation demand and reduced recharge into long range plans. See other strategies to conserve and increase groundwater recharge and other water supply, and study Rotational Cover Crop methods.
 - The County began to receive meter reading reporting based on the 2015 requirements for metering and reporting of water use by all small water systems. Installation of individual meters on each connection for all water systems serving 15-199 connections is required by October 1, 2017. This will provide additional information for assessment of rural water use and provide the County and the water systems with tools to minimize excessive water use.
 - County staff continues to hold the Small Water Systems Forum to help build technical, managerial, and financial capacity among the small water systems within the community. Four quarterly meetings were held on various subjects, including: water conservation, drought status, current themes in drinking water, hexavalent chromium standards and compliance, recycled/greywater, water quality database inquiry, new treatment technologies, Electronic Annual Reporting, legislative updates, metering/water use data and ordinance changes, loan sources, rate setting, insurance/liability for water systems, and small water system involvement in the Sustainable Groundwater Management Act.
- Ongoing coordination with area fire chiefs to assure that staffing, training, exercise, planning and equipment needs are addressed. Responsible for the County Emergency Operations Center during emergency events. (Office of Emergency Services)
 - Updated existing MOU with Cal Fire to run the County Fire Program.
 - Participate as member of the County Fire Department Advisory Commission to maintain cooperative agreement among local Fire Agencies to assure that staffing, training, exercise, planning and equipment needs are addressed.
 - Maintaining a cooperative working relationship with the Area Fire Coordinator to address staffing needs during red flag warnings.
 - Work with Fire Chiefs association to identify grant funded training and equipment needs.
 - Large Storm Events:
 - Monitor weather and participate in weather conference calls with Cal EMA, county emergency services partners and the National Weather Service (NWS).

- Notify the public through our public information officers and social media before large storm events occur. Utilize early warning notification systems in cooperation with SCR911.
 - Ensure updates of the Emergency Operation Plan include weather conference call plans and implementation of early warning notification systems.
 - Heat Events:
 - Monitor weather and participate in weather conference calls with Cal EMA, county emergency services partners and NWS. Identify cooling centers.
 - Ongoing during the summer months. Update EOP by December 2015 to reflect the opening of cooling centers.
 - Tsunami Warnings:
 - Maintain current dialogic contact information with State OES for tsunami notifications. Work with fire, law, DPW, and 911 staff to issue reverse 911 notifications to residents.
- All activities involved with prevention, preparation, and response to fire emergencies with emphasis on prevention measures in light of increased fire risk due to climate change. (Fire Agencies)
 - Area Fire Coordinator to maintain a cooperative working relationship with the Regional Fire Coordinator and Cal Fire to increase staffing during red flag warnings.
 - Area Fire Coordinator to maintain a cooperative relationship with the Office of Emergency Services, Public Works, Law Enforcement, the Red Cross and other emergency services partners to assure effective communication and coordinated response.
 - Continue to work with the Fire Safe Councils to identify grant funding for fuel reduction projects.
 - Train Area Fire Coordinators on EOC role during emergencies.
 - Monitor weather through the National Weather Service (NWS) to identify changes in weather in advance of events.
 - Monitor weather through the NWS to allow for time to prepare for storm response support efforts.
 - Use the Santa Cruz Regional automated notification system (“reverse 911”) to warn residents of hazardous and/or changing weather conditions.
 - Maintain contact with Cal OES through use of the tsunami automated notification system.
 - Continue to meet quarterly with Long Range Radio Infrastructure Management Planning Group to strategically consider interoperability and coordination of communications systems development and change out.
 - Continue to seek grant funding opportunities for emerging technologies and enhancements.
 - The new 2016 Fire Codes has been adopted by all County Fire agencies and the 2016 Building Code has been adopted by the County.

- County Fire puts on education programs for schools and businesses in the unincorporated areas of the County.
- Additional school programs have been added as part of the County Fire Prevention and Education program.
- All schools in County Fire are inspected annually.
- Commercial Business inspections are ongoing.
- County Fire continues to work with local, State and Federal agencies as well as local Fire Safe Councils to address areas with sensitive habitats in order to identify those areas requiring fuel reduction.