



**LIVING
IN A
FIRE-ADAPTED
LANDSCAPE:**

PRIORITIES FOR RESILIENCY

SONOMA COUNTY NATURAL & WORKING LANDS

This report represents a compilation of prioritized recommendations focused on the long-term resiliency of Sonoma County watersheds – including our natural and working lands. A wide variety of experts provided recommendations, and the report includes the highest agreed upon priorities, but does not represent any one organization, nor does it reflect consensus among the participating organizations.

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Background & Report Purpose

The fires of October 2017 devastated communities in Sonoma County, and the road to recovery will be long and arduous. In addition to the tragic loss of life and the destruction of homes, businesses, and public infrastructure, the fires burned natural and working landscapes. This report focuses on the impacts to natural and working lands, and how we can keep them vibrant for future generations.

A fundamental part of Sonoma County's identity, these watershed lands are critical to the health and recovery of our communities, including our economic health. They provide local food, filter drinking water, protect cities and towns from flooding and landslides, and sustain biological diversity. Our watersheds also provide iconic natural beauty that in turn gives residents an opportunity to enjoy the healing mental and physical health benefits of the outdoors.

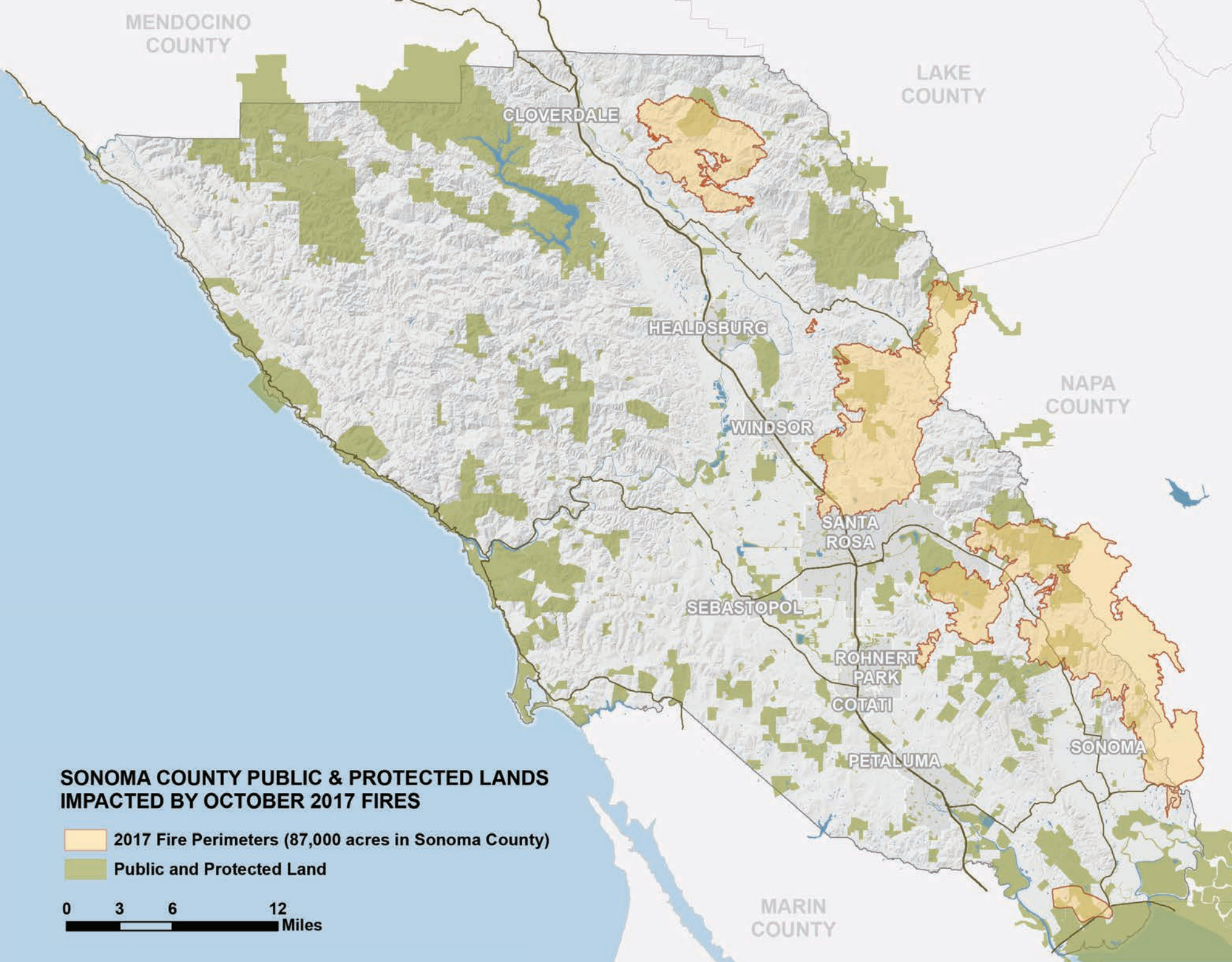
Historically, these natural and working lands regularly experienced fire. Fire was used as a landscape management tool for millennia by the Native Americans who stewarded our local watersheds prior to European colonization. Despite American settlers' efforts at fire suppression, extreme fires have occurred in Sonoma County previously, with the 1923 and 1964 fire seasons comparable in many ways with 2017. Our local natural history is clearly fire-adapted, with many native plant communities relying upon fire for their continued viability.

While many natural and working lands will recover on their own over time, some areas will need active restoration, management, and investment of resources

to prevent runoff of toxic materials and sediments into drinking water supplies and sensitive habitats; to minimize the threat of flooding, landslides, and other safety hazards; and to maximize ecosystem recovery. Through thoughtful and targeted assessments, planning, permitting, and conservation of fire-prone habitat lands, the health and function of Sonoma County's open space lands can be strengthened so that we are better prepared for future fires.

This report outlines a set of strategic, actionable priorities to protect natural and working lands, public and private landowner investments in these watershed lands, and the continuing ability of these lands to provide multiple benefits to human and natural communities. Many of the priorities outlined in this report will apply not only to future fires, but to other disasters such as floods, droughts and earthquakes. As development pressure in the wildland urban interface intensifies, and the impacts of climate change increase, so does the risk of catastrophic wildfire spreading into urban areas.

The work of the Watershed Collaborative is based on a vision of our landscape and its people adapting to the changing climate without catastrophic loss. Resiliency is the ability to recover quickly from difficulties, and in the context of our watersheds this extends to natural systems, working lands, and the people who manage, live in, and enjoy these places. One heartfelt lesson we have all learned from the fires is that sharing knowledge, skills, and resources not only produces better results, it also strengthens us as a community.



SONOMA COUNTY PUBLIC & PROTECTED LANDS IMPACTED BY OCTOBER 2017 FIRES

- 2017 Fire Perimeters (87,000 acres in Sonoma County)
- Public and Protected Land

0 3 6 12 Miles

Data Sources: Central LNU Complex Fire Perimeter (CalFire, 10/23/2017); Highway 37 Fire Perimeter (CalOES); Public and Protected Lands (CPAD, CCED); County of Sonoma ISD/GIS

Relationship To Other Fire Recovery Efforts

The County of Sonoma is leading the local recovery effort, working closely with other local, state, and federal agencies to address the impacts of the fire on the health, economic vitality and safety of Sonoma County citizens and communities. The County – in concert with special districts like the Sonoma County Water Agency and the Agricultural Preservation and Open Space District (Ag + Open Space) – leads watershed recovery efforts, via participation in CAL FIRE’s Watershed Emergency Response Team (WERT) and through other initiatives. The Sonoma County Board of Supervisors requested this report in the immediate aftermath of the fires to ensure that the expertise of agricultural and natural resources groups would inform the recovery and long-term resiliency of Sonoma County’s watershed lands.

In addition to the County of Sonoma’s lead role in watershed recovery and resiliency, other complementary efforts and initiatives are underway that will contribute information and strategies to watershed recovery. These include the Russian River Confluence, the Forest Conservation Working Group and the FOREVER Initiative, the Russian River Pilot Program, Sonoma County Regional Parks Integrated Parks Plan, Rebuild North Bay, SoCo Rises, Audubon Canyon Ranch’s prescribed fire initiative, Sonoma County Water Agency Strategic Plan, and the Sonoma County Ag + Open Space Vital Lands Initiative, among others.



Watershed Collaborative Approach

This report reflects a collaboration of the Sonoma County community to identify actions for natural and working lands impacted by the fires, with an emphasis on the protection of working lands, native habitats, wildlife, streams and wetlands, as well as human health and safety. This joint effort became known as the Watershed Collaborative. Although Ag + Open Space and the Sonoma Resource Conservation District provided coordination at the request of the Sonoma County Board of Supervisors, the proposed actions listed in this report reflect the priorities of multiple groups, and the report does not necessarily reflect the consensus of all participants. Working groups were formed around five focus areas with an additional group dedicated to overall coordination, in order to enhance efficiency and take advantage of the substantial local knowledge and expertise in our community. Each working group includes representatives from local, state and federal agencies, resource conservation districts, non-profits, agricultural groups, academic entities, watershed and community groups, and is chaired and coordinated by Ag + Open Space and Sonoma Resource Conservation District staff. The entities listed at the start of this report self-selected to participate in working groups based on their interest and expertise, and the entire process was open to anyone who wished to participate.

Each working group met three times, developing a list of tasks which they felt were critical to the health and resiliency of Sonoma County watersheds. The first meeting was an opportunity to discuss the fires and share ideas for short- and long-term actions. At the second meeting, attendees prioritized

the complete list of actions. During the third meeting, attendees reviewed the lists of summarized actions, and made any necessary revisions. A final meeting re-convened all of the working groups to review the final report in advance of its presentation to the Board of Supervisors. As a collaborative process and not a consensus-driven process, the actions identified in this report reflect a wide variety of sometimes differing opinions and expertise. This report was the product of a rapid assessment process that engaged many people during an unprecedented, challenging time and, therefore, is a starting point for further robust planning.





Overall Priorities

Presented below are a set of overall priorities to support the resiliency of natural and working lands in Sonoma County. These priorities extend across all five focus areas, which are discussed in further detail on the following pages.

1. Support landowners and land managers in assessing and mitigating watershed impacts from the 2017 North Bay fires.
2. Increase community awareness and preparedness for living in fire-prone landscapes.
3. Evaluate the response of natural and working lands to the fires to inform recovery, vegetation management, and fire-preparedness efforts.
4. Identify and implement practices – including land conservation, fuel-load management – that maximize the resiliency of natural and working lands to climate change and future disasters.
5. Ensure long-term attention to community and ecosystem resiliency through policy, long-term funding, and established working groups.
6. Permanently protect a network of lands that support biological diversity through changing climate conditions and prevent development in high risk areas.



Report Focus Areas

The five sections outlined below represent the five focus areas of the working groups. Each section contains a detailed list of priorities and actions. Some of the work outlined in the report is already planned or underway, and some has not yet begun.

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An aerial photograph of a rural landscape, likely a farm or agricultural area. The terrain is divided into a grid of rectangular fields, some of which are planted with crops. A winding road or path is visible, cutting through the fields. The colors are a mix of green, brown, and tan, suggesting different types of vegetation and soil. The overall scene is a typical agricultural landscape.

SECTION

1

FOCUS AREA

Data, Assessment, & Planning

Background: Data, Assessment, & Planning

Sonoma County is fortunate to have made investments in data that enabled public agencies, non-profits, and the scientific community to rapidly and effectively respond to this disaster – allowing the region to quickly identify building locations, perform hydrologic modeling, assess ecosystem function, and evaluate the threats to our watersheds and priorities for recovery. In this respect, we are ahead of the curve compared to most other places in the nation dealing with disasters of this magnitude. The data developed by Sonoma County agencies and institutions allow us to rapidly identify problem areas and places on the landscape most likely to pose threats to agricultural lands, native habitats, ecosystems and wildlife, as well as human health and safety. For example, the Sonoma County community is using LiDAR data developed with NASA to track and model sources of pollution likely to move into stream systems during storm events, hydrologic models to forecast the effects of atmospheric rivers and the recently completed fine-scale vegetation map to analyze burn severity by vegetation type.

Priority Actions: Data, Assessment, & Planning

1. Identify short-term toxin, sediment, and debris flow threats and other hazards to waterways and public safety.*

Rationale: Determine where immediate and short-term recovery efforts are needed to protect natural and working lands.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Establish a short-term, collaborative monitoring program to measure ambient toxin and sediment concentrations through the 2017-18 rainy season***
- b. Establish, in collaboration with partners, an assessment framework for tracking the fate and transport of contaminants [sediments and toxics] from burned regions to waterways for use in long-term monitoring of fire impacts**
- c. Survey roads, culverts, and other potential failure areas through professional evaluations and citizen science**
- d. Prioritize contamination control and remediation efforts in areas with significant potential to deliver contaminants to waterways, and monitor success of efforts**
- e. Identify areas with a high probability of debris flow or other hazards using Geographic Information Systems (GIS) and remote sensing to inform emergency planning decisions**

2. Evaluate the response of natural and working lands to the fires and related fire response activities.

Rationale: Inform how landowners can best manage their land to reduce and/or mitigate the long-term negative impacts of wildfire.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Evaluate fire severity and response based on land management activities [e.g., forest management, grazing, agricultural land cover] ***
- b. Conduct ground assessments to monitor natural vegetation response over long-term, especially among rare plants and rare plant communities [e.g., riparian, mesic chaparral, etc.] affected by the fire ***
- c. Acquire aerial imagery and a digital surface model of rural areas post-burn and use to assess fine-scale burn severity, vegetation mortality, carbon loss, etc. ***
- d. Analyze pre-fire vegetation data (e.g., vegetation type; understory and overstory fire/fuels) and burn intensity and severity to assess short-term change and long-term resiliency of ecosystems**
- e. Assess impacts of fire suppression [bulldozer lines, fire retardant, etc.]**
- f. Analyze wildlife response to wildfires, including analysis of wildlife corridors**

Actions identified by the working group as highest priority (bold) • *Indicates an action already underway • Priority action numbers are for reference only and do not imply a ranking.

3. Strengthen and coordinate data collection and analysis efforts for fire recovery.

Rationale: Provide information for agencies, NGOs, and landowners to better prepare for future wildfires and reduce their catastrophic impact.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. **Improve monitoring of tributary stream flows and water table levels to better prepare for potential flood events**
- b. Identify data needed for recovery and long-term resiliency
- c. Complete the planned total maximum daily load (TMDL) studies for the Russian River watershed to establish baseline pollutant limits
- d. Evaluate the value of the NASA-funded Sonoma Veg Map data in fire response
- e. Complete an economic valuation of fire impacts to ecosystem services *
- f. Conduct post-fire carbon mapping and monitoring to assess climate impacts from the fires *
- g. Improve fire projection models by basing methodology on fire ecology and projected climate change, as opposed to fire suppression
- h. Develop platform for citizen-science-based data collection on fire behavior, land recovery, and potential hazard zones to be utilized for this disaster and future disasters

4. Develop framework for management and dissemination of data.

Rationale: Enable data sharing to inform coordinated decision-making before, during, and after wildfires and other natural disasters.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. **Evaluate and leverage existing data dissemination systems [e.g., ArcGIS Online, EcoAtlas, etc.] and establish a common data platform for partners and public**
- b. Perform literature and data review, and distribute data resources among partners to best inform land management decisions
- c. Increase capacity for remote, digital data collection, and utilization for local and state agencies [e.g., increased use of imagery, tablets, utilization of local interns]
- d. Establish electronic templates to ensure standardized data collection
- e. Create a county-wide GIS Strategic Plan and investigate potential for ESRI support

5. Develop long-term landscape vision for wildfire resilience and ecosystem recovery and incorporate into county planning.

Rationale: Use what we have learned to create more sustainable and resilient natural and working lands.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Analyze wildfire and disaster planning programs from around the world that specifically address ecosystem recovery in natural and working lands, and apply locally where feasible
- b. Improve County Hazard Mitigation Plans through a joint stakeholder planning effort that includes enhanced information about watershed resiliency
- c. Evaluate historic fire patterns and their relationship to current climate projection models to incorporate into regional planning
- d. Evaluate the relationship between water system resiliency and watershed resiliency in the context of fire
- e. Identify mutual benefits and potential conflicts between fire safe standards and priorities for watershed health
- f. Where appropriate, integrate information and priorities from this report into the Sonoma County General Plan, Ag + Open Space Vital Lands Initiative, Sonoma County Integrated Parks Plan, and other relevant county plans





SECTION

2

FOCUS AREA

Working Lands



Background: Working Lands

Sonoma County has a long history of productive agriculture in the form of crop cultivation, livestock, dairying, wine grape growing, timber harvesting, and a myriad of food and fiber production. The burned areas include many working lands, as well as the infrastructure required for productive agriculture to thrive. Working lands provide many benefits to our watersheds, and the recovery and protection of these lands is an important part of watershed resiliency. Preliminary assessments indicate that working lands were an important buffer which reduced the impacts of the fire and may provide protective benefits during other types of natural disasters.

Priority Tasks: Working Lands

1. Support the recovery and viability of working lands.

Rationale: Ensure that agricultural operations can recover and continue to thrive on working lands after the fires.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Rebuild water, fence and road infrastructure and mitigate potential watershed impacts of non-functioning infrastructure ***
- b. Incentivize grazing as a land management strategy – using best management practices for avoiding negative water quality impacts and protecting watercourses by limiting grazing time per area with movable fencing and constant oversight– through funding for fencing and water sources, regulatory influence on meat markets, and reduction of regulatory barriers**
- c. Use conservation easements, Williamson Act contracts, and other tools to ensure that working lands in fire-prone areas remain in operation**
- d. Strive to collectively manage fuel load treatment areas so that one neighbor does not negatively impact the surrounding area and explore options for cases where a landowner creates a fuel load risk [e.g., consider nuisance ordinances]**
- e. Reduce economic, regulatory, and logistical barriers to timber harvest,**

so that the sustainable harvest of merchantable timber can be used as a tool for forest and fuel load management

2. Assess the benefits of local working lands in disaster relief and recovery.

Rationale: Evaluate the value of working lands in the County with regard to fire relief.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Analyze the protective effects of agricultural buffers [including vineyards and rangelands] around urban communities in relation to disaster resilience and consider future management options**
- b. Evaluate role of working lands in disaster resiliency and climate change adaptation**
- c. Assess use of vineyard workers as labor force for wildfire erosion control during off-season**
- d. Evaluate the use of agricultural ponds in fire suppression and investigate incentives for agricultural pond creation with fire relief functions**

Actions identified by the working group as highest priority (bold) • *Indicates an action already underway • Priority action numbers are for reference only and do not imply a ranking.

3. Improve disaster planning for agriculturists and the associated emergency response.

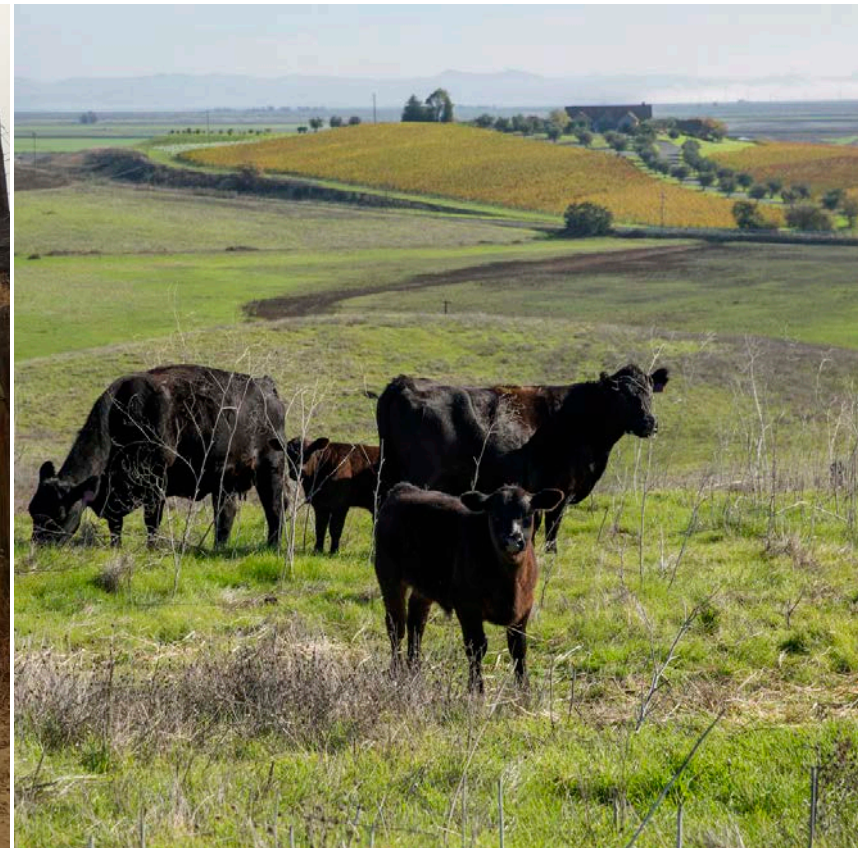
Rationale: Be ready for fast, coordinated action for the next disaster to save livestock, infrastructure, natural lands and human lives.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Create additional disaster plans, or improve existing plans, to include greater incorporation of relevant agencies, [e.g., Animal Services, Ag Commissioner’s Office, Sheriff’s Department, etc.] for

the evacuation and care of poultry and livestock in emergency situations, including those that were sheltered in place

- b. Create and disseminate a template disaster plan and provide technical recommendations to assist landowners of working lands in emergency planning
- c. Ensure continued funding for the operation and maintenance of local fairgrounds to preserve needed space for large animal evacuation centers when required





SECTION

3

FOCUS AREA

Land Management

Background: Land Management

Important streams and wetlands were significantly impacted by the October 2017 fires, potentially compromising the health and function of these waterbodies. Because many of these sensitive waterbodies were already compromised before the fires – due to 150 years of urbanization, road construction, land-use activities, and, more recently, a prolonged drought, care must be taken to reduce further degradation, loss of habitat, and increased pollution. Over 100 years of fire suppression has led to high fuel loads throughout the state and has increased fire intensities, proper land management can potentially reduce future fire strength and losses. The Land Management Focus Area identifies short-term actions to address current threats to natural and working lands, and long-term actions to increase Sonoma County’s fire preparedness and enhance watershed protection and recovery.

Priority Actions: Land Management

1. Take actions to protect natural and agricultural lands in the short and long term. Key concerns include water quality impacts, sensitive habitat damage, road and slope failures, and invasive plant proliferation.

Rationale: Focus recovery efforts where they will have the greatest impact.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Focus fire-related sediment and toxin contamination control efforts on rural home sites near waterways and steep slopes, and remove hazardous debris from waterways*
- b. Evaluate and prepare necessary culvert and road repairs for infrastructure damaged by fire or by subsequent debris flows and higher stormflows*
- c. Prepare for invasive species management on burned lands
- d. Implement land management best practices within 100 feet of creeks, rivers, and other waterways

2. Restore sensitive natural landscapes disrupted by fire and pre-fire degradation.

Rationale: Some areas may require active management, including erosion control, native plant revegetation, etc.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. **Collect fire-related hazard trees for use as large woody debris in riparian restoration projects**
- b. Identify high-sensitivity natural areas that may need restoration (e.g., high-intensity burn areas, graded areas in high quality or rare vegetation types, riparian habitat) and implement forward thinking, climate change resilient restoration projects based on best available science*
- c. Repair damage to lands caused by fire suppression [bulldozer lines and other fire breaks, fire retardant, etc.]*
- d. Improve wetland habitat throughout county, including the Laguna de Santa Rosa, to increase floodplain capacity for controlling flood waters
- e. During fire-restoration activities, include pre-fire degraded areas in targeted enhancements

Actions identified by the working group as highest priority (bold) • *Indicates an action already underway • Priority action numbers are for reference only and do not imply a ranking.

3. Increase local capacity to effectively manage fuel loads countywide.

Rationale: Manage natural, agricultural, and urban-interface lands to prevent build-up of dangerous fuel loads, enhance environmental benefits, and protect escape routes.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Create and maintain firebreaks that provide multiple benefits beyond fuel load reduction, including agriculture, recreation, biodiversity, water supply and quality, and carbon sequestration
- b. Expand local capacity for utilizing prescribed burns to manage fuels and maintain healthy ecosystems
- c. Increase landowner education on best management practices for fuels within the wildland-urban interface zone, using workshops, example projects, etc.
- d. Support establishment of Forest Health Districts or a similar mechanism to provide structure, funding, and resources for rural landowners to collectively manage forest lands in an ecologically sound manner
- e. Explore biomass energy options for mechanically removed fuel loads



SECTION

4

FOCUS AREA

Education & Outreach



Background: Education & Outreach

Fortunately, prior to the October 2017 fires, myriad agencies, non-profit organizations, and schools already had been successfully collaborating to increase the community's environmental literacy and instill practices that enhance watershed health and resiliency. Those groups, in addition to others, comprise the Education and Outreach Working Group." Those groups, in addition to others, comprise the Education and Outreach Working Group. This working group identified and recommended communication channels, messaging documents, educational programs, and other resources to clearly communicate important information or desired actions in a timely and consistent way. The strategies acknowledge the importance of learning from the community, promoting citizen science, and engaging in two-way dialogue, and are intended to reach a diversity of audiences with appropriate and relevant messages.

Priority Actions: Education & Outreach

1. Provide Sonoma County residents with essential, coordinated information about natural and working lands immediately following the fires and into the future.*

Rationale: Give the public reliable information and streamline outreach.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Identify the audiences that would benefit from outreach and education following the fires, using appropriate messages and communication channels ***
- b. Disseminate scientifically accurate information in a clear, conscientious way to educate and inspire***
- c. Ensure information is disseminated in culturally relevant ways [e.g., translated into Spanish, shared on proper message boards, etc.] ***
- d. Provide press updates on recovery efforts of natural and working lands ***
- e. Develop resources to quickly/easily distribute and devise ways to get information about natural and working lands out to a wide audience**
- f. Collaborate among partners to ensure messaging is consistent across sources**

2. Provide landowners with resources to best care for fire-affected areas.*

Rationale: Concerned landowners may inadvertently increase pollutant discharges to streams, impact stream habitat, introduce invasive plants, impede natural recovery, and/or spend time and money on actions that do not help protect their property or the environment.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Provide landowners with appropriate land management recovery methods for both urban and rural areas, and recommend that they seek expert advice from resources such as NRCS and the RCDs when it comes to caring for damaged lands [i.e., ‘first do no harm’] ***
- b. Spread message that most of the burned natural lands are fire-adapted and will recover without interference**
- c. Coordinate targeted outreach campaign to landowners whose burned areas may affect streams and wetlands and provide best management practices [e.g., weed-free erosion control, planting of appropriate drought tolerant plants, etc.] to protect water quality, habitat, and water supply; reduce flood risk; and reduce invasive species spread**
- d. Educate garden centers, retail nurseries, and landscapers on proper post-fire land rehabilitation strategies**

Actions identified by the working group as highest priority (bold) • *Indicates an action already underway • Priority action numbers are for reference only and do not imply a ranking.

3. Increase the general awareness in our community about the realities of living in fire-prone landscapes.

Rationale: Build a community foundation of knowledge about fire-adapted landscapes, fire likelihood, risks, and natural functions of wildfire in order to increase effectiveness of methods to protect and restore fire-prone lands.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Launch long-term communication and engagement with greater Sonoma County community regarding fire issues, including education of public officials on fire ecology**
- b. Educate community on how to live with fires in a fire-adapted landscape**
- c. Integrate fire education into existing Environmental Education programs and continue to expand local environmental and agricultural literacy**
- d. Increase education about Wildland Urban Interface, prescribed fire benefits and implementation, and fire-adapted plants and landscapes**
- e. Educate Sonoma County residents on the impact of the fire to ecosystem services and the benefits they provide**
- f. Expand education on potential wildfire ignition sources to reduce future fire potential**
- g. Develop programs and curricula to ensure interaction with schools and school-centered advocacy related to fire**

4. Encourage and coordinate community participation in recovery and resilience efforts.*

Rationale: Provide effective ways for concerned residents to help care for their neighbors and their community.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Engage community, including students, in recovery efforts and post-fire monitoring in an appropriate and safe way ***
- b. Use restoration efforts as an opportunity to educate about fire-adapted landscapes**
- c. Facilitate community healing by offering opportunities to be outdoors and help restore fire-impacted lands**
- d. Engage higher education academic professionals and their students in recovery efforts**
- e. Establish citizen-science platforms [e.g., iNaturalist] to engage community in recovery efforts**
- f. Engage leaders from underserved and ethnic communities in recovery efforts and share Traditional Ecological Knowledge (TEK) as it relates to fire resiliency**

5. Support private landowners in preparing for wildfire.

Rationale: Manage natural, agricultural, and urban-interface lands to prevent build-up of dangerous fuel loads and protect escape routes.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. **Improve best management practices (BMPs) education, including how to apply for prescribed burn permits and how to create ecologically-sensitive defensible space**
- b. Establish a Wildlands-Urban Interface Workshop for landowners to learn how to best safeguard life and property by implementing enhanced fire safe property measures

- c. Utilize non-typical community groups [e.g., neighbor organizations, museums, Chamber of Commerce], existing communication platforms [e.g., NextDoor, Facebook, email, mailers], and atypical networks [e.g., realtors, insurance agents, landscapers, etc.] to educate landowners on risks and best practices
- d. Educate landowners on key components of Sonoma County Hazard Mitigation Plan and Fire Safe Sonoma documents
- e. Explore working with private insurance companies regarding updating the criteria for insurance rates related to fire in our area based on the latest science and data





SECTION

5

FOCUS AREA

Legislation, Policy, & Funding



Background: Legislation, Policy, & Funding

Although many of the actions needed for fire recovery and long-term watershed resiliency are within the capabilities of local organizations, some will require significant amounts of funding, while others will require changes in policy or legislation. The Legislation, Policy, and Funding Focus Area focuses on strategies for obtaining additional funding to ensure a resilient future for Sonoma County's watersheds (including those impacted by the wildfires), as well as addressing some of the challenges and opportunities related to local and state laws and policies.

Priority Actions: Legislation, Policy, & Funding

1. Leverage the recent attention on Sonoma County to seek local, state, federal and private funding and support for policy change to advance priorities for watershed resiliency.*

Rationale: Use this critical time to make lasting changes that better protect natural and working lands, parks, public safety, and property.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. **Seek funding and support for long-term land management policy changes; including incorporating wildfire policy into the General Plan, ensuring that land-use planning and building standards are informed by climate change projections and the most current science, and increased consideration of hazard risk in local development decisions***
- b. **Develop and adopt land-use policies and legislation that addresses the recurrence of fires and other disasters to ensure that such a high level of damage does not devastate the county again**
- c. **Ensure that rebuilt structures and new development associated with recovery occurs within the existing community footprint, and high-intensity uses continue to be contained within existing Urban Growth Boundaries and Urban Service Areas**

- d. **Analyze impacts from climate change and projected increased vulnerability from future fires, include the findings in hazard planning documents, and seek greenhouse gas reduction funding to mitigate this increased fire risk**
- e. **Identify policy options for local and state agencies to regulate or incentivize the maintenance of defensible space**

2. Develop short- and long-term funding strategies for wildfire recovery, resilience, and preparation.

Rationale: Help ensure that recovery resources are fairly and effectively distributed and make funds available to plan and implement wildfire safety and restoration measures.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. **Ensure public and non-profit organizations are included in response and recovery plans, and are provided sufficient funding to support recovery efforts, research, resiliency planning, and high-risk lands conservation through support for grant applications, philanthropic funding, state [e.g., Senate Bill 5, Water Bond, etc.] and federal funding, etc.**

Actions identified by the working group as highest priority (bold) • *Indicates an action already underway • Priority action numbers are for reference only and do not imply a ranking.

- b. Ensure base funding for resource conservation districts, non-profits,, watershed groups, etc. to manage for long-term watershed resiliency
- c. Consider the creation of a self-financing “wildland management utility” that can operate on public and private lands to address fire, drought, climate, and flood resiliency
- d. Seek funding for assessment of impacts, long-term monitoring, and other needed research to support data-driven land-use decision-making, including public-private funding schemes
- e. Provide guidance to organizations about funding opportunities and the pathways for disbursement
- f. Support private landowners in recovery through socially-equitable, restoration funding

3. Improve the emergency response framework to better respond to the needs of natural and working lands in emergency situations.

Rationale: While well equipped for saving lives and property, the emergency framework could better address needs that are specific to natural and working lands.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Analyze the response to this emergency with respect to natural and working lands settings, and investigate policy and legislative changes to improve future disaster response, including early-warning systems and communication challenges
- b. Develop neighborhood-level emergency response plans focused

on the unique needs of natural and working lands, and support landowners in implementation

- c. Implement existing disaster-preparedness plans, incorporate Watershed Collaborative priorities into existing and new plans, and create new plans where gaps exist [e.g., Flood & Fire Plan, Stormwater Resources Management Plan, Earthquake Plan, etc.] - ensuring that all plans are publicly accessible and landowners are able and willing to implement them
- d. Improve coordination among emergency and non-emergency agencies to ensure that the unique needs of rural landowners are met [e.g., large animal evacuations, access to livestock, etc.]
- e. Analyze how infrastructure in natural and working lands can provide benefits and challenges in times of disaster [e.g., water sources, increased potential for electric fires, distributed power sources, etc.]

4. Increase the use of innovative, science-based land management practices within the wildland urban interface to better prepare for future natural disasters.

Rationale: Use the expertise, experience, heart, commitment, and innovative spirit of Sonoma County residents to test new, creative wildland-urban interface management strategies to improve land management locally and in other regions.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Ensure that regional planning policies provide communities with

tools for resiliency to fire, flood, and drought and provide support for implementation

- b. Provide opportunities for interested landowners to work with conservation organizations as potential sources for recovery support and funding [e.g., fee purchase, conservation easement purchase, transfer of development rights, etc.]**
- c. Develop voter support for programs that enhance the management of the wildland-urban interface including fuel load reduction, natural resource management, and innovative land use planning**
- d. Encourage rebuilding and future building in areas outside of fire and flood risk zones and closer to public services such as transit systems, schools, and offices**
- e. Increase funding for large-scale fuel-load reduction projects – spanning multiple parcels**
- f. Establish and manage flood- and fire-resiliency buffers around urban communities including long-term protections for existing community separators and greenbelts**
- g. Coordinate and fund a cooperative fire use, fuels, and restoration crew**
- h. Expand the Fire Safe Sonoma program, integrate priorities for natural and working lands, and utilize existing framework to foster fire prevention, fire resiliency, and fire safety**
- i. Increase land stewardship incentives for private landowners using best available science**
- j. Explore working with private insurance agencies to incentivize private land stewardship and consider updating the criteria for insurance rates related to fire in our area based on the latest science and data**

- k. Develop a “lessons learned” document to share widely, in the hope that other communities can learn from our experiences**
- l. Establish affirmative obligations to manage the land for fire safety when writing conservation easements**
- m. Develop defensible space guidelines with direct consideration of water efficient landscape ordinances and low impact development standards**

5. Enhance permitting processes, zoning, and building codes to support wildfire prevention, reduce risk and improve watershed health.

Rationale: Make it easier, especially for private landowners, RCDs, and NGOs, to implement practices that will improve public safety and disaster resiliency while still maintaining adequate environmental protection.

ACTIONS IDENTIFIED BY WORKING GROUPS INCLUDE:

- a. Evaluate challenges to implementing fuel reduction projects [including prescribed fires, mechanical thinning, or other ecologically sensitive methods], and other best management practices [e.g., restoration, road crossing repairs, forest management, etc.], and develop a simpler/cost-effective process for landowners to complete these projects**
- b. Coordinate with Permit Sonoma and City of Santa Rosa planning officials, other permitting agencies, and established experts in relevant fields to discuss approaches for streamlining permitting in an environmentally conscious manner, and consider a less onerous**

permitting process for restoration projects

- c. Collaborate with county and city planning officials to establish fire, building, and landscaping codes that enhance watershed resiliency to fires and drought, carefully consider well site placement, and decrease toxics in building materials
- d. Utilize community support and local expertise to develop a program for burned areas designed to incentivize rebuilding with low-impact development strategies, water conservation best

practices (including using rainwater as a water source and water-efficient landscapes), and energy conservation best practices

- e. Create forest management policies that allow for fire-resilient forest management
- f. Consider legislation to generate funding specifically for fire resiliency
- g. Expand the North Coast Water Board's "5C Program" to Sonoma County, in order to improve and expedite the road maintenance permitting process





Moving Forward

In the wake of the recent catastrophic fires, our Sonoma County community came together to help one another and to embark on the path to recovery. The Watershed Collaborative convened to ensure that the broader natural and working lands community worked together to plan for short-term recovery and long-term resiliency of our watershed lands.

Groups with a long history of high-quality planning and implementation – including resource conservation districts, non-profits, agricultural and watershed groups, academic institutions, local, state and federal agencies – collaborated for over two months to develop priorities for watershed resiliency in the aftermath of the fires. This report represents the recommendations and priorities of these high-capacity organizations, and outlines a vision of a resilient landscape that incorporates past experience, best-available science, and current work with new information gleaned from the fires.

This report is not peer reviewed, nor does it reflect consensus of the participating organizations. The report is an early draft of ideas from a broad array of community groups regarding the priorities for recovering from the recent fires and increasing resiliency for future fires. This report provides foundational ideas for consideration by the Sonoma County Office of Recovery and Resiliency in the aftermath of one of the worst natural disasters in California’s history.

- a. Accept this report;**
- b. Consider directing the Office of Recovery and Resiliency to work with the Watershed Collaborative to develop a more detailed work plan based upon the priorities identified in this report, in order to outline resources, roles and timelines for implementation;**
- c. Articulate the role of the Watershed Collaborative moving forward in informing County watershed recovery actions;**
- d. Direct Ag + Open Space, Water Agency, Regional Parks, Permit Sonoma, and other County entities to move forward with certain priority actions in this report; and**
- e. Direct Permit Sonoma staff to consider recommendations of this report in preparation of updates to the County General Plan and Hazard Mitigation Plan.**

