

**Sonoma County Climate Adaptation/Resilience Snapshot**  
**Compiled by the Bay Area Climate & Energy Resilience Project (BACERP)**  
**March 2014**

This summary memo is based on input from Sonoma County climate stakeholders. The information was gathered via phone, email, web search, and an in-person group meeting co-hosted by the Regional Climate Protection Authority in December 2013. The information is presented in four sections:

- County-Level “Spotlight” Adaptation & Resilience Initiatives
- Climate Planning Activities
- Current Structure for Coordination Among Cities
- Resources and Assistance To Accelerate Action

### **I. County-Level “Spotlight” Adaptation & Resilience Initiatives**

Across the Bay Area, government, non-profit and private sector stakeholders are developing and implementing programs that address climate impacts (e.g., sea level rise, extreme storms, fire, heat) and build community resilience. Some are called “climate adaptation” projects, while others focus on health, transportation, or land conservation, but provide substantial climate adaptation or resilience co-benefits.

Whatever they are called, these efforts are increasingly mainstreaming climate issues into community planning and making our cities more prepared for the physical, economic, and social impacts of climate change. Importantly, a number of these programs can provide a wonderful double-benefit, by building local resilience AND reducing greenhouse gas emissions.

For example, in Sonoma County:

- The Climate Protection Campaign and SCTA are conducting transportation projects under the MTC Climate Initiatives Program that promote real-time ride matching.
- A coalition of Sonoma stakeholders has been very active in promoting electric vehicle use through fleet purchases and building out EV infrastructure.
- Sonoma is one of three Bay Area sites for *Healthy Lands & Healthy Economies*, a regional collaboration of open space agencies to demonstrate the economic value of natural areas and working landscapes, funded by the Moore Foundation and the Coastal Conservancy.
- The award-winning Windsor Efficiency PAYS program offers water and energy upgrades to Windsor homeowners and renters without upfront costs. The program allows participants to ‘Pay As You Save,’ with no loan and no debt associated with repayment for upgrades, including include high

- efficiency clothes washers, refrigerators, toilets, hot-water recirculation pumps, showerheads, and drought-resistant landscaping.
- Sonoma County's Energy Watch program, a partnership between PG&E and the County, provides energy efficiency services to small businesses, local governments, and residents.
  - Sonoma County is the testing ground for a set of new climate projections developed by the 9-county Terrestrial Biodiversity Climate Change Collaborative (TBC3), based at Pepperwood Preserve.
  - The Sonoma County Agricultural Preservation and Open Space District is working with the RCPA and other county agencies on developing a modeling framework to quantify economic, health, and ecosystem benefits of various development scenarios.

At the same time, there are a growing number of region-wide, climate-related initiatives such as Plan Bay Area, the Bay Area Ecosystems Climate Change Consortium, PG&E's infrastructure protection work, the Integrated Regional Water Management Plan, TBC3's fine-scale hydrology mapping for land managers, the Bay Area Council's extreme storm study, Bay Localize's Community Resilience Toolkit 2.0, BayREN (energy efficiency), Cal-BRACE (health), and the Baylands Ecosystem Habitat Goals Project. (These regional efforts are outside the focus of this county-level report.)

Within this broad and growing climate context, we have selected 8 Sonoma climate adaptation and resilience initiatives to "spotlight" as notable examples of *county-level innovation* and *leadership*. These are described below with the hope that they will inspire and inform stakeholders in counties across the region. (Note: For accuracy, we have used language from project web sites where possible.)

*Web links are provided for each spotlight initiative. To learn more, including project contact info, email the BACERP staff — [Bruce@bayareaajpc.net](mailto:Bruce@bayareaajpc.net) or [Aleka@bayareaajpec.net](mailto:Aleka@bayareaajpec.net).*

### **Regional Climate Protection Authority**

*California's only legally constituted local climate authority*

The Regional Climate Protection Authority (RCPA) was created through state legislation in 2009 to improve *cross-agency* coordination and collaboration in Sonoma County on climate change issues. The RCPA shares its board with the Sonoma County Transportation Authority, including representatives from each of the nine cities and the Board of Supervisors.

RCPA staff are leading the development of the new "Climate Action 2020" and are engaged in a variety of GHG reducing efforts including energy efficiency, building retrofit and alternative transportation programs. Data collection, public information and education are significant elements of the RCPA effort.

## **Climate Protection Campaign**

*The pioneering non-profit model for climate protection in the Bay Area*

For more than a decade, the award-winning CPC has provided strong climate leadership, resources, and advocacy for Sonoma County by working in partnership with governments, businesses, youth and the broader community. Under leadership from the CPC, Sonoma's nine cities, the County, and a coalition of diverse stakeholders produced a comprehensive and detailed Climate Action Plan in 2008 with one of the toughest GHG reduction goals in the country—25% below 1990 levels by 2015. Strategies in the plan were designed to reach measurable targets for each sub-area, a key ingredient often missing in local climate action plans.

Over the past few years, the CPC has provided major support for the development of a wide range of Sonoma climate programs, including Sonoma Clean Power, energy efficiency programs, and schools-based projects. It has also developed a countywide GHG reduction scorecard and helped secure funding. Currently, a CPC-led project is documenting best practices around the country for climate protection.

## **Sonoma County Water Agency: Leadership & Projects**

*Unique and highly important climate leadership role in Sonoma County*

In addition to innovative water-related projects like *Carbon Free Water by 2015*, SCWA has stepped “out of the water box” to provide executive-level leadership and advocacy for aggressive climate action in Sonoma County, including funding and technical support for projects ranging from electric vehicles to clean power. (A small portion of property tax revenue allows SCWA to fund projects outside ratepayer fees.)

Current projects include:

- Taking a series of steps to become carbon neutral by 2015 (SCWA is the largest energy user in the county) by diversifying their energy portfolio and increasing water efficiency.
- Participation in a national EPA-led task force of water managers and financial experts looking at how Wall Street characterizes water risks.
- Developing a possible energy efficiency program (modeled after a Delaware program) that packages or bundles energy efficiency derived savings for the bond market.
- Working with the SFPUC and EBMUD to develop Pay As You Save (PAYS) in the region.
- Working with USGS and NOAA, and SCRIPPS on opening a new Western Center for Extreme Weather Events that will lead to better forecasting for extreme weather events (heat, frost/freezes, storms).
- USGS Climate Change Study featuring downscaling models for the Russian River watershed.
- Research focusing on the current and future role of atmospheric rivers that produce nearly half of the Bay Area's average water supply.

- Risk assessments for SCWA’s water infrastructure, including conducting vulnerability studies and outlining potential strategies.
- Partnering with Pepperwood and the Santa Rosa Junior College on multi-station countywide monitoring of weather and plant response —the Climate Smart Sonoma Weather-Phenology Network.
- Provided start up funding and staffing for the implementation of Sonoma Clean Power and the Sonoma County Energy Independence Program.

### **North Bay Climate Adaptation Initiative (NBCAI)**

#### *Leadership and Coalition Building*

NBCAI is currently leading the adaptation section of the new Climate Action 2020 Plan. NBCAI is a coalition of natural resource managers, policy makers and scientists committed to working together to create positive solutions to the problem of climate adaptation for the ecosystems and watersheds of Sonoma County. Members are experts and conservation leaders drawn from natural resource organizations throughout the region.

NBCAI grew out of a three-day 2009 conference on watershed climate change adaptation in Sonoma County. The initiative now includes three active working groups aimed at the implementation of climate change adaptation strategies identified by conference participants.

- Habitat Conservation and Stewardship Working Group
- Science, Technology and Land Management Nexus Working Group
- Public Policy Working Group

The working groups address needed actions towards implementation of specific climate change adaptation strategies. The individual working group goals are aligned into a larger combined vision by the NBCAI Coordination Committee.

Since climate adaptation is ultimately a regional issue, NBCAI’s goal is to pilot an approach in Sonoma County that can be extended throughout the North Bay. NBCAI’s vision is that the San Francisco North Bay will retain resilient, biologically diverse natural systems that provide lasting ecosystem functions and services into the future. NBCAI and RCPA have recently been selected for California State Coastal Conservancy Climate Ready funding to assess climate vulnerabilities, particularly in terms of water security, for Sonoma County as well as Napa, Mendocino and Marin.

### **Sonoma Clean Power**

#### *The Bay Area’s 2<sup>nd</sup> program for community control and local renewable energy*

Sonoma Clean Power, the Bay Area’s 2<sup>nd</sup> Community Choice Aggregation agency (following Marin Clean Energy) will begin Phase I service in May 2014 with 20,000 customers. By January 1<sup>st</sup>, 2015 that number will increase to 60,000. Sonoma Clean Power’s program is similar to MCE, but will have a greater focus from the start on the development of local renewable power projects. Sonoma Clean Power’s basic

power mix will have a 30% reduction in GHGs from PG&E and will cost about 2-3% less.

Other benefits of the program include greater local control of electricity rates, new markets for local renewable energy producers (through SCP's feed-in tariff), and keeping ratepayer dollars in Sonoma County to invest in new energy products and services. Sonoma Clean Power will also develop energy efficiency and other supporting programs to reduce GHGs.

As with Marin's decision to develop community choice, Sonoma stakeholders, including SCWA and CPC, determined that a countywide clean power program would be the most significant action local governments could take to reduce GHGs. That analysis led to an extensive public process, under the direction of the SCWA, and the eventual formation of a joint powers authority to govern the program.

Sonoma Clean Power builds on nearly a decade of innovative energy/climate programs in Sonoma that reduce GHGs and build community resilience. For example, the Sonoma County Energy Independence Program (SCEIP), which provides retrofit financing for homeowners, has continued to operate with local funding when most other residential programs in the country shut down due to federal financing restrictions.

### **Climate Action 2020 Plan**

*A new plan, including adaptation, tailored for each community, to reduce GHGs and increase resilience.*

Climate Action 2020, currently underway, is a collaborative effort among all 9 cities and the County of Sonoma to reduce GHG emissions community-wide and prepare Sonoma for the impacts of climate change. RCPA will work with communities to develop a comprehensive and detailed plan for each jurisdiction that will identify measures to reduce GHGs from building energy, transportation, water use and transport, waste, wastewater and agriculture. This detailed plan will be completed in 2015. Development of the adaptation section of the plan will be led by North Bay Climate Adaptation Initiative.

The plan will build on efforts to meet the prior commitments to reduce GHG emissions made by Sonoma County communities over the past decade. Since each Sonoma County community is unique, each city will have a locally specific plan that addresses different concerns and priorities within their community.

### **Sonoma County Veg Map**

*A groundbreaking project for Sonoma County climate planning*

A coalition of partners has embarked on a 5-year program to map Sonoma County's topography, physical and biotic features, and diverse plant communities and habitats. The project partners include the Sonoma County Agricultural Preservation and Open Space District, SCWA, the California Department of Fish and Wildlife,

USGS, the Sonoma County Information Systems Department, the Sonoma County Transportation and Public Works Department, the Nature Conservancy, the City of Petaluma, NASA, and the University of Maryland.

The publicly available datasets eventually produced by this program – including countywide LiDAR data and a fine scale vegetation and habitat map – will provide an accurate, up-to-date inventory of the county’s landscape features, ecological communities and habitats. These foundational data sets are key to facilitating good planning and management for watershed protection, flood control, fire and fuels management, and wildlife habitat conservation. These data are also critical to assessing climate mitigation and adaptation strategies and benefits provided by the landscape, such as the amount of carbon sequestration in forests or the degree to which riparian areas, floodplains, and coastal habitats may buffer extreme weather events.

### **Climate Change, Conservation & Land Use: A Sonoma County Pilot Project**

#### *Quantifying the climate benefits of land conservation*

The Sonoma County Agricultural Preservation and Open Space District and The Nature Conservancy are collaborating to help Sonoma County, and ultimately other counties across California, address climate change through natural resource conservation and land use. The project, funded by the Moore Foundation, is creating a replicable portfolio of tools, policies and economic incentives for Sonoma County that facilitate the conservation of natural and working landscapes and urban forests to optimize climate benefits.

Project deliverables include:

- An enhanced Sonoma County “greenprint” that includes considerations of biological GHG emissions and reductions.
- A countywide inventory of forests, urban forests and grasslands.
- An accounting method and tool for estimating and monitoring GHG emissions and reductions.
- Links to state and local incentives (e.g., SB 375 and cap and trade auction revenue, etc.).

## **II. Climate Planning Activities**

### **A. Climate Action Plans**

Climate Action Plans (CAP's), completed by more than 40 Bay Area cities, set goals and strategies for greenhouse gas (GHG) emissions reduction. Recently, some cities have also begun to include climate adaptation strategies in their CAP's that address heat, sea level rise, extreme storms, higher fire risk, and other climate impacts. The chart below provides key information on Sonoma climate action plans.

Sonoma took an innovative and groundbreaking approach to its initial climate action planning. In 2008, a broad coalition of stakeholders from across the county, under the leadership of the Climate Protection Campaign, produced a comprehensive and detailed plan. The plan’s strategies were aimed at the toughest GHG reduction goal in the region—25% below 1990 levels by 2015—a goal that was approved by resolution by all nine of the cities and the Sonoma County Board of Supervisors.

Subsequently, the county’s largest city, Santa Rosa, developed its own climate action plan. Now, Sonoma’s cities and the county, under the Regional Climate Protection Authority banner, are developing a new CEQA-compliant countywide climate plan entitled Climate Action 2020.

### **Climate Action Planning Activity**

City	Adopted CAP <sup>1</sup>	GHG Reduction Goal	Adaptation Section in CAP
Cloverdale	No	25% below 1990 by 2015	
Cotati	No	25% below 1990 by 2015	-
Healdsburg	No	25% below 1990 by 2015	-
Petaluma	No	25% below 1990 by 2015	-
Rohnert Park	No	25% below 1990 by 2015	-
Sebastopol	No	25% below 1990 by 2015	-
Santa Rosa	Yes	25% below 1990 by 2020	-
Sonoma	No	25% below 1990 by 2015	-
Windsor <sup>2</sup>	No	25% below 1990 by 2015	
Countywide <sup>3</sup>	Yes	25% below 1990 by 2015	

<sup>1</sup> The nine cities and Sonoma County adopted the 2015 GHG reduction goal as part of their work to develop the 2008 Sonoma County Community Climate Action Plan, but did not formally adopt the plan itself.

<sup>2</sup> The City of Windsor has a Climate Change Adaptation plan published in 2012

<sup>3</sup> Under leadership from the Climate Protection Campaign, Sonoma’s nine cities and the County produced a comprehensive and detailed Climate Action Plan in 2008 with one of the most ambitious communitywide GHG reduction goals in the nation.

## B. Other Government Climate Planning

The City of San Rosa’s general plan’s climate change section includes discussion of preparing for the impacts of climate change.

## III. Current Structure for Coordination Among Cities

The Regional Climate Protection Authority provides the official climate authority for the county including a board of elected officials (see Section I).

The Climate Protection Campaign provides a complementary countywide structure by bringing together a range of climate stakeholders for specific project development and action (see Section I).

## IV. Resources and Assistance to Accelerate Action

BACERP staff asked Sonoma stakeholders to identify and discuss what services or products would be most helpful to advancing their climate work. This could include assistance and resources provided by a proposed regional climate adaptation “hub.” Sonoma stakeholder input is summarized below (grouped but unranked).

*Note: The bold headings describe common themes from the stakeholder discussions. The bulleted items are opinions expressed by individuals.*

***Planning is needed, but we must go beyond plans. Help us get more ACTION.***

- We need to identify and develop “igniters/accelerants” for climate action – need to figure out what the effective levers are that will make GHG reductions and adaptation strategies happen at a much greater scale. Mandates? Insurance? Carbon tax?
- Frustration with how to keep great plans from sitting on the shelf. How do we turn these plans into action? Climate Action 2020 can be a great step forward but it’s not enough to just do the planning process.
- We need to think strategically in creating an action plan. You can’t just *do things*.
  - What are the barriers to implementation?
  - Does an action require political support to get this done? If so, is it feasible to get that support? Why or why not?
  - Will we need more staff or more resources to implement?

- Top priority is identifying more funding and financing sources. Without financing, our plans are just plans.
- City of Santa Rosa doesn't have enough staff resources to implement the actions outlined in our CAP.

***Help us build greater political support.***

- Building political support is critical. We have spent considerable time on this in Sonoma and it has been a key to our success so far.
- Building political support is #1. Maybe education/engagement with the Board? Hub could provide more tools to educate elected officials with a focus on simplifying data and info to make it more usable/relevant.
- Political support needs to be more regional. We always have to push to get “rural” thinking into the mix – would be great if the Hub can help with this.
- We have been relatively successful in Sonoma. However, there is still fear among some elected officials that participating in this will undo them politically – you have to ask them for leadership.

***Facilitate New, Innovative Thinking on Funding and Financing Strategies.***

- Staff resources are key. We have someone in our office that has made it his mission to get Prop 39 and cap and trade revenue funding for the agency. That’s what it takes.
- OBAG model of funding rural counties might be helpful to look at.
- We need funding that is specifically for pro-active natural capital protection.

***Help Us To Engage The Public In A More Compelling And Effective Fashion.***

- Interacting with the public is at the fulcrum of a lot of these issues but this interaction on some issues has become more difficult. Local officials and staff need to improve skills on dealing with the public – public meetings to provide input are not enough anymore.
- What is not on the list for the Hub services are formal efforts around marketing and branding. People need to be able to see themselves in this – we need a formal branding campaign around climate and adaptation that clearly outlines what people can do.

- SCWA has had some success with public outreach using scenario planning to guide the discussions. Learn from that model.
- SCWA’s communications on groundwater are a good example of an effective public information effort.

***Bring Us Together with Other Counties, Regional Agencies, and the State. Help Us Create A Common Agenda, Networks and Working Groups on Specific Topics.***

- We need to see ourselves as part of a larger effort. Each individual transportation project moves the needle so slightly that it’s difficult to stay motivated to start new programs as just one agency.
- Let’s do a shared roadmap of projects/goals in the county. Map the climate activities and see potential partnerships, conflicts, and topics that are not being addressed. This could help to ensure that we are not competing with each other for the same resources.
- How about creating a shared Sonoma scenario for climate impacts that is part of a larger Bay Area scenario? We’d like to work with the Hub to make sure our work is relevant to the region and the state’s efforts. Much of this can’t be done in just one county.
- Be strategic about collaboration. There is always a question around the efficiency of collaboration – we are a small shop so we think long and hard about what efforts we are going to participate in so its helpful if goals and benefits of coordination/partnerships are clearly outlined from the beginning (Hub could help with this).

***Provide Us with Easier Access to (Vetted) Quality Climate Information.***

- Everyone in the Bay Area should be using the same overall science/data with more specific data for agency specific jobs.

## **V. Participants**

We thank the following Sonoma stakeholders who provided their valuable time and smart thinking:

- Jennifer Barrett, Sonoma County, Permit and Resource Management Department
- BC Capps, Energy and Sustainability Department Program Manager, Sonoma County

- Lauren Casey, Climate Protection Program Manager, Sonoma County Transportation Authority/Regional Climate Protection Authority
- Caitlin Cornwall, Conservation Planner, Sonoma Ecology Center/NBCAI
- Karen Gaffney, Conservation Planning Manager, Sonoma County Agricultural Preservation and Open Space
- Ann Hancock, Executive Director, Climate Protection Campaign
- Woody Hastings, Renewable Energy Implementation Manager, Climate Protection Campaign
- Jay Jasperse, Chief Engineer, Sonoma County Water Agency
- Lisa Kranz, Supervising Planner, City of Santa Rosa
- Misty Mersich, Program Analyst, Regional Climate Protection Authority
- Lisa Micheli, Executive Director, Pepperwood Foundation/TBC3/NBCAI
- Sara Moore, Policy Committee Co-Chair, North Bay Climate Adaptation Initiative (NBCAI)
- Sandi Potter, Sonoma County Permit and Resource Management Department
- Tom Robinson, Conservation Planner, Sonoma County Agricultural Preservation and Open Space
- Janet Spilman, Deputy Director, Sonoma County Transportation Authority
- Cordel Stillman, Deputy Chief Engineer, Sonoma County Water Agency