



County of Santa Cruz

COMMISSION ON THE ENVIRONMENT

701 OCEAN STREET, SUITE 400, SANTA CRUZ, CA 95060-4073
(831) 454-2580 Fax: (831) 454-2131 TDD/TTY – Call 711

December 9, 2019

Board of Supervisors
701 Ocean Street, Room 500
Santa Cruz, CA 95060

Dear Members of the Board,

The threats of wildfire and extreme weather in California are real. As a result, California's three largest energy companies, at the direction of the California Public Utilities Commission (CPUC), may be shut off for public safety in an effort to prevent a wildfire. This is called a Public Safety Power Shutoff (PSPS).

As a safety precaution, San Diego Gas & Electric, Southern California Edison and Pacific Gas and Electric monitor local fire danger and extreme weather conditions across California and evaluate whether to turn off electric power. The decision to turn off power is made by each utility and is based on a combination of factors including high winds, low humidity, dry vegetation, fire threat, on-the-ground observations, and public safety risk.

The PSPSs present both a risk, and an opportunity. The risks are associated with the impacts of a prolonged loss of electrical power to critical services and functions. These risks can have quantifiable and unquantifiable impacts. Monetary costs of providing backup generation can be measured, but its harder to assess the value of loss of life, delayed critical services or simply frustration and inconvenience.

As an example, some of the County's operational sites were effected by PSPSs on two separate occasions lasting up to 3 days. The Commission on the Environment (Commission) is concerned about the loss of electricity to essential and critical facilities, traffic signalization, businesses, those members of our community requiring medical devices powered by electricity, and other vulnerable community members. We are also concerned that there is no requirement by the CPUC that telecommunications companies provide long-term backup generation for cell towers and cable communication. This means that internet access and reverse 911 calls to the community-at-large, key emergency communications modes, would not be possible.

PSPS events may occur more frequently and for longer duration due to the increasing impact of climate change on wildland fuel conditions.

The County also has an opportunity to evaluate an integrated and resilient response to its core energy needs. The solutions available to reduce the PSPS impact on the County are also directly

aligned with energy cost saving solutions. Depending on the facility, electricity loads during peak period pricing and peak demand charges may represent a large proportion of overall typical local government electricity expenditures.

Conventionally, diesel fuel generators would be installed to provide back-up power. But this choice is increasingly untenable: too expensive, unreliable if fuel is not available, and generating too much pollution. With recent rapid advances in technology, the use of stored energy (batteries, pumped water, etc.) can be used to cut the peaks off of high-priced electricity and enable load shifting to less expensive time of use periods. The combined use of solar or other renewable energy generation, combined with battery storage in a microgrid may also provide electricity to essential facilities during PSPS. A [recent article](#) in the Santa Cruz Sentinel highlights the benefits of microgrids for a local business.

As articulated in our letter to the Board from summer 2019, the Commission applauds the County's Strategic Plan's overall goal to "... increase resilience to climate change impacts, including sea-level rise and changing weather patterns," and the Operations Plan strategy to "...be prepared for and respond to natural disasters, including those resulting from climate change." The Commission is also appreciative that the Board recognized the need for targeted and coordinated effort in advancing progress on the Sustainable Environment Climate Change objectives called out in the Operational Plan and took action on our recommendation to establish a Climate Action Manager position.

The Commission strongly recommends that the County position itself to take advantage of the range of financial incentives and financing options that will be available for a limited time at the start of 2020 to fund microgrid systems. The following opportunities are designed to assist local governments with developing and implementing solutions such as solar photovoltaic/battery storage microgrids and battery storage only options.

- (1) Monterey Bay Community Power will launch a \$25 million Uninterruptible Power Supply Fund in January 2020 to provide low interest financing for critical infrastructure facility resiliency improvements.
- (2) California's Public Utilities Commission will increase the incentive level for battery storage for low-income customers and create a new category of funding for customers in fire zones. The start date for applications to be accepted under these new rules will be sometime between January 1 and April 1, 2020.
- (3) The California Energy Commission is expected to release two energy storage solicitations totaling \$31 million on December 31, 2019 to support the state's goal under SB 100 of attaining 100% fossil-free electricity for 2045.

The Commission urges the Board to promptly direct staff to investigate and pursue these financing opportunities. The County has learned a great deal from its operation of a battery storage unit at the Government Center Building that might be applied to identifying and developing feasible microgrid projects. Increasing County resilience through microgrids directly implements the two strategies called out to address the Climate Change goal within the

Sustainable Environment focal area of the Operational Plan. In fact, Disaster Mitigation of one of the major projects identified to be completed by the conclusion of 2020 and Disaster Preparedness and Command are two other objectives called for to achieve the Climate Change goals.

We are at a crucial nexus where the PSPS outages heightened the attention of the public, businesses and government to the serious effects of prolonged power outages caused by natural or human disasters. This is a prime opportunity to harness that attention and take the lead on prioritizing vulnerable critical infrastructure to support carbon neutral, and ultimately, cost-saving solutions.

Thank you for your continued support to address climate change and for your time and consideration regarding the Commission's recommendations. The Commission stands ready to assist with this, and any other, environmental protection effort.

Best Regards,

A handwritten signature in cursive script that reads "Tiffany Wise-West".

Dr. Tiffany Wise-West, PE, LEED AP
Chair, Commission on the Environment

Attachments:
2019 Climate Action Strategy annual report



County of Santa Cruz Board of Supervisors

Agenda Item Submittal

From: Planning: Sustainability and Special Projects
(831) 454-2580

Subject: Climate Action Strategy Annual Report

Meeting Date: May 21, 2019

Recommended Action(s):

Accept and file the Climate Action Strategy Annual Report.

Executive Summary

Implementation of the Climate Action Strategy (CAS) involves a wide variety of activities by multiple County departments addressing greenhouse gas emissions reduction and preparation for the anticipated impacts of climate change. Periodic evaluation of greenhouse gas emissions has shown these efforts are resulting in measurable emissions reductions at major County government facilities and in the residential and commercial sectors of the community. While our success in reducing current emissions from major County facilities is a critically important part of addressing climate change, the County must also prepare for rising seas and other consequences of climate change that are already locked-in as a result of the emissions from the use of fossil fuel over time. The County, other agencies, and community groups are therefore taking steps to prepare for the impacts of climate change involving fire and flood hazards, sea level rise, drought, public health and agriculture, including holding fossil fuel companies accountable for the costs of those measures so that those expenses don't fall solely on taxpayers.

Background

On February 26, 2013 the Board of Supervisors adopted a resolution approving the CAS. The Board also directed the Planning Department to oversee implementation of the CAS and to report on implementation of the CAS each year. This effort is led by the Sustainability and Special Projects division of the Planning Department.

Previous annual reports the past two years included updated emissions inventories of greenhouse gas emissions. Those updates in 2015 and 2016 documented measurable emissions reductions at County facilities and throughout the community. The results show that overall the County has reduced emissions from major facilities by 18 percent in 2016 compared to the baseline year of 2005, and that overall community emissions have also decreased by 18 percent in 2015 compared to the baseline year of 2005.

As staff to the Commission on the Environment (COE), the Planning Department has been supporting the efforts of the COE to prioritize strategies to prepare for the impacts of climate change. Included in the 2018 CAS annual report to the Board of Supervisors was a February letter from the COE presenting a list of priority actions based on analysis of the climate change adaptation strategies in the CAS. At the direction of the

Board in fall 2018, staff followed up on the February COE letter in a report to the Board with information about the status and the feasibility of addressing each item. The County, other agencies, and community groups are taking steps to prepare for the impacts of climate change in terms of capital improvement projects, fire and flood hazards, sea level rise, drought, public health and agriculture. However, the report concluded it is not feasible to develop a detailed priority list for addressing public infrastructure that has been identified as vulnerable to climate change impacts. Such a project would require funding and dedication of County resources that are not available. Transportation infrastructure, County road maintenance and storm damage repair, as well as planned capital improvement projects pose significant existing burdens for the Department of Public Works, for example. The additional burden necessary to plan for, prevent, and mitigate future impacts and damage related to climate change is overwhelming and future costs are expected to be enormous. The Board accepted and filed the report with additional direction that staff investigate resources that could potentially support implementing the adaptation priorities identified by the COE in their February letter, and report back to the Board.

Analysis

The CAS lists a number of specific actions to implement each emissions reduction strategy, as well as a set of possible adaptation actions, or strategies, for each of the climate change vulnerabilities and impacts that have been recognized and evaluated. This report highlights actions by the County and the community that are facilitating the recently documented emissions reductions and helping prepare the County and community for the impacts of climate change. Attachment 1 includes a list of recent accomplishments and current initiatives by the County and partners to achieve the twin goals of emissions reduction and climate change adaptation.

Many of the programs and projects included in the CAS were not conceived specifically to implement the CAS. Instead, they arose from longstanding County policies addressing green purchasing, fuel efficiency, and energy conservation, including a Green IT policy, implemented to reduce reliance on fossil fuel, reduce emission of greenhouse gases and lower County costs. These policies in some cases date back to the late 1970s. However, they also address various aspects of emissions reduction and climate change adaptation reflected in the CAS.

The actions listed in Attachment 1 address the reduction of emissions through energy efficiency and renewable energy development, reduction of emissions in the transportation and solid waste sectors, and adaptation to climate change. The highlights show the County is taking a wide variety of actions to successfully reduce energy use and emissions in the community and from County operations. Through these actions the County is reducing its own energy costs and has reduced energy costs in the community as a result of the County's leadership in the establishment of Monterey Bay Community Power.

Regarding adaptation to climate change, staff has further considered the feasibility of developing a detailed priority list for addressing public infrastructure that has been identified as vulnerable to climate change impacts. Vulnerable infrastructure includes transportation systems, buildings, communications, utilities, beaches and other amenities that support the community, tourism, agriculture and commercial activity.

During the next year, Planning Department staff will be working on the required five-year update of the County's Local Hazard Mitigation Plan (LHMP). This involves assessing the vulnerability of the community to a range of potential hazards, including the impacts of climate change. The vulnerability assessment will identify the types and numbers of existing buildings, facilities, and infrastructure vulnerable to each hazard and will develop mitigation strategies and actions to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure. Therefore, the LHMP update will address a high priority of the CAS identified by the COE to assess climate change impacts on public infrastructure. This includes preparation for rising seas and other consequences of climate change that are already locked-in as a result of the fossil fuel industry's production, promotion, and marketing of products they knew would cause those problems, as well as its decades of misinformation about climate change and its impacts. Thus, the County, through the LHMP update, other initiatives, as well as other agencies and community groups are taking steps to prepare for the impacts of climate change, including holding fossil fuel companies accountable for the costs of those measures so that those expenses don't fall solely on taxpayers.

The LHMP update must be completed by August of 2021 for the County to remain eligible for project grants under FEMA's Hazard Mitigation Assistance Program, and for points under the National Flood Insurance Program's Community Rating System, which can lower flood insurance rates in the community. The LHMP update process will be accomplished with staff resources within the Planning Department Sustainability and Special Projects division in collaboration with staff from other County departments. Following completion of the current effort to update the Safety Element and related County Code sections addressing the hazard of sea level rise and land use along the coast, Planning Department staff will prioritize the LHMP update. Consequently, implementation of other strategies and actions in the CAS, or to update the CAS, would not occur without additional staff resources. To this end, the COE in their work plan will continue to focus on plans and initiatives to implement mitigation and adaptation priorities in the CAS, including advocating for the creation of a full-time Sustainability Coordinator position for the County.

Financial Impact

County cost savings from energy efficiency and renewable energy projects as described in the CAS Annual Report and attachments. The costs of future programs and staffing could be incurred in the future but are currently unknown.

Strategic Plan Element(s)

This item supports the Strategic Plan Elements of Sustainable Environment.

Implementation of the CAS promotes the following goals:

Local Conservation: Support and strengthen efforts for clean air and water, conservation, renewable energy, recycling and reuse.

Climate Change: Increase resilience to climate change impacts, including sea-level rise and changing weather patterns.

Submitted by:

Kathleen Molloy, Planning Director

Recommended by:

Carlos J. Palacios, County Administrative Officer

Attachments:

Highlights of Emissions Reduction and Adaptation Actions

Climate Change Emergency Resolution

- Through a resolution, adopted January 29, 2019, the County of Santa Cruz declared that an existential climate emergency threatens our cities, towns, region, state, nation, civilization, humanity and the natural world and endorsed a just, countywide emergency climate action mobilization effort to reverse global warming, to drastically reduce greenhouse gas emissions and safely draw down carbon from the atmosphere as quickly as possible.

Energy Sector Emissions Reduction

- The General Services Department continues to implement projects at County facilities to improve energy efficiency of buildings, including the heating, ventilation and air conditioning systems.
- Solar power installations occurred in 2018 at 1080 Emeline, 1400 Emeline, Main County Building, Men's Detention Center, Public Safety Center, Animal Shelter, Simpkins Swim Center and Brommer Yard. Construction at all locations is complete.
- Updated emissions inventories were completed in 2015 and 2016. Overall the County has reduced emissions from major facilities by 18 percent in 2016 compared to the baseline year of 2005. Overall community emissions have also decreased by 18 percent in 2015 compared to the baseline year of 2005.
- The Beacon Award is a program of the Institute for Local Government that encourages, supports and recognizes voluntary action by local governments throughout California to conserve natural resources, promote energy innovation and create healthier communities. In 2018 the County of Santa Cruz received the following Beacon Awards:
 - Gold Beacon Award
 - Gold Level Award for Agency Greenhouse Gas Reductions
 - Platinum Level Award for 28 percent Energy Savings
 - Gold Level Award for 13 percent Natural Gas Savings
 - Platinum Level Award in Sustainability Best Practices
- As a result of the County's leadership establishing Monterey Bay Community Power (MBCP) which launched in March 2018, there has been further significant reductions in community wide greenhouse gas emissions. The electricity provided by MBCP is carbon-free which means greenhouse gas emissions related to electricity in County facilities and homes and businesses in Santa Cruz County have been eliminated (100 percent reduction). This represents another approximately 20 percent reduction in overall emissions, which includes emissions from the transportation, solid waste, and energy sectors.
- In addition to providing carbon free power MBCP is implementing complementary energy programs to further reduce greenhouse gas emission.

- EV Incentive Program to improve awareness and access to electric vehicles. MBCP works with dealers who offer aggressive discounts off MSRP. These discounts will be combined with MBCP incentive offerings. Vehicles can be purchased or leased. New, full-battery electric vehicles only. MBCP residential customers, public agencies, non-profits. Strong incentives for income-qualified.
- Project Sunshine - solar for low-income housing. MBCP is partnering with GRID Alternatives to install 20 solar systems on single family affordable housing in Santa Cruz, San Benito, and Monterey Counties
- Electrification strategic plans. Researching and Illustrating the best approach to electrifying our community with an eye for underserved communities and emergency preparedness

Transportation Sector Emissions Reduction

- The Climate Action Strategy identifies reducing vehicle miles traveled as a key strategy to reduce greenhouse gas emissions in the transportation sector. The Planning Department is implementing this strategy by changing how CEQA project analysis of transportation impacts is conducted. The new CEQA Guidelines no longer relies upon measurements of automobile delay, including Level of Service (LOS), in evaluating transportation impacts and replaces LOS/delay metrics with Vehicle Miles Traveled (VMT), based on a goal of reducing statewide GHG emissions by 15% by the year 2020. Tying significance thresholds to the State's GHG reduction goals, the guidance recommends a threshold reduction of 15% under current average VMT levels for residential projects (per capita) and office projects (per employee), and a tour-based reduction from current trips for retail projects. (LOS impacts on local roads and intersections will continue to be assessed by the Department of Public Works for the purpose of defining needed traffic mitigation and improvements.)
- The General Services Department regularly participates in a grant program administered by the Monterey Bay Air Resources District to help with the purchase of electric vehicles for the County fleet. In 2018 the County received four vouchers for \$10,000 each for the purchase of four additional electric vehicles.
- On January 23, 2018, the Board approved a grant from Caltrans, Division of Transportation Planning in the amount of \$366,504 to develop a Complete Streets to Schools Plan. HSA and the Department of Public Works applied for the funds, partnering with Ecology Action as a sub-grantee, and with the City of Scotts Valley providing match funds as a project beneficiary. The Plan will define tools to help reduce barriers to walking and biking for parents and students. The Plan will provide a systematic and comprehensive assessment and analysis of the greatest barriers to increased school-based active transportation and access to public transit. Plan deliverables include conducting audits of parent and student impediments to walking or biking to school, garnering community support and feedback, creating mapping of

school transportation routes, and identifying priority projects that encourage increased active transportation.

- In 2019, the Sustainability Policy and Regulatory Update will move forward with the preparation of an Environmental Impact Report (EIR) on the package, which will also include proposed code modernization amendments to the Zoning Ordinance along with the General Plan/Local Coastal Program Sustainability Update. The package will amend and update the Land Use, Circulation and Community Design Elements to incorporate sustainability policies and several new land use designations, many as articulated in the Sustainable Santa Cruz County Plan. The project is expected to address strategies for reducing land use and transportation related greenhouse gas emissions, as required by State Law (AB 32, SB 375 and SB 743), and as detailed in the County Climate Action Strategy (2013).

Solid Waste Sector Emissions Reduction

- Solid waste including organics in municipal landfills produces methane, a powerful greenhouse gas. The County maintains methane capture systems and burns captured methane at the Buena Vista landfill in engine generators to produce electricity. These systems are not 100 percent effective and landfill methane emissions remain a significant source of greenhouse gas emissions. Solid waste reduction is necessary to reduce emissions and other impacts of solid waste disposal. On January 26, 2016, the Board adopted a Zero Waste Plan addressing zero waste and organics diversion. The County's new exclusive waste hauling franchise with GreenWaste Recovery (GWR) provides a number of provisions designed to improve waste diversion and progress toward Zero Waste. These include:
 - Two new County outreach and education positions funded by GWR.
 - All large public events now include food waste collection.
 - All collection vehicles have been replaced with cleaner, greener trucks.
 - Expanded large item collection has helped reduce illegal dumping.
 - More businesses are being signed up for organic waste collection.
- Organics Diversion. Public Works is working on a number of fronts to expand the diversion of organic waste in our County. A new contract for processing of yard and wood waste was approved by the Board on August 8, 2017, and the new contractor is performing very well. A biotic study is underway for a potential composting site near the County's Buena Vista Landfill, which would allow for greater processing of organic material locally. Planning and permitting will follow completion of the study. Public Works is meeting regularly with representatives of local cities and the University of California, Santa Cruz, to explore opportunities for working together on organics diversion. At the same time, discussions are underway with the Monterey Regional Waste Management District about the potential for broader regional cooperation.

Adaptation to Climate Change

- The Planning Department is responsible for updating the County's Local Hazard Mitigation Plan and we will begin that process in 2019. Grant funding may be available to help fund this project and information from the State indicates a fall 2019 timeframe for such funding opportunities. The update will include updating our current assessments of vulnerability to a range of hazards including climate change related hazards like fire, flood, drought, and sea level rise.
- State planning law requires update of the flood and fire hazard policies in the General Plan Safety Element upon each update of the Housing Element. State law also requires incorporation of climate change resiliency policies in the General Plan Safety Element upon the next update of the Local Hazard Mitigation Plan (LHMP). These requirements are being addressed in proposed updates and amendments currently being considered at public hearings before the Planning Commission, and it is anticipated that the Board will hold its public hearing to consider adoption of the regulations in May 2019
- The Public Works Department is working diligently to solve the issues that have delayed the Pajaro River flood control improvement project and complete the project.
- Efforts to prevent and reduce fire hazards in the community include collaboration between fire agencies, the Resource Conservation District, and local Fire Safe Councils to complete inspections, advise property owners, and complete fuel reduction projects in high fire hazard areas. The Planning Department joined this partnership to help produce a publication called *Living with Fire in Santa Cruz County*, which includes information on how to protect sensitive habitat where fuel-reduction projects occur.
- For both groundwater and water supply in general, the County, through the Water Resources Manager, is participating in efforts to address groundwater supply and conjunctive use among groundwater management agencies and water districts. Feasible water supply alternatives are being considered.
- The Rio Del Mar drainage improvement project addresses the recurring flooding problems in this coastal neighborhood. Using grant funds, the project has been designed and permitted. Due to the estimated cost of construction for the project of \$4,800,000, Public Works staff is seeking additional grant funding to construct the improvements.

Regional Collaboration

- The Monterey Bay Regional Climate Action Compact (CAC) is an action network of government agencies, educational institutions, private businesses, non-profit, and non-governmental organizations who are committed to working collaboratively to address the causes and effects of global climate change through local initiatives that focus on economic vitality and reduce environmental impacts for the region. County staff participates in quarterly meetings of the CAC. To help sustain this regional

collaboration the County may consider sponsoring the CAC with a financial contribution.

- The Central Coast Climate Collaborative is a membership organization fostering a network of local and regional community leaders throughout six Central Coast counties to address climate change mitigation and adaptation. The Collaborative involves representatives from local and regional government, business and agriculture, academia, and diverse community groups to share information and best practices, leverage efforts and resources and identify critical issues and needs. The Collaborative engages all communities throughout the region to help ensure a resilient and low-carbon Central Coast prepared for the impacts of climate change. To support the efforts of the Collaborative the County may consider membership through a financial contribution.
- *Resilient Coast Santa Cruz* is a collaborative initiative led by the City of Santa Cruz to develop a vision for resilient coastal management to address sea level rise and its associated hazards. The initiative consists of two separate, yet similar, projects that are being carried out along parallel timelines throughout 2019 and 2020. The first is the **West Cliff Drive Adaptation and Management Plan**, funded by CalTrans, which will lead to implementation and development of adaptation projects and policies to address the impacts of climate change on the transportation network, as well as protect coastal recreation and access and preserve habitat. The second project, funded by the California Coastal Commission, entails the **Development of Local Coastal Program Strategies & Policies to Support Beach and Public Access Protection** in the context of sea level rise. The goal of this project is to provide the Santa Cruz community and decision makers with more comprehensive information and recommendations for programs, policies and actions that can achieve resilient coastal access, use and beach management considering sea level rise and to integrate them into a Local Coastal Program Update. County staff will join other technical experts to serve on the *Resilient Coast Santa Cruz* initiative's Technical Advisory Committee (TAC).
- The Commission on the Environment will continue to focus on issues pertaining to climate change within the County and the Monterey Bay Region by supporting municipal planning and regional program development. The Commission will update its work plan for the next two year period and continue to focus on plans and initiatives to implement mitigation and adaptation priorities in the County Climate Action Strategy, including creation of a full-time Sustainability Coordinator position for the County.