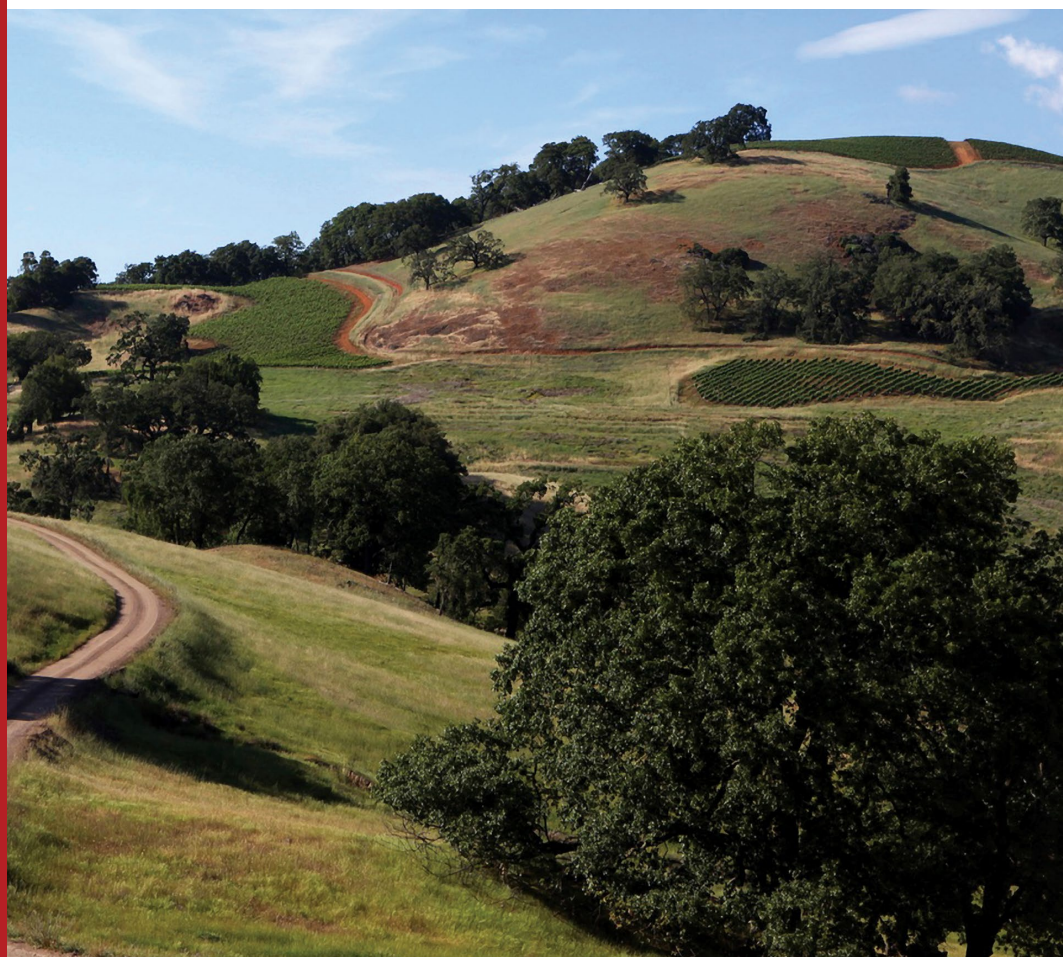
County of Sonoma

Highlights of the Climate Resilience Comprehensive Action Plan

August 2024



Highlights

In 2019, the County of Sonoma (County) joined the Sonoma County Regional Climate Protection Authority, the cities in Sonoma County, and 2,359 jurisdictions in 40 countries that have declared a climate Emergency. The County's 5-year Strategic Plan, adopted in 2021, has a Climate Action and Resiliency Pillar with an overarching goal to "Make Sonoma County carbon neutral by 2030." The pillar has five specific goals, including Goal 3 to "Make County facilities carbon free, zero waste, and resilient."

The County of Sonoma Climate Resilience Comprehensive Action Plan (Climate Plan) provides a roadmap to reduce greenhouse gas emissions from the County's operations and increase resilience to climate hazards. The Climate Plan also presents a strategy to engage more fully with Sonoma County communities, focusing on unincorporated, underserved, and under-resourced communities, to better understand their climate resilience priorities and how the County can most effectively support community climate resilience progress.

Sonoma County

Sonoma County, comprising over 1.1 million acres, hosts a diverse landscape with coastal geography, varied topography, and a range of microclimates. Collectively, the landscape supports an array of ecological zones, plant, and animal species, working lands, waters, and communities. According to the U.S. Census Bureau, in 2022, Sonoma County had a population of 488,863 people. Ethnic groups include non-Hispanic White (60.9%), Hispanic or Latino (28.9%), Asian & Pacific Islands (5.0%), Native American/First Nations Peoples (1.8%), and Black or African American (1.6%).

With 4,502 employees, the County is the largest employer in Sonoma County. The County maintains 1,370 miles of roads that support about 2.4 million vehicle miles traveled each day, as well as 328 bridges serving over 800,000 trips per day on average. Most County offices are in Santa Rosa and in the business park area around the Charles M. Shulz Sonoma County Airport, although facilities are located countywide. The County also owns over 18,000 acres of land, primarily in Regional Parks. The County budget for Fiscal Year 2024-25 is $2.46 billion, of which about 17.5%, or $430 million is General Fund.

The Changing Climate

The Intergovernmental Panel on Climate Change Sixth Assessment of Report on Climate Change concluded that widespread and rapid changes in the atmosphere, ocean, glacier regions, and everywhere life exists, have already occurred, and that human-caused climate

change is affecting every region of the globe. It predicts that in the near term every region of the world will face further increases in climate hazards. And it also concludes that future changes are unavoidable, and may be irreversible unless very deep, rapid, and sustained reductions to global greenhouse gas emissions are achieved.

The Fourth Assessment of Climate Change in California found that average temperatures have already risen by 1 °F, with some areas of the state rising by an average of 2 °F since 1900. It predicts temperatures in California could rise 5.8 °F in the next 25 years, and by almost 9 °F by the end of the century. Rising temperatures will cause more and longer-lasting extreme heat events, more variable weather that causes prolonged drought, more frequent and severe wildfires, extreme rain events and other extreme weather, flooding, and sea level rise of 1 to 2 feet by 2050, and by as much as 7 feet by the end of the century.

Climate Hazards in Sonoma County

Analysis performed for the 2022 Sonoma County Multi-Jurisdictional Hazard Mitigation Plan predicts that average daily maximum temperatures in Sonoma County will rise by up to 11.7 F, and minimum temperatures will increase by 8.4 F. The frequency, intensity, and duration of extreme heat events in Sonoma County are expected to increase, causing more heat-related injuries, illness, and death. It will also damage ecosystems and disrupt agriculture.

The changing climate in California drives a dramatic increase in the number and the severity of wildfires. Three of the ten most destructive wildfires in the state's history occurred in Sonoma County in the last 10 years. By the end of the century, the number of large wildfires will increase by 40 to 90%, depending on how much rain Sonoma County receives. Modeling predicts that rain will occur in bursts of extreme precipitation with prolonged dry periods in between. Run-off and groundwater recharge will both decrease in dry periods, resulting in a 22% greater water deficit in Sonoma County. In wet periods, extreme precipitation could cause runoff to increase by up to 91%, resulting in flooding, erosion, mud flows and landslides, and other damage. Flooding will be exacerbated by rising sea levels, which will contribute to episodic flooding from rainfall as well as permanent inundation of low-lying coastal, bay-front and river areas. Rising seas will also cause salt intrusion into groundwater resources and coastal erosion.

Regional & Statewide Climate Programs

There are many statewide and regional climate strategies, plans, programs, and regulations that form the foundation for the County's Climate Plan. Key among these are the state's Climate Change Scoping Plan to Achieve Carbon Neutrality, regulations that shift the power grid to renewable energy, drive cars, trucks, and buses to zero and near-zero emissions, remove compostable materials from the waste stream, and set statewide targets for carbon sequestration through nature-based solutions. In Sonoma County, the Regional Climate Protection Authority's (RCPA's) Climate Mobilization Strategy, and the Sonoma County Transportation Authority's (SCTA's) Moving Forward 2050 plan serve to unify the jurisdictions in

Sonoma County in approaches to reduce emissions from energy use and transportation, and in increasing resilience in our communities and landscapes.

Sonoma County Carbon Inventories

The Climate Plan relies on the 2022 community-wide greenhouse gas inventory developed by the Regional Climate Protection Authority, and the County of Sonoma 2021 Municipal Greenhouse Gas Inventory to establish a baseline for emissions from the built environment. In 2021, County operations emitted 31,700 metric tons of greenhouse gases, measured as carbon dioxide equivalents, or CO2e. Greenhouse gas emissions attributed to the unincorporated areas of Sonoma County were 817.2 thousand metric tons of CO2e in 2022. Both the County's emissions and the emissions from the unincorporated areas have decreased. The County's 2023 Carbon Inventory and Potential Sequestration Study reported that in 2022, natural and working lands in Sonoma County held 105.4 million metric tons of carbon, measured as CO2e, and lands owned by the County held about 2.2 million metric tons of CO2e. The study also demonstrated substantial opportunities to increase the amount of stored carbon by applying nature-based solutions on the landscape. If Sonoma County achieves a proportionate share of the statewide carbon storage targets, by 2030 there will be 477 thousand additional tons of CO2e stored in the landscape every year. Increasing carbon storage reduces carbon in the atmosphere just as cutting emissions does.

Climate Resilience Measures & Actions

The Climate Resilience Comprehensive Climate Plan includes 54 measures and actions to reduce carbon emissions from County operations and to increase carbon storage on County-owned lands. The measures and actions were informed by climate-related studies, strategies, and plans developed by the County and its partners, and align with their recommendations. Key among these are the RCPA's 2021 Climate Mobilization Strategy, Sonoma Water's 2021 Climate Adaptation Plan, the 2021 Sonoma County Multi-Jurisdictional Hazard Mitigation Plan, the 2022 Sonoma County Climate Resilient Lands Strategy, the 2023 Sonoma County Community Wildfire Protection Plan, transportation studies, fleet transition plans, energy audits, and other documents, including a Climate Action and Resiliency Plan being developed for Regional Parks, and materials developed for the update to the General Plan.

The measures and actions are organized under six sectors: Energy (10 measures), Transportation (12 measures), Waste (10 measures), Water (8 measures) Wildfire (7 measures), and Natural & Working Lands (7 measures). There is a description of important background and policy considerations for each sector, and a summary of early actions taken by the County to advance progress in each sector. Climate Plan measures are summarized in a table, followed by a one-page snapshot of each measure in the sector. Summary tables of measures are provided below, organized by sector. For a summary of all measures and actions please see Appendix C of the Climate Plan.

ENERGY

The Board invested in Early Actions to pilot renewable energy installations with storage and added heat pump heating and cooling at the Santa Rosa Veterans Memorial Building allowing it to serve as a community cooling site in extreme heat.

Energy Sector Early Action Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
E-EA-1	Decarbonize Doran Beach infrastructure through Solar generation and backup power.	2023-24	Regional Parks
E-EA-2	Pilot energy resilience upgrades within the Santa Rosa Veteran's Building by adding solar and battery storage.	2023-24	Climate, Public Infrastructure
E-EA-3	Pilot improved energy efficiency and systems within the Santa Rosa Veteran's Building.	2023-24	Climate, Public Infrastructure

County Operations measures phase in recommendations from investment grade energy audits to reduce and decarbonize building energy use, increase renewable energy, and provide energy storage. Some measures establish energy use policies and provide training and other support. There is a refrigerant management measure to reduce energy demand.

Energy Sector County Operations Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
E-CO-1	Reduce energy use and increase resilience at existing county facilities in the near-term through energy upgrades.	N	Public Infrastructure, Climate
E-CO-2	Reduce energy use and increase resilience at existing County facilities in the mid-term through energy upgrades.	M	Public Infrastructure, Climate
E-CO-3	Prepare plan & reduce energy use and increase resilience in the longer term at remaining County facilities planned for continuing use through energy upgrades.	L	Public Infrastructure, Climate
E-CO-4	Reduce greenhouse gas emissions due to electricity use for County operations by purchasing Evergreen power from Sonoma Clean Power for all electricity use.	N	Public Infrastructure, Climate, Budgets
E-CO-5	Minimize energy use and maximize resilience in new County facilities by developing energy policies.	M	Public Infrastructure, Climate
E-CO-6	Minimize energy use and maximize resilience in the new County Government Center by	M	Public Infrastructure, Climate

	following approved building energy design policies (E-CO-5), or by achieving LEED certification.		
E-CO-7	Improve refrigerant leak detection & repair, and transition to lower global warming intensity refrigerants as feasible.	M	Public Infrastructure, Climate
E-CO-8	Reduce energy use and increase resilience in the mid-term by completing public lighting upgrades to high-efficiency systems.	M	Public Infrastructure
E-CO-9	Support decarbonization transition by planning for maintenance needs and staff training related to operation and maintenance of new technologies.	M	Public Infrastructure, Climate, HR
E-CO-10	Implement Regional Parks plan (when/as approved) to improve efficiency and decarbonize Parks buildings.	L	Regional Parks, Public Infrastructure, Climate

TRANSPORTATION

The Board invested in Early Actions to expand bikeways and electric vehicle charging infrastructure, and pilot fare-free transit.

Transportation Sector Early Action Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
T-EA-1	Accelerate creation of Class 1 Bikeways by funding transaction fees & costs related to right-of-way acquisition, and outreach materials.	2023-24	Regional Parks
T-EA-2	Expand the County's Electric Vehicle (EV) Charging Infrastructure with Level II and III charging infrastructure and deployable, solar-powered EV chargers.	2023-24	Public Infrastructure / Fleet
T-EA-3	Implement a Fare-Free service pilot on Sonoma County Transit, Santa Rosa City Bus, and Petaluma Transit, with the goal of rebuilding transit ridership.	2023-24	Sonoma County Transit, Santa Rosa & Petaluma
T-EA-4	Fund the right-of-way portion of the Arnold Drive Bike Lane project to add nearly 2 miles of Class II bike lanes on Arnold Drive in Sonoma Valley.	2023-24	Public Infrastructure / Roads

County Operations transportation measures focus on County fleet transition to zero emissions. They also expand charging infrastructure and Class I bikeways, seek to shift employee commute patterns, reduce vehicle idling emissions, and provide training and support for technology transition.

Transportation Sector County Operations Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
T-CO-1	Decarbonize the County fleet of light duty vehicles by 2040.	N M L	Public Infrastructure, Climate
T-CO-2	Implement demonstration projects and plan to support decarbonizing Sheriff pursuit vehicles.	M L	Public Infrastructure, Climate
T-CO-3	Decarbonize the fleet of medium & heavy-duty vehicles (greater than 8,500 lbs. gross vehicular weight) by 2042.	M L	Public Infrastructure, Climate
T-CO-4	Decarbonize the transit bus fleet by 2040.	M L	Public Infrastructure - SC Transit
T-CO-5	Deploy zero emission vehicle infrastructure in number and locations to support the decarbonization schedule for light and heavy-duty fleets.	N M L	Public Infrastructure, Climate
T-CO-6	Decarbonize off-road heavy-duty equipment by 2042.	M L	Public Infrastructure, Climate
T-CO-7	Reduce idling emissions from county fleet vehicles and vehicles visiting county facilities by adopting policies and/or ordinances as appropriate.	N M	Public Infrastructure, Climate, HR
T-CO-8	Support vehicle fleet transition by planning for maintenance facility needs and staff training related to vehicle and fueling/charging infrastructure technologies.	M	Public Infrastructure, Climate, HR
T-CO-9	Reduce emissions from employee commute by 50% by 2030.	N M L	Climate, HR, OMB, Public Infrastructure, SCTA, SMART, Transit Operators
T-CO-10	Support the Sonoma County Airport Sustainability Master Plan (when/as approved).	M L	SC Airport, Climate
T-CO-11	Create Class 1 Bikeways that support an interconnected and protected network	M L	Regional Parks, Climate
T-CO-12	Decarbonize small offroad engines beginning in 2024 by requiring all purchases be zero-emission equipment.	N M L	Regional Parks, Public Infrastructure, Climate

ZERO WASTE

The Board invested in Early Actions developing a model ordinance regulating construction, demolition, and destruction waste, and a pilot project exploring how resilient community food networks can also reduce food waste.

Waste Sector Early Action Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
ZW-EA-1	Develop a Construction, Demolition & Deconstruction Model Ordinance.	2023-24	Public Infrastructure, Zero Waste Sonoma
ZW-EA-2	Conduct a 3-year project to create community-based food networks to increase community resilience to climate change.	2023-24	UCCE

County Operations measures phase in recommendations form the Zero Waste Audit and Characterization Study to increase recycling and organic waste diversion by employees.

Waste Sector County Operations Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
ZW-CO-1	Establish a measurable Zero Waste program with leadership and accountability in all County departments and facilities to increase waste diversion.	N	Climate, Public Infrastructure, Zero Waste Sonoma, Department Heads
ZW-CO-2	Establish and update facility-specific near-term actions to increase waste diversion by 50% for each facility type.	M	Climate, Zero Waste Leadership Team (ZW-CO-1), Zero Waste Sonoma
ZW-CO-3	Demonstrate and document compliance with statewide organic waste diversion requirements (SB 1383).	N	Zero Waste Leadership Team, Public Infrastructure, Zero Waste Sonoma
ZW-CO-4	Increase diversion of organic waste from landfills by 100% in County facility types that generate organic waste.	N	Climate, HR, Public Infrastructure, Zero Waste Sonoma, Communications
ZW-CO-5	Review diversion outcomes of near-term measures and actions and develop a comprehensive Zero Waste Plan.	M	Climate, Zero Waste Leadership Team, Zero Waste Sonoma
ZW-CO-6	Decrease the use of disposable food ware for onsite and offsite County-facilitated dining by 100% through a County-wide policy.	M	Climate, HR, Zero Waste Leadership Team
ZW-CO-7	Develop centralized universal waste collection stations in every County facility to ensure access.	M	Climate, Public Infrastructure
ZW-CO-8	Prioritize five types of procurement contracts with upstream suppliers, review, and develop waste reduction benchmarks for future contracts.	M	Climate, Zero Waste Leadership Team, Public Infrastructure

ZW-CO-9	Evaluate and implement strategies to enhance waste diversion for the Reuse/Recycling Program Center.	M	Climate, Zero Waste Leadership Team, Public Infrastructure, Zero Waste Sonoma
ZW-CO-10	In partnership with the Bay Area Air Quality Management District and the Northern Sonoma County Air Pollution Control District, evaluate opportunities to cost-effectively reduce landfill gas emissions from closed landfills.	M	Climate, Public Infrastructure, BAAQMD, NSCAPCD

WATER

The Board invested in Early Actions to evaluate flood risks, flood-managed aquifer recharge, and drought impacts, and expand rainwater catchment.

Water Sector Early Action Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
W-EA-1	Provide a county-wide pilot rebate & training program to promote household-level water storage through rainwater catchment.	2023-24	Sonoma Water, RCDs, Sonoma-Marin Water Savings Partnership, Daily Acts
W-EA-2	Conduct a countywide assessment of flood risk management and develop recommendations for integrated flood risk management.	2023-24	Sonoma Water, Emergency Management
W-EA-3	Improve resiliency & minimize economic loss from future droughts through assessment & evaluation of 2012-2014 & current droughts.	2023-24	Sonoma Water, Emergency Management
W-EA-4	Conduct a feasibility study of flood-managed aquifer recharge in the Alexander Valley.	2023-24	Sonoma Water
W-EA-5	Enhance rainwater catchment & water storage in Regional Parks.	2023-24	Regional Parks

County Operations measures for water resilience include nature-based practices as well as water efficiency and rainwater storage measures in County buildings.

Water Sector County Operations Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
W-CO-1	Develop low-impact rainwater harvesting systems on County-owned facilities.	M	Regional Parks, Public Infrastructure, Climate, Sonoma Water
W-CO-2	Evaluate and implement restoration projects of upland watersheds on critical landscapes	M L	Regional Parks, Public Infrastructure, Climate,

	that have been impacted by wildfire or identified as highly vulnerable areas, on County-owned lands.			Permit Sonoma, Sonoma Water, Ag + Open Space
W-CO-3	Identify & address areas contributing to soil instability & erosion on County-owned lands, with a focus on wildfire hazard areas with high risk of post-fire geohazards to critical assets, including water infrastructure & critical habitats.		L	Climate, Emergency Management, Permit Sonoma, Regional Parks, Sonoma Water, Public Infrastructure
W-CO-4	Evaluate and prioritize conservation practice projects on County-owned lands to enhance water resilience and mitigate drought, flood, and debris flows.		M	Regional Parks, Climate, Permit Sonoma, Sonoma Water, Emergency Management
W-CO-5	Evaluate, prioritize, and implement water saving features into current and new construction of County facilities.		M L	Climate, Public Infrastructure, Regional Parks
W-CO-6	Evaluate opportunities and barriers to utilizing grey water at new and existing County-owned facilities/lands with high water demand.		M	Climate, Public Infrastructure, Regional Parks
W-CO-7	Develop policies standardizing use of future climate data in planning, designing, and maintaining County infrastructure and facilities.	N	M	Climate, Emergency Management, Permit Sonoma, Sonoma Water, Ag + Open Space, Information Services
W-CO-8	Conduct a vulnerability assessment/feasibility study for County-owned infrastructure & lands that are at-risk of sea-level rise & riverine flooding and/or erosion to identify strategies to protect, accommodate, and/or retreat.	N	M L	Emergency Management, Climate, Sonoma Water, Regional Parks, Public Infrastructure

WILDFIRE

The Board invested in Early Actions to provide community grants for vegetation management, reduce wildfire risks by promoting targeted and prescribed grazing, and develop and implement community-centered wildfire risk reduction.

Wildfire Sector Early Action Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
WF-EA-1	Invest in strategic community grants supporting vegetation management strategies.	2021-24	Ag + Open Space, many collaborators
WF-EA-2	Reduce wildfire risk from vegetation fuels by promoting managed grazing through	2023-24	UCCE (with RCDs and USDA NRCS)

	education, outreach, and job skills training.		
WF-EA-3	Develop and implement a community-centered wildfire risk reduction program through Wildfire Adapted Sonoma County, and SoCoAdapts.	2021-26	Permit Sonoma

County Operations Wildfire measures focus on assessing vulnerability and developing wildfire hardening priorities, then proposing implementation with funding and environmental review. Measures also prioritize vegetation management and nature-based solutions to mitigate wildfire threats. The first measure is a project to formalize coordination and identify a sustainable organizational management and funding approach to wildfire resilience.

Wildfire Sector County Operations Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
WF-CO-1	Implement the Sustainable Wildfire Resilience project with the Resiliency Coordination Team.	N	Climate, Ag+Open Space, Emergency Management, Permit Sonoma, Regional Parks, Sonoma Water, UCCE, RCPA, Fire Services, other partners
WF-CO-2	Develop a phased wildfire risk reduction and structure hardening plan for County-owned lands and facilities.	N M	Climate, Emergency Mgmt, Ag + Open Space, Permit Sonoma, Regional Parks, Public Infrastructure, Sonoma Water
WF-CO-3	Review County-owned lands to identify current buffer zone service, gaps, and opportunities.	M	Climate, Emergency Management, Regional Parks, Permit Sonoma, Public Infrastructure
WF-CO-4	Identify & prioritize suitable vegetation treatment & mulching project areas on County lands & prepare environmental review for priority projects.	N M	Permit Sonoma, Regional Parks, Sonoma Water, CalFire, Fire Districts
WF-CO-5	Implement fire-safe landscape practices, tree care, and protection on County-owned lands.	N M	Regional Parks, Climate, Fire Districts, Permit Sonoma
WF-CO-6	Evaluate schedule of vegetation management along roadsides/right-of-way areas	M L	Public Infrastructure, Climate, Emergency Management
WF-CO-7	Based on risk and vulnerability assessments, recommend assets and plan for managed retreat from wildfire risk or other climate hazards.	M L	Climate, Emergency Management, Permit Sonoma, Regional Parks, Sonoma Water, Public Infrastructure

NATURAL & WORKING LANDS

The Board invested in Early Actions to plan and implement climate smart practices throughout Sonoma County, including a program to expand targeted & prescribed grazing, and a collaborative carbon farming program funded in part by a $10 million USDA grant.

Natural and Working Lands Sector Early Action Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
NWL-EA-1	Create a Regional Parks Climate Adaptation and Resiliency Plan.	2023-24	Regional Parks
NWL-EA-3	Increase carbon sequestration through compost application on agricultural and community sites.	2023-24	RCPA, RCDs, ZWS, Daily Acts, Carbon Cycle Institute
NWL-EA-4	Increase carbon sequestration through collaborative climate smart agriculture.	2023-24	Climate, Ag Commissioner, RCPA, RCDs, Ag Institute of Marin, Marin Ag Land Trust, UCCE, CCI, Sonoma Farm Bureau

The County Operations measures build on the existing efforts of Sonoma County Regional Parks, Ag + Open Space, as well as RCDs, local agencies, non-profits, and community-based organizations who are national leaders in this space.

Natural and Working Lands Sector County Operations Measures			
Measure #	**Measure Short Name**	**Timeline**	**Key Departments & Agencies**
NWL-CO-1	Ag + Open Space will continue to consider conservation of important carbon stocks in their easement selection process.	N M	Ag + Open Space
NWL-CO-2	Increase coordination with tribes and opportunities for tribal collaboration of land management on County-owned lands by 2026.	N M	Regional Parks (coordinate w/Ag + Open Space, Climate, Sonoma Water)
NWL-CO-3	Identify appropriate sites and establish formal targets for compost and mulch application on County lands based on SB 1383.	N M	Regional Parks, ZWS, RCDs, Public Infrastructure, Climate
NWL-CO-4	Create urban forested green space on County-owned lands.	M L	Regional Parks, Public Infrastructure, Climate
NWL-CO-5	Increase carbon sequestration on County-owned lands by implementing beneficial practices from the Carbon Stock Inventory and Potential Sequestration Study.	M L	Regional Parks, Climate, RCDs, Public Infrastructure, Sonoma Water

NWL-CO-6	Provide County facilities and parks staff with ongoing training for best practices on climate smart landscaping practices by 2028.	M L	Regional Parks, Sonoma Water, Public Infrastructure
NWL-CO-7	Establish a Climate Resilient Lands Working Group.	N M	Climate, Ag + Open Space, Permit Sonoma, Regional Parks, Sonoma Water, RCPA, Tribes, RCDs, UCCE, & partners

Community Engagement

To develop the Climate Plan, the County reviewed the comments received during the 2021 Climate Action and Resiliency Town Hall meeting, as well as comments from partners, tribes, stakeholders, and community members on the key studies, strategies, and plans that underpin this Climate Plan. The County also sought input through surveys, focus group conversations, tabling at community events, interviews of community members and organizations, a 2023 Climate Resiliency Town Hall meeting, and two workshops with the Board of Supervisors. Materials, interviews, focus groups, surveys, and meetings were offered in English and Spanish. A recurring theme of the comments received was the need for deeper engagement with communities, especially those that have historically not had access to climate resilience policymaking.

The Climate Plan embraces that input and sets out an equity-centered strategy for engaging communities across Sonoma County, with an emphasis on climate justice and unincorporated communities. The strategy includes an advisory committee of community-based organizations that will guide and help conduct engagement. Engagement will be coordinated with Permit Sonoma, RCPA, and Sonoma Clean Power. The engagement will help the County understand the climate resilience priorities of different communities in Sonoma County, the barriers they face, and the most effective actions the County could take to advance climate resilience progress in communities. With advice from the advisory committee, the County will prepare recommendations for measures and actions to support community progress for the Board's consideration by the end of 2026. A list of potential measures and actions is included in the engagement strategy, with the expectation that the list and the individual measures will change as community priorities and needs are better understood.

Costs & Benefits

The County evaluated direct costs and benefits of measures where actions are sufficiently bounded to support estimates (21 measures). Estimates for measures involving nature-based practices were based on achieving a proportionate share of the statewide carbon storage targets on County-owned lands. The analysis showed the net cost-effectiveness over the life of the measures ranged from a net savings of up to $238,584 per metric ton of CO2e reduced (for completing the transition of public lighting to LED) to a net cost of $1,312 per ton of CO2e

reduced. Additional measures have costs and/or benefits characterized, however more precise information is needed to calculate meaningful cost-effectiveness.

A multi-criteria analysis, which applied a quantitative score to qualitative benefits, considered climate resilience, co-benefits, environmental equity and justice, cross strategic plan alignment, and state and federal funding potential, and greenhouse gas mitigation achieved. The analysis showed that nature-based solutions delivered the greatest overall benefit, relative to other measures. The County had a cost benefit analysis prepared of the relative value (calculated as the total social cost of carbon) to communities of the benefits from a measure (calculated as the total greenhouse gas emissions reduced). The analysis was performed for 17 measures, including six of the potential community progress measures. The analysis found that community microgrids have the highest relative value, followed by decarbonizing the County's light-duty fleet, deploying charging infrastructure, and implementing a suite of near-term energy upgrades to County facilities. Of the measures analyzed, those with the lowest value were the measures decarbonizing the heavy-duty fleet and off-road engines; these all had a net cost greater than $1,000 per ton of CO2e, however all are required by state regulations.

Funding & Financing

Over the last two years, the County has secured over $16.9 million in state and federal climate resilience funding, including expected direct pay tax credits and other incentives for solar generation and storage. This is in addition to roughly $60 million in federal funding secured for hazardous fuels reduction and community wildfire hardening. However, full implementation of the Climate Plan will require significant additional funding. The County tracks many funding opportunities, and prepared specific funding strategies for 10 measures in the Climate Plan and one of the potential community measures that directly corresponds to an objective in the Strategic Plan. The strategies map out best-fit funding opportunities for each of the measures in 2025 and 2026. The County will use these to plan and prepare applications. There are 30 upcoming funding opportunities the County can pursue.

The County of Sonoma has already implemented a property-assessed clean energy financing program, the Sonoma County Energy Independence Program. Since its inception it has financed over $109 million in climate resilience upgrades to homes and businesses. In addition, Sonoma Clean Power offers on-bill financing for certain energy upgrades. These are the two preferred financing options to support community progress. There are also incentives offered through the Bay Area Regional Energy Network (BayREN) and Sonoma Clean Power, and Pay As You Save (PAYS) programs from utilities. The RCPA has the authority to seek voter approval to raise climate resilience revenues as a Climate Resilience District. The County or the RCPA could also develop financing options modeled on successful habitat management programs. The options include: 1) a working lands carbon mitigation bank, and 2) a residential

retrofit offset reverse auction program. Using one of these options for climate resilience funding would be a novel approach not yet implemented elsewhere.

Equity in the Climate Plan

The County of Sonoma is committed to promoting and ensuring equitable access to government decisions and services, and to equitable outcomes. In developing this Climate Resilience Comprehensive Action Plan, the County began with the questions and promptings of our Racial Equity Toolkit Analysis, which is modeled on the analysis developed through the Government Alliance on Race and Equity. The County actively considered racial and social justice in the community engagement for the development of the Climate Plan, and intentionally incorporated climate justice and just transition in specific measures and actions that are part of the plan, and in the Multi-Criteria Analysis framework used to evaluate them. Community engagement for the Climate Plan was iterative and incorporated different modes of engagement. Materials, interviews, focus groups, surveys, and meetings were offered in English and Spanish. The Climate Plan embraced the input received and incorporated equity centered and community-focused engagement to further identify and refine potential actions the County could take to advance community climate resilience progress.

Candidate measures to support community climate resilience were developed based on community engagement and input about climate resilience beginning in 2021. While the measures collectively support climate resilience across all communities, individual measures and actions focus on and prioritize underserved communities. Examples of these candidate measures include microgrid planning and development, and energy efficiency and renewable energy access in underserved communities, transit improvements and reducing near-roadway transportation-related vehicle emissions, urban greening, and vulnerability assessments prioritizing protections and resiliency in underserved communities.

The Climate Plan also takes steps to increase equitable climate resilience decision-making in partnership with local tribal governments. Measures in the plan would establish a forum for regular engagement with tribal governments on climate resilience and expand opportunities for co-management of lands and traditional cultural practices in the landscape. These measures respond to priorities identified by Sonoma County tribes.