



2023 Vegetation Management Update & Healthy Forests Ad Hoc Committee Recommendations

Board of Supervisors Presentation
January 10, 2023

Agenda



- Healthy Forests Ad Hoc Committee Member Expectations**
- Balancing Wildfire Resilience and Responsible Resource Management**
- Recommendations from Healthy Forests Ad Hoc**
- Programmatic and Administrative Support**
- County Timeline of Activities**

Sonoma County Vegetation Management Technical Advisory Committee



County-wide Accomplishments & Progress

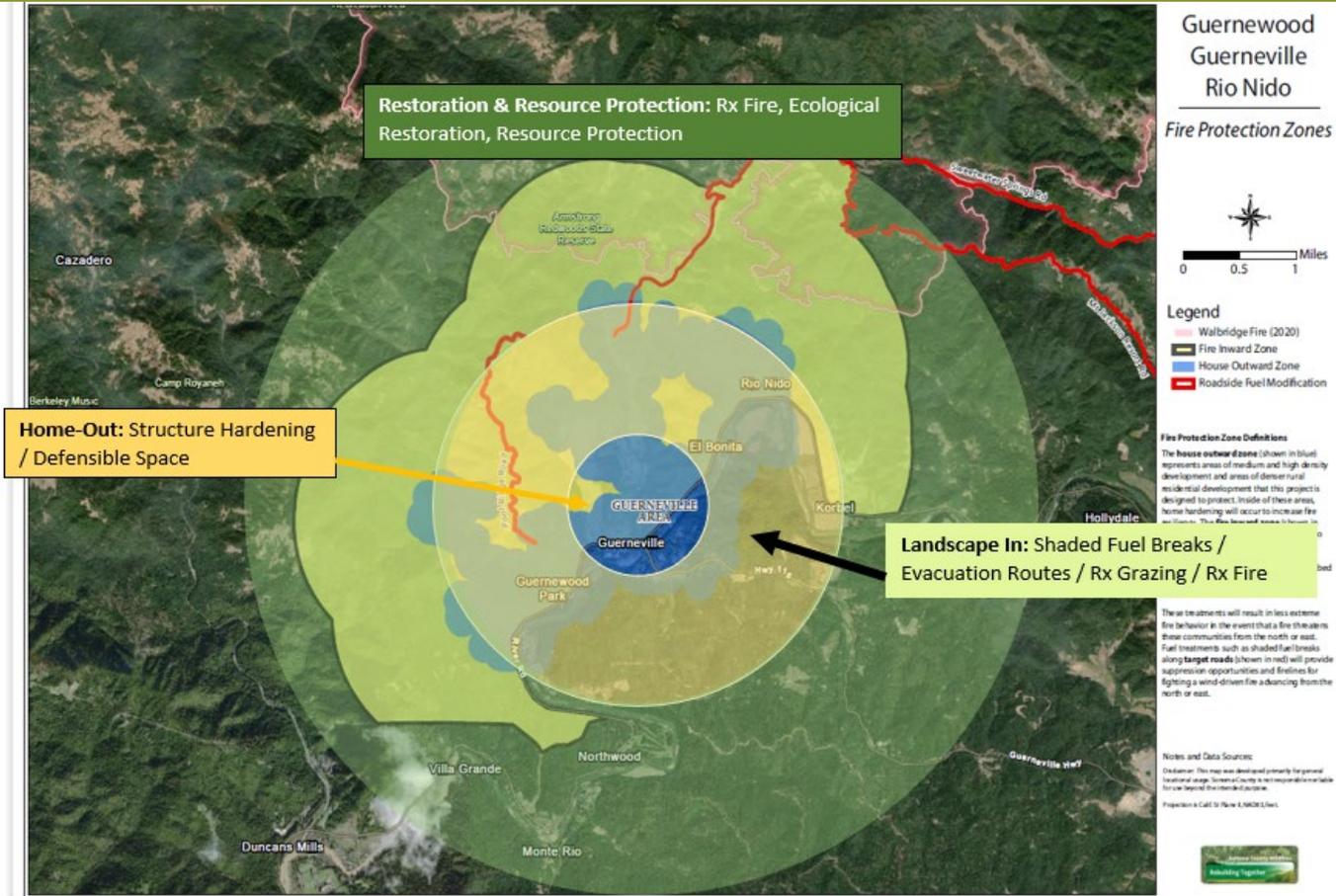


- ✓ **46 Vegetation Management Grant Projects - \$8.3M + \$1.1M match**
- ✓ **7 Regional Collaborations**
- ✓ **Private Sector / Public Sector Collaboration**
- ✓ **9 CAL VTPs Completed or in Process**
- ✓ **30+ Community Workshops / Webinars / Field Events**
- ✓ **Data – Data – Data**
- ✓ **Wildfire Resilience certificate program (SRJC) / 350 Basic Wildland Firefighters (Fire Forward) / 185 Prescribed Burns since 2017**



Balancing Wildfire Resilience and Responsible Resource Management

Conceptual View of Vegetation Mgt & Wildfire Resilience



Case Study: Saddle Mountain Open Space Preserve

- Previous forest management and timber harvest
- Douglas-fir encroachment
- Biodiversity threats
- Ladder fuels
- Wildfire resiliency concerns



Glass Fire Impacts

- Human community impacts
- Extensive tree mortality in Douglas-fir dominated areas
- Ladder-fuel-driven mortality
- Compounded stress due to drought
- Invasive species response



Multi-Objective Vegetation Management

- Fuels management
- Holistic forest health/biodiversity enhancement
- Climate change resilience and carbon sequestration
- Indigenous stewardship
- Prescribed and cultural burning
- Community engagement



Saddle Mtn. Preserve - Before and After



Saddle Mtn. Preserve - Before and After





Summary of CLEE Action Items and Recommendations from Healthy Forests Ad Hoc



□ Vegetation Management Activities

Provide funding to community-based projects to increase resilience in high-risk zones in advance of the 2021 and 2022 fire seasons, with priority for shovel-ready projects, local organizations with track records of success, multi-benefit work, and other criteria.

Recommendations:

1. Allocate \$3,000,000 in funding for a 2023 Vegetation Management Grant Program - using enhanced selection process, criteria, and use of prioritization tools like the Wildfire Resilience Planner and Sonoma County Community Wildfire Protection Plan.



Mill Creek Post Fire Shaded Fuel Breaks



Rio Nido Shaded Fuel Break



LandSmart Community Grazing



Vegetation Management Grant Program Projects 2021 - 2022

- | 2021 | 2022 | Project Type |
|------|------|--|
| | | Defensible Space / Roadside Treatments |
| | | Education / Outreach / Research / Planning |
| | | Prescribed Fire |
| | | Prescribed Grazing |
| | | Shaded Fuel Breaks / Calming Zones |
| | | Multiple Treatments |
| | | Retreatment of Burned Area |
| | | Understory Thinning |
| | | CAL - VTP |

- | Protected Lands | Fire Perimeter | Political Boundaries |
|--------------------------------|------------------------------|--|
| Ag + Open Space Protected Land | 2020 Glass Fire | Incorporated City Area & Urban Growth Boundary |
| Other Protected Land | 2019 Kincaid Fire | Supervisorial District |
| | 2017 Sonoma Complex Fires | |
| | 2020 Walbridge & Myers Fires | |

Type of Treatment Funded	2021	2022
Multiple Treatments	\$5,4023	\$1,792,305
Shaded Fuel Breaks / Calming Zones	\$2,874,061	\$280,220
Prescribed Fire	\$72,500	\$100,000
Retreatment of Burned Areas	\$377,364	\$24,120
Defensible Space / Roadside Treatments	\$1,302,134	\$338,750
Prescribed Grazing	\$184,600	\$8,30,513
Education/Outreach /Research/Planning	\$269,417	\$113,321
Total Funding:	\$5,134,099	\$3,121,229
Number of Projects Funded:	26	18
Proposed Treatment Area (acres)	1125	2000





Ad Hoc Recommendations

☐ Community Outreach and Education

Outreach and education capacity to spearhead communication with landowners, businesses, and residents on actions private individuals can take to reduce fire risk, including dollars specifically allocated for bilingual and equity-focused outreach.

Recommendations (\$600,000)

1. Provide a County website/portal for landowners and resource managers highlighting grant programs, technical assistance providers, best management practices, and other resources available through the County and partners.
2. Contract with the RCDs to offer training and outreach programs to build community capacity in project development, environmental compliance, technical prescriptions for vegetation management, proposal development, and to provide funding to support Sonoma County Forest Conservation Working Group to sponsor the *Living with Fire: Sonoma County Forest Management Conference*.



□ Workforce Development and Capacity Building

Invest in career training programs to launch a self-sustaining skilled and dedicated workforce equipped to meet long-term vegetation management needs. Vegetation management jobs can offer a pathway to a high-quality, well-paying, local career, provide workforce training and long-term career growth opportunities to lower-income communities and communities of color, and staff vital capacities for future resilience creating a skilled workforce.

Recommendations:

1. Continue to coordinate with and support organizations working on workforce development for wildfire resiliency programs at the local level and pursue incentives to retain prescribed burn crews and vegetation management career opportunities.

Ad Hoc Recommendations



□ Data, Prioritization, Planning and Mapping

Data, mapping, and planning efforts that expand on the County's Community Wildfire Protection Plan and other key data-collection initiatives to inform smart decision-making throughout the county.

Recommendations (\$150,000):

1. Using the new LiDAR dataset, update the Sonoma Veg Map and conduct a change analysis of 2013 conditions versus 2023 conditions.
2. Begin to use the new decision support tools (Wildfire Resilience Planner, Wildfire Fuel Mapper) in project planning in Vegetation Management Grant Program as well as Permit Sonoma's FEMA funded vegetation management projects.
3. Plan the next steps of data and project integration and mapping with the CWPP, VMGP and other project planners and mappers.



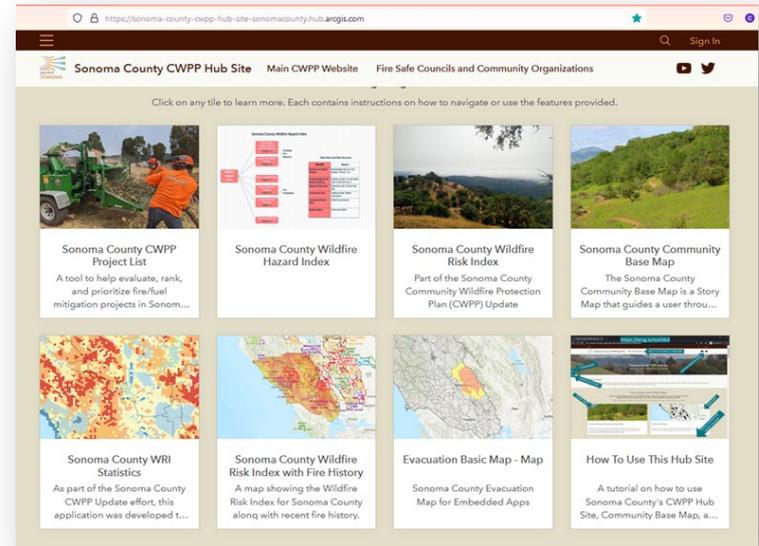
SONOMA COUNTY COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

2023 Update



CWPP - Draft One Accomplishments

- Hazard and Wildfire Risk Indices created.
- CWPP Hub Site: WRI, Project Entry Tool.
- Meetings in all five supervisory districts.
- Draft CWPP created and reviewed.
- Changes incorporated.
- Second Draft Review in process.



CWPP Hub Site:

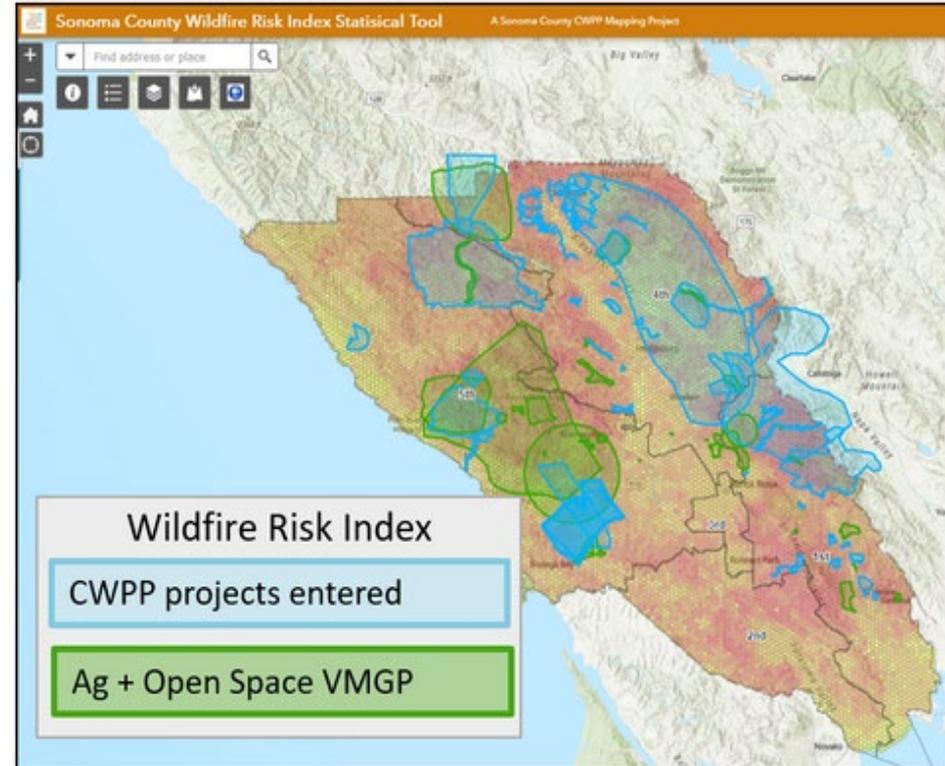
<https://arcg.is/mzC4L0>

CWPP Web Site:

<https://permitsonoma.org/sonomacountycwpp>

Community Wildfire Protection Plan Update

1. Complete and Approve Sonoma County CWPP Update.
2. Finalize mapping and project prioritization strategies for county-wide overview of proposed projects.
3. Create collaborative ranking panel for project review.
4. Expect to present to Board late April or early May.



Wildfire Resilience Planner - Timeline



June 1,
2021

June 1,
2022

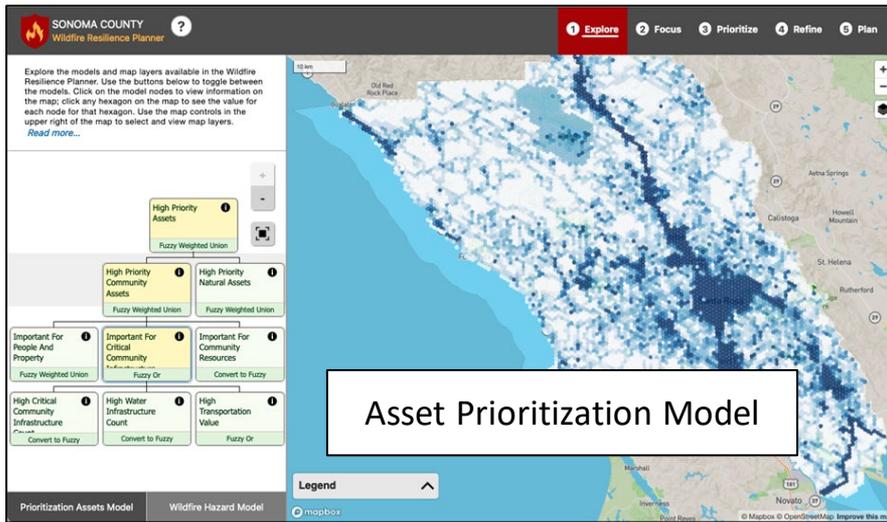
Spring,
2023

Phase 1: Model and
software development

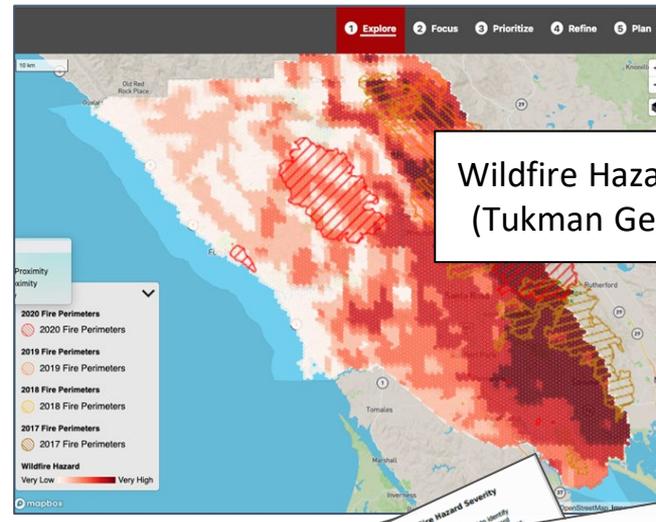
Training, testing, and use by
county programs;
Revisions to models and tool

Full release to public with
guidance from County

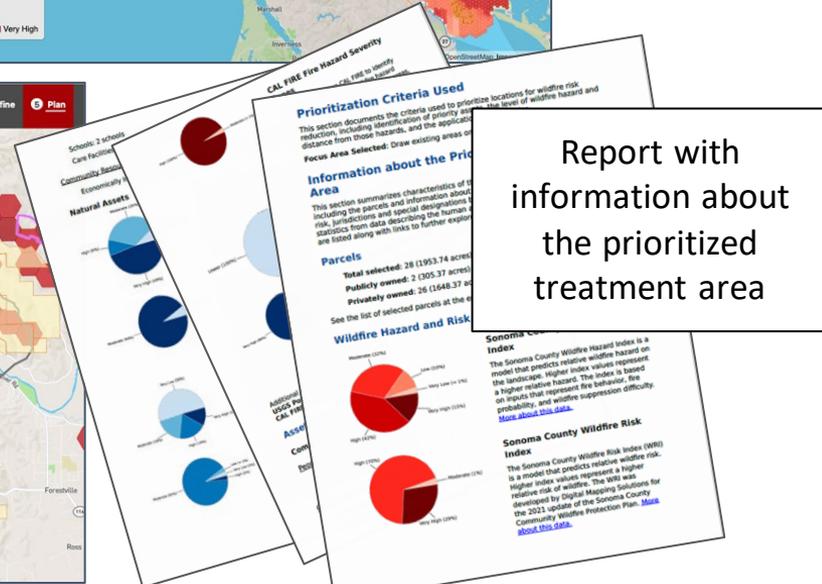
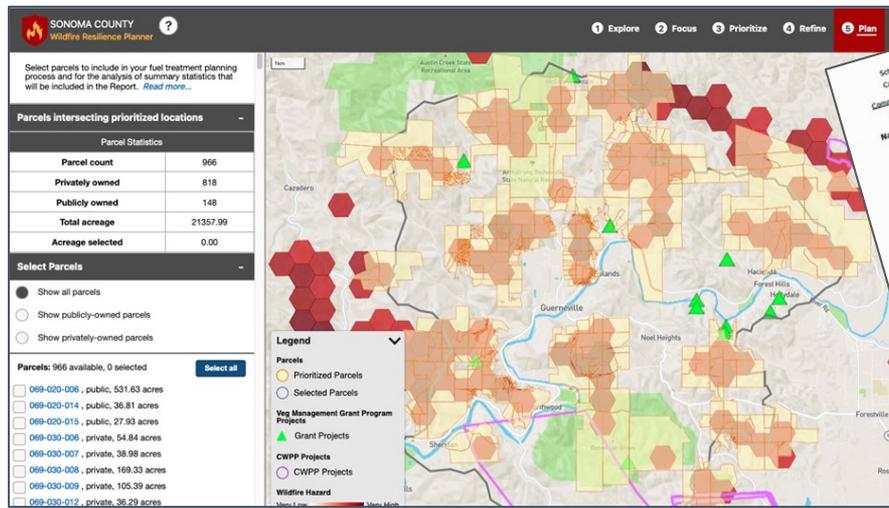
We are
here



Asset Prioritization Model



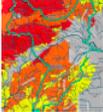
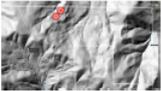
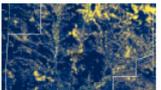
Wildfire Hazard Model (Tukman Geospatial)



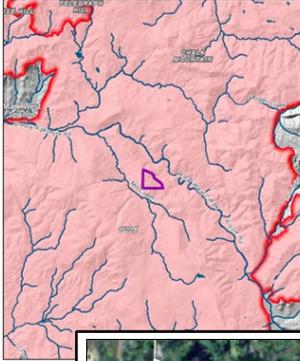
The Wildfire Fuel Mapper Maps

Map Report Contents

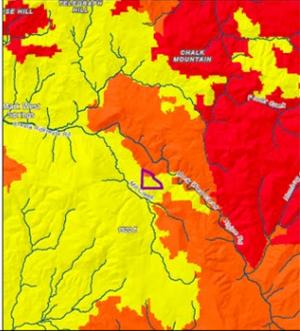
This page provides an overview of the maps included in your map report. To view full maps and map descriptions specific to your selected parcel or watershed, continue to page 3.

DATASET			ABOUT THIS MAP
Fire History 	CAL FIRE Hazard 	Sonoma Hazard 	<p>Fire History: Past wildfires in the last 40 years within the parcel or watershed (Map 1, left pane)</p> <p>CAL FIRE Hazard & Sonoma Hazard Index: Areas of fire hazard and risk based on factors such as fuel, slope, fire weather, and utility infrastructure such as powerlines (Map 1, middle and right panes)</p>
Street Map 	Hillshade 	<p>Street Map: A simple map with an overview of streets buildings and streams (Map 2)</p> <p>Hillshade: A 3D representation of the area, illustrating the physical features of your landscape (Map 3)</p>	
2013 Imagery 	2020 Imagery 	<p>2013 & 2020 Imagery: These maps provide a detailed aerial view for the years of 2013 and 2020 with an overlay of streams and buildings. These two maps can be compared to one another to observe changes in your landscape over time (Maps 4 and 5)</p>	
Slope 	Soils 	<p>Slope: Shows the slope of the ground, highlighting areas of steep terrain where fire could spread rapidly (Map 6)</p> <p>Soils: Soil types as mapped by the Natural Resource Conservation Service Soil Survey (Map 7)</p>	
Vegetation 	Vegetation Height 	<p>Vegetation: Illustrates the different vegetation types on your property (Map 8)</p> <p>Vegetation Height: Shows the height of tree-tops, or forest canopy, across your property (Map 9). For a table of acreages by veg type, see the end of the report</p>	
Ladder Fuels 	Fuel Model 	<p>Ladder Fuels: Ladder fuels, or near-ground vegetation that can carry ground fire into the canopy (Map 10)</p> <p>Fuel Model: Map of different classifications of surface fuels, a primary driver of fire behavior (Map 11). See the end of the report for more information on the fuel model.</p>	

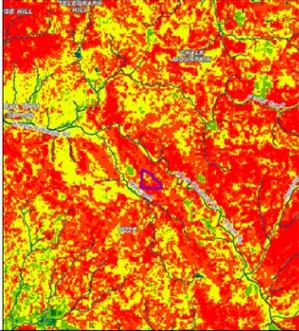
Fire History



CAL FIRE Hazard



Sonoma Wildfire Hazard Index



About This Map

This map shows 198 large areas of Sonoma parcel of interest. It is maintained by 4 and classified by the fires, 2001-2010 fire.

Note that CAL FIRE the fire history layer does not include pre FIRE fire history layer here:

<https://frap.fire.ca.gov/>

APN: 028



2020 Imagery Map 5

Parcels, Buildings and Water

- 028-000-007 Parcels
- Buildings

About This Map

This map shows National Agriculture Imagery Program (NAIP) imagery from June, 2020. The imagery is 24x resolution. Parcels, streams and buildings with a 100 ft buffer are also shown. Users can compare the 2013 map to the 2020 map for a rough indicator of how much their property vegetation might have changed during that time period and how that might influence vegetation management implementation or planning.

Data/Date Source: County of Sonoma GIS
 Date of County Parcel Data: October, 2020
 Data/Source are as available to the user. Quality control is not guaranteed.

1:1631

Ad Hoc Recommendations



□ Organizational Structure and Funding

Governance and coordination capacity to centralize county efforts, streamline permitting, gather data, and lead outreach initiatives, such as a new multi-agency working group with long-term dedicated staff.

Recommendations (\$400,000):

1. Coordinate and integrate the efforts of the VMGP with the FEMA funded wildfire resiliency projects being implemented through Permit Sonoma.
2. Support staff-created County Resiliency Coordination Team to focus on collaboration and communication between County agencies and departments and State and local partners to support long-term wildfire resilience.
3. Support staff-created Technical Advisory Committees/Working Group for:
 - a. **Organizational Structure & Funding** analysis, cost estimates & County coordination
 - b. Home-hardening, defensible space, public infrastructure (**House-Out**)
 - c. Landscape-level vegetation management (**Landscape-In**) – ecological monitoring, restoration and enhancement paired with wildfire resilience (existing TAC – Vegetation Management)
 - d. Implementation of the Climate Resilient Lands Strategy (**Lands Strategy Working Group**)

Ad Hoc Recommendations



□ Organizational Structure and Funding (cont.)

Governance and coordination capacity to centralize county efforts, streamline permitting, gather data, and lead outreach initiatives, such as a new multi-agency working group with long-term dedicated staff.

Recommendations (\$400,000):

4. Hire or contract for a full-time coordinator/facilitator for the Resiliency Coordination Team and its supporting TACs.
5. Test Stewardship Plan concept with RCDs to plan and prioritize regional fuel load management, fire resilience strategies, evacuation priorities, resource protection, watershed health, under a variety of different treatments.
6. Financially support consultant / technical collaborator to work with regionally identified collaborations / regional priorities and ongoing work.



People, Structures, Land Use: Reducing Risk of Wildfire Loss

Natural Resource Division

- Large-scale vegetation management

Fire Prevention Division

- Defensible space and structure hardening assessment
- Cost-share program with SCEIP





1. Wildfire Adapted Sonoma County

- Two HMGP Grants, Phase 1 completed July 2023
 - Reduce near-structure fuels, Harden structures, Increase the resilience of the whole community.

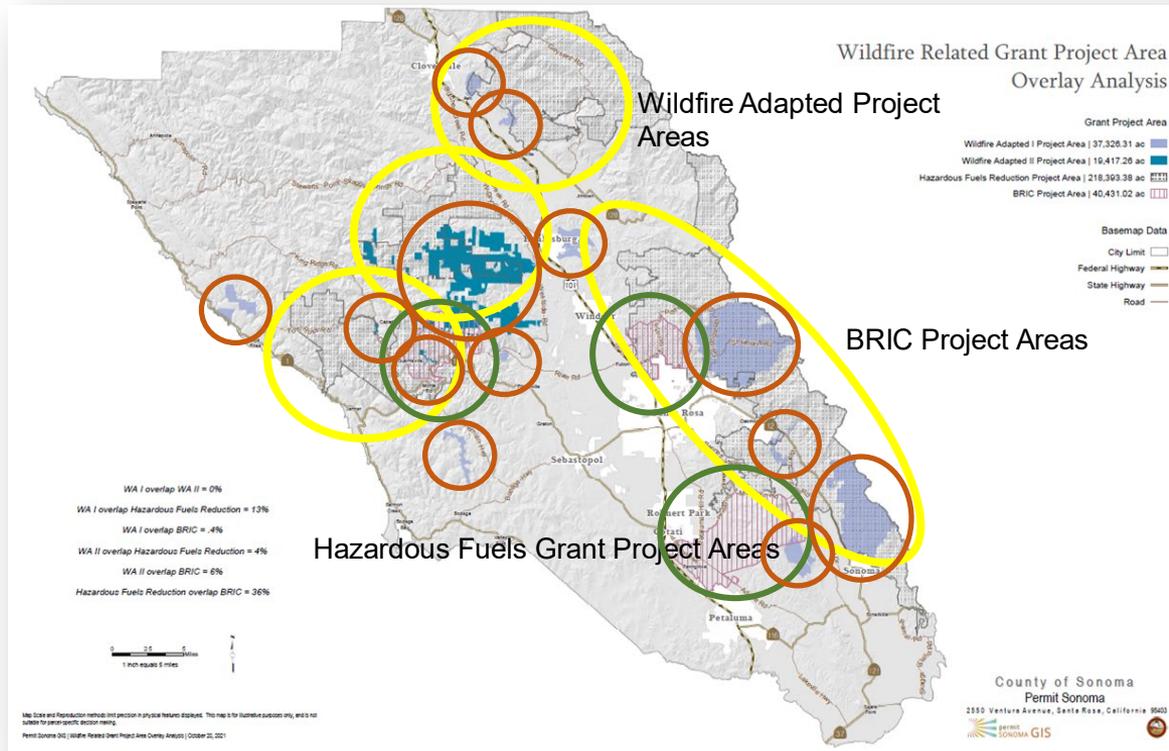
2. Sonoma County Hazardous Fuels Management (HMGP)

- Phase 1 completed November 2023
- Large-scale vegetation management projects in 4 project areas

3. Combined approach of (1) and (2): Whole community, landscape scale wildfire resilience

- BRIC Grant: Three model landscapes (Award Pending, Phase 1 – 18 mos.)
 - Larkfield-Wikiup/Mark West Creek
 - Guerneville-Guerneville-Rio Nido
 - Penngrove-Sonoma Mountain

Current and Proposed Project Areas



Wildfire Adapted Part 1



Wildfire Adapted Part 2



Hazardous Fuels
Reduction Project



Wildfire Resilient
Sonoma County, BRIC



PROPOSED

Board of Supervisors

County Administrator's Office

INTERDEPARTMENTAL/AGENCY RESILIENCY COORDINATION TEAM (RCT)

Ag + Open Space, Permit Sonoma, Climate Action & Resiliency Division, Regional Parks, Sonoma Water, Department of Transportation & Public Works, Department of Emergency Management, Office of Equity

Technical Advisory Committee Landscape Management (Landscape-In)

Fuel Management, Ecosystem Health

Technical Advisory Committee Community & Infrastructure (House-Out)

Hardening, Defensible Space,
Roadside Treatments

Technical Advisory Committee Organizational Structure & Funding

Current and Future Approaches to
Organize Resiliency Efforts

Climate & Resilient Lands Strategy – Working Group

Societal and Landscape Resiliency,
Ecosystem Services and Health

Key County Depts/Agencies

- Ag + Open Space (co-lead)
- Permit Sonoma – N.R. (co-lead)
- Sonoma Water
- Regional Parks
- Dept. of Emergency Mgt

Key County Depts/Agencies

- Permit Sonoma – Fire Prevention (lead)
- Dept. of Emergency Mgt.
- Transportation & Public Works
- Climate Action & Resiliency

Key County Depts/Agencies

- County Counsel (co-lead)
- CAO (co-lead)
- Ag + Open Space
- Permit Sonoma
- Climate Action & Resiliency

Key County Depts/Agencies

- Climate Action & Res. (lead)
- Ag + Open Space
- Permit Sonoma – Planning, N.R.
- Regional Parks
- Sonoma Water

Key Partners

- CALFIRE
- UC Cooperative Extension
- Resource Conservation Districts
- Local Fire Districts
- Local Tribes *

Key Partners

- UC Cooperative Extension
- CALFIRE
- Fire Safe Sonoma
- Resource Conservation Districts
- Local Fire Districts
- Local Tribes *

Key Partners

- UC Cooperative Extension
- Local Fire Districts
- RCPA
- Local Tribes *

Key Partners

- UC Cooperative Extension
- Ag Commissioner
- Resource Conservation Districts
- RCPA
- Local Tribes *

NGOs

- Land mgt and conservation groups
- Community organizations

NGOs

- Home-hardening organizations
- Public safety advocates
- Community organizations
- Low Income/Access Functional Needs

NGOs

- Organizational structure organizations
- Long-term financial expertise

NGOs

- Climate change advocates
- Environmental education organizations
- Community organizations
- Low income / Access Functional Needs

* Engagement with Local Tribes will be offered as a separate and parallel process to allow for confidentiality and to ensure individual tribal processes and procedures are respected. Tribal representatives will also be invited to participate in the larger community-based working groups should they so desire.

Ad Hoc Recommendations



□ Long-Term Financial Sustainability

Identify and analyze long-term financial sustainability instruments to generate recurring funds for vegetation management, such as a countywide financing district, new parcel or sales tax, or resilience bond.

Recommendations:

1. Seek block grants from CALFIRE to support and maintain fuel treatments across the County.
2. Apply for funding through US Forest Service Community Wildfire Defense Grant program.
3. Engage fire services, vegetation management, home hardening and general public as future funding mechanisms.
4. Long-term financial mechanisms will be addressed by the Technical Advisory Committee – Organizational Structure and Funding.

Recommendation



☐ Programmatic and Administrative Support

Recommendations (\$290,000):

1. PG&E settlement funding \$150,000 anticipated administrative and planning staff expenses and associated contractual support through FY 23/24.
2. PG&E settlement funding of approximately \$140,000 for a time-limited position to provide overall program support. A separate board item will follow on January 24, 2023 with more information about the position request.
3. As the program successfully secures additional funding from other sources it will be necessary to cover administrative support to the grant program and related activities.

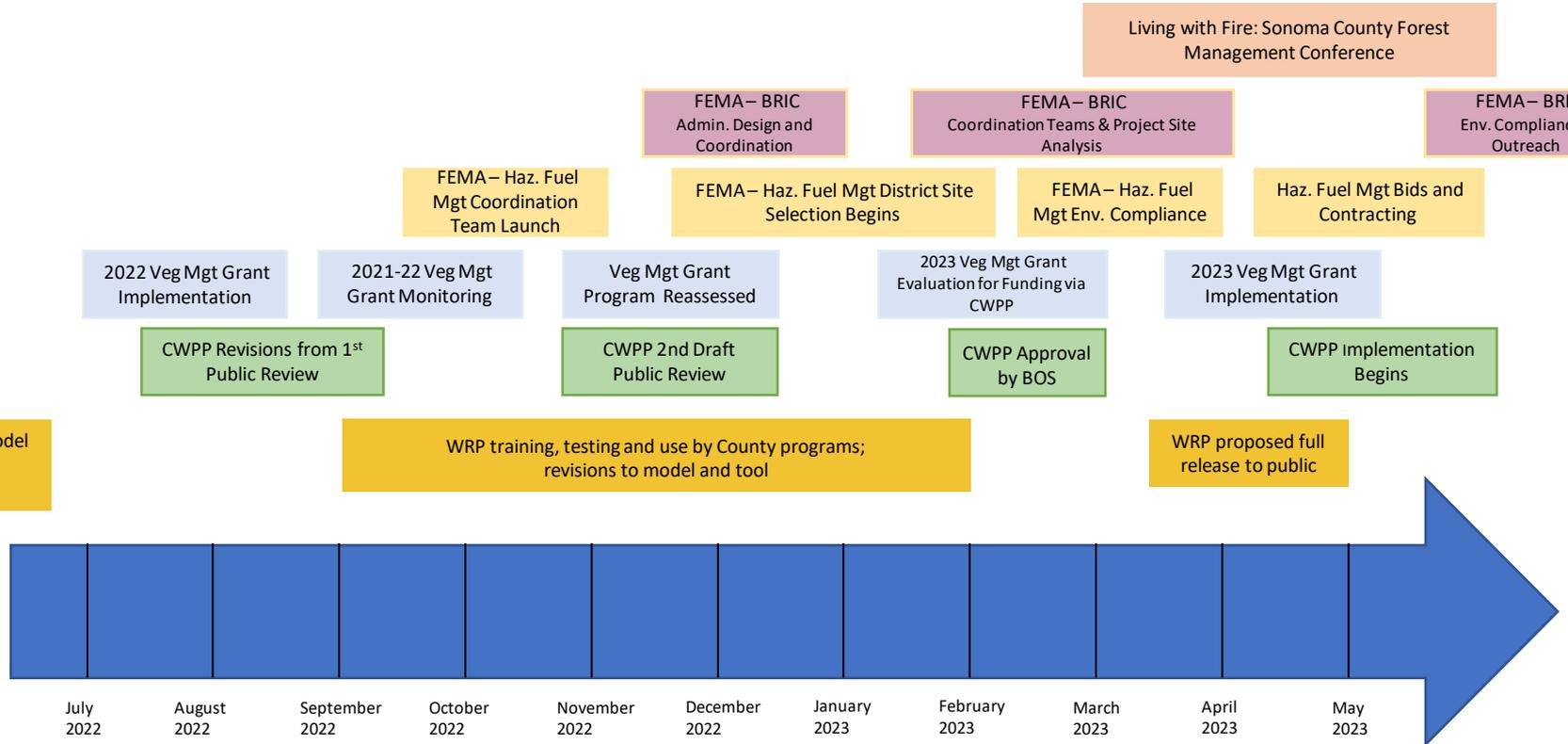
Summary of Ad Hoc Recommendations



- ❑ Vegetation Management Activities = \$3 Million
- ❑ Outreach and Education = \$600,000
- ❑ Workforce Development and Capacity Building = \$0
- ❑ Data, Prioritization, Planning & Mapping = \$150,000
- ❑ Organization Structure & Funding = \$400,000
- ❑ Programmatic and Administrative Support = \$290,000

Total Request: \$4,440,000

County Timeline 2022-2023



A wide-angle photograph of a Sonoma County landscape at sunset. The sky is a gradient of orange and pink. In the foreground, a grassy hillside with a few trees leads down into a valley. The middle ground shows rolling hills and valleys covered in dense vegetation. In the distance, more hills and mountains are visible under the hazy sky.

THANK YOU

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