



NAPA COUNTY COMMUNITY WILDFIRE PROTECTION PLAN

Prepared for Napa Communities Firewise Foundation
March 15, 2021

The screenshot shows the website for the Napa County Community Wildfire Protection Plan. The header includes the Napa Firewise logo and the text "Napa County Community Wildfire Protection Plan" and "NOFF Website". Below the header is a search bar and a grid of eight project cards. Each card has a title, a small image, and a brief description. The cards are: "CWPP Title Page and TOC", "Priority Projects", "Action Plan 3-9-2021 (DRAFT)", "Napa County CWPP Projects", "Community Base Map", "Wildfire Hazard in Napa County", "Fire Safe Council Fire Hazard Reduction Projects", and "Napa County CWPP Projects (geodatabase)". Below the grid is a "What's Here:" section with a paragraph and a numbered list of four items, and a "How To:" section with a paragraph and a "Looking to download the data associated with all these maps?" link.

What's Here:
This website presents information as part of the Napa County Community Wildfire Protection Plan (CWPP) spearheaded by the [Napa Communities Firewise Foundation](#).

1. If you would like to read the CWPP document, click on the tab above labeled [CWPP Title Page and TOC](#) to download a Microsoft Word version (currently, only the table of contents is available).
2. If you would like to see the priority projects identified in the CWPP, click on the tab above labeled [Priority Projects](#).
3. For a downloadable version of the projects, click on the tab above labeled [Action Plan](#) to access the Excel file listing all projects included in the Napa County CWPP.
4. If you would like to review the data layers used as a basis for this process, click on the [Community Base Map](#).

How To:
We have a [video tutorial](#) that will walk you through the maps and tools on this site. We also have instructions built into each tool.

[Looking to download the data associated with all these maps?](#)

Click on the global navigation menu icon at the top-left of the screen (three horizontal bars), then click on the Data menu item on the pop-out menu panel. You will be taken to the Data page of this hub site where you can search for data items, maps, document, or applications. Once you find the data layer you are looking for, click on its name to be taken to the item page where you can download or explore the data.

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Preface:

What is a Community Wildfire Protection Plan (CWPP)?

Community Wildfire Protection Plans (CWPPs) organize a community's efforts to protect itself from wildfire, and empower citizens to move in a cohesive, common direction. This CWPP is a roadmap for fire hazard mitigation and preparedness at both the county-wide and neighborhood level. Among the key goals of the Napa County CWPP, which is developed collaboratively by citizens, and federal, state and local management agencies, are to:

- Align with the County, CAL FIRE and Federal cohesive pre-fire strategies, which include educating homeowners and building an understanding of wildland fire, ensuring defensible space and structure ignition resistance, safeguarding communities through fuels treatment, and protecting evacuation corridors,
- Identify and prioritize areas for hazardous fuel-reduction treatment,
- Recommend the types and methods of treatment that will reduce damages from wildfire, and
- Recommend measures to reduce the ignitability of structures throughout unincorporated areas of Napa County.

Additionally, this document is intended to serve as a companion to the Napa Firewise Hub Site compiled by the Napa Communities Firewise Foundation (NCFF, or Napa Firewise). The rich range of information (via tabs) contained in the Community Base Map, as well as the various Story Maps. These Story Maps depict [Wildfire Hazard in Napa County](#), Priority Projects, Fire Safe Councils Fire Hazard Reduction Projects and go into greater detail regarding topics such as the existing vegetation and fuel models across Napa County; more effectively than equivalent sections of this document. Hence, while this document covers similar ground, the enhanced levels of detail and searchable tools in the Hub Site make it an irreplaceable resource for Napa County. Use the links throughout this document to be directed to the Hub Site, the Community Base Map, the Wildfire Hazard Story Map, and other relevant resources.

This CWPP will be updated as the products on the Hub Site are revised; an interval of 12-18 months between updates is anticipated.

Note: The CWPP is not to be construed as indicative of project "activity" as defined under the "Community Guide to the California Environmental Quality Act, Chapter Three, Projects Subject to CEQA." Any actual project activities undertaken that meet this definition of project activity and are undertaken by the CWPP participants or agencies listed shall meet with local, state and federal environmental compliance requirements.

Executive Summary

In late 2019, the [Napa Communities Firewise Foundation](#) (NCF) embarked on the development of a county-wide [Community Wildfire Protection Plan](#) (CWPP) through a contract with CAL FIRE under Grant # 5GA18215 from the Fire Prevention grant and Climate Change Investment funding

The process started in 2019, with community engagement initiated in March 2020. COVID restrictions required moving the process to virtual-platform meetings and web-based products, including interactive web-maps and Story Maps in a Hub Site. The CWPP and the products on the Hub Site serve as the basis for project planning and implementation and offer resources to support funding requests, as well as community awareness and engagement.

A central initial effort was the development of a Community Base Map to describe the many physical facets of Napa County. A foundational decision was made to make this information available as an interactive webmap with several tabs, or data layers. The Community Base Map can be found at <https://ncff-cwpp-dms-usa.hub.arcgis.com/app/c86d988d7c0044c49e3e9e2dc2e79d8e>.

The CWPP describes on a county-wide scale fire hazard and risk, both displaying CAL FIRE-derived products as tabs on the Community Base Map, and county-specific analysis of hazard and risk, based on new high-resolution fuels maps and fire behavior analysis, plus a multitude of other weighted factors.

The CWPP aggregates projects from individual community-level Fire Safe Councils (FSCs) and other stakeholders county-wide that address community engagement and education, fuel management, installation of address signs, and more. These projects now reside in a [searchable database](#) for future reference. These projects are searchable by Project Type, Proponent, Project Name, and/or by geo-referenced map location. For those mappable projects, features in the Community Base Map can be determined for the specific area of the project.

These CWPP projects were organized into an Action Plan that sets the stage for implementation by defining the scope, partners, type of resources needed for implementation, potential funding source and general level of funding that might be required. This Napa County CWPP Action Plan prioritizes fuel management projects that address:

1. Evacuation Corridors and Containment:
 - Major corridors, e.g., state highways (29, 121, 128)
 - Secondary corridors, e.g., County roads, and
 - Select containment lines.
2. Community Perimeter Fuelbreaks and Forest Health Projects,
3. Projects that protect Drinking Water, Critical Infrastructure and Landscape-scale Projects,

There are five major categories of projects identified this is CWPP Action Plan:

1. Fuel management
2. Wildfire response support
3. Community education and outreach
4. Critical Infrastructure
5. Planning

The projects in this CWPP are organized by Type of Project and are displayed in the following tables.

FUEL MANAGEMENT	
Project Type	Project Type Description
EVAC	Protect evacuation routes by removing hazardous trees and reducing fuel volumes within 100- feet on both sides of emergency access and evacuation routes as defined by Napa County; priority is to treat areas within the perimeter of the 2020 fires
FuB	Create perimeter fuelbreaks around communities by treating vegetation, linking low fuel volume locations and working with large landowners
Rd	Treat roadside vegetation to provide emergency access and egress; remove hazard trees and thin understory and coniferous canopy
Water	Protect drinking water reservoirs and facilities through vegetation management in the immediate sub-watershed to limit sediment movement into reservoirs hardening. Create defensible space around all facilities
Health	Improve forest health and resiliency by managing vegetation to reduce fuel volume, vegetation density and creating a forest structure that mimics that found in a natural fire regime
Landscape	Promote containment by treating vegetation along strategic containment locations to reduce fuel loads and restore fuel conditions and fire regimes. Identify as boundaries key ridgelines and access roads
Restore	Restore and rehabilitate wildlands and defensible space in communities that have burned
Power	Prevent Ignitions from powerlines by removing vegetation from within striking distance and around selected power poles
Link	Treat vegetation between vineyards to augment containment opportunities

COMMUNICATION AND EDUCATION	
Project Type	Project Type Description
DS	Educate and promote creation and maintenance of defensible space
Call	Augment current notification systems during emergency

Zones	Educate residents about criteria of locations suitable for emergency refuge
Prev	Prevent ignitions from mechanical devices by informing workers of best practices

WILDFIRE RESPONSE SUPPORT

Project Type	Project Type Description
Contain	Support fire containment by maintaining select dozer lines installed during wildfires. Re-align select dozer lines to limit environmental impacts
911	Install 911 signs and address badges that indicate access and water supply
Knox	Install Knox Box facilities at base of roads with information (water supply, access, power shutoff) to assist emergency responders
Pass	Establish agreements with landowners/neighbors/law authorities, to allow access in emergency
Turnout	Improve roads by creating turnouts along roads through vegetation removal or minor dirt removal, or improving road surface

PLANNING

Project Type	Project Type Description
PlanGeo	Develop a geodatabase to track project implementation and maintenance
PlanRef	Participate fully in General Plan and Local Multi-hazard Mitigation Plan revisions

CRITICAL INFRASTRUCTURE

Project Type	Project Type Description
I	Protect critical infrastructure (e.g. cameras, communication towers, hospitals, schools, water treatment plants) from wildfire damage through creation of defensible space and ignition resistant construction
IW	Protect drinking water facilities by creating defensible space around all facilities and retrofitting structures with ignition-resistant construction

Section 1: Existing Conditions

This section describes the physical environment of Napa County as well as the efforts taken by Fire Safe Councils to mitigate fire hazard. This information is portrayed via a series of web-based maps in tabs at the Community Base Map, and span features such as topography, key infrastructure, vegetation, access and landownership. The tabs also display the results of analyses done elsewhere, such as CPUC threat level, and CAL FIRE maps of the WUI threat.

A. EXISTING NATURAL AND BUILT CONDITIONS

1. Topography

Napa County centers around the eponymous Napa Valley and is bounded by the Mayacamas and Vaca Mountains. Characterized by rolling hills and valley flatlands, Napa County is home to a vast array of watersheds and canyons creating diverse microclimates.

Figure 1 shows watersheds within and surrounding Napa County via different colors. It also shows major and minor ridges with dashed lines. See Community Base Map at <https://ncff-cwpp-dms-usa.hub.arcgis.com/app/c86d988d7c0044c49e3e9e2dc2e79d8e> regarding the source of the data and to view the contents in more detail.

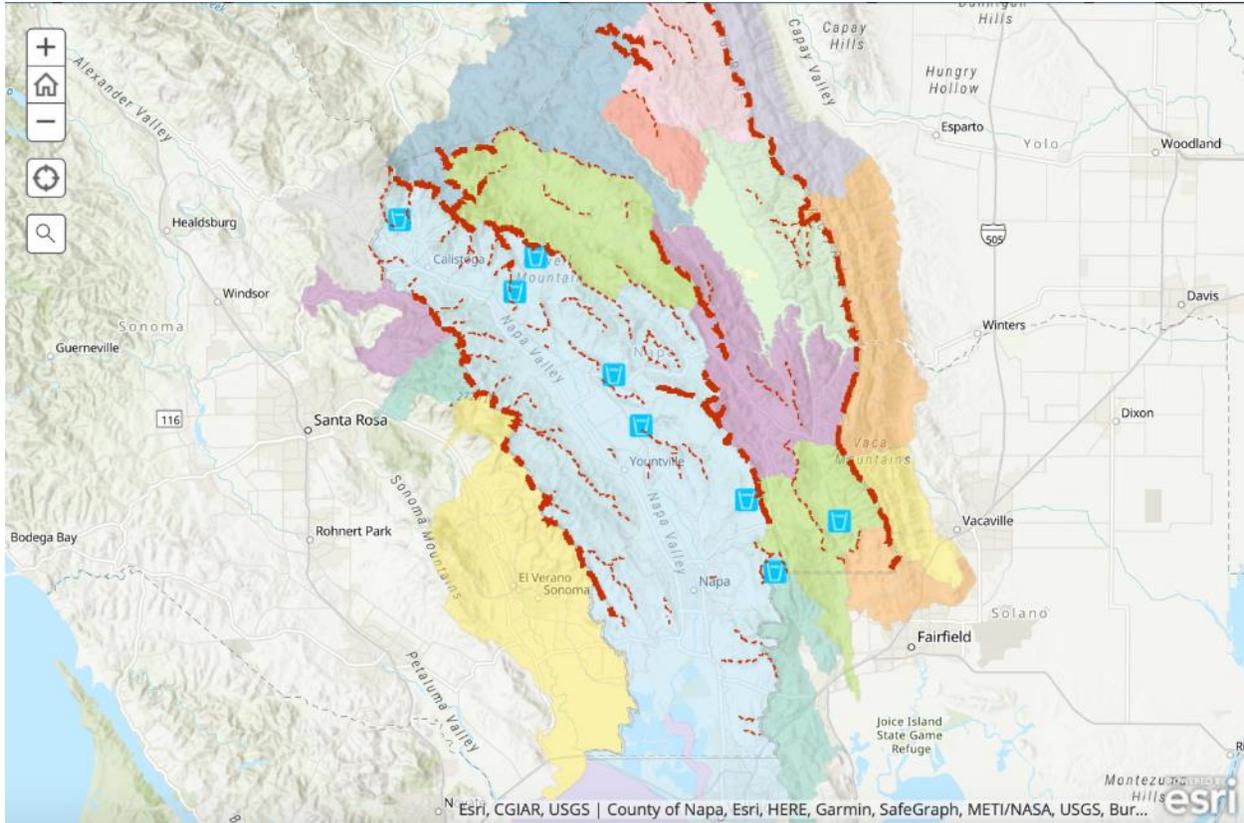


Figure 1. Topography, watersheds, and roads in Napa County. Watershed data is version 2.2 of the California Watershed Map (circa 2011), at <https://ncff-cwpp-dms-usa.hub.arcgis.com/app/c86d988d7c0044c49e3e9e2dc2e79d8e>

The blue water icons highlight the main domestic drinking water reservoirs in the county. These include Lake Hennessy, Bell Canyon Reservoir, Milliken Reservoir, Rector Reservoir, Curry Lake, and others. These reservoirs serve the cities of Napa, St. Helena, Yountville, and the communities of Gordon Valley, Wooden Valley, and Angwin

2. Vegetation

Napa County is home to a diverse variety of habitats ranging from wetland, grassland, and shrubland to oak and riparian woodlands and coniferous forests. They include some of the most valuable agricultural land in the nation in the form of vineyards. The Community Base Map tab displaying vegetation describes vegetation based on a 2016 mapping effort. One can zoom into the online vegetation map to see more detail is shown, such as vineyard locations.

Figure 2 below depicts the latest vegetation data within Napa County.

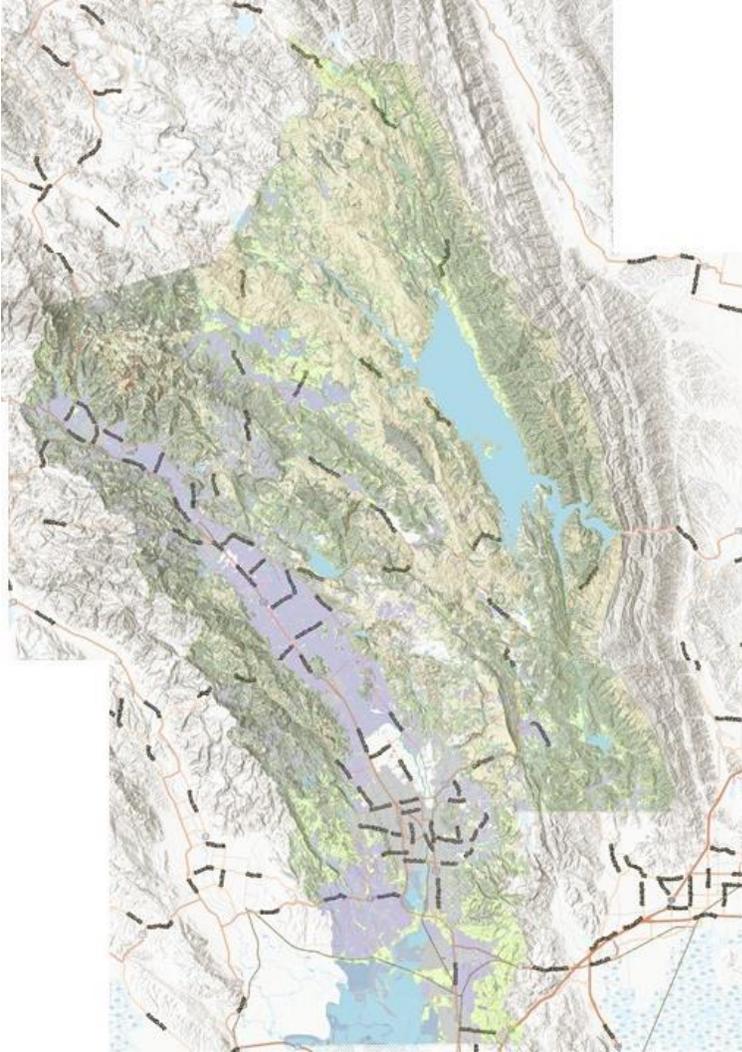


Figure 2. Napa County vegetation map reflecting 2016 on-the-ground conditions.

3. Public Ownership

While 74% of Napa County is privately owned, there are some key public lands within the county, most notably in the northern area, where the Bureau of Land Management, Bureau of Reclamation, and California Department of Fish and Wildlife, among others, manage significant acreages. Napa County Open Space District and Napa Land Trust own sizeable and significant land parcels; the Napa Land Trust also holds conservation easements on many large parcels not shown as public in the Community Base Map.

Figure 3 below highlights the importance of private landowners participating in the CWPP process as it reflects the preponderance of private ownership in Napa County.

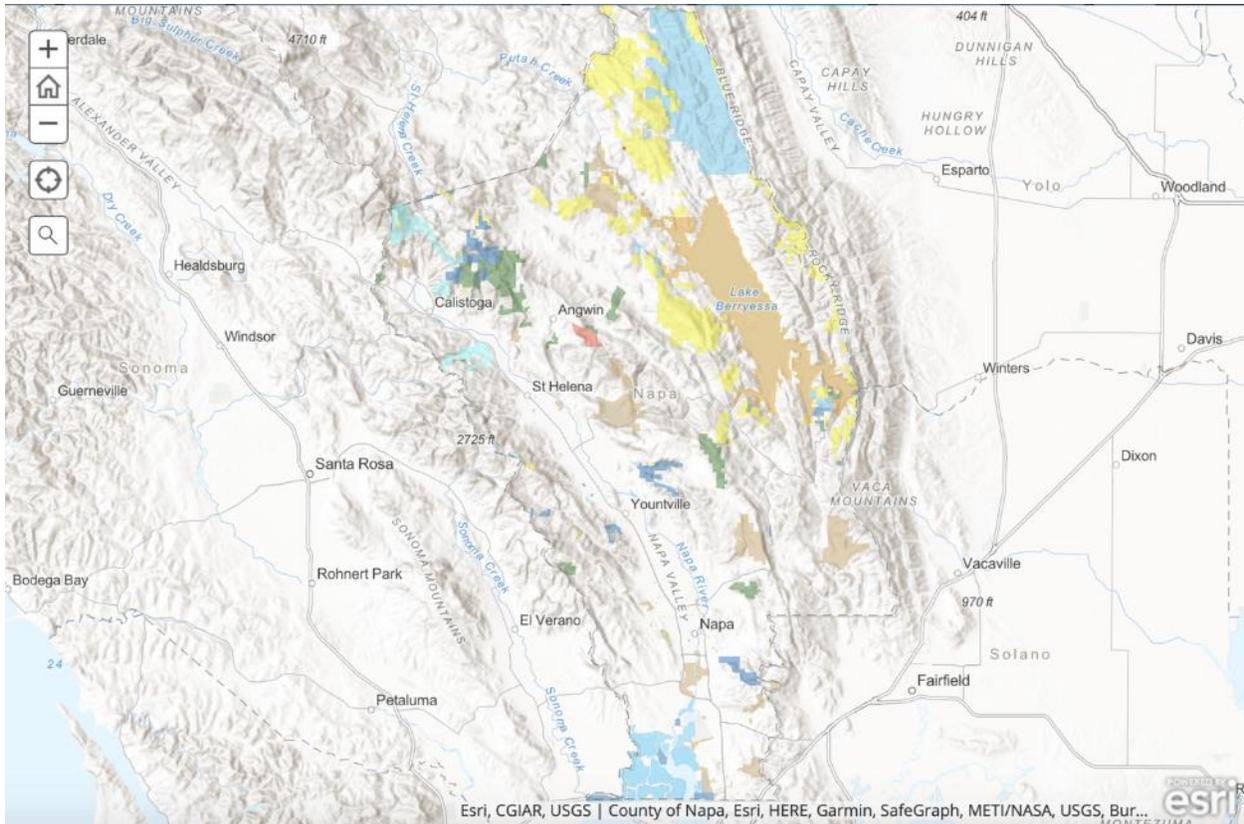


Figure 3. Map of public ownership in Napa County. Data for this map was provided by CAL FIRE's FRAP program (2018 version 2).

4. Fire History

When Napa burns, it burns big. As a prominent recent demonstration of this, almost half of Napa County burned in 2020. In August 2020, a large regional storm brought dry lightning to Napa and surrounding counties. Many small fires were started, most significantly the [Hennessey Fire](#) in Napa County, and eventually grew to merge into the LNU Complex. The LNU Complex reached over 300,000 acres and destroyed over 600 buildings

In 2020, in addition to the LNU Complex, in late September, the [Glass Fire](#) burned over 67,000 acres and destroyed over 1,500 structures. The Glass Fire burned along the eastern side of Napa Valley before jumping west and traveling into Sonoma County.

Over the last century, much of the county has burned repeatedly, particularly along Blue Ridge in the east, the Mayacamas Mountains in the west, and the Atlas Peak area in the center of the county. Figure 4 below shows the recorded fire history by decade for Napa County and the surrounding area.

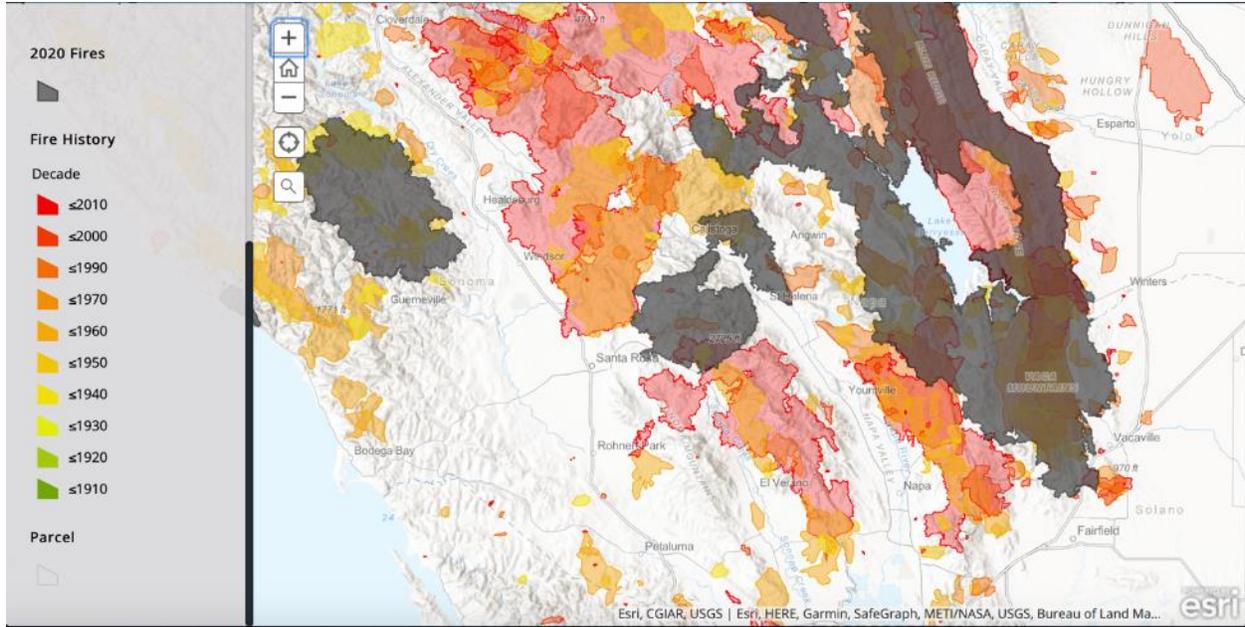


Figure 4. Fire history of Napa County and surrounding area by decade. Data for this map was provided by CAL FIRE's FRAP program (2018 version 1). [image from Community Base map]

Figure 4 above also shows the many times fire has burned through the eastern portions of Napa County. It also shows that many other areas of the county also experience periodic fire.

Fires from previous years are shown in shades of green (earliest) to red (latest), with 2020 fires shown in dark gray.

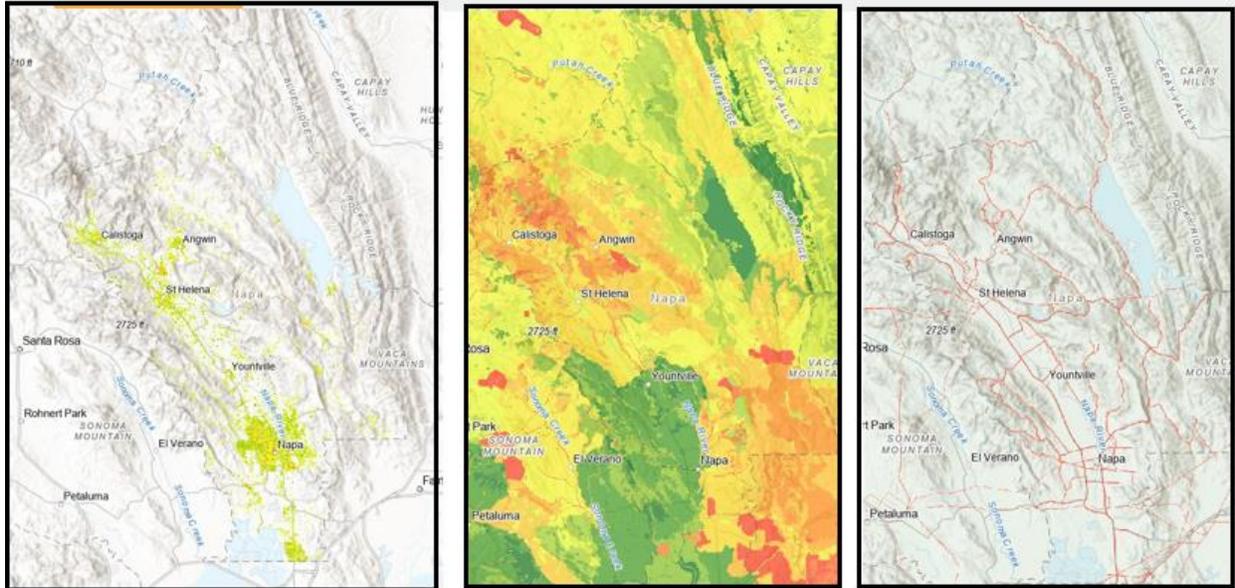
There is a persistent presence of fire within the vegetation communities in Napa County. We can safely assume that the vegetation trajectory that preceded 2020 will likely occur into the future and that the vegetation mapped prior to 2020 will return to the same areas. With that said, with the addition to the Nuns and Atlas Fires of 2017 and the County Fire of 2018, [fire return intervals](#) may be shortening and could have an impact on future vegetation communities.

5. Key Infrastructure

Key infrastructure includes those features that are vital to community resiliency, including emergency access and egress corridors, communication towers, facilities that support drinking water, wildfire detection towers, hospitals and schools.

Key infrastructure was mapped using the Homeland Security database as well as stakeholder input, and appears in the Community Base Map. Those infrastructure features that were vulnerable to wildfire were also included in the risk assessment. Figure 5 below depicts the three main components of community values as a factor in fire hazard risk calculation: community assets, natural assets, and infrastructure.

Values - Components



Community Assets

Natural Assets

Infrastructure

Figure 5. Components of community values including community assets, natural assets, and infrastructure.

6. Hazard Assessment

Using remote sensing technology and expertise in fire behavior, Napa Firewise prepared a series of maps depicting the site and fire hazard of the Napa County community. The following maps are visual aids from which stakeholders and community members can assess and make recommendations.

Fuel Models

Fuel models show us how we expect vegetation to burn. They are a representation of dead and live vegetative material that is available to burn during a fire. Each fuel model is a set of numbers that detail the fuel volumes for various fuel classes, as well as the height of the available fuels, and characteristics of its flammability.

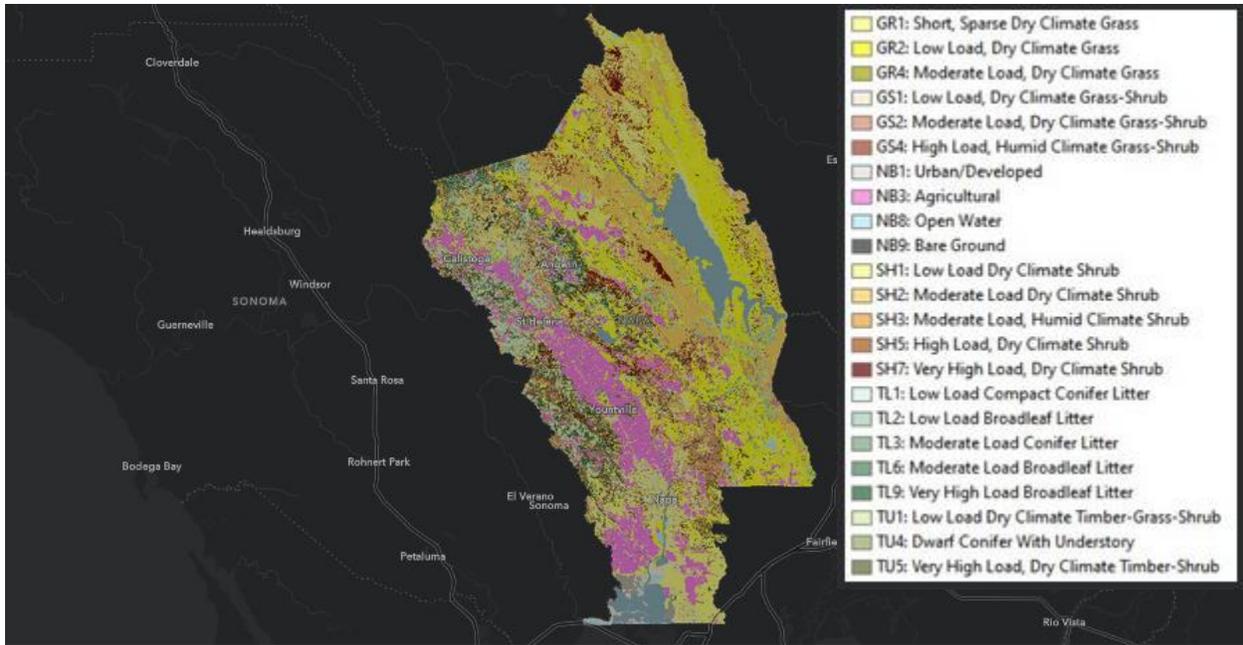


Figure 6. Fuel models

These fuel models, along with topography information, create the basis of a landscape file that is used in fire predictive software.

Associated with the CWPP was the creation a fine-scale (five meter) fuel model data layer that could be used to predict fire behavior under various weather scenarios. Figure 6 above presents the outputs derived from the pre-2020 fine-scale fuel model layer. Much of Napa County burned during the analysis, therefore making the data inaccurate. The fuels were re-mapped after the 2020 fires and now depict post-fire fuel models. In burned areas, the decision was to predict the fuel models expected a few years into the future, as immediate post-fire conditions are ephemeral. These results inform decision makers on where future fuel mitigation efforts can make a difference in protecting community resources.



Figure 7. Before and after photos of the Hennessey Fire; a hillside in Napa County south of Sage Canyon Road.

Fire Behavior Prediction

Fire behavior was simulated using [FlamMap](#), a software program used nationwide that combines information on fuels, weather and topography to describe flame lengths, fireline intensity, rate of fire spread, crown fire potential and more.

For this effort, weather data at the 90th percentile - or the near-maximum hot, dry, windy conditions - was used to predict wildfire behavior possible at each pixel on the landscape. The near-maximum wildfire behavior is an assessment of [headfire](#) behavior for a severe weather condition (though usually not the most severe possible). Of the many fire behavior outputs that are used to measure wildfire hazard the analysis focused on the most common measures: flame length, fireline intensity, and type of fire (surface versus [crown fire](#)).

Flame Length

Flame length is often the preferred measure of wildfire intensity for its easy conceptualization and observation. Flame length is often correlated to the ability to control a fire. A flame length of four feet is the limit of what can be attacked with hand crews, and eight feet is usually looked at as a cut-off point for strategic firefighting decisions on whether to attack the fire directly, or instead attempt control through indirect methods. Flame lengths are often used as a proxy for fire intensity because they are highly correlated to higher natural resource impacts.

The results of the analysis are that more than one-third of the county is expected to burn with flames longer than 20 feet length, as shown in Figure 8.

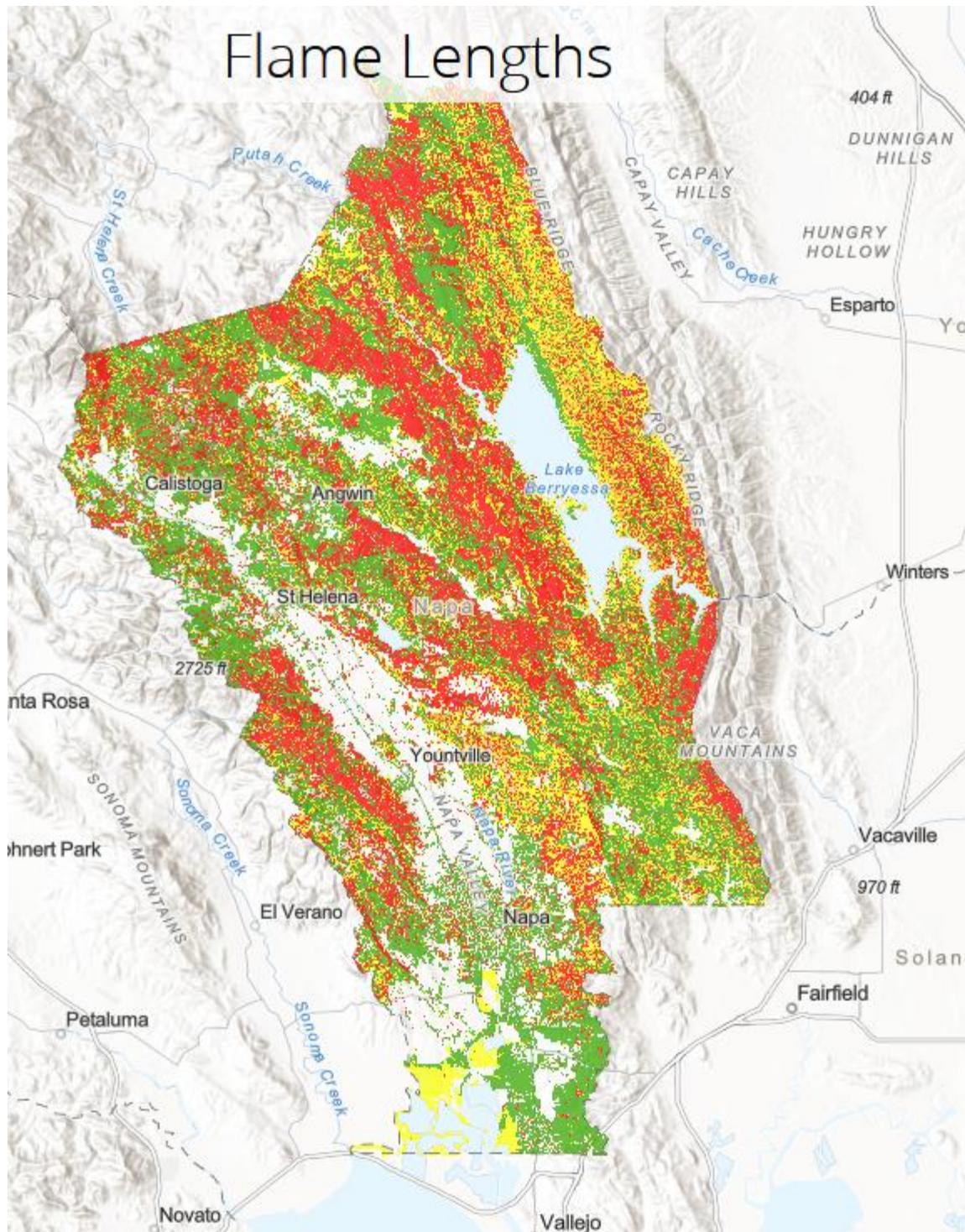


Figure 8. Flame lengths. Flame lengths are into seven fire levels (FL) shown here. White represents areas with an FL of 0 and red represents areas with an FL of 7.

Flame Length Level	Flame Length Range
FIL 1	0 – 2 feet
FIL 2	2 – 4
FIL 3	4 – 6
FIL 4	6 – 8
FIL 5	8 – 12
FIL 6	12 – 15
FIL 7	Greater than 15 feet

Table 1. Flame length range associated with seven fire intensity levels (FILs)

Type of Fire

The type of fire is the most basic characterization of potential wildfire behavior, classified into four classes: non-burnable, surface fire, passive crown /torching fire, and active crown fire. Torching and crown fire indicates locations where fire is expected to spread into and possibly consume the canopy of trees or shrubs. An ‘active crown fire’ occurs when fire spread from tree crown to tree crown. Surface fires are limited to fire burning in grass, short shrubs, and the understory of a treed environment, or locations with tall shrubs.

When a fire burns through trees or tall shrub crowns, countless embers are produced and are distributed, sometimes at long distances. These embers can start new fires called “spot fires”, which can each grow and confound the finest fire suppression forces. For watershed purposes, prediction of torching or crown fire is highly correlated with fire severity and greater environmental impact.

Under the conditions modeled in Figure 8, the majority of Napa County is predicted to burn as a surface fire.

However, the standard classification from FlamMap includes two very different fire types within the surface fire class: fires burning in a surface fuelbed with no canopy into which fire can move, and fires burning beneath a forest canopy because the transition criteria is not met. This map shows the distinction between those two surface fires, and indicates that almost all areas with trees are predicted to torch.

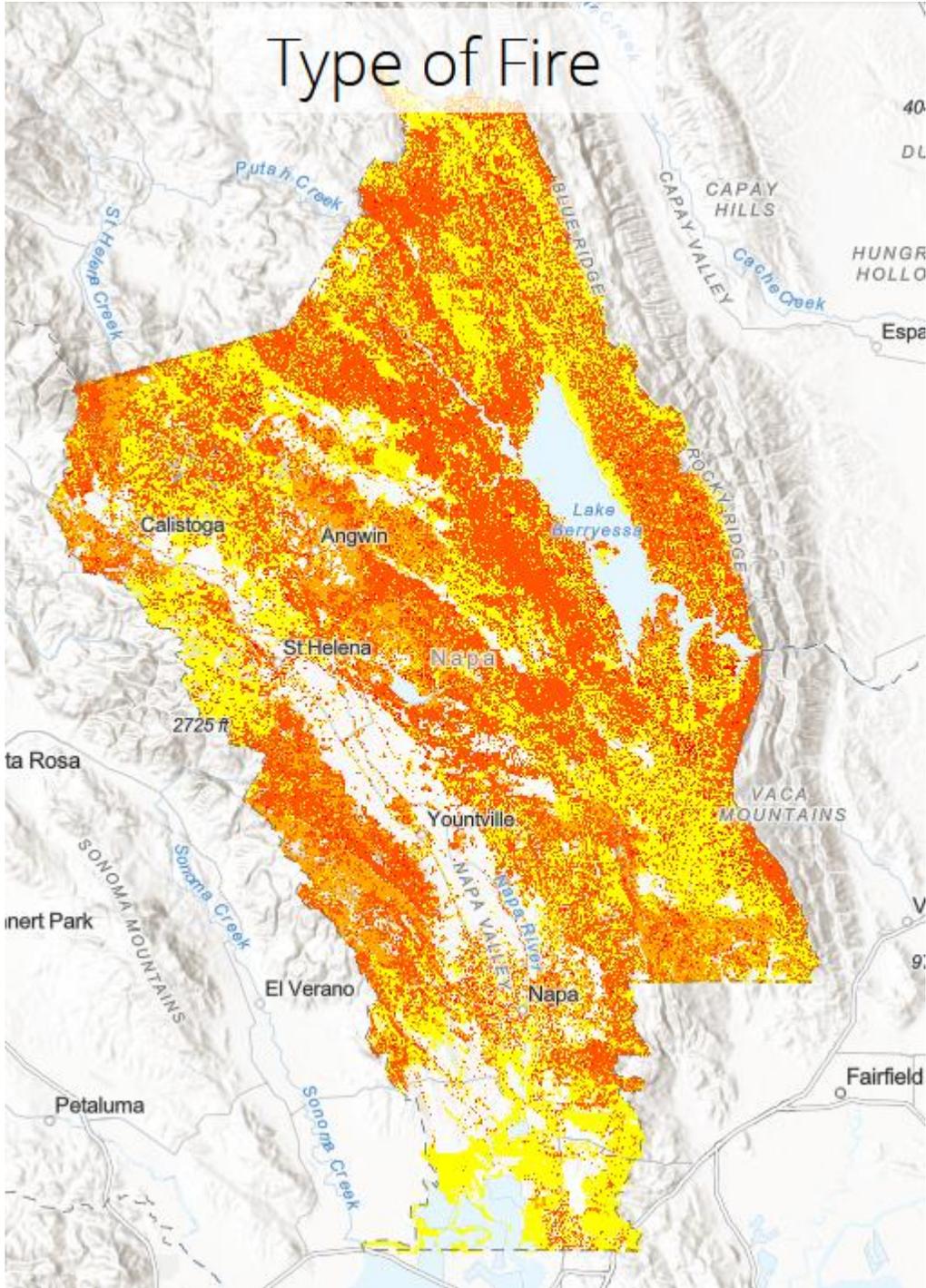


Figure 9. Type of fire. Areas shown in yellow are a surface fire with no canopy, light orange represents surface fire with a canopy, dark orange represents a surface fire that has transitioned to the crown (torching fire), and red represents a crown fire.

Ladder Fuel

A ladder fuel component (LFC) layer was derived from [LiDAR](#) collected data that has been created for all of Napa County. These data represent areas where understory vegetation is

dense or sparse. This is yet another measure we can add to highlight areas where dense understory vegetation exists and may warrant extra attention.

This LiDAR derivative provides information about the density of living and dead vegetation between 1 and 4 meters above the ground. Recent research has shown that LiDAR metrics that characterize this stratum provide a useful proxy for ladder fuels. Values for this raw ladder fuel

In Figure 10, areas in yellow represent zero to the lowest fuel ladder measured. While the dark purple represents the highest fuel ladder measured.

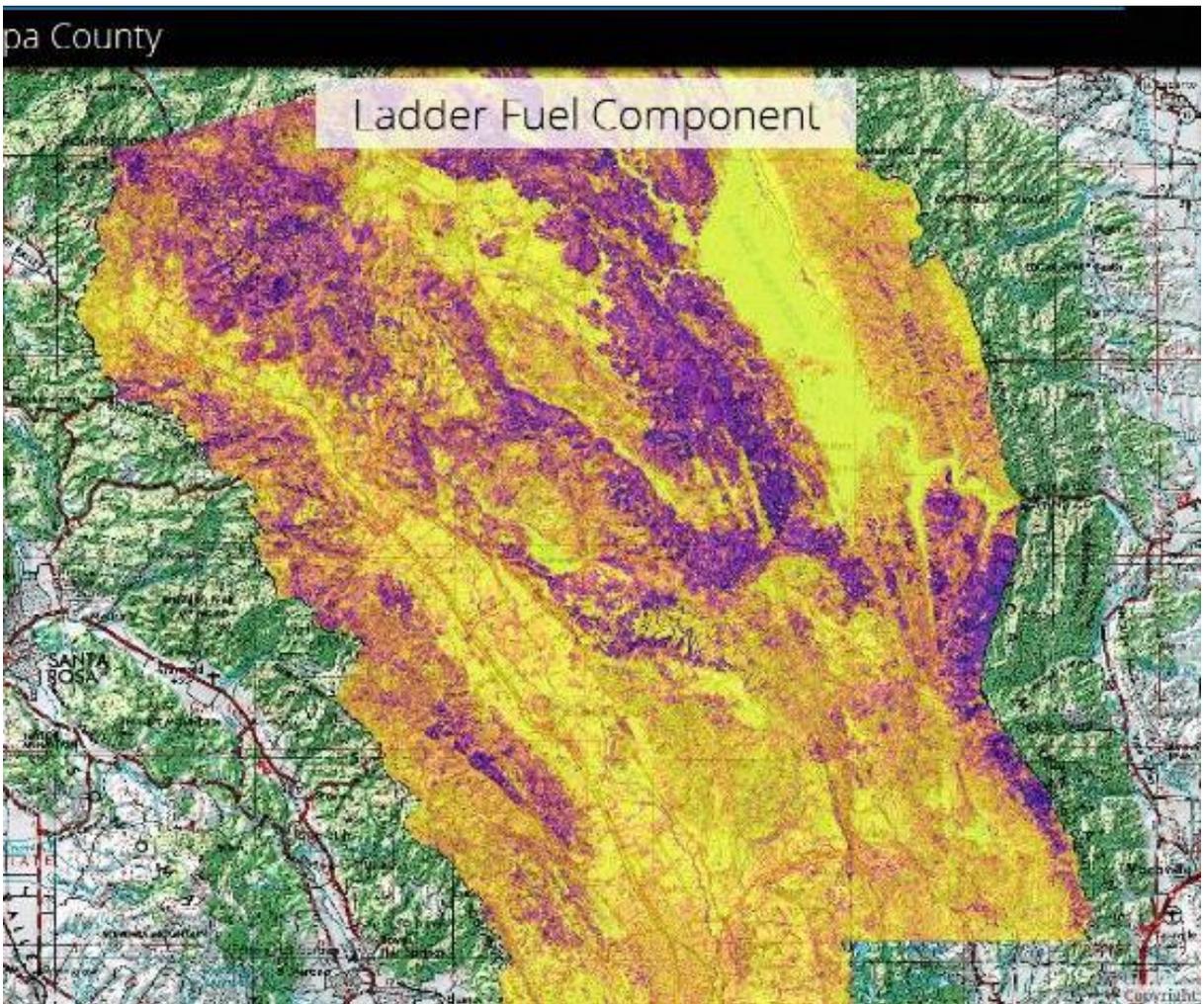


Figure 10. Ladder fuel component

Wildfire Hazard

Outputs from those predictive models described above were used to create a wildfire hazard data layer to show where in the county one would likely encounter vegetation that could support high flame lengths and exhibit crown fire activity. The wildfire hazard is described in a

Story Map on the Hub Site, at <https://ncff-cwpp-dms-usa.hub.arcgis.com/app/5802b2f8ed2f4b42b9fae71b2816c92b>.

Wildfire hazard is calculated as a combination of hazards from fire behavior, ignition sources, owner intervention, and suppression difficulty, as illustrated in Figure 11 below. The Story Map offers a few examples of locations with varying levels of wildfire hazard.

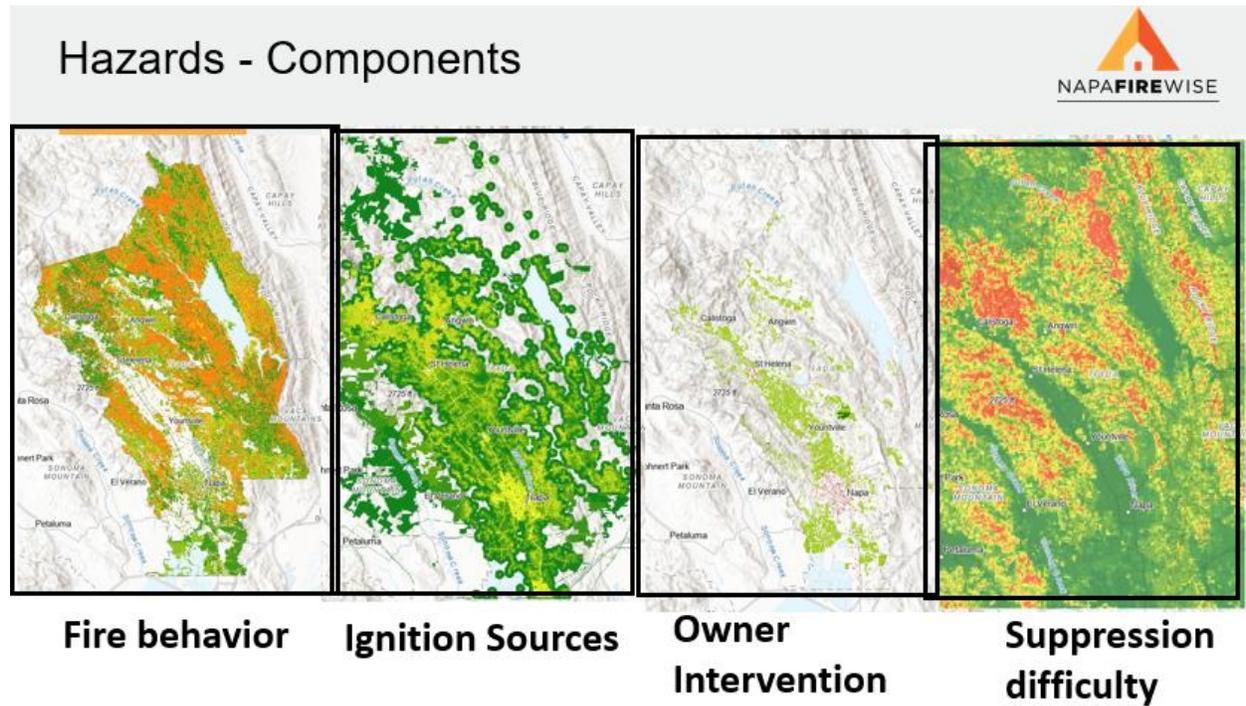


Figure 11. Components of fire hazard.

In Figure 12 below, dark blue represents zero or no wildfire hazard. Yellows and greens represent low to moderate wildfire hazard. Orange to dark umber represent high to very high wildfire hazard.

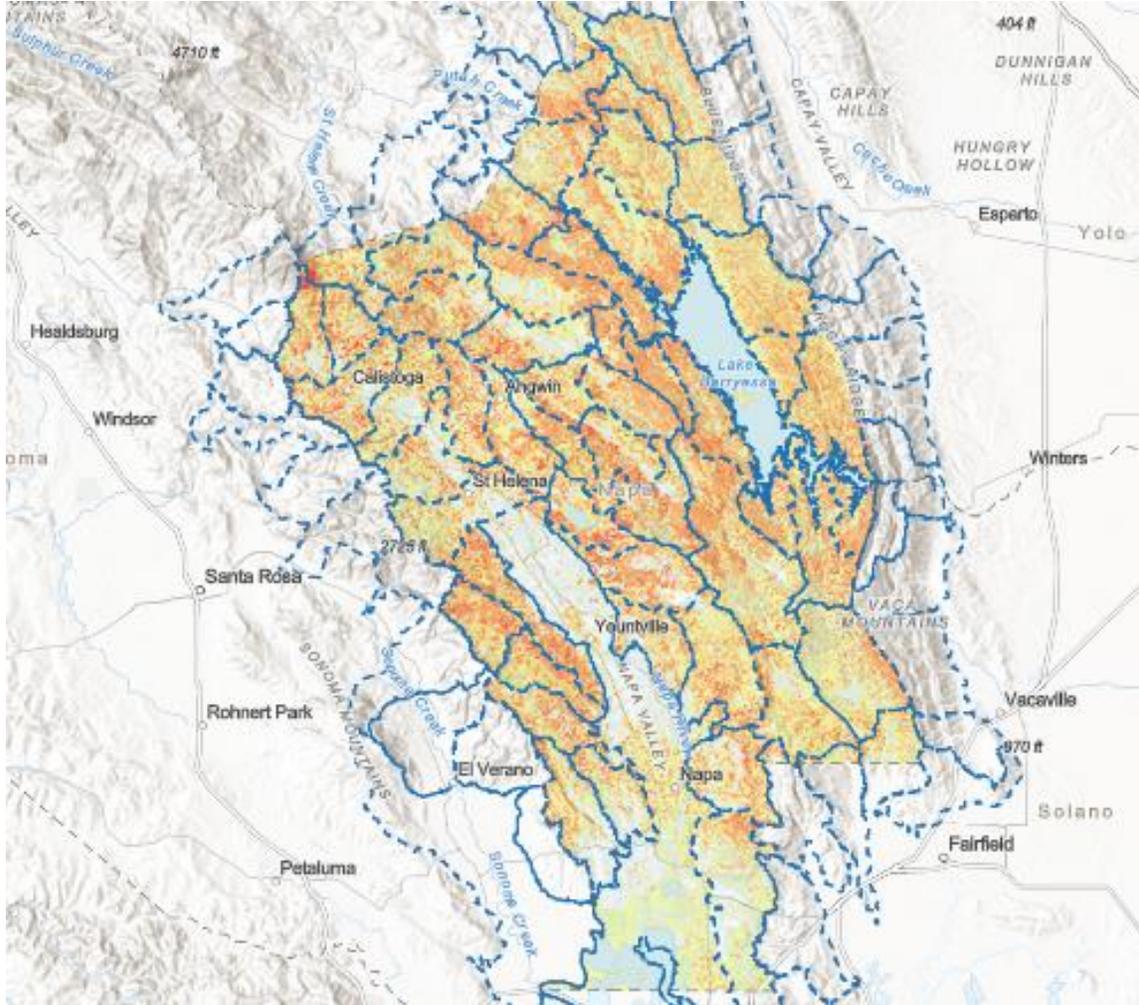


Figure 12. Map of wildfire hazard.

Wildfire Hazard Summary

The wildfire hazard as organized by watersheds. The watershed that associated with the highest average wildfire hazard rating is west of Lake Berryessa between Trout Creek Ridge and the Cedar Roughs Ridge (Upper Capell Creek/Trout Creek).

The watershed with the next highest average wildfire hazard rating is Wragg Ridge/Markley Canyon (south of Lake Berryessa at on the eastern border of the county).

This area is not heavily populated but is along the county border and includes State Highway 128, which is an identified priority evacuation route.

The next three highest-rated watersheds are also along Lake Berryessa: Spanish Valley northwest of Lake Berryessa that includes Corral Creek, Upper Capell Creek/Smittie Creek along the western shores of Lake Berryessa (east of Iron Mountain and Sugarloaf Peak), and Maxell Creek/Lower Maxell Creek which is located west of Lake Berryessa and east of Pope Valley.

While these areas are not immediately near large population centers, it does draw attention to the remote parts of the county that are prone to burning (as experienced in the 2020 fires) and have regionwide impacts.

Other areas of concern include the southwestern-facing slopes above Dry Creek. Dry Creek Road is a secondary evacuation route that serves over 1,000 residents in the western part of Napa County.

The area where several canyons - including Simmons Canyon, Hoisting Works Canyon, Swartz Canyon, and Dutch Henry Canyon - converge is also an area where wildfire hazard was rated fairly high. Very high wildfire behavior is predicted on slopes facing every direction, indicating the possibility of erratic or swirling wind patterns in this region.

7. Risk Assessment

Napa Firewise calculated fire risk by allocating numerical values to fire hazards and suppression activities, assets to protect, and owner interventions. The values attributed to fuel hazards and suppression activities and assets to protect are combined as a first step. Then the values attributed to owner intervention are subtracted from this first number, to calculate an overall assessment of risk from fire.

As Figure 13 below notes, the [Community Base Map](#) layers showcasing elements such as topography and key community and natural resource assets, in combination with the [Wildfire Hazard Story Map](#) elements showing fuel models and fire behavior predictions such as flame length and rate of spread, reflect elements of calculating overall risk from wildfire. Figure 13 below goes into further detail about the elements that Napa Firewise considered when evaluating risk.

Wildfire Intensity and Likelihood (Hazard)					Community Values Susceptibility and Vulnerability							
1 0 - 4	0.5 0 - 4	0.5 -4 - 4	0.5 -4 - 4	0.5 -4 - 4	0.75 -4 - 4	0.75 -4 - 4	1 -4 - 4					
Fire Behavior Predictions and Fuel Condition	+	Ignition Sources	+/-	Wildfire Suppression Response	+/-	Owner Intervention	+	Community Assets	+/-	Natural Resource Assets	+/-	Infrastructure Assets
Flame Length		Proximity to housing/ structures		Travel Time from nearest Fire Station		Project locations Vineyards (from veg layer - tease out sloped vineyards)		Structure density		Drinking water source watershed		Water Pumping Stations (ask JC for the data)
FireType (Crown Fire Potential)		Proximity to roads (classified)		Suppression Difficulty Index (RMRS)		Structures/Year Built		Wineries (points)		Critical Habitat (US)		Powerlines by 100 feet
Ladder Fuels		Proximity to powerlines/transmission lines		Primary Road Grade (slope)		Structure roofing material		Mobile Home Parks (points)		Erosion potential (from soil type and slope)		ALERT Wildfire Cameras
Dangerous topography		Frequency of PSPS (from PG&E)		Total residents served per road		Decking/balcony		Hospital		Cultural features		Weather stations (RAWS only?)
Wind direction/speed		Subject poles		One-way in/out		Eave/vent openings		Schools (500 foot buffer)		Special status plants		Communication towers (get from Stakeholder map)
Predominate slope				Bridges		Clean air centers - Smoke Ready California		Labor Camps (get polygon from aerial, then add 200 feet buffer)		Special status animals		Evacuation Routes (both primary and secondary) by 100 feet
Predominate aspect				Hydrant location		Siding						Fire Stations (200ft buffer)

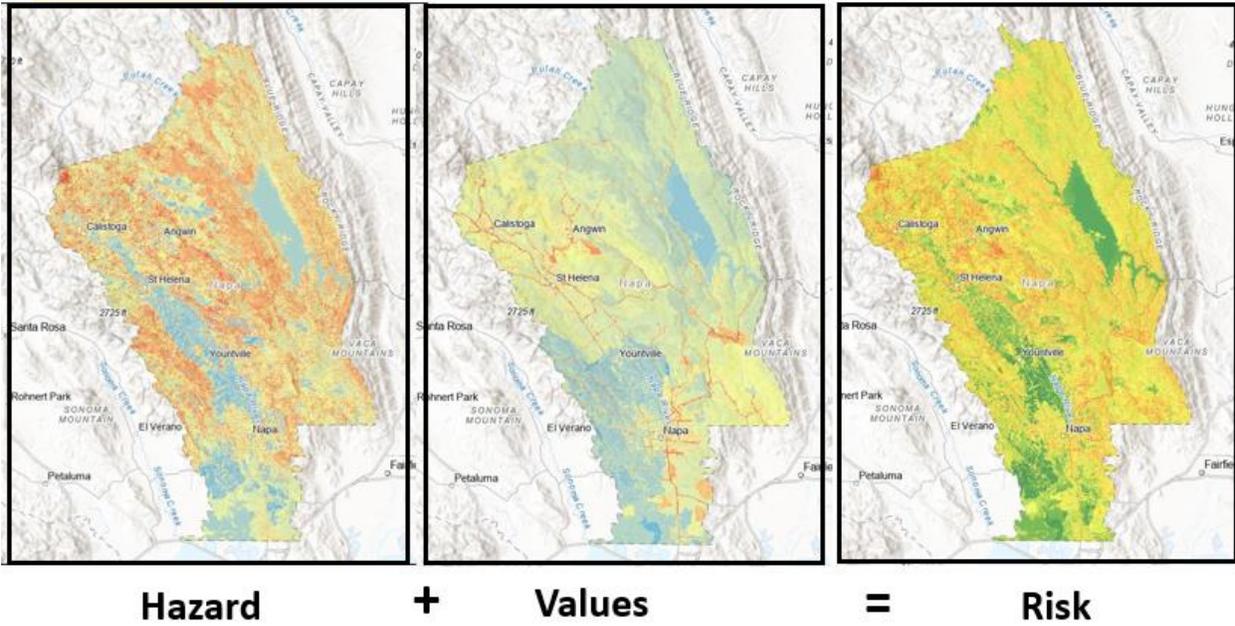
Figure 13. Napa Firewise table for assessing risk.

This analysis weights fire behavior twice as much as any other factor in the hazard portion of calculating risk. On the values susceptibility and vulnerability side, infrastructure is weighted more heavily than community assets or natural resource assets.

The condition of these values, moreover, can worsen or improve these risk elements. An important example of this is the role of vineyards. Vineyards are the most important owner intervention in Napa County because they constitute the biggest acreage that is managed in a low-risk fuel condition, creating fuelbreaks throughout the county. Structures, meanwhile, could be either a net benefit or create increased fire hazard depending on their ignition resistance, as measured by the building age and the materials used in construction.

Figure 14 below depicts is a spatial depiction of the county-wide assessment of risk from fire.

Risk assessment outputs



Orange/red indicates high ratings, green indicates low ratings

Figure 14. Maps reflecting the calculation of risk.

C. FIREFIGHTING RESOURCES

1. Napa County Fire Department

The Napa County website summarizes the organization of and resources available to the Napa County Fire Department.

“The County of Napa contracts with the California Department of Forestry (CAL FIRE) for fire protection services as the Napa County Fire Department. CAL FIRE provides administrative support and coordination with five full-time paid stations and nine volunteer fire companies operating under a County Fire Plan, which is approved by the County Board of Supervisors. The Napa County Fire Chief is responsible for the direction and coordination of fire protection services by these organizations on a Countywide basis. The County contracts with the cities of St. Helena and Calistoga, and Schell-Vista Fire Protection District for the provision of fire protection services to specified unincorporated areas adjoining these agencies. The Napa County Fire Department provides fire and emergency service dispatching for the City of St. Helena, and Calistoga Fire Departments. The Town of

Yountville and the California Veterans Home contracts with the County to provide fire services to those jurisdictions.”¹

Listed below are the Napa County fire stations.

NAPA COUNTY FIRE STATIONS²			
Local Fire Station	Station Number	Volunteer	Address
Carneros	10	Yes	1598 Milton Road, Napa,
Yountville	12		7401 Solano Avenue, Yountville
Soda Canyon	13	Yes	2368 Soda Canyon Road, Napa
Capell Valley	14	Yes	1193 Capell Valley Road, Napa
Capell Valley	214	Yes	1251 Steele Canyon Road, Napa
Rutherford	15	Yes	1989 Highway 29, Rutherford
Rutherford	215	Yes	8140 Silverado Trail, Napa
Dry Creek/Lokoya	16	Yes	5900 Dry Creek Road, Napa
Angwin	18	Yes	275 College Avenue, Angwin
Pope Valley	20	Yes	5890 Pope Valley Road, Pope Valley
Pope Valley	220	Yes	2386 Stagecoach Canyon Road, Pope Valley
Deer Park	21	Yes	680 Sanitarium Road, Deer Park
Gordon Valley	22	Yes	6485 Gordon Valley Road, Napa
Spanish Flat	24		4454 Knoxville Road, Napa
Napa	25		1820 Monticello Road, Napa
Saint Helena	26		3535 Saint Helena Highway N, Calistoga
Greenwood Ranch	27		1555 Airport Boulevard, Napa
Las Posadas (Seasonal)	30		755 Las Posadas Road, Angwin
Gordon Valley	38		1345 Wooden Valley Cross Road, Napa

2. California Department of Forestry and Fire Protection (CAL FIRE)

CAL FIRE Lake Napa Unit (LNU) headquarters is located in Napa County near Saint Helena, at Station 26 identified below. The LNU Unit provides initial attack fire protection in State Responsibility Lands for all of Napa County (and neighboring Lake, Sonoma, Colusa, Yolo, and Solano counties, totaling 2.3 million acres).

“Suppression resources and personnel during peak fire season include approximately 260 career personnel and approximately another 250 seasonal personnel. This staffs 21 fire stations, 31 engines, 6 bulldozers, 2 Conservation Camps, 1 Fuels Crew, 1 Helicopter and

¹ About Us, Napa County Fire Department, <https://www.countyofnapa.org/390/About-Us>, website accessed 3/12/2021.

² Fire Stations, <https://www.countyofnapa.org/392/Fire-Stations>, website accessed 3/12/2021.

many other Support Staff positions. A typical fire station will house between 3-12 personnel on a given day.”³

CAL FIRE STATIONS IN NAPA COUNTY⁴			
Fire Station	Battalion	Station Number	Apparatus
Saint Helena	14	26	E26, E1464, E1484
Las Posadas	14	30	E1474
Spanish Flat	15	24	E1465, E1475
Gordon Valley	15	38	E1485, D1445
Yountville	16	12	E12, TRK12
Napa	16	25	E25, E1466
Greenwood Ranch	16	27	E27, E1476, HZM27

³ CAL FIRE, Sonoma-Lake-Napa Unit 2020 Strategic Fire Plan, p. 9.

⁴ CAL FIRE, Sonoma-Lake-Napa Unit 2020 Strategic Fire Plan, p. 29.

Section 2: Collaboration

Strong working relationships are critical in ensuring our communities are well-prepared. This section describes key partners and paints a fuller picture of the communities' landscape as well as its local preparedness and firefighting resources.

A. KEY PARTNERS

The Napa Communities Firewise Foundation (NCFF) led the development of this Community Wildfire Protection Plan (CWPP), with guidance and support from several partners. Napa Firewise Foundation was established in 2005 and incorporated in 2007 as a private 501(3)(c) corporation, with leadership from diverse sectors of Napa County.

CAL FIRE provided funding through the Climate Change Investment Fund via a Fire Prevention Grant. CAL FIRE was an integral partner and reviewed many products in their early form.

1. Stakeholders

The CWPP was developed with a stakeholder group that represented cities, state, federal, and tribal agencies, Napa County agencies, and local organizations. This coalition of stakeholders met five times to agree on risk assessments, gather and prioritize projects, take leadership on implementation, and review the proposed action plan.

A smaller subset of the Stakeholders served as Core Team members who advised the CWPP planning process at regular intervals as needed. The Stakeholders and Core Team represented the entities are described in Figure 15 below.

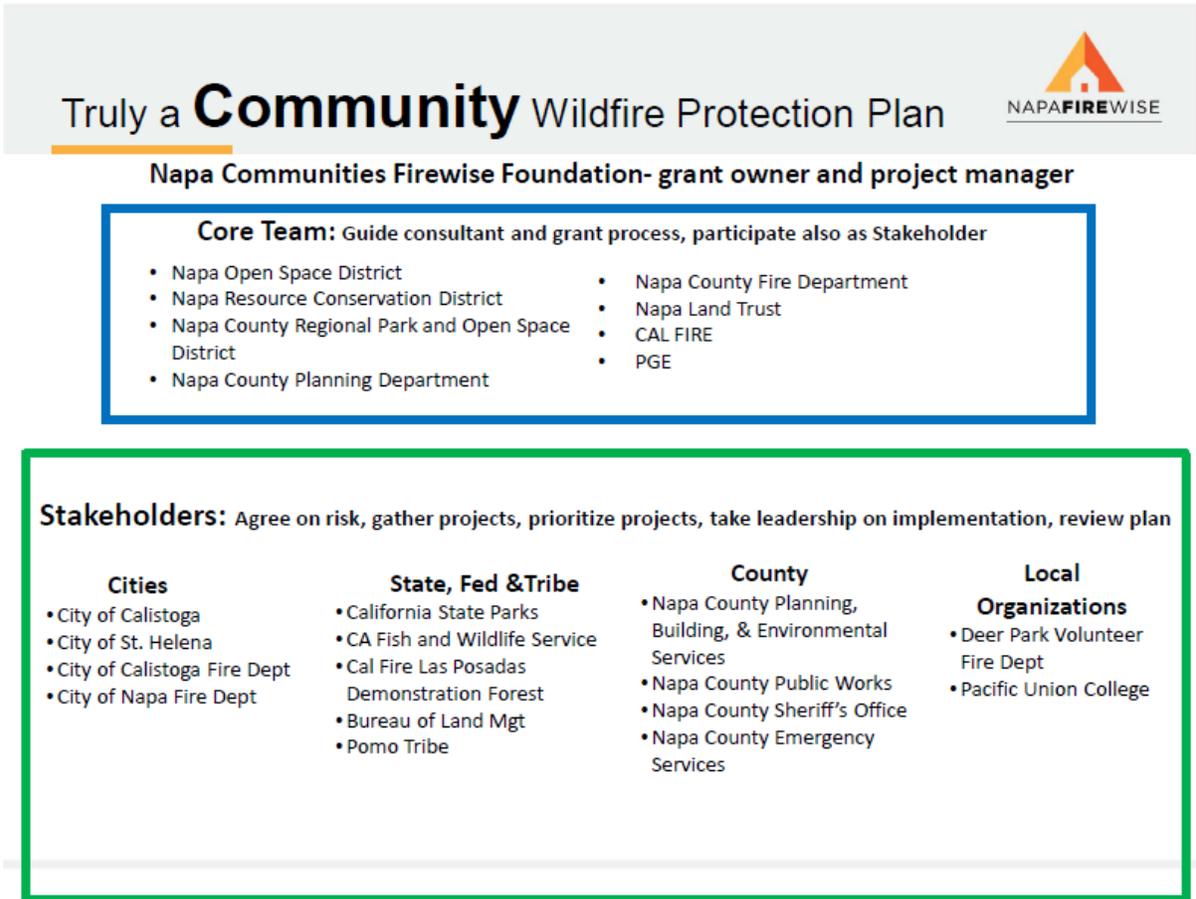


Figure 15. Summary of contributors to Napa Firewise and key stakeholders for this CWPP.

2. Fire Safe Councils

Fire Safe Councils (FSCs) were represented in the CWPP planning process by three NCCFF Board members, both in the Core Team and as Stakeholders. These Board members reported progress and received feedback from the Fire Safe Councils, which cover more than 20,000 residents in Napa County. In addition, the 13 local Fire Safe Councils offered projects for incorporation into this CWPP. Each Fire Safe Council has a local CWPP that includes a set of priority projects. All those locally identified projects – more than 200 – were included in this CWPP.

Figure 15 below demarcates the jurisdictional boundaries for the 13 local Fire Safe Councils in Napa County.

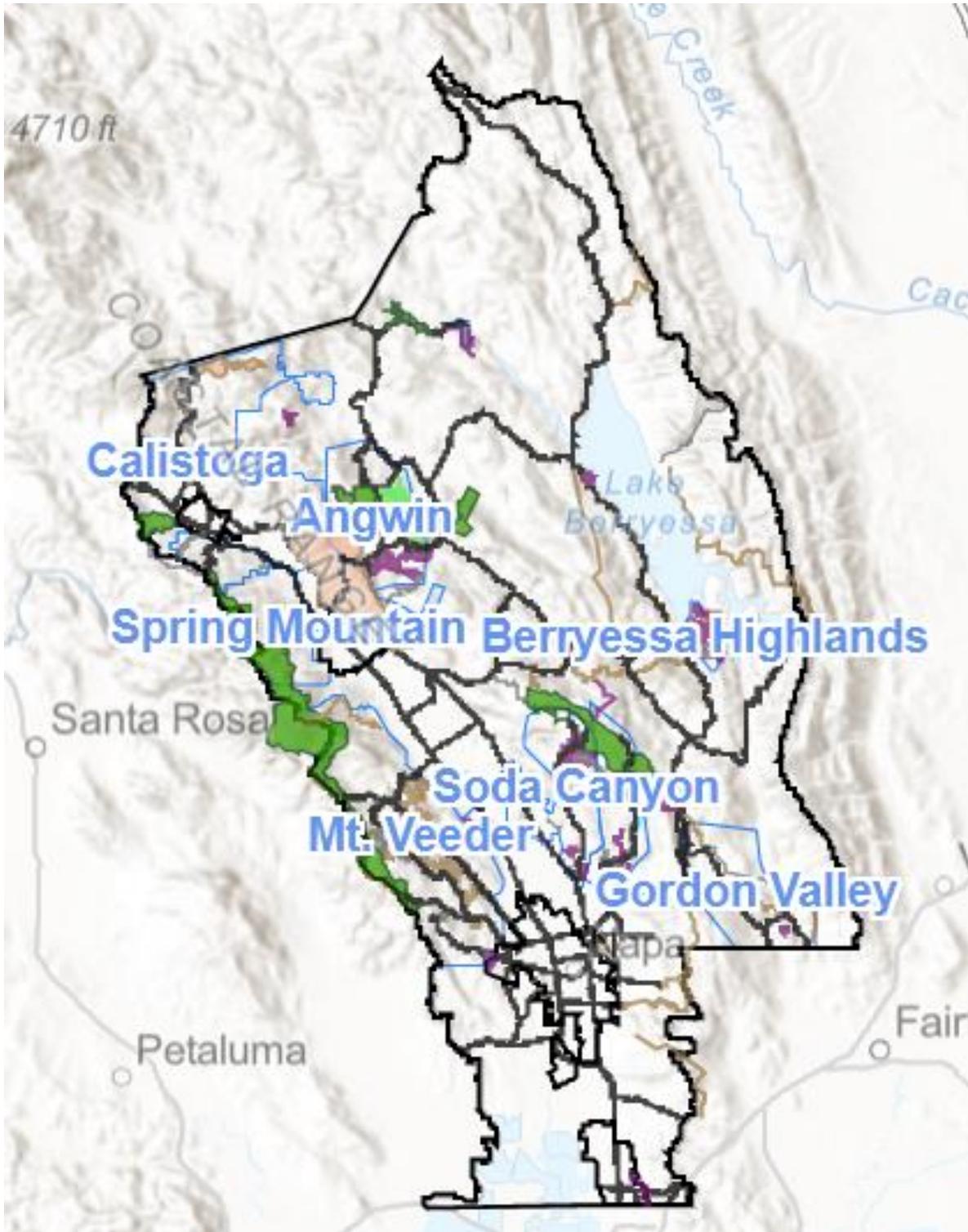


Figure 16. Map depicting jurisdictional boundaries of Fire Safe Councils in Napa County.

Section 3: Proposed Projects and Action Plan

A. PROPOSED PROJECTS

The CWPP accumulated projects to reduce the wildland fire hazard in Napa County, gathering them from both individual community-level FSCs, as well as county-wide priority projects. A searchable database was produced for future reference on the Hub Site. The projects database is searchable by project type, proponent, project name, or by location in map. For those mappable projects, features in the Community Base Map can be shown for the specific area of the project. All projects are listed in the Hub Site on the tile entitled Napa County CWPP Projects geodatabase at https://ncff-cwpp-dms-usa.hub.arcgis.com/datasets/1f326c78995940048ee1d7f16a998df6_0?showData=true. In addition, mappable projects are shown in the Hub Site on the webmap entitled [Napa County CWPP Projects](#).

1. Origin of Projects

Projects were gathered from a variety of sources, the main ones being from the Fire Safe Council CWPPs and those projects offered by Stakeholders. The projects from both the Fire Safe Councils and the Stakeholders are listed in Appendices A and B.

Projects identified as mitigations in the Napa County [Multi-Jurisdictional Hazard Mitigation Plan](#) (MJHMP) are included, as this plan reflects and incorporates those mitigations, and appear as Appendix C. In addition, and by reference, the actions identified in [CAL FIRE's LNU 2020 Strategic Fire Plan](#) are also supported in this CWPP.

There are a few lists of projects: (1) those projects from FSCs, and (2) projects offered by stakeholders. Each will have different formatting.

FSC project list

This list is comprised of projects that were in each of the local FSC's CWPPs. The list is organized by FSC, and indicates the project completion status. With few exceptions, if a fuel management project has been completed, it is now set up into a maintenance schedule. Those exceptions would be projects where the need no longer exists (such as projects that remove hazard trees along roads). Projects in this list are also organized by project type. Projects that have a defined boundary are mapped and displayed in the [Napa Hub Site](#); the list also includes those that are not mappable, such as community outreach and engagement projects or installation of 911 signs. Most of the un-mappable projects are proposed by the FSCs.

Local FSCs are working hard to educate homeowners about fire safe activities while working with local fire officials to design and implement projects that increase the wildfire survivability of their communities. Many of Napa's Fire Safe Councils have successfully implemented projects such as hazardous fuel reduction, community wildfire protection planning, and

homeowner training. Two excellent examples of this are the [Angwin Fire Safe Council](#) and the [Mt. Veeder Fire Safe Council](#).

Projects offered by Stakeholders

A major benefit of a county-wide CWPP is that projects can be larger in scale and address county-wide issues, such as protection of emergency access and egress corridors, or critical infrastructure. A variety of stakeholders have proposed projects that are both site-specific and county-wide. Because these are all "planned" projects, there's no need to indicate whether the project is planned or in maintenance and have instead information regarding its mappability, and the proponent. As in the FSC projects, these are organized by project type.

2. Priorities

As Napa Firewise and associated stakeholders prepare to implement the series of proposed and ongoing projects described below, the projects will be prioritized in a set order. The four most important project groups are, in order:

The priorities for this Napa County CWPP are:

1. Evacuation Corridors and Containment

- Major corridors, e.g., State Highways 29, 121, and 128
- Secondary corridors, e.g, County roads, and
- Select containment lines

2. Community Perimeter Fuelbreak and Forest Health Projects

3. Projects that protect Drinking Water, Critical Infrastructure and Landscape-Scale Projects

4. All other projects will be prioritized in the following broad groupings, in order:

- Life safety
- Property damage
- Natural resources

B. CATEGORIES OF PROJECTS

There are five major categories of Projects in the Action Plan:

1. Fuel management
2. Wildfire response support
3. Community education and outreach
4. Critical Infrastructure
5. Planning

The projects themselves are organized by type of project and are displayed in the table below.

1. FUEL MANAGEMENT	
Project Type	Project Type Description
EVAC	Protect evacuation routes by removing hazardous trees and reducing fuel volumes within 100- feet on both sides of emergency access and evacuation routes as defined by Napa County; priority is to treat areas within the perimeter of the 2020 fires
FuB	Create perimeter fuelbreaks around communities by treating vegetation, linking low fuel volume locations and working with large landowners
Rd	Treat roadside vegetation along roads to provide emergency access and egress; remove hazard trees and thin understory and coniferous canopy
Water	Protect drinking water reservoirs and facilities through vegetation management in the immediate sub-watershed to limit sediment movement into reservoirs hardening. Create defensible space around all facilities
Health	Improve forest health and resiliency by managing vegetation to reduce fuel volume, vegetation density and creating a forest structure that mimics that found in a natural fire regime
Landscape	Promote containment by treating vegetation along strategic containment locations to reduce fuel loads and restore fuel conditions and fire regimes. Identify as boundaries key ridgelines and access roads
Restore	Restore and rehabilitate wildlands and defensible space in communities that have burned
Power	Prevent Ignitions from powerlines by removing vegetation from within striking distance and around selected power poles
Link	Treat vegetation between vineyards to augment containment opportunities

2. COMMUNICATION AND EDUCATION	
Project Type	Project Type Description
DS	Educate and promote creation and maintenance of defensible space
Call	Augment current notification systems during emergency
Zones	Educate residents about criteria of locations suitable for emergency refuge
Prev	Prevent ignitions from mechanical devices by informing workers of best practices, including

3. WILDFIRE RESPONSE SUPPORT	
Project Type	Project Type Description
Contain	Support fire containment by maintaining select dozer lines installed during wildfires. Re-align select dozer lines to limit environmental impacts
911	Install 911 signs and address badges that indicate access and water supply
Knox	Install Knox Box facilities at base of roads with material (water supply, access, power shutoff) to assist emergency responders
Pass	Establish agreements with landowners/neighbors law authorities, to allow access in emergency
Turnout	Improve roads by creating turnouts along roads through vegetation removal or minor dirt removal, or improving road surface

4. CRITICAL INFRASTRUCTURE PROTECTION	
Project Type	Project Type Description
I	Protect critical infrastructure (e.g. cameras, communication towers, water treatment plants) from wildfire damage through creation of defensible space and ignition resistant construction
IW	Protect drinking water facilities by creating defensible space around all facilities and retrofitting structures with ignition-resistant construction

5. PLANNING	
Project Type	Project Type Description
PlanGeo	Develop a geodatabase to track project implementation and maintenance
PlanRef	Participate fully in General Plan and Local Multi-hazard Mitigation Plan revisions

C. ACTION PLAN

1. Roles and Responsibilities

These projects were organized into an Action Plan that sets the stage for implementation. The Action Plan defines the scope, partners, the type of resources needed for implementation, funding source and general level of funding that might be required. The Action Plan can be

downloaded on the Hub Site, in the site entitled Action Plan 3-9-2021 (DRAFT), at <https://ncff-cwpp-dms-usa.hub.arcgis.com/datasets/f0fa346269b84715b7ea073c7545d2a7>

2. Funding Sources

Funding for wildfire mitigation projects comes from a variety of sources, such as Federal, State or corporate grants, donations, property tax, or department budgets. Each funding mechanism has unique requirements, strengths, and weaknesses. Some are best suited for one-time expenditures, such as capital improvements, others are suited for ongoing maintenance activities. The “strings” attached to each mechanism should not be overlooked. Funding sources require that projects be developed through collaborative planning (such as the Community Wildfire Protection Plan). Some funding sources are relatively easy to obtain, while others require an intricate application process, or include administrative burdens associated with monitoring how funds are spent and complex reporting requirements. A local community or homeowner association may be willing to fund solutions that add value and are worth their cost, but may only fund projects with citizen committee oversight, or if connected to other efforts the community favors. The sustainability of funds is another key difference.

Many projects do not require funding, but are sustained instead through collaboration, staff time, volunteerism, and the self-interest of parties involved. However, many projects require funds to hire staff, purchase equipment, or increase training, and to pay vendors to conduct work and perform services.

The implementation of the CWPP is likely to use a “funding quilt,” made up of a patchwork of mechanisms to cover fire mitigation projects. Multiple sources provide greater stability, more funds, increased continuity, more stakeholders with greater buy-in, and the ability to expand the scope of work. Each stakeholder can stitch together the funding quilt by collaborating on the acquisition of funds. For example, some funding can be obtained by only fire departments, while other sources require private non-profit entities or communities to receive funds. Anticipated sources of funding include:

County or Municipal Funding

NCCFF has a long history of receiving funding from Napa County. This source of funding may be expected to continue, to support community outreach and education as well as fuel modification and infrastructure improvement. If the county populace so chooses, projects could be funded through a regular, ongoing funding mechanism.

Federal and State Aid Programs

Federal funding is distributed through many avenues. Commonly-used major programs for fire safety fund mitigation are the National Fire Plan and the Healthy Forest Restoration Act. Major grants are provided through the Federal Emergency Management Agency (FEMA) and

the U.S. Fire Administration. Many grants are extremely competitive, with requests for funding far exceeding available funds, while others have a specific focus.

The two primary programs funded by FEMA provide assistance vary on grant size, non-Federal match requirements, the population size a fire department serves. They typically provide funding for organizing, training, prevention materials, and equipment to protect the health and safety of the public and firefighting personnel.

FEMA Disaster Mitigation Programs: The Disaster Mitigation Program includes the Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation Program (PDM).

- HMGP funds are available after a disaster has been declared to mitigate future risk from any type of disaster (amounts available are linked to the total emergency funds).
- The PDM facilitates cooperation between state and local authorities with funds awarded competitively for both planning and project implementation activities at the state and local level, as a subgrantee.

Assistance to Fire Fighters: This FEMA grant program includes the overall Assistance to Firefighters Grant (AFG) and the Fire Prevention and Safety Grant Program. AFG is limited to fire departments.

National Conservation of Resources Services (NCRS): NRCS implements a grant program aimed at promoting effective and safe land management practices on private lands. Grants are provided for equipment, planning and management, and reward collaboration and cooperation between adjacent landowners. Fire hazard reduction that increases habitat and watershed value is more likely to be funded.

State Aid Programs

CALFIRE and the Department of Conservation administer grants using monies from the Climate Change Investment Fund, and to a lesser degree, National Fire Plan budget and other sources. CALFIRE plays an important role in distributing grant funds aimed at assisting private landowners. In 2021, the State has committed historic levels of funding to address the wildfire issue. Figure X displays programs that are currently sources of project funding.

Private Grants and Donations

Private funds and volunteerism usually play a large role in the implementation of community fire plans. For instance, large national businesses often have grant programs, while local nurseries, contractors, small businesses, or community-minded individuals can be key partners with Fire Safe Councils. Funding can be provided through dues, gifts, in-kind contributions or can seek funding from outside sources.

Private Foundations

Several private foundations offer small grants that can be used to reduce fire hazards, increase community capacity to collaborate, and promote environmental awareness and action.

Wildfire and Forest Resilience Expenditure Plan

(Dollars in Millions)

Investment Category	Department	Program	Early Action 2020-21	Budget Year 2021-22	Total
Resilient Forests & Landscapes	CAL FIRE	Forest Health Program	\$70	\$100	\$170
		Forest Improvement Program for Small Landowners	\$10	\$40	\$50
		Forest Legacy & Reforestation Nursery	\$8	\$17	\$25
		Urban Forestry	\$10	\$13	\$23
		Tribal Engagement	\$1	\$19	\$20
	State Parks, Fish & Wildlife & State Lands Commission	Stewardship of State-Owned Land	\$19	\$123	\$142
	Sierra Nevada & Tahoe Conservancies	Project Implementation in High-Risk Regions	\$21	\$61	\$82
Wildfire Fuel Breaks	CAL FIRE	CAL FIRE Unit Fire Prevention Projects	\$10	\$40	\$50
		Fire Prevention Grants	\$50	\$80	\$130
		Prescribed Fire & Hand Crews	\$15	\$35	\$50
	California Conservation Corps	Forestry Corps & Fuel Reduction Projects	\$0	\$20	\$20
	Department of Conservation	Regional Forest & Fire Capacity	\$25	\$60	\$85
Community Hardening	Cal OES & CAL FIRE	Home Hardening	\$25	\$0	\$25
	CAL FIRE	Defensible Space Inspectors	\$0	\$6	\$6
	CAL FIRE & University of California	Land Use Planning & Public Education Outreach	\$0	\$7	\$7
Science-Based Management	CAL FIRE	Ecological Monitoring, Research & Adaptive Management	\$3	\$17	\$20
	Natural Resources Agency	Remote Sensing	\$0	\$15	\$15
	Air Resources Board & Water Board	Permit Efficiencies	\$0	\$4	\$4
Forest Sector Economic Stimulus	IBank	Climate Catalyst Fund	\$47	\$2	\$49
	CAL FIRE	Workforce Training	\$6	\$18	\$24
	Office of Planning & Research	Market Development	\$3	\$0	\$3
Total			\$323	\$677	\$1,000

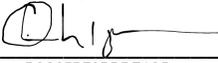
Figure 17. State-funded programs to promote wildfire and forest resilience.

Signatures

This plan must be approved by the following key parties: the local Fire Safe Council President, chief of primary responding fire agency, CAL FIRE, and the chair of the local elected official body. This section includes these.

The Community Wildfire Protection Plan as developed for Napa County:

- Was collaboratively developed and meets the intent of the Healthy Forest Restoration Act (HFRA) in emphasizing the need for agencies to work collaboratively with communities in developing hazardous fuel reduction projects, and places priority on treatment areas identified by communities themselves in a CWPP. Interested parties and federal land management agencies in the vicinity of this CWPP have been consulted.
- Identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment that will protect areas within this CWPP.
- Recommends measures to reduce ignitability of structures throughout the area addressed by the plan.
- Is intended for use as a planning and assessment tool only, utilizing a compilation of community issues and goals and projected fire mitigation strategies. The CWPP is not to be construed as indicative of project “activity” as defined under the “Community Guide to the California Environmental Quality Act, Chapter Three, Projects Subject to CEQA.” Per the Community Guide, Section 3.1.1, “CEQA only applies to public agency decisions to approve, or actions to carry out, a discretionary project.” Any actual project activities meeting this definition of project activity and undertaken by the CWPP participants or agencies listed shall meet with local, state and federal environmental compliance requirements.
- Assists and encourages compliance with current county and state fire code standards.

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Napa Communities Firewise Foundation
Christopher Thompson, President

5/4/2021

Date

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Napa County Fire Department
Geoff Belyea, Fire Chief

5/4/2021

Date

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CAL FIRE LNU Unit
Shana Jones, LNU Unit Chief

5/4/2021

Date

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Napa County Board of Supervisors
Alfredo Pedroza, Board Chair

5/4/2021

Date

Appendices

APPENDIX A: NEWLY PROPOSED PROJECTS FROM STAKEHOLDERS

EVACUATION CORRIDORS

[EVAC] Protect evacuation routes by removing hazardous trees and reducing fuel volumes within 100- feet on both sides of emergency access and evacuation routes as defined by Napa County; priority is to treat areas within the perimeter of the 2020 fires.

EVACUATION CORRIDORS					
Project ID	Project Name	Address Count	Proponents	Project Type	Mapped?
EVAC1	State Highways 121 & 128		NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC2	Silverado Trl	917	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC3	Lincoln Ave	727	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	1st St	644	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Redwood Rd	566	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Trancas St	479	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	American Canyon Rd	422	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Atlas Peak Rd	357	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Flosden Rd	357	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Old Sonoma Rd	320	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Browns Valley Rd	222	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Dry Creek Rd	218	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Soda Canyon Rd	164	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Coombsville Rd	158	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Steele Canyon Rd	139	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes

Project ID	Project Name	Address Count	Proponents	Project Type	Mapped?
EVAC1	Spring Mountain Rd	124	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	W Imola Ave	117	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Hagen Rd	111	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Mount Veeder Rd	111	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	1st Ave	105	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Vichy Ave	100	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Imola Ave	93	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Stage Coach Canyon Rd	79	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Partrick Rd	71	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Berressa Knoxville Rd	70	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Berryessa Knoxville Rd	70	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Howell Mountain Rd	65	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Chiles Pope Valley Rd	62	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Diamond Mountain Rd	58	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Deer Park Rd	51	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Madison St	48	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Wooden Valley Rd	46	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Las Posadas Rd	40	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Pope Valley Rd	40	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Oakville Cross Rd	38	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Petrified Forest Rd	38	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Yountville Cross Rd	38	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes

Project ID	Project Name	Address Count	Proponents	Project Type	Mapped?
EVAC1	Gordon Valley Rd	33	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Tubbs Ln	31	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Oakville Grade Rd	29	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Ink Grade Rd	27	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Pope Canyon Rd	25	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Butts Canyon Rd	24	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Lower Chiles Valley Rd	19	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Buhman Ave	15	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Wooden Valley Cross Rd	14	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Snell Valley Rd	8	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Hiddenbrook Pkwy	0	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes
EVAC1	Sage Canyon Road	??	NCFF, NCFD, Co, CAL FIRE	EVAC	Yes

EMERGENCY RESPONSE ACCESS FOR CONTAINMENT

[Contain] Support fire containment by maintaining select dozer lines installed during wildfires. Re-align select dozer lines to limit environmental impacts.

EMERGENCY RESPONSE ACCESS FOR CONTAINMENT				
Project ID	Project Name	Proponent	Project Type	Mapped?
NCFD7	Capell Crest to Steele Canyon	NCFD	Contain	Yes
NCFD9	Connector Pritchard Hill - Sage Canyon Rd	NCFD	Contain	Yes
NCFD10	Dam to Lookout - Putah Creek Ranch to Gunn Ranch	NCFD	Contain	Yes
NCFD11	Dozerline Cove to Steel Canyon Rd @ Berryessa Highlands	NCFD	Contain	Yes
NCFD14	Friesen Lake to Ink Grade	NCFD	Contain	Yes
NCFD15	From Lake Curry to Waters Rd.	NCFD	Contain	Yes
NCFD20	Lookout Rd	NCFD	Contain	Yes
NCFD21	Mid Oak Ville Grade t Sonoma County	NCFD	Contain	Yes
NCFD24	Pope Creek Bridge to Summerstone Winery	NCFD	Contain	Yes
NCFD29	Shoreline dozer line @ Berryessa Highlands	NCFD	Contain	Yes

Project ID	Project Name	Proponent	Project Type	Mapped?
NCFD31	Silverado Country Club fuel reduction	NCFD	Contain	Yes
NCFD32	Skyline Park to Purline Rd	NCFD	Contain	Yes
NCFD36	Toll Rd Dozer	NCFD	Contain	Yes
NCFD37	Turtle Rock to Nichelini	NCFD	Contain	Yes
NCFD38	Wildhorse Valley Rd	NCFD	Contain	Yes
NCFD39	Wooden Valley School to Waters	NCFD	Contain	Yes
NCity1	Westwood Hills Park access from Laurel	NFD	Contain	Yes
NCity2	Montecito to Ashlar	NFD	Contain	Yes
NCity3	Ashlar to First	NFD	Contain	Yes
NCity4	Napa City Fire Access	NFD	Contain	Yes
NCFD8	Circle Oaks to Wooden Valley	NCFD	EVAC	Yes
SP1	RLSSP Corridor	St Pks	EVAC	Yes

COMMUNITY PERIMETER FUELBREAKS

[FuB] Create perimeter fuelbreaks around communities by treating vegetation, linking low fuel volume locations and working with large landowners.

COMMUNITY PERIMETER FUELBREAKS				
Project ID	Project Name	Proponent	Project Type	Mapped?
NCFD1	American Canyon High School	NCFD	FuB	Yes
NCFD2	Angwin Perimeter Fuelbreak #1 - Cold Springs to LaJota	NCFD	FuB	Yes
NCFD3	Angwin protection - South side	NCFD	FuB	Yes
NCFD4	Angwin watershed protection	NCFD	FuB	Yes
NCFD4	Angwin protection - East	NCFD	FuB	Yes
NCFD5	Berryessa Estates Sage Ct fuelbreak extension	NCFD	FuB	Yes
NCFD6	Berryessa Pines Fuelbreak	NCFD	FuB	Yes
SP2	Bothe NapaValleySP Defensible Space	St Pks	FuB	Yes
NCFD12	Eastern Berryessa Estates Fuelbreak	NCFD	FuB	Yes
NCFD13	Eastridge Fuelbreak @ Berryessa Highlands	NCFD	FuB	Yes
NCFD17	Goat Grazing @ Berryessa Highlands	NCFD	FuB	Yes
NCFD22	N Steel Canyon Rd Fuelbreak	NCFD	FuB	Yes
NCFD27	Rimrock Fuelbreak @ Berryessa Highlands	NCFD	FuB	Yes
NCFD28	S Napa Border Project	NCFD	FuB	Yes
NCFD30	Silverado Country Club fuel reduction #2	NCFD	FuB	Yes
NCFD35	To Foss Valley	NCFD	FuB	Yes
NCity9	Demonstration Fuels Treatment+Access Project @ Timberhill Pk	NCity,NCFD	FuB	Yes
NLT2	Linda Falls Shaded Fuelbreak	NLT	FuB	Yes

LANDSCAPE SCALE FUEL MANAGEMENT PROJECTS

[Landscape] Promote containment by treating vegetation along strategic containment locations to reduce fuel loads and restore fuel conditions and fire regimes. Identify as boundaries key ridgelines and/or access roads.

LANDSCAPE SCALE FUEL MANAGEMENT PROJECTS				
Project ID	Project Name	Proponent	Project Type	Mapped?
NCFD34	Sonoma Border	NCFD	Landscape	Yes
NCFD16	Fuels treatment in Livermore Ranch	NCFD	Landscape	Yes
NCFD26	Pritchard Hill to Circle Oaks	NCFD	Landscape	Yes
NCFE1	Angwin/Howell Mountain Forest Health Grant	NCFE	Health	Yes
NCity6	Lake Hennessy Watershed Protection	Ncity	Water	Yes
StHCity1	Bell Canyon Watershed Protection – Lg	StH	W	Yes
NLT1	Aetna Springs Shaded Fuel Break	NLT	Landscape	Yes
NLT3	Wantrup Preserve Grazing Project	NLT	Landscape	Yes
NLT4	Snell Valley Prescribed Burning	NLT	Landscape	Yes

CRITICAL INFRASTRUCTURE PROTECTION PROJECTS

[I] Protect critical infrastructure (e.g. cameras, communication towers, water treatment plants) from wildfire damage through creation of defensible space and ignition resistant construction.

[I] Protect drinking water facilities by creating defensible space around all facilities and retrofitting structures with ignition-resistant construction.

CRITICAL INFRASTRUCTURE PROTECTION PROJECTS				
Project ID	Project Name	Proponent	Project Type	Mapped?
DPFSC3	Deer Park, Bell Canyon Water Treatment Plant Defensible Space	DPFSC	I	Yes
NCity7	Lake Hennessy Intake Pump Station Defensible Space /Construction Upgrade	NCity	I	Yes
NCity8	Lake Hennessy Pipeline Protection	NCity	I	Yes
NFD	Clark St Pump Station Defensible Space			

ROADSIDE TREATMENTS

[Rd] Treat roadside vegetation along roads to provide emergency access and egress; remove hazard trees and thin understory and coniferous canopy.

ROADSIDE TREATMENTS				
Project ID	Project Name	Proponent	Project Type	Mapped?
DPFSC3	Deer Park, Bell Canyon Access Rd Fuel Reduction	DPFSC	Rd	Yes
DPFSC3	Deer Park, Sanitarium Canopy Reduction	DPFSC	Rd	Yes
NCFD18	Howell Mtn Rd - Las Posadas South	NCFD	Rd	Yes
NCFD19	Lake County Highway roadside treatment	NCFD	Rd	Yes
NCFD23	Petrified Forest Rd to Diamond Mn	NCFD	Rd	Yes
NCFD25	Pritchard Hill Rd	NCFD	Rd	Yes
CFSC3	Roadside Treatment Lommel Lane	CFSC	Rd	Yes
NCFD33	Snell Valley to Berryessa Estates end	NCFD	Rd	Yes

PLANNING PROJECTS

[Plan] Develop a geodatabase to track project implementation and maintenance.

[Plan] Participate fully in General Plan and Local Multi-hazard Mitigation Plan revisions.

PLANNING PROJECTS				
Project ID	Project Name	Proponent	Project Type	Mapped?
1	Develop a geodatabase to track project implementation and maintenance	NCFE	PlanGeo	
1a	This would include projects performed by firesafe councils, CAL FIRE, cities, county land trusts, and other large landowners	NCFE	PlanRef	No
2	Participate fully in General Plan and Local Multi-hazard Mitigation Plan revisions	County	PlanRef	No
2a	Comply with SB1241, submitting Safety Element and Housing Element to Board of Forestry	County	PlanRef	No
2b	Develop policies for development that promote fire safety, include these in next general plan revision	County	PlanRef	No

APPENDIX B: PROJECTS FROM FIRE SAFE COUNCIL CWPPS

ANGWIN FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
AFSC-1	Bell Canyon Fuelbreak	FuB	Planned	No
AFSC-2	Brookside Fuelbreak	FuB	Planned	No
AFSC-3	Friesen Drive Fuelbreak	FuB	Planned	No
AFSC-4	Ink Grade Rd Fuelbreak	FuB	Planned	No
AFSC-5	Linda Falls Fuelbreak	FuB	Planned	No
AFSC-6	Liparita Fuelbreak	FuB	Planned	No
AFSC-7	Madia Lane Shrubland Treatment		Planned	No
AFSC-8	PUC Ridgeline Fuelbreak Ph1	FuB	Complete	Yes
AFSC-9	PUC Ridgeline Fuelbreak Ph1	FuB	Complete	Yes
AFSC-10	Roadside Treatment - Cold Springs Rd	Rd	Planned	No
AFSC-11	Roadside Treatment - Howell Mtn Rd	Rd	Complete	Yes
AFSC-12	Roadside Treatment - Howell Mtn Rd	Rd	Complete	Yes
AFSC-13	Roadside Treatment - Howell Mtn Rd	Rd	Complete	Yes
AFSC-14	Roadside Treatment - Howell Mtn Rd	Rd	Complete	Yes
AFSC-15	Roadside Treatment - Ink Grade Rd	Rd	Complete	Yes
AFSC-16	Roadside Treatment - White Cottage Rd North	Rd	Complete	Yes
AFSC-17	Roadside Treatment - White Cottage Rd South	Rd	Complete	Yes
AFSC-18	Roadside Treatment - White Cottage Rd South	Rd	Complete	Yes
AFSC-19	Staples Ridge Fuelbreak	FuB	Planned	No
AFSC-20	PUC Ridgeline Fuelbreak Phase 2	FuB	Complete	Yes
AFSC-21	Las Posadas State Forest	Other	Planned	No
AFSC-22	Berry Patch @ College & Howell Mtn	Rd	Complete	No
AFSC-23	PUC Campus-Shaded Fuelbreak for Evac Support	FuB	Planned	No
AFSC-24	Goat Grazing	Other	Complete	No

ATLAS PEAK FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
APFSC-1	Project C - Extend defensible space perimeter of Silverado Country Club	FuB	In progress	Previous CWPP
APFSC-2	Project E - Modify fuels around perimeter of homes South of Atlas Peak	FuB	In progress	Prev. CWPP
APFSC-3	Project F - Modify fuels around perimeter of homes South of Atlas Peak	FuB	In progress	Previous CWPP
APFSC-4	Project G1 - Remove and kill eucalyptus and pines along road near 2700	Rd	Planned	Previous CWPP
APFSC-5	Project G2 - Eucalyptus in grove south of Atlas Peak Rd near address 27XX	Other	Planned	Previous CWPP
APFSC-6	Project H - Modify fuels around perimeter of homes west of Atlas Peak Rd from 28XX to 29XX	FuB	In progress	Previous CWPP
APFSC-7	Project J - Remove and kill eucalyptus below Bubbling Springs in canyons (chimneys)	Other	In progress	Previous CWPP
APFSC-8	Project K - Reduce fire hazard on City watershed land	W	In progress	Previous CWPP
APFSC-9	Project M - Old Soda Springs Roadside Treatment	Rd	Complete	Previous CWPP
APFSC-10	Project N - Remove and kill eucalyptus north of Atlas Peak in canyon (chimneys)	Other	In progress	Previous CWPP
APFSC-11	Project P - Remove and kill eucalyptus east of Bubbling Springs	Other	In progress	Previous CWPP
APFSC-12	Project O - Thin understory brush prune trees to create emergency vehicle access	Rd	Complete	Previous CWPP
APFSC-13	Project D - Open Circle S Ranch road	Pass	Complete	Previous CWPP
APFSC-14	Project Q - Drop eucalyptus along Atlas Peak Rd by power lines	Power	Complete	Previous CWPP
APFSC-15	Project S - Create safe haven as an alternative for evacuation	Zones	In progress	Previous CWPP

APFSC-16	Project I - Remove and kill eucalyptus and pines along road	Rd	Complete	Previous CWPP
APFSC-17	Roadside Mowing	Rd	Complete	No
APFSC-18	Install CAL FIRE address signs	911	Complete	No
BERRYESSA ESTATES FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
BEFSC-1	Project 2 - New growth cleared along bank between road and subdivision road on Marina.	Rd	Complete	Yes
BEFSC-2	Project 7 - Reduce fuel around middle tank	I	Complete	Yes
BEFSC-3	Project 4 - Clear fuel around upper tank and road leading to it	I	Complete	Yes
BEFSC-4	Project 1 - Remove hazardous trees and replace telephone lines with 3 new poles	Power	Complete	Yes
BEFSC-5	Western Fuel Break	FuB	Planned	No
BEFSC-6	Remove pines by power lines - PG&E	Power	Complete	No
BEFSC-7	Remove pines by power lines - CFSC	Power	Complete	No
BEFSC-8	Project 3 - Install house numbers in subdivision	911	Planned	Yes
BEFSC-9	Project 5 - Brush removal from Spanish Valley Trail to Spanish Valley	FuB	Planned	Yes
BEFSC-10	Project 6 - Remove fire boxes	Other	Planned	Yes
BEFSC-11	Project 8 - Individual property owners to enhance defensible space	DS	Planned	Yes
BEFSC-12	Project 9 - Individual property owners to maintain vacant lots	DS	Planned	Yes
BERRYESSA HIGHLANDS FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
BHFSC-1	CWPP Project D - Remove chamise brush on SW side of community	FuB	Complete	Yes
BHFSC-2	Neighborhood Shaded Fuel Break	FuB	Complete	??
BHFSC-3	SW Ridge Firebreak - Overland Dr - Rimrock Rd	FuB	Complete	??

BHFSC-4	CWPP Project I - Remove Eucalyptus from around water tank	I	Complete	Yes
BHFSC-5	Central Ridge Shaded Fuel Break	FuB	Complete	??
BHFSC-6	CWPP Project B - Shaded Fuel Break Along Steele Canyon Rd (part 2)	FuB	Complete	Yes
BHFSC-7	CWPP Project A - Shaded Fuel Break Along Steele Canyon Rd (part 1)	FuB	Complete	Yes
BHFSC-8	CWPP Project F - Shaded Fuel Break West Side of Community	FuB	Complete	Yes
BHFSC-9	CWPP Project E - Shaded Fuel Break East Side of Community	FuB	Complete	Yes
BHFSC-10	Community Shaded Fuel Break	FuB	Complete	??
BHFSC-11	CWPP Project C - Remove Pyrophytes Along Roads & Near Intersections	Rd	Complete	Yes
BHFSC-12	CWPP Project G - Thin Bureau of Reclamation Lands Adjacent to homes on West Side of Community	FuB	Complete	Yes
BHFSC-13	CWPP Project H - Remove Eucalyptus & Brush from Around Water Treatment Plant	I	Complete	Yes
BHFSC-14	CWPP Project J - Power Line Clearing	Power	Complete	Yes
BHFSC-15	CWPP Project K - Monitory Water Capacity for Firefighting	Other	Complete	Yes
BHFSC-16	CWPP Project L - Remove Flammable Threats of Abandoned Homes and Vehicles	DS	Complete	Yes
BHFSC-17	CWPP Project M - Develop Emergency Evacuation Plan & Identify Possible Evac Routes	Plan??	Complete	Yes
CALISTOGA FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
CFSC-1	Voluntary parcel-by-parcel evaluation of residences in the CFSC area.	DS	Planned	Previous CWPP
CFSC-2	Install reflective signage	911	Planned	Previous CWPP

CFSC-3	Reduce shrubby fuels (especially French broom) in upper part of Calistoga Cemetery, with hand tools, or goats	Other	Planned	Previous CWPP
CFSC-4	Install knock-box facilities at base of roads, using Diamond Mountain FSC as an example	Knox	Planned	Previous CWPP
CFSC-5	Maintain/expand existing fire breaks created during Tubbs Fire	Contain	Planned	Previous CWPP
CFSC-6	Conduct Roadside Treatments	Rd	Planned	Previous CWPP
CFSC-7	Remove hazardous trees along roads	Rd	Planned	Previous CWPP
CFSC-8	Create shaded fuelbreak on both sides of Petrified Forest Road	FuB	Planned	Previous CWPP
CIRCLE OAKS FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
COFSC-1	Northern Greenbelt	FuB	Complete	Yes
COFSC-2	North Perimeter	FuB	Complete	Yes
COFSC-3	Water District	FuB	Complete	Yes
COFSC-4	South Perimeter	FuB	Complete	Yes
COFSC-5	Rte 121 Roadside	Rd	Complete	Yes
COFSC-6	Cottonwood Ravine	FuB	Complete	Yes
COFSC-7	Sunny Hill Ravine	FuB	Complete	Yes
COFSC-8	Columbine Ravine	FuB	Complete	Yes
COFSC-9	Zinnia Hillside	FuB	Complete	Yes
COFSC-10	Poplar Meadow	FuB	Complete	Yes
DEER PARK FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
DPFSC-1	Crestmont Fuelbreak	FuB	Planned	Previous CWPP
DPFSC-2	Crestmont Roadside work	Rd	Planned	Previous CWPP
DPFSC-3	East end of Mund Rd	FuB	Planned	??
DPFSC-4	Glass Mountain forest	Other	Planned	Previous CWPP
DPFSC-5	Hospital Community Fuelbreak	FuB	Planned	Previous CWPP
DPFSC-6	Hospital Fuelbreak North	FuB	Planned	??
DPFSC-7	Sanitarium Rd. Roadside work	Rd	Planned	Previous CWPP

DPFSC-8	Sunnyside East Project	FuB	Planned	Previous CWPP
DPFSC-9	Reduce fuels Hairpin turn	Rd	Planned	Previous CWPP
DPFSC-10	Thin roadside vegetation Silverado Trail by Bournemouth	Rd	Planned	Previous CWPP
DPFSC-11	Fuel reduction Staples Ridge to Four Corners	FuB	Planned	Previous CWPP
DIAMOND MOUNTAIN FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
DMFSC-1	Educate residents about the need to identify locations suitable for emergency refuge in the event evacuation becomes difficult or impossible	Zones	Planned	Previous CWPP
DMFSC-2	Install Knox Box facilities at base of roads, using Diamond Mountain as an example	Knox	Planned	Previous CWPP
DMFSC-3	Develop alternative routes for evacuation: Improve road from Kortum Canyon to Sharp Rd	Pass	Planned	Previous CWPP
DMFSC-4	Develop alternative routes for evacuation: Extend road from Kortum Canyon to Lerner Road	Pass	Planned	Previous CWPP
DMFSC-5	Develop alternative routes for evacuation: Obtain approval for use of vineyard roads in emergency	Pass	Planned	Previous CWPP
DMFSC-6	Develop alternative routes for evacuation: Obtain approval for use of vineyard roads in emergency	Pass	Planned	Previous CWPP
DMFSC-7	Remove hazard trees along roads	Rd	Planned	Previous CWPP
DMFSC-8	Call 'em All/Nixle Sign-up	Call	Planned	Previous CWPP
DMFSC-9	Create shaded fuel break south of Tucker Farms	FuB	Planned	Previous CWPP
DMFSC-10	Expand roadside turnouts	Turnout	Planned	Previous CWPP
DMFSC-11	Schramsberg Road Roadside Treatments	Rd	Planned	Previous CWPP
DMFSC-12	Hold educational presentations or provide educational materials	DS	Planned	Previous CWPP

	regarding defensible space, fire-resistant landscaping choices, and retrofit options			
DMFSC-13	Shift forest species composition to woodland from conifer	Restore	Planned	Previous CWPP
DMFSC-14	Develop alternative routes for evacuation: Improve private road connecting Diamond Mountain Road to Sharp Road, install access control gates & signs	Pass	Planned	Previous CWPP
GORDON VALLEY FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
GVFSC-1	Reduce fuels on Okell Hill	FuB	Planned	No
GVFSC-2	Treat north side of Lemmon Hill	FuB	Planned	Previous CWPP
GVFSC-3	Chemiles Trail Roadside treatments	Rd	Planned	Previous CWPP
GVFSC-4	Connect Chemiles Trail to Hidden Springs Rd	Contain	Planned	Previous CWPP
GVFSC-5	Connect Chimney Creek to Grapevine	Contain	Planned	Previous CWPP
GVFSC-6	Connect Lemmon Hill Trail with Grandview	Contain	Planned	Previous CWPP
GVFSC-7	Connect Wooden Valley Rd to Hidden Springs #2	Contain	Planned	No
GVFSC-8	Connect Wooden Valley Rd to Hidden Springs #1	Contain	Planned	No
GVFSC-9	Dozer work needed Wooden Valley-Hidden Springs Connection	Contain	Planned	No
GVFSC-10	Connect Wooden Valley to Chemiles Trail	Contain	Planned	Previous CWPP
GVFSC-11	Punch Valle Vista through to Chimney Creek	Contain	Planned	Previous CWPP
GVFSC-12	Treat fuels at end of Quail Ridge	FuB	Planned	Previous CWPP
GVFSC-13	Reliable Water, Community Action	Other	Planned	Previous CWPP
MOUNT VEEDER FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
MVFSC-1	Mt Veeder Road	Rd	Planned	Previous CWPP

MVFSC-2	Dry Creek Road	Rd	Planned	Previous CWPP
MVFSC-3	Redwood Road	Rd	Planned	Previous CWPP
MVFSC-4	Wall Road	Rd	Complete	Previous CWPP
MVFSC-5	Lokoya Rd	Rd	Complete	Previous CWPP
MVFSC-6	Limited Access Road #1	Contain	Complete	Previous CWPP
MVFSC-7	Old Ridge Road Shaded Fuel Break	Contain	Complete	Previous CWPP
MVFSC-8	Oakville Ridge Road Shaded Fuel Break	Contain	In Progress	Previous CWPP
MVFSC-9	Bald Mountain Shaded Fuel Break	Contain	In Progress	Previous CWPP
MVFSC-10	Mount Veeder Peak Shaded Fuel Break	Contain	In Progress	Previous CWPP
MVFSC-11	The Cove	DS	Complete	Previous CWPP
MVFSC-12	Limited Access Road #5/PG&E	Power	Complete	Previous CWPP
MVFSC-13	Oakville Grade	Rd	Planned	Previous CWPP
MVFSC-14	Limited Access Road #6	Contain	Complete	Previous CWPP
MVFSC-15	Limited Access Road #7	Contain	Complete	Previous CWPP
MVFSC-16	Limited Access Road #2	Contain	In Progress	Previous CWPP
MVFSC-17	Limited Access Road PG&E MVR Loop	Contain	Concept	Previous CWPP
MVFSC-18	Limited Access Road #1a	Contain	Complete	Previous CWPP
MVFSC-19	Redwood/Partrick Connector	Rd	Concept	Previous CWPP
MVFSC-20	Hogback Ridge Road Legacy Fire Road	Contain	Planned	Previous CWPP
MVFSC-21	Limited Access Road #10	Contain	In Progress	Previous CWPP
MVFSC-22	Legacy Fire Road A	Contain	Concept	Previous CWPP
MVFSC-23	Legacy Fire Road B	Contain	Concept	Previous CWPP
MVFSC-24	Legacy Fire Road C	Contain	Concept	Previous CWPP

MVFSC-25	Legacy-Limited #12	Contain	Concept	Previous CWPP
MVFSC-26	Legacy Fire Road #2	Contain	In Progress	Previous CWPP
SAINT HELENA FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
	Forthcoming		Concept	No
SILVERADO FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
	Forthcoming		Concept	No
SODA CANYON FIRE SAFE COUNCIL PROJECTS				
Project ID	Project Description	Project Type	Status	In CWPP?
SCFSC-1	14-SRA-HF-01-0115-LNU-Poly, Foss Valley Community Perimeter Shaded Fuel Break	FuB	Complete	No
SCFSC-2	Foss Valley Community Shaded Fuel Break	FuB	Planned	No
SCFSC-3	1 - Install Knox Box at Gated Entries.	Knox	Planned	Previous CWPP
SCFSC-4	2 - Install compliant addresses at road and home	911	Planned	Previous CWPP
SCFSC-5	3 - Facilitate communication using Call 'em All	Call	Planned	Previous CWPP
SCFSC-6	4 - Open Circle S Ranch Rd for evacuation	Pass	Planned	Previous CWPP
SCFSC-7	5a - Connect Shady Oaks to Soda Canyon Rd.	Pass	Planned	Previous CWPP
SCFSC-8	5b - Connect Capps Rd to Soda Canyon Rd for emergency response	Pass	Planned	Previous CWPP
SCFSC-9	6 - Treat roadside vegetation	Rd	Complete	Previous CWPP
SCFSC-10	7 - Thin understory for access	Rd	Planned	Previous CWPP
SCFSC-11	8 - Thin/remove eucalyptus for access	Rd	Complete	Previous CWPP
SCFSC-12	9 - Thin roadside vegetation	Rd	In Progress	Previous CWPP
SCFSC-13	10 - Remove trimming piles	Other	Planned	Previous CWPP
SCFSC-14	11 - Widen road to provide turnouts	Rd	Planned	Previous CWPP

SCFSC-15	12a - Perimeter fuelbreaks around each neighborhood	FuB	Complete	Previous CWPP
SCFSC-16	12b - Perimeter fuelbreaks around each neighborhood	FuB	Complete	Previous CWPP
SCFSC-17	12c - Perimeter fuelbreaks around each neighborhood	FuB	Incomplete	Previous CWPP
SCFSC-18	12d - Perimeter fuelbreaks around each neighborhood	FuB	Incomplete	Previous CWPP
SCFSC-19	12f - Perimeter fuelbreaks around each neighborhood	FuB	Incomplete	Previous CWPP
SCFSC-20	13 - Safety Zones	Zones	Planned	Previous CWPP
SCFSC-21	14 - Defensible Space in each neighborhood.	DS	Planned	Previous CWPP
SCFSC-22	15 -Remove invasive plants	Other	Planned	Previous CWPP
SCFSC-23	2021 CWPP 1 - Install signs in select vineyard roads indicating access/evacuation potential	Pass	Planned	Previous CWPP
SCFSC-24	2021 CWPP 2 - Roadside vegetation treatments 30-ft on Pritchard Hill	Rd	Planned	Previous CWPP
SCFSC-25	2021 CWPP 3 - Connect access roads – Circle Oaks – Atlas Pk – Soda Canyon & Sage Canyon	Contain	Planned	Previous CWPP
SCFSC-26	2021 CWPP 4 - Project at Chapellet – Link vineyards at top of vineyards. Structure protection via DS and roads. Tree pruning	Link	Planned	Previous CWPP
SCFSC-27	2021 CWPP 5 - Access – Continuum Vineyard through Neyers to Sage Canyon – Stagecoach to Atlas Peak. Project = to top , 100-ft both sides.	Contain	Planned	Previous CWPP
SCFSC-28	2021 CWPP 6 - Create fuel breaks by treating vegetation between vineyards, especially at/near ridgetops from Pritchard Hill to Atlas Peak Rd.	Contain	Planned	Previous CWPP
SCFSC-29	2021 CWPP 7 - Remove dead standing trees from 2017 fires, starting near structures and roads	Restore	Planned	Previous CWPP

SCFSC-30	2021 CWPP 9 - Develop vineyard worker education and fire prevention plan	Prev	Planned	Previous CWPP
SCFSC-31	2021 CWPP 10 - Education regarding temporary refuge areas, re criteria for such: low fuel volume, flat, near a road, willing landowner.	Zones	Planned	Previous CWPP
SCFSC-32	2021 CWPP 11 - Sirens – At least three, to augment phone notification. See the Hi-lo sirens	Call	Planned	Previous CWPP
SCFSC-33	2021 CWPP 12 - Install Knox-box facilities at base of roads, using Diamond Mountain’s as an example	Knox	Planned	Previous CWPP
SCFSC-34	2021 CWPP 13 - Support VFD during Red Flag Days – Funding to staff firehouse during red flag	Other	Planned	Previous CWPP
SCFSC-35	2021 CWPP 14 - ID and create additional turnouts, especially in steep middle part	Turnout	Planned	Previous CWPP

APPENDIX C: NAPA COUNTY MULTI-JURISDICTION HAZARD MITIGATION PLAN MITIGATIONS

MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN PROJECTS		
Project ID	Project Name	Project Type
AC-03-2013	Maintain and Further Develop the Fuel Reduction Program to include provisions for Legacy High School fuel breaks.	FuB
CL-03-2013	Retrofit Critical Public Safety Infrastructure.	I
CL-05-2013	Revise the General Plan Safety Element with lessons learned from to include new information from HMP and Fire-wise programs and analysis.	Plan
CL-06-2013	Focus on human causes of ignition and address the problem through education and enforcement actions. Develop "mitigation" resources for residents in high hazard areas including incentives for fuel reduction and building material retrofits.	Prev
NC-03-2020	Continue technical and financial assistance to private property owners to implement fuel reduction projects.	
NC-04-2013	Develop & conduct a Defensible Space community education program.	DS
NC-05-2013	Draft & promulgate Defensible Space Ordinance.	Plan
NC-06-2013	Foster & form neighborhood based Firewise Councils through grant writing.	
NC-07-2013	Retrofit critical public safety infrastructure with fire resistant materials and or create defensible space around structures.	I
NC-08-2013	Focus on human causes of ignition and address the problem through education and enforcement actions, to include vigorous investigation and prosecution of arson.	Prev
NC-19-2020	Conduct prescribed burns as part of wildfire mitigation strategy.	Restore
NC-44-2020	Retrofit care facilities (adult care, child care) with fire-resistant materials and or create defensible space around structures.	I
NC-45-2020	Complete vegetation management projects as prescribed in CWPPs.	FuB
NC-49-2020	Construct shaded fuel breaks and complete roadside treatment projects as prescribed in CWPPs.	FuB
NC-53-2020	Install proper addressing in rural areas to assist in wildfire emergencies.	911
NC-55-2020	Work with utility providers to move above ground lines underground.	I
NC-58-2020	Construct or improve egress for wildfire emergencies in wildland urban interface (WUI) areas.	Rd
SH-02-2020	Provide smoke/air quality mitigation measures for Critical Facility Air Intakes.	
SH-03-2020	Implement fuel reduction projects to reduce impacts to homes and businesses.	DS
SH-05-2020	Retrofit At-Risk Structures with Ignition-Resistant Materials or Require or Encourage Fire-Resistant Construction Techniques.	DS
SH-08-2020	Develop and or share outreach material on air quality mitigation measures for residents before wildfire season.	
SH-09-2020	Implement fuel reduction/building retrofit projects to limit combustibility to school facilities.	FuB, I

SH-10-2020	Develop Public awareness information for wildfire season related to flame/sparking equipment.	Prev
YV-05-2020	Work with local agencies to develop evacuation plans and provide education and outreach to populations vulnerable to wildfire	Zones/Pass
HM-04-2020	Develop alternative sources of water for emergency supply purposes such as for fighting wildfires.	

From: Mitigations that address Wildfire Hazard and Risks, from the Napa County Multi-Jurisdictional Hazard Mitigation Plan, 2020. By Dynamic Planning and Science