

COMMUNITY PREPAREDNESS

DEM

Ref #	Proposed Action
CP 1.3	Develop protocols and partnerships for communicating critical information to elected officials, government and community leaders, and the public during a disaster so they are fully informed, to include individuals with disabilities and others with access and functional needs, including individuals with limited English proficiency or non-English speaking
CP 2.1	Assess and update overall County emergency procedures, programs, organization, authorities, infrastructure, staffing, equipping, and processes to determine structural changes that would best fit the capacity and needs of the County in a future disaster
CP 2.3	Expand trainings and drills for countywide emergency managers, mutual aid partners, elected officials, and County staff
CP 3.1	Collaborate with volunteer, non-profit and private organizations to establish community working groups to serve as community and neighborhood liaisons

FIRE PREVENTION

Ref #	Proposed Action	Funding need
CP 3.4	Vegetation management inspections	\$3M for five years
CP 3.4.9	Expand chipper capacity	\$1.4M for five years
CP 3.4.5	Special Needs Assessment program to assist disabled and elderly property owners to comply with defensible space requirements "SNAP"	\$2.8M for five years

ISD

Ref #	Proposed Action	
CP 4.4.1	Identify primary County technology infrastructure, business systems, and critical facilities needed to support the essential services and critical business operations and implement specific protective measures <ul style="list-style-type: none"> • <i>Increase internet bandwidth, speed and redundancy to ensure responsiveness during a disaster, telework and migration to cloud collaboration tools. (~\$400k)</i> • <i>Expand functionality and application availability at alternate site. (~\$800k)</i> 	
CP 4.4.2	Identify community infrastructure and utility services that are essential to the operation of the County technology infrastructure and systems and implement specific protective measures. <ul style="list-style-type: none"> • <i>Install generator quick connect functionality at ISD Locations to ensure public safety and public communication tools are available (Data Center, Sonoma County Public Safety Consortium and Web/GIS) (\$150k; \$2 million for essential buildings with battery systems)</i> 	GSD: Generator installation and upgrade of transfer switch funded. GSD has PG&E SGIP program fund reservation submitted for County Government Center that will evaluate overall energy needs and provide incentives for battery storage systems. Microgrid for County

		Government Center is planned as a replacement for the Fuel Cell system. Incentive funds will pay for 1/3 of the total cost of a \$2.9M project.
CP 4.4.4	<p>Prioritize technology infrastructure modernization projects (both County and Community) that directly relate to mitigating risks for points of failure that affect accessibility and scalability of critical business systems. (~\$750k)</p> <ul style="list-style-type: none"> • <i>The disasters, emergencies and especially the pandemic has demonstrated a need to migrate to a mobile workforce, we need to pivot from and invest in laptops as opposed to desktops.</i> • <i>Redesign network connectivity architecture to ensure access to Internet and to applications running offsite by adding circuits to ensure diverse paths and automated rerouting of traffic.</i> • <i>Moving to cloud productivity and collaboration tools (e.g. O365/Teams) is a high priority for mobile/telework/virtual conferencing capabilities anywhere anytime.</i> • <i>Implement resilient server architecture by virtualizing critical server, storage, and database structures to allow movement of service delivery between data centers and cloud providers.</i> • <i>Invest in converting paper records and manual workflows to digital and online services to improve efficiency and support mobile/telework anywhere anytime access to information.</i> 	

ECONOMY

EDB

Ref #	Proposed Action
E 1.1	Build sustainable career pathways tied to education and new business opportunities, especially in the area of construction.
E 2.1	Assist public and private organizations in Sonoma County in accessing economic recovery loans and other available assistance.
E 2.3	Expand broadband infrastructure across the County

CDC

Ref #	Proposed Action
E 1.2	Support workforce housing solutions.

HOUSING

Permit Sonoma

Ref #	Proposed Action	Funding Status
H 2.1	Identify potential changes to land use regulations, processes and procedures that could reduce the time to complete processes, decrease uncertainty in the approval process and reduce the cost of housing development, including fire recovery permits	
H 2.1.10	Review higher density development opportunities within Urban Service Areas near jobs and transit, as provided in the General Plan, by considering a workforce housing combining zone district(s)	Project on time but small budget augmentation of \$48k would allow additional public outreach and mitigation measures to address fire safety
H 2.1.11	Update Specific Plans, fee studies, and other planning documents to support meeting regional housing needs	Budget augmentation to two Specific Plan efforts currently underway to allow updated water supply analysis, including fire pressure, in EIRs; inclusion or fire resiliency discussion in draft Plan; and expanded community outreach \$53k and \$18k, respectively
H 2.1.12	Inform the General Plan Update process regarding issues related to respond to regional housing needs, hazard mitigation, and resiliency	The Safety Element now must be updated ahead of the larger GP Update, because the Housing Element cannot be updated without it. \$375,000 if done in conjunction with Multi-Jurisdictional Hazard Mitigation Plan
H 2.1.13	Develop for consideration additional housing initiatives that may become apparent after the current round of initiatives have been implemented; on-going cycles of regulatory updates allows the regulations to evolve with the needs and desires of the community	We have tentative approval for LEAP (Local Early Action Planning) funding for this effort; it will need to be augmented in FY 20/21
H 2.1.2	Collaborate and advocate on land use planning issues related to housing production, including General Plan update and for an environmentally appropriate and effective conservation and mitigation strategy update.	Extended public outreach during pandemic: Purchase MetroQuest and fund survey development, \$90,000
H 2.1.3	Continue to identify areas to address fire recovery regulatory changes related to increasing regulatory certainty, structure resiliency, and other, yet to be identified opportunities.	

H 3.1	Build/Rebuild/Retrofit more resilient homes in Wildland Urban Interface (WUI) and other high-risk hazard locations	GSD: SCEIP expansion to enable fire resiliency and seismic retrofit has been approved by the Board and launched. Major outreach campaign underway.
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NATURAL RESOURCES

Multiple departments

Ref #	Proposed Action
NR 1.1	Develop strategic, proactive fuel reduction and landscape resiliency priorities using key criteria (e.g., wildfire risk, public health and safety, water supply needs, economic impacts, and ecosystem sensitivity) using decision-support tools with objective data and expert advisors. <i>Parks, UCCE, Permit Sonoma, Water Agency GSD</i>
NR 1.2	Evaluate options for active management of forests, woodlands, and shrub lands on public and private lands for fuel and fire breaks that decrease risks to developed communities. <i>Permit Sonoma, UCCE, Water Agency</i>
NR 2.1	Assess Mark West Creek and other priority burned streams to identify and rank recovery and rehabilitation needs and prepare for potential secondary hazards over the next few winters. <i>Parks, Permit Sonoma, UCCE, Water Agency</i>
NR 2.2	Incorporate fire, flood and drought resiliency considerations in stream corridor land use decisions involving riparian zones and functional riparian zone protection/enhancement incentives and regulations. <i>Ag & Open Space, Permit Sonoma, UCCE, Water Agency</i>
NR 3.2	Continue to collect best available scientific information to inform policy development and county investments that protect watersheds and developed communities from natural disasters. <i>Ag & Open Space, Permit Sonoma, Water Agency</i>

Transportation & Public Works

Ref #	Proposed Action	Funding need
NR 1.2.1	Implement preventative fuel load reduction and fuel breaks along public road rights-of-way, according to priorities informed by NR 1.1 [Reduce fuel loads in forests, woodlands and shrub lands strategically to lower wildfire hazards to communities and sensitive habitats, improve delivery of resources and amenities people need, and move forests on a trajectory of increased resistance to drought, disease, and insects.]	\$3M
NR 2.1.9	Collaborate to provide guidance and support funding efforts for owners of individual or shared private roads and bridges with post-fire erosion and sediment control.	\$3M

Water Agency

Sonoma Water continues to implement Climate Adaptation actions that are consistent with the goals and actions in the Sonoma County Recovery & Resiliency Framework (NR 1.1, 1.2, 1.3, 2.1, 2.2, 2.4, 3.1, 3.2, 3.3, and 3.4) related to early warning systems, emergency response, community situational awareness, extending scientific understanding and data on post-fire and other watershed hazards, and enhancing our ability to continue to provide water supply, flood control, and wastewater services to the

community while leveraging resources and collaborating with other local, regional, state, and national stakeholders.

Program/Project/Activity	Sonoma Water's Costs to Date	Requested Funding (Scalable)
2017 Sonoma Complex Fires Emergency Response, Watershed Emergency Response Team, Lost Sewer Service Revenue	2,187,600	-
Climate Adaptation Technology and Equipment		
Advanced Quantitative Precipitation Information System Temporary Radar	255,800	-
Lake Sonoma Watershed Fire Camera Pilot Project	560,000	-
Sonoma One Rain Early Warning System	311,100	750,000
Redundant Mobile Supervisory Control and Data Acquisition	-	500,000
Climate Adaptation Planning		
Fire Mitigation Decision Support Tool and Project Implementation (Lake Sonoma)	23,000	750,000
Central Sonoma Watershed Protection: Wildfire Risk Reduction & Climate Resiliency	10,000	1,000,000
Water Quality and Ash Impacts from Post-Fire Burned Watersheds	575,000	900,000
Climate Adaptation Plan	890,300	850,000
TOTAL	4,812,800	4,750,000

EXPAND & ENHANCE SONOMA ONE RAIN SYSTEM EARLY WARNING SYSTEM - ONE RAIN NETWORK: EARLY WARNING HAZARD AND PUBLIC SAFETY MONITORING SYSTEM

Description: After the 2017 Fires, Sonoma Water installed and operated the Sonoma One Rain System, a network of rain gages, stream stage gages and soil moisture probes to monitor critical burned watershed areas and provide real time data to a decision support system used by the National Weather Service, Sonoma County Department of Emergency Services, Sonoma Water, and the public to inform rapid response during atmospheric river events. This system is widely used and has had over 2.5 million visits in its first two years of operation.

Requested Funding and Benefits: An expanded Sonoma One Rain network throughout the county with enhancements -- “fire weather” monitoring devices, measurement of rainfall shifts from infiltration to run off as surface flow, advanced data transmission, and integration with Advanced Quantitative Precipitation Information System radars -- will greatly improve the ability of emergency and water managers to assess public safety risks in real time, especially in burned areas. Sonoma Water will leverage National Weather Service, United States Geological Survey, and California Department of Water Resources partnerships and seek to be considered a “testbed” to attract investment.

This project is consistent with goals and actions in the Sonoma County Recovery & Resiliency Framework: NR1.1, NR2.2, NR3.1, NR3.2, and NR3.4 related to early warning systems, emergency response, community situational awareness, extending scientific understanding and data regarding post-fire and other watershed hazards, and leveraging partnerships.

REDUNDANT MOBILE SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA)

Description: Fires and flood events have caused Sonoma Water multiple high risk voice, data, and radio communications failures, and in one instance the complete evacuation of our headquarters. Sonoma Water does not have a redundant SCADA system to allow continued operations of water and sewer services during an emergency which represents a significant vulnerability.

Requested Funding and Benefits: A redundant mobile SCADA system with built in GIS capability for developing real-time, incident specific mapping, radio system interoperability with county public safety radio, and monitoring of security systems to maintain communications and essential services during an emergency and facilitate Sonoma Water's ability to quickly restore services. This is a critical need. Sonoma Water is working to identify possible federal (U.S. Bureau of Reclamation) and state (State Water Resources Control Board, Department of Water Resources) funding opportunities.

This project is consistent with goals and actions in the Sonoma County Recovery & Resiliency Framework: NR1.1, NR2.2, NR3.1, NR3.2, and NR3.4 related to early warning systems, emergency response, community situational awareness, extending scientific understanding and data regarding post-fire and other watershed hazards, and leveraging partnerships.

FIRE MITIGATION DECISION SUPPORT TOOL AND PROJECT IMPLEMENTATION: A MULTI-AGENCY STRATEGY TO IMPLEMENT WILDFIRE HAZARD REDUCTION PROJECTS IN THE LAKE SONOMA WATERSHED

Description, Requested Funding, and Benefits: This unfunded project provides for a multi-agency wildfire hazard reduction plan defined by a stakeholder driven strategy and prioritization method/tools for fuels treatment. The existing partnership of Sonoma Water, North Sonoma County Fire Protection District, Sonoma County Transportation and Public Works, Sonoma County Agricultural Preservation and Open Space District (Ag + Open Space), University of California Cooperative Extension, and Resource Conservation Districts requires funding to prepare a science-based fuels treatment prioritization plan, develop pilot projects for fuel reduction in the watershed, seek funding to provide direct landowner support for priority projects, and document a replicable process for other watersheds. The Fire Mitigation Decision Support Tool and implementation of wildfire hazard reduction projects in the Lake Sonoma Watershed will provide long term benefits to water supply and water quality. Other stakeholders include U.S. Army Corps of Engineers (Corps), Friends of Lake Sonoma, and local tribes.

Sonoma Water has successfully leveraged funding through PG&E's Resilient Communities grant program, and CAL FIRE's California Climate Investments Fire Prevention Grant Program, and plans to identify and leverage other sources including Resource Conservation Districts, the Corps, and U.S. Department of Agriculture Natural Resources Conservation Service (NRCS).

This project is consistent with goals and actions in the Sonoma County Recovery & Resiliency Framework: NR3.1, NR3.2, NR3.3, NR3.4 related to collecting and considering scientific data to better understand our fire-adapted landscape, inform investments that protect watersheds and developed communities from natural disasters; inform policy and plan development; and improve natural resources hazards and resiliency data management and accessibility among a variety of stakeholders.

CENTRAL SONOMA WATERSHED PROTECTION: WILDFIRE RISK REDUCTION & CLIMATE RESILIENCY

Description: The Central Sonoma Watershed Project consists of a series of flood detention reservoirs and conveyance facilities providing primary and critical flood protection in the upper Russian River watershed, Santa Rosa, and downstream communities. These facilities and the communities they serve are at

significant risk to catastrophic wildfire and associated downstream risks of flooding, landslides and debris flows.

Requested Funding and Benefits: Sonoma Water is developing a Watershed Plan, Environmental Assessment, and Stakeholder Outreach and Engagement Program to address facility vulnerabilities, identify and implement a series of wildfire risk reduction actions, and heighten public awareness on opportunities to improve wildfire resiliency in partnership with NRCS, CAL FIRE, Resource Conservation Districts, Ag + Open Space, City of Santa Rosa, local tribes, and landowners. Sonoma Water has successfully leveraged \$2.25 million in NRCS funding, and plans to leverage other NRCS funding streams, and Resource Conservation Districts among others, to offset a shortfall of an estimated \$1 million for completion of the environmental assessment. Framework alignment: NR 1.2.1, NR 1.2.5, NR 1.3.1, NR 2.1.9, NR 2.4.6, NR 3.3.5.

MONITOR AND EVALUATE WATER QUALITY AND ASH IMPACTS FROM POST-FIRE BURNED WATERSHEDS
Description: Following the 2017, 2018, and 2019 wildfires, Sonoma Water developed, adapted, and expanded a post-fire sampling and assessment program with the U.S. Geological Survey and the Lawrence Berkeley National Laboratory to study the impacts of wildfires on watershed hydrology and water chemistry. The program includes surface water, riverbed sediment and ash sampling at strategic locations to evaluate areas downstream of burned watersheds.

Requested Funding and Benefits: There is a critical need to understand watershed resiliency to periodic wildfire in terms of water quality, microbial controls on watershed biogeochemistry, and how changes in water quality in the fire impacted areas of the watershed impact drinking water production at Sonoma Water's Wohler and Mirabel facilities in Forestville as well as other water supply systems. Opportunities exist to coordinate with other federally funded projects at U.S. Geological Survey, and leverage datasets and findings from other U.S. Geological Survey research activities to fund additional research, modeling, and data analysis.

This project is consistent with goals and actions in the Sonoma County Recovery & Resiliency Framework: NR1.1, NR2.1, NR3.1, NR3.2, and NR3.3 related to enhancing the scientific understanding of post-fire water quality impacts in watersheds and improving the resiliency of critical drinking water infrastructure.

COMPLETE AND OPERATIONALIZE CLIMATE ADAPTATION PLAN, INCORPORATE INTO EXISTING MITIGATION PLANS

Description: Sonoma Water is developing a Climate Adaptation Plan to assess and identify threats to its water supply, flood control, and wastewater infrastructure, and develop adaptation strategies to reduce vulnerabilities created by climate change and ensure the long term health and resilience of our infrastructure. Preliminary findings indicate that some of the greatest climate impacts to Sonoma Water's infrastructure and operations are the intensity of precipitation events, wildfire and urban fire hazards, and the duration of droughts.

Requested Funding and Benefits: The Plan would be enhanced if Sonoma Water complete additional focused modeling of flood impacts, fire hazards to infrastructure, water quality impacts from fire debris runoff, and severe drought impacts on water use and water availability. These enhancements would also better position Sonoma Water's Climate Adaptation Projects for FEMA funding. Stakeholders and partners include Sonoma Water retail water contractors, Ag + Open Space, Resource Conservation

Districts, Regional Parks, Permit Sonoma, Sonoma Land Trust, Sonoma Ecology Center, Lawrence Berkeley National Laboratory, State Water Board, and Regional Water Quality Control Boards. Sonoma Water plans to identify and leverage federal and state funding sources including FEMA, CAL FIRE, Natural Resources Agency, Department of Conservation, and others that fund infrastructure resiliency.

This project is consistent with goals and actions in Sonoma Water’s Strategic Plan, Sonoma Water’s Water Supply Action Plan, and the Sonoma County Recovery & Resiliency Framework: NR1.1, NR1.3, NR2.1, NR2.2, NR2.4, NR3.1, NR3.2, NR3.3, and NR3.4 related to enhancing our ability to continue to provide water supply, flood control, and wastewater services to the community while leveraging resources and collaborating with other local, regional, state, and national stakeholders.

ALTERNATIVES

If the costs for the projects and programs identified above are not supplemented with PG&E Settlement Funds, Sonoma Water will be unable to proceed with the expanded and enhanced activities for the Sonoma One Rain System, Water Quality Monitoring Project, and Climate Adaptation Plan. Sonoma Water would not be able to complete the environmental assessment for the Central Sonoma Watershed Project, and would have to delay for one or more years the Redundant SCADA System and the Fire Mitigation Decision Support Tool and Project Implementation (Lake Sonoma).

SAFETY NET

Consolidated feedback from DHS, HSD, CDC, CSS, Probation, Sheriff, Courts, DA, PD

Ref #	Proposed Action
SN 3	Build capacity with cross sector partners and community members to improve coordination and communication.
SN 4	Understand and address social inequities to advance opportunities for all.
SN 2	Ensure the post-fire mental health and resiliency needs of the community are met.
SN 1	Enhance core County service capacity to address long-term recovery needs and prepare for future disasters.

UCCE

Ref #	Proposed Action
SN 1.3	Explore creation of contingency contracts with eligible food providers to provide healthy and nutritious food services during a disaster.
SN 1.4	Consider development of a contingency contract for coordination of food providers during an emergency, including an inventory and mapping of local food resources available throughout the county and nationally during disasters.

ADDITIONAL CONSIDERATIONS SINCE ADOPTION OF FRAMEWORK

Permit Sonoma

Lower Russian River Specific Plan - \$900,000

This planning effort will span from Wohler Bridge to Duncan’s Mill. Its scope will delve into many aspects of resiliency. In Duncan’s Mill, sea level rise requires that the county examine relation of a

substantial portion of the community, including a Federal Historic commercial. Is the effort undertaken by private property owners, the county or a combination of the two? Should it be done with 2021 dollars or 2050 dollars? Other upstream communities have significant challenges that will benefit from resiliency efforts – cellular service and broadband deficiencies that make emergency communication extremely difficult; inferior road widths and connections that impede safe evacuations; high fire severity within and around residential and commercial enclaves; insufficient water pressure and supply especially in hillside built environments; wastewater treatment and its possible reuse to enhance resiliency; and, of course, the effects of persistent flooding along the river. The specific plan will afford the framework to address these resiliency issues, engage the community and recommend measures to pay for these improvements.

General Plan Overhaul - \$5,000,000

The current plan provide little guidance for a resilient county. Given our challenges with sea level rise, climate change, fire hazard, repetitive flooding, power shut downs, food insecurity, seismic safety, housing scarcity and imbalance, racial and social inequities directly impacting our community through public and private development, this comprehensive document represents the best opportunity to bring this resiliency issues into focus, identify solutions, and implement them as a subregion – tribal partners, cities and the county.

ISD

- Initial cloud licensing, security, management tools and implementation (\$3.8 million)
- Start-up funds to accelerate conversion of critical/essential documents to digital (\$2 million)
- Supplemental investment to support DMP replacements with laptops/tablet devices (\$1 million)

Ag & Open Space

- Purchase conservation easements and invest in fee title parklands in WUI areas to protect our urbanized areas from catastrophic wildfires
- Contribute funding towards parklands/recreation/urban open space in areas impacted by recent fires (e.g., Larkfield, Coffey Park)
- Implement land conservation and green infrastructure investments identified in the RCPA Climate Action Plan
- Fund the land conservation and green infrastructure elements of the upcoming Board's Climate Action Strategic Pillar;
- Reimbursement for all of AOS legal fees incurred.
- Implement a grant program that would support projects (habitat restoration, addressing erosion/poorly design roads, replacement of burned fencing, damaged infrastructure, etc) on lands protected with a District-held conservation or open space easement.
- Payment for fire-related expenditures on fee properties incurred by Ag + Open Space in 2017 that were not reimbursed by FEMA (approximately \$250,000)
- Monitor burned public land native vegetation recovery, erosion and sedimentation risks, invasive/noxious species establishment to prioritize and implement remedial efforts as needed to minimize hazards
- Coordinate with partners regarding planning and implementation of multi-benefit stream rehabilitation/restoration projects on public and private lands

GSD

- Santa Rosa Veterans Building – Fire Resiliency & Energy Efficiency Pilot program – this project has been submitted as part of the PG&E SGIP program. The program will enable a grid-independent, resilient site with battery storage, generator, solar parking canopy combined to create safe, mass-care and shelter site and community resource center. Additional match funds needed. (\$750,000)
- Los Guilicos Microgrid – Fire resiliency program – Design a new microgrid power generation and battery storage system for Los Guilicos Campus to provide power during power outages. Design funding needed. CIP Project. (\$130,000)
- County Government Center Microgrid – Fire Resiliency program – in order to maintain power on the County Administration Campus during emergency power outages, need to replace the County’s Fuel Cell system and upgrade the 12KV loop with new microgrid power generation and battery storage. Design funding needed to upgrade Andover Controls systems as first phase of this project. CIP project. (\$150,000)
- Cloverdale Pool Solar Thermal – Climate Resiliency and Adaptation Program - Install new solar thermal hot water pool heater and associated code upgrades for the swimming pool at Cloverdale. CIP project. (\$665,000)
- Expand County Workplace EV Charging – Expand opportunities for electric vehicle workplace charging for all county employees - upgrade existing electric vehicle infrastructure and expand the infrastructure and additional 25 EV charging stations and installation. (\$625,000)
- Replace County Emergency Operations Center – Fire Resiliency and Recovery Program Current EOC no longer supports the mission, is antiquated and does not have sufficient space. New EOC is needed to incorporate modern systems and technologies used in disaster response. Class 1 essential facility could host an alternate Public Safety Answering Point (PSAP) and serve as a conference center facility for non-disaster County functions. CIP Project. (Design only \$250,000, Estimated Total Budget ~\$20M)
- Seismically Upgrade Petaluma Veterans Hall and Replace Roof – Fire Resiliency and Recovery Program – ensures continued operations during emergency for facility that serves as a mass care and shelter site, community resource center. CIP Project. (\$2.5M)
- Seismically Upgrade Santa Rosa Veterans Building – Fire Resiliency and Recovery Program – ensures continued operations during emergency for facility that serves as a mass care and shelter site, community resource center. CIP project. (\$2.77M)
- Sonoma Veterans Building Generator purchase – Fire Resiliency and Recovery Program. Existing project has upgraded transfer switches but does not have sufficient funds for purchase of the generator. CIP Project. \$300,000