Fitch Mountain Community Wildfire Protection Plan

March, 2019

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Appendices:

Disclaimer

Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view(s) of any governmental agency, organization, corporation or individual with which the authors may be affiliated.

This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. This Community Wildfire Prevention Plan (the Plan) is a work in progress. Various changes are anticipated throughout the Plan over the next several years.

Readers are urged to consult with their own agencies having jurisdiction regarding the use or implementation of this Plan, as well as their own legal counsel on matters of concern.

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This Plan 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." Because the Sonoma County CWPP does not legally commit any public agency to a specific course of action or conduct and thus, is not a project subject to CEQA or NEPA.

However, if and once grant funding is received from state or federal agencies and prior to work performed pursuant to the Sonoma County CWPP or a local CWPP, or prior to issuance of discretionary permits or other entitlements by any public agencies to which CEQA or NEPA may apply, the lead agency must consider whether the proposed activity is a project under CEQA or NEPA. If the lead agency makes a determination that the proposed activity is a project subject to CEQA or NEPA, the lead agency must perform environmental review pursuant to CEQA or NEPA.

Executive Summary:

The CWPP, created by the federal Healthy Forests Restoration Act of 2003, has three requirements: 1) it is to be developed collaboratively with input from fire agencies and the community; 2) it is to identify and prioritize treatment areas and mitigation strategies and treatments; and 3) it is to recommend measures to reduce the ignitability of structures.

This CWPP provides a general overview and assessment of wildfire risks to the Fitch Mountain community, using the federal CWPP requirements and the Sonoma County CWPP. Working with this information with fire agencies, landowners and other interested community stakeholders, a set of priority project actions were developed to increase fire resiliency. These actions are intended to reduce the potential loss of human life, property, and natural and cultural resources due to wildfire. This CWPP will also help groups or agencies collaborate and seek funding for these wildfire risk reduction projects.

Community Profile

The Fitch Mountain community is located along the Northeast City Limits of the City of Healdsburg in Northern Sonoma County. Most of the land area within the CWPP boundaries lies within unincorporated Sonoma County. Within the CWPP boundaries, there are 399 acres in the Local Responsibility Area (LRA), within the limits of the City of Healdsburg, and 1570 acres in the State Responsibility Area (SRA), which are in unincorporated Sonoma County. It is roughly bounded on the South and East by the Russian River, on the west by the Tayman Golf course, and on the North by Fitch Mountain Rd. The total area within the CWPP boundaries is 1969 acres and there are 1009 structures, predominantly residences.

Fire Issues

Nearly all of the Fitch Mountain CWPP Project area is rated as High Fire Severity Zone by CAL FIRE's Fire Resource Assessment Program (FRAP). Many decades of successful fire suppression, in combination with conversion of forest and grazing lands to residential use have had dramatic effects on virtually all of Sonoma County's ecosystems, leaving a legacy of dense vegetation with a high proportion of dry dead materials. This is certainly true on Fitch Mountain, where vegetative fuels in wildland areas, on unimproved parcels, and adjacent to homes are often dense, with a high component of ladder fuels and dead and dying materials. Many homes on the mountain were built as summer homes in the early or mid-1900s, long before Wildland Urban Interface (WUI) building codes took effect: most are vulnerable to wildland fire ignition. Burning homes could have significant impact on fire behavior on Fitch Mountain. Summertime temperatures are often hot with low relative humidity. High summertime residency and visitation brings upwards of 1,300 people into the area, increasing potential for fire starts. The road infrastructure is of significant concern. Egress is limited to one narrow loop road, and feeder roads are very narrow.

Wildland Urban Interface (WUI) Condition

This plan designates the Fitch Mountain CWPP Project area as Wildland urban interface.

Assets at Risk:

The lives and safety of residents and visitors to our area are of paramount importance. There are more than 1000 homes and buildings at risk. Natural values include diverse wildland plant and animal species. The Russian River surrounds Fitch Mountain on three sides and, in addition to its significant natural resource value, the river also provides significant recreational value. There are several parks, and an event center. A risk assessment was performed. Slope, small parcels, vegetation, and problematic road infrastructure are all identified as risk factors. See Appendix A for Risk Assessment.

Risk Reduction Priorities:

The Fitch Mountain CWPP Steering Committee held several community-stakeholder meetings as well as other outreach efforts to determine the concerns and priorities related to wildland fire prevention and defensible space, public safety, education and communication.

Our project priorities were organized into three primary hazard categories: Life Safety, Vegetation Management, and the Built Environment. Projects were suggested by community members and address risks in all three categories. Strategies include education and community outreach, fuels management, structural hardening, improving signage and road infrastructure issues, and robust risk analysis and planning. Projects can be seen in the Project Priority List (Appendix B), which will be periodically updated in the future to reflect progress and changing priorities.

Conclusion

The intensity and devastation of the October 2017 fires was a wake-up call for our community. The CWPP sets the foundation for actionable projects which will help the community plan and prepare for wildfires and other emergencies, and make our homes and landscapes more resilient. The goal of these projects is to protect life, property and the cultural and natural resources of the watershed. The Fitch Mountain COPE group has been instrumental to motivate our community to plan and prepare for emergencies, and have been significant contributors to the development of this CWPP.

COMMUNITY WILDFIRE PROTECTION PLAN PLANNING GROUP MEMBERS

The following individuals were core committee collaborators on the Fitch Mountain Community Wildfire Protection Plan.

Fitch Mountain CWPP Core Committee: Pat Abercrombie (Fitch Mountain Assoc.), Priscilla Abercrombie (COPE), Brad Benson (Rio Lindo Academy), Ken Hite (Fitch Mountain Assoc.), Steve Johnson (COPE), Linda Mansell (COPE), Donita Proctor (Fitch Mountain Assoc.), Caerleon Safford (Fire Safe Sonoma)

The contributions of the Fitch Mountain Citizens Organized to Prepare for Emergency (COPE) was extremely significant for this document, and the work they have done prior to and during the process of creating the CWPP deserves special acknowledgement.

Cope Neighborhood Leaders: Community Leaders: Priscilla Abercrombie and Ginger Hobart, Neighborhood Leaders: Ann Boone, Julianna Carella, Dana Eaton, Steve Johnson, Tracy Logan, Linda Mansell, Carol Morrill, Jim Resneck, Linda, Selover, Susan Steinman, Joan Tosetti

The following Fire Agency Personnel have been integral to the CWPP:

Healdsburg Fire Department: Chief Jason Boaz, Fire Marshal Linda Collister

CAL FIRE: Division Prevention Chief Ben Nicholls, Battalion Chiefs: Paul Fleckenstein, Marshall Turbeville

Sonoma County Fire: Fire Marshal James Williams, Senior Fire Inspector Steve Mosiurchak

Many community members participated in planning meetings, including: Nancy Buckley, David Burmeceu, Diane Burnley, David Burnley, Chris Evans, Tom Goodman, Dave Henderson, Cathy Hodgson, Lar Landa, Terry Leach, Tim Leach, Lynn Lyon, Diane Meyers, Mike Potmesil, Marty Silge, Ellen Silge, David Walker, Cindy Walter, Ana Zavala

Additionally, the Fitch Mountain CWPP Committee would like to acknowledge the amazing work of Laura Tietz of Fire Free Fitch as she was truly the trailblazer for fire prevention on the mountain. We acknowledge other residents, Northern Sonoma County COPE Leaders, fire agencies and organizations who participated in the community collaboration meetings that may not be named here. The ideas and information gathered at these meetings were essential to the development of the projects to make Fitch Mountain fire safe and we are grateful to all who participated in the process.

Mutual Agreement Page

Fitch Mountain Community Wildfire Protection Plan

The Fitch Mountain Community Wildfire Protection Plan was developed in accordance with the guidelines set forth by the Healthy Forests Restoration Act.

This Community Wildfire Protection Plan:

1. Was collaboratively developed. Interested parties in the region of this CWPP have been consulted.
2. Identifies and prioritizes areas for hazardous fuels reduction treatments and recommends the types and methods of treatment to reduce the wildfire threat to values at risk in the area.
3. Recommends measures to reduce the ignitability of structures throughout the area addressed by the plan.

The following representatives of the entities required for CWPP approval mutually agree with and approve the contents of this Community Wildfire Protection Plan:

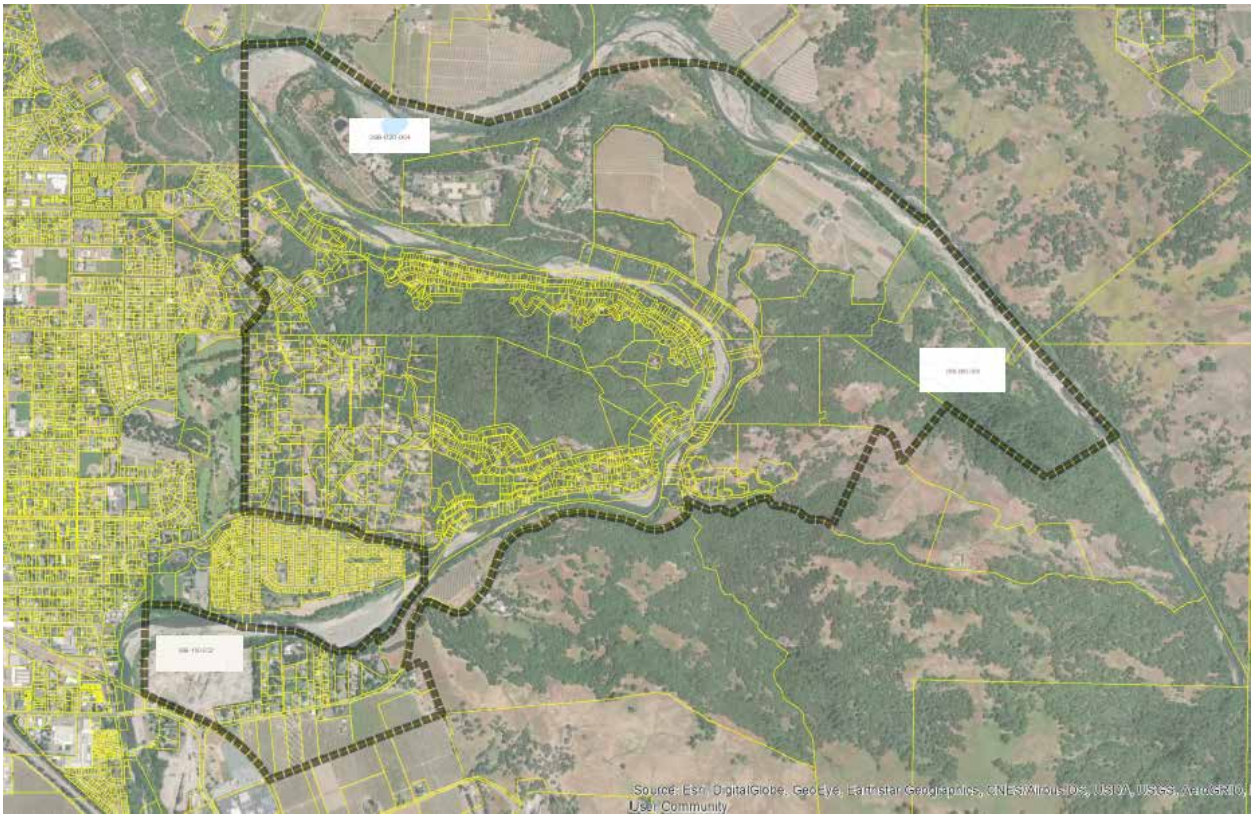
James Gore
James Gore (Mar 12, 2019)

James Gore	03/12/19
Supervisor, Sonoma County District 4	Date
Mark Themig Mark Themig (Mar 15, 2019)	03/15/19
Mark Themig	Date
Director, Healdsburg Community Services	
Jason Boaz (Mar 15, 2019)	03/15/19
Jason Boaz	Date
Chief, City of Healdsburg Fire Department	
Shana Jones (Mar 19, 2019)	03/19/19
Shana Jones	Date
Unit Chief, CAL FIRE Sonoma-Lake-Napa	
James Williams (Mar 19, 2019)	03/19/19
James Williams	Date
Fire Marshal, Permit Sonoma Fire Prevention Division	
Roberta MacIntyre	3/12/19
Roberta MacIntyre	Date
President, Fire Safe Sonoma	
Pat Abercrombie Pat Abercrombie (Mar 19, 2019)	03/19/19
Pat Abercrombie	Date
President, Fitch Mountain Association	

Fitch Mountain CWPP

Location

The Fitch Mountain community is located along the Northeast City Limits of the City of Healdsburg in Northern Sonoma County. Within the CWPP boundaries, there are 399 acres in the Local Responsibility Area (LRA), within the limits of the City of Healdsburg, and 1570 acres in the State Responsibility Area (SRA), which are in unincorporated Sonoma County. It is roughly bounded on the South and East by the Russian River, on the west by the Tayman Golf course, and on the North by Fitch Mtn Rd. The total area within the CWPP boundaries is 1969 acres and there are 1009 structures, predominantly residences, with some commercial buildings. The Bailhache community lies within a loop of the Russian River and is bounded on 3 sides by the River and lies directly across the river from the Mountain. The Rio Lindo Academy, a boarding school on 350 acres, lies across the river at the end of Bailhache.



Map 1: Fitch Mountain CWPP Project Area (See Appendix C for full size version)

Fire Environment

Wildland fire risk factors in Sonoma County include dense fuels buildup within and near residential areas, steep topography, fire history, and dry and windy fall weather. This potential turned into reality October 8 through October 31, 2017 when the Tubbs, Nuns, and Pocket fires,

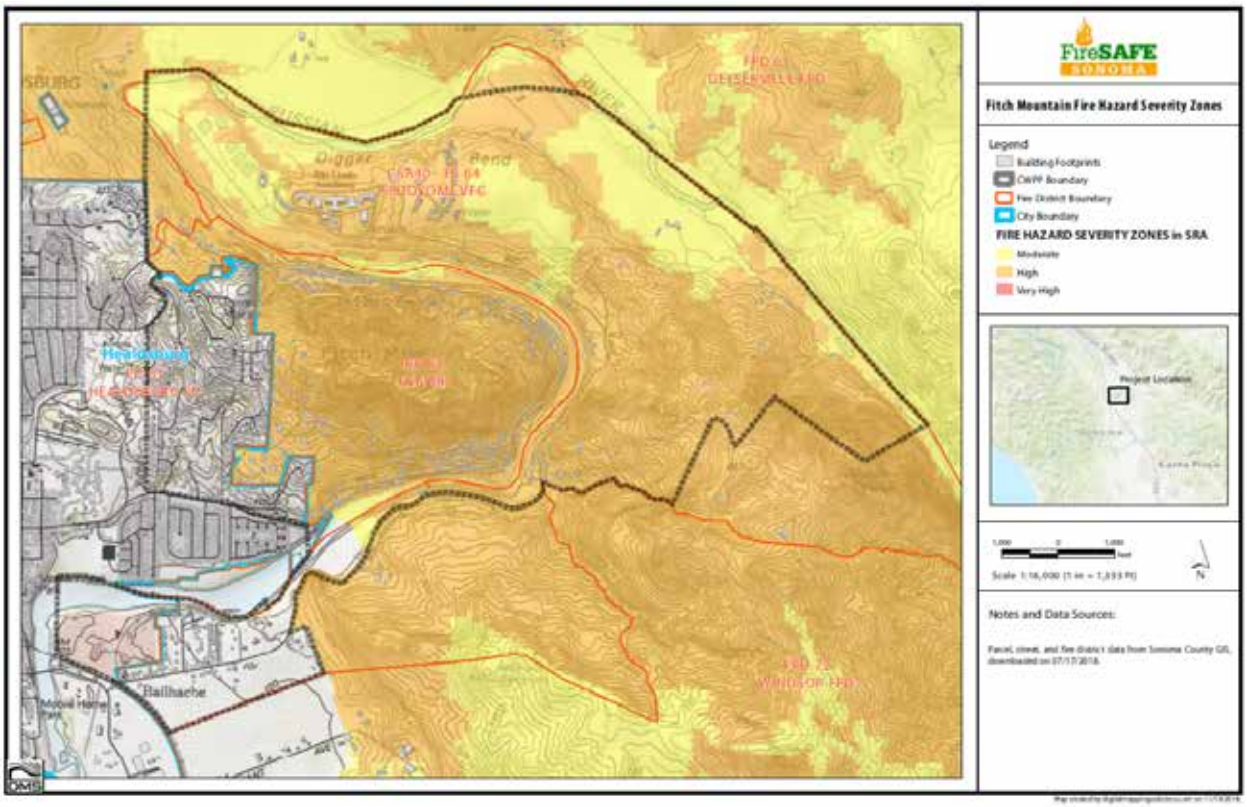
known as the Sonoma Complex, burned 110,000 acres in Sonoma County, destroyed nearly 7,000 structures and claimed 24 lives. The Tubbs fire is currently the most destructive fire in California history. More than 100,000 residents were evacuated and 950 fire departments aided in response. The tragic impact of loss of life, homes, and harm to the local economy will continue for decades. This tragic event clearly indicates the potential for large, uncontrollable fires which can spread very quickly to destroy entire neighborhoods.

Many decades of successful fire suppression, in combination with conversion of forest and grazing lands to residential use have had dramatic effects on virtually all of Sonoma County's ecosystems, leaving a legacy of dense vegetation with a high proportion of dry dead materials. This is certainly true on Fitch Mountain, where vegetative fuels have been increasing for decades.

Wildfire behavior is based on three primary factors: topography, weather, and fuel. The three elements are called the "fire triangle." Ultimately, fire behavior is directly related to the severity of conditions of each of these three factors on any given day. If there is only one leg of the fire triangle present—say the fire starts on a steep slope where it can make a rapid uphill run, but the weather is not hot, dry and windy and fuels are moderate—firefighters should have a good chance to stop the fire. Worst case scenario is when all three elements of the fire triangle are present, e.g., a fire starts on a steep slope on a hot dry, windy day, in heavy fuel. These are the conditions in which there is the potential for fire behavior that will be very difficult for firefighters to contain.

Fitch Mountain is vulnerable to all three elements. Fitch Mountain's topography is steep. Hot dry temperatures and strong northeast wind events are common are common during summer and fall. Vegetative fuel build is significant, both near homes and in unbuilt "natural" areas. Homes in should also be thought of as part of the fuel component. Many homes on the mountain were built as summer homes in the early or mid-1900s, long before Wildland Urban Interface (WUI) building codes took effect. Burning homes could have significant impact on fire behavior on Fitch Mountain.

The Fitch Mountain CWPP Project area is entirely rated **as High Fire Severity Zone** in CAL FIRE's Fire Resource Assessment Program (FRAP). FRAP defines Fire Hazard "as a measure of the likelihood of an area burning and how it burns, (intensity, speed and embers produced)".



Map 2: CAL FIRE Fire Resource Assessment Program (FRAP) Fire Hazard Severity Zone (See Appendix C for full size version)

Any fire on Fitch Mountain will be greatly complicated by the issues caused by narrow one way in one way out access and other road infrastructure issues, especially in conjunction with high summertime populations. There will be significant risks to life safety in the event of a large uncontrolled wildfire on or near Fitch Mountain. Since the 2017 Sonoma Complex Fires, there has been a significant increase in emergency planning in the area. Most significantly a Citizens Organized to Prepare for Emergencies (COPE) Program was established in 2016 and has become very organized and active. Continued and sustained activities from groups such as COPE are critical for the safety of the community.

It is crucial that Fitch Mountain residents understand the risk of wildfire, what to do to make their homes and surrounding vegetation less ignition prone, how to prepare for emergencies of all kinds, and how to work together to make the entire community better prepared for wildfire. Homeowners need to comply with defensible space regulations that require fuels modification within 100 feet of homes (or to the property line). Additionally, homeowners need to modify structural elements on buildings that make them vulnerable to ignition.

The Built Environment: The majority of homes on Fitch Mountain were built long before Wildland Urban Building Codes required construction elements, such as Class A roofs, ember resistant vents, windows that can take higher heat exposure, wooden decks and attachments such as fences, and siding. “Fire hardening” buildings helps to make then more resistant to

ignition from wildland fire, especially ignitions from embers. Retrofitting existing homes with ignition resistant WUI Building materials is not required unless significant remodeling triggers permits. Therefore, increased education about the importance of hardening buildings, how to do it, and incentives for homeowners to retrofit vulnerable elements is especially important. On Fitch Mountain, the buildings themselves should be considered as an extremely important fuel component. Please see Appendix D, *Creating Wildfire Adapted Homes and Landscapes,* for specific guidelines and information about home hardening and defensible space.

Defensible Space is a 100 foot radius from buildings or to the property line wherein vegetation is maintained so that an oncoming wildfire is less likely to able use vegetation to travel to and ignite buildings. Reducing vegetation in the defensible space zone is a critical aspect of wildfire loss prevention. Defensible Space is required by both California Public Resource Code 4291, which regulates only properties with buildings, "Improved" parcels, and Chapter 13A of the Sonoma County Building Code which regulates both Improved and Unimproved parcels of less than 5 acres. On Unimproved parcels (those without structures) Chapter 13A includes requirements for vegetation clearance on roadsides and near to buildings.

On Fitch Mountain, many property owners are aware of regulations, and strive to maintain vegetation, however many properties remain overgrown. Inspection programs help inspire compliance, as can increased outreach and education from the community. It is also critical to continue educating residents about how to create "wildfire adapted" homes and communities and providing assistance so they can do it will help reduce risks of economic and life loss in the WUI.

Surrounding wildland fuels, both on large parcels and on small parcels without homes or buildings, need to be thinned and maintained to create healthier forests and landscapes which are better adapted to a fire prone environment. The COPE program can be used as a mechanism for providing emergency preparedness education, communicating information about fire danger, and assisting those at highest risk in the event of a disaster, creating and maintaining systems of communication, identifying and securing appropriate signage for evacuation routes and homes and building relationships among FM residents so that they are able to help one another in the event of fire and other disasters.

Wildland Urban Interface (WUI) Condition:

The term "WUI" comprises both Wildland Urban Interface and Intermix, but there is a distinction. This plan uses the term Wildland Urban Interface/Intermix as defined in the Federal Register (66:751, 2001) report on WUI communities at risk from fire (USDA & USDI, 2001) as follows:

> *"The **Interface** Community exists where structures directly about wildland fuels.* There is a clear line of demarcation between residential, business, and public structures and wildland fuels. Wildland fuels do not generally continue into the developed area. The development density for an interface community is usually 3 or more structures per acre, with shared municipal services. Fire protection is generally provided by a local government fire department with the responsibility to protect the structure from both an interior fire and an advancing wildland fire. An alternative definition of the interface community emphasizes a population density of 250 or more people per square mile."
>
> *"The **Intermix** Community exists where structures are scattered throughout a wildland area.* There is no clear line of demarcation, wildland fuels are continuous outside of and within the developed area. The development density in the intermix ranges from structures very close together to one structure per 40 acres. Fire protection districts funded by various taxing authorities normally provide life and property fire protection and may also have wildland fire protection responsibilities. An alternative definition of intermix community emphasizes a population density of between 28-250 people per square mile."

Using this definition, the Fitch Mountain Community Wildfire Protection Plan area is designated as Wildland/Urban Interface, though on Fitch Mountain, there is no clear demarcation between buildings and wildland fuels, which are continuous. Some areas of the Bailhache area fit better under the "Intermix" category, but the vast majority of buildings covered in this CWPP fit the Interface description.

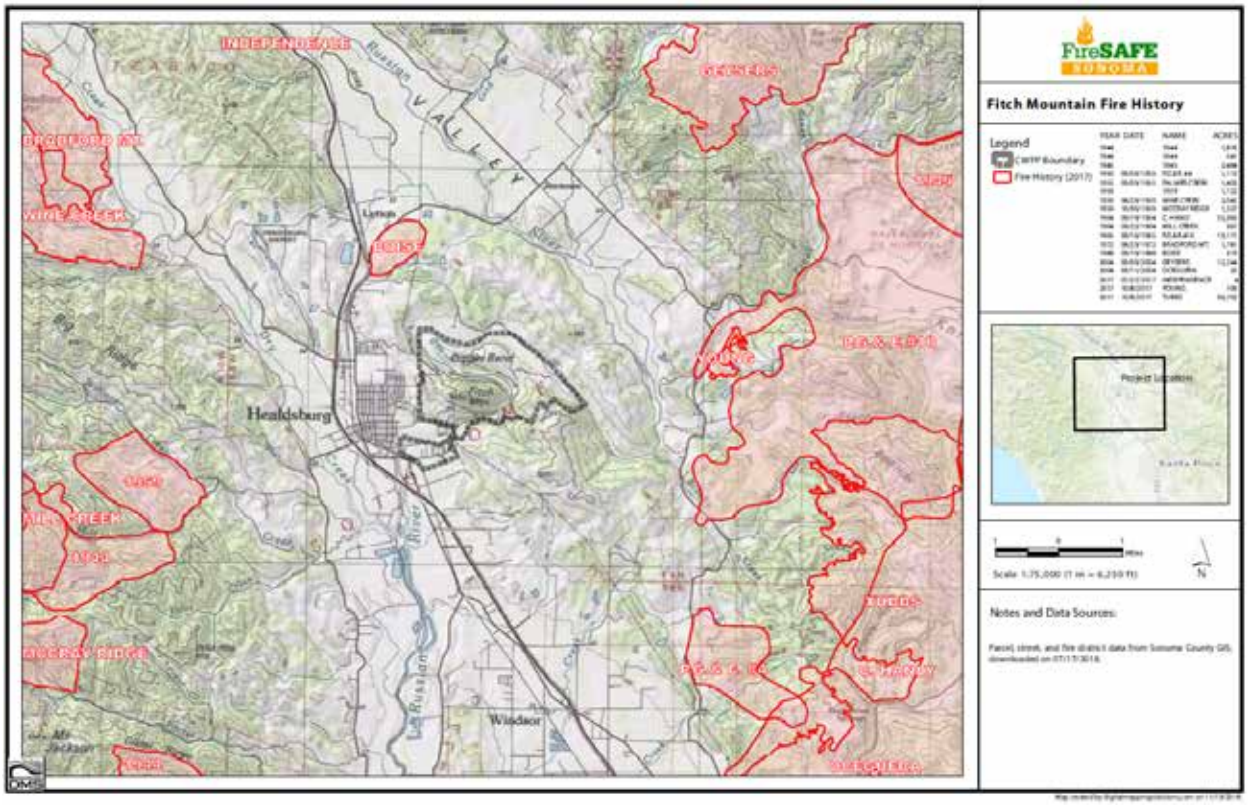
Fire Services

Within the CWPP boundaries, there are 399 acres in the Local Responsibility Area (LRA), within the limits of the City of Healdsburg, and 1570 acres in the State Responsibility Area (SRA), which are in unincorporated Sonoma County. Fire Services within the City Limits are provided by Healdsburg Fire Department. November 23, 1976, the residents of Fitch Mt. approved the formation of a special tax for the Community Service Area No. 24 to provide fire coverage for the mountain.

In the unincorporated SRA, Healdsburg Fire is under contract with County Service Area 40 to provide first response services. However, in the unincorporated State Responsibility Areas (SRA), CAL FIRE has primary responsibility for command and firefighting operations for wildland fires and fires that pose a threat of spreading into the wildland. CAL FIRE has automatic aid agreements and has designated Mutual Threat Zones within Sonoma County. These agreements provide for services, including responses to structure and wildland fires, traffic accidents, rescues and medical aids. In the event Healdsburg is unable to answer a first

response call, areas south of Powell Ave are provided service by the Sonoma County Fire District (formerly Rincon Valley/Windsor Fire District). Areas north of Powell are serviced by the Geyserville Fire District.

Fire History



Map 3: Fire History (See Appendix C for full size version)

Fitch Mountain and northeastern Sonoma County in general have experienced numerous fires and the instances of large wildland fires appears to be increasing. On Fitch Mountain, with our older cabins and houses and increasing proportion of year-round residents, we have had many building fires, any of which have had the potential to spread to wildland areas. Our location in Wildland Urban Interface places us at greater risk from large fires in surrounding areas spreading to Fitch Mountain. During the 2017 Sonoma Complex Fires, concern that both the Pocket Fire, north of Fitch Mountain near Geyserville, and the Tubbs Fire to the southeast could spread to the high-risk Fitch Mountain area led to an Evacuation Advisory.

Looking over the past century or so of fire history, the worst fire year was 1935, with five fires occurring. The worst damages were in 1945 when 11 homes were lost to fire, and 1969 when 10 cabins burned at the Camp Rose resort. (See Figure 3.)

The graph in Figure 4 indicates that the most fires occur in the months of July, August, and September when weather is hot and dry and summer vacation usage of homes and public lands increases the potential for fire starts. This is also when we see the highest levels of visitation by tourists and others less familiar with our susceptibility to fire, and what to do if one gets started. See appendix E for detailed fire history.

Decade	Number of House Fires	Number of fires with Wildland	Note
2010's	7	3	2010-Oct 2018
2000's	7	6	2002-2010 only
1990's	No data available		
1980's	9	5	
1970's	4	6	
1960's	6	2	
1950's	5	3	
1940's	1	2	11 homes destroyed
1930's	4	13	
1920's	4	4	Several lots at Del Rio
1910's	0	1	
1900's	0	1	1903-1910 only

Figure 1: Fires on Fitch by decade

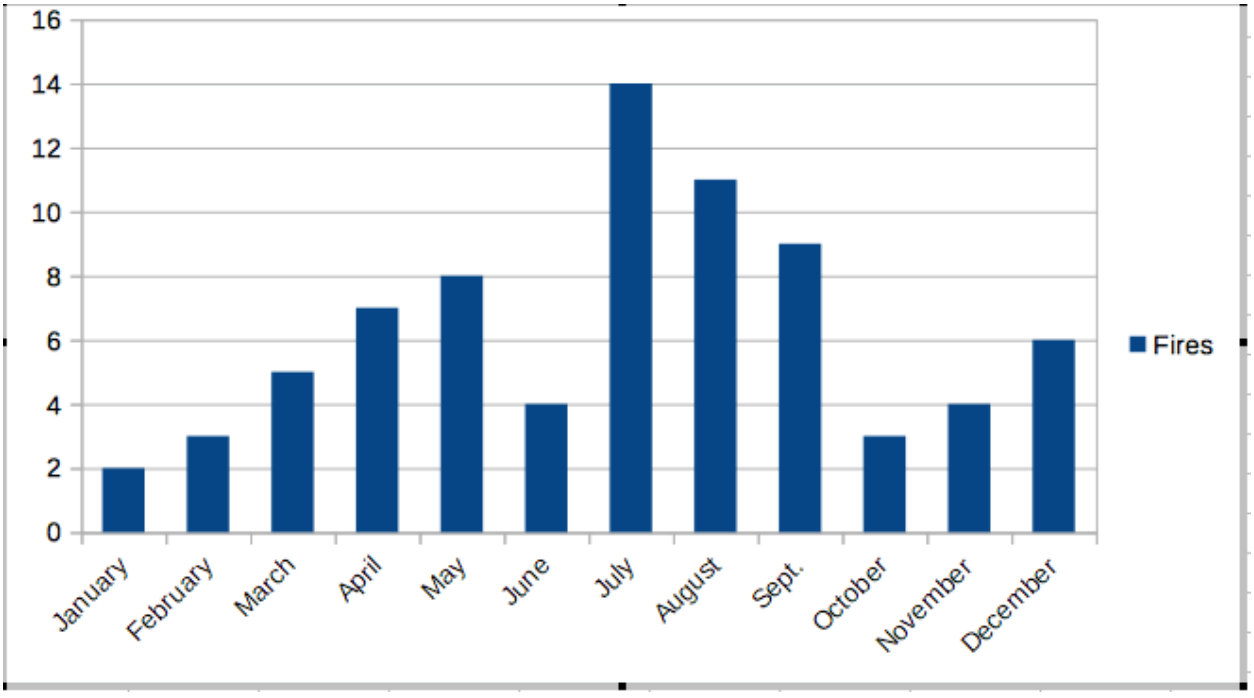


Figure 2: Fire Frequency by month, data from historical newspaper accounts. See Appendix F for further detail.

The above table indicates that the most fires occur the months of July, August and September when weather is warm and dry and summer vacation usage of homes increases potential for fire starts. The worst fire year was 1935 with five fires occurring. The worst damages were in 1945 when 11 homes were lost to fire, and 1969 when 10 cabins burned at the Camp Rose resort.

Water Supply:

Fitch Mountain is supplied by a robust hydrant system tied into the residential water delivery infrastructure. This hydrologic system includes 43 hydrants. Integral to the system are three 100,000 redwood water tanks located at the top of Hilltop Drive, near Madrone Ave and near the Villa Chanticleer. All hydrants were tested by Healdsburg Fire Department in August 2018 and found to have "good" or "very good" water pressure. All hydrants were serviced to ensure gaskets and lubricant were adequate. Missing or damaged blue reflective road markers were replaced.

In the Bailhache area, there is no municipal water system, so firefighters will be dependent on water available in ponds, tanks, and from the Russian River.

Rio Lindo Academy maintains a system of 13 fire hydrants connected to their 480,000-gallon water supply.

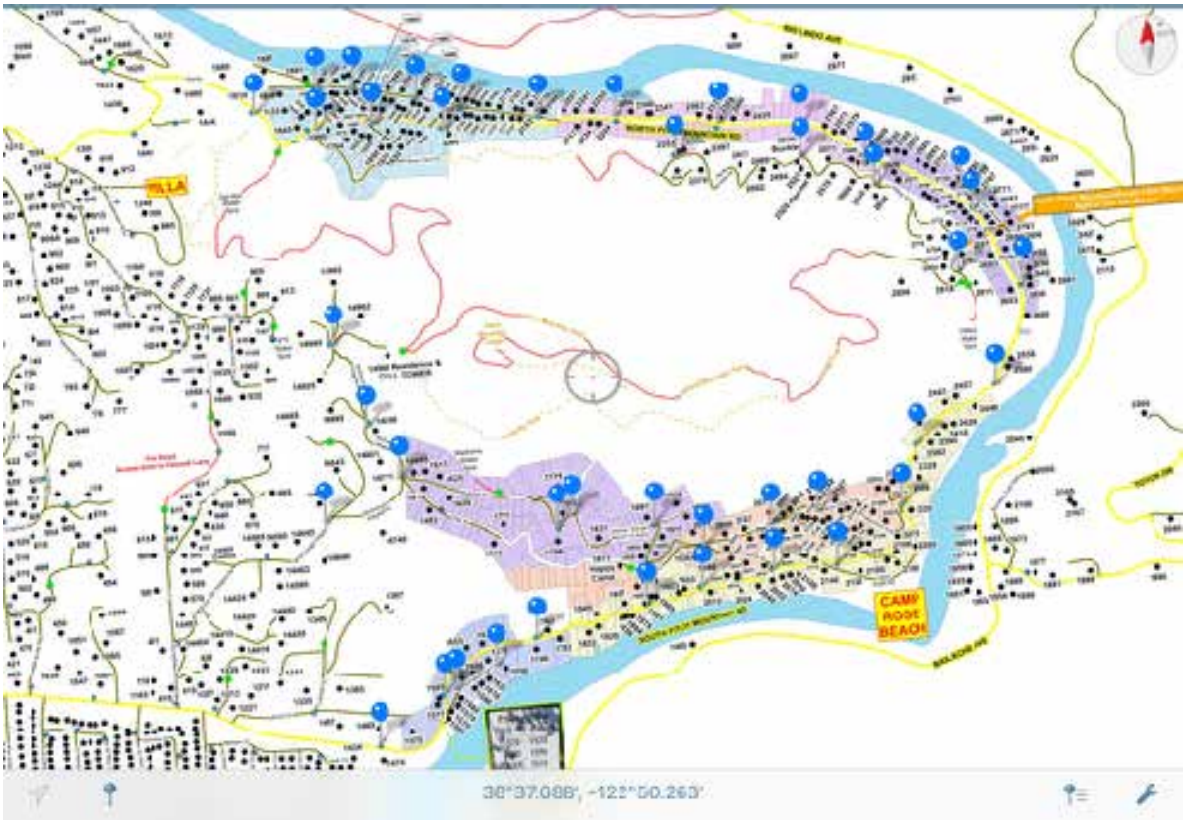


Figure 3: Fitch Mountain hydrants

Existing Plans

In 2017, the City of Healdsburg contracted with Prunuske Chatham, Inc. to create the *Fitch Mountain Park and Open Space Preserve Management Plan* (Appendix E). The overarching goals for the Fitch Mountain Park and Open Space Preserve's use and management are to:

1. Protect the mountain's biodiversity, soil and aquatic resources, and ecological functions,
2. Protect the mountain's scenic values, and
3. Provide public recreational and educational opportunities that are compatible with the protection of natural resources.

While this plan was written specifically to address Fitch Mountain Preserve Park property, the fuels composition of the park is generally the same of the residential areas of Fitch Mountain, and the risks are shared. Information in the *Open Space Preserve Management Plan* is a critical component for this CWPP, and some sections are quoted here with only minor revisions to reflect the entire CWPP project area. The *Open Space Preserve Management Plan* should be used for planning and implementation projects in conjunction with the CWPP.

The information contained in the Final Mitigated Negative Declaration will be very helpful for planning future projects, especially within the boundaries of the Open Space Preserve. The actions and policies of the Management Plan are organized into four resource/use categories with multiple topic areas within each: Resource Management, Fire Risk Abatement, Public Uses and Engagement, and Trails and Recreation. The Environmental Protection Measures identified in the Final Mitigated Negative Declaration should be considered for any future risk reduction projects in the area.

Watershed and Hydrology:

The following section is adapted from the *Fitch Mountain Park and Open Space Preserve Management Plan,* Prunuske Chatham, Inc. [1]. Damage to the Russian River subsequent to uncontrolled wildfire is a critical concern for any fire on Fitch Mountain.

Fitch Mountain sits along a prominent bend in the Russian River, Sonoma County's largest watershed. The Russian River watershed drains 1,500 square miles of land in Sonoma County and Mendocino County to the north. It is the second largest river in the San Francisco Bay Area. To the north of the Preserve, the river flows through the Alexander Valley, makes several sweeping bends to the east of the City, including the prominent River's Bend, before meandering around Fitch Mountain at the final bend. After passing the mountain, the river flows under Healdsburg Memorial Bridge before joining Dry Creek, in the Dry Creek Valley, and

[1] *Fitch Mountain Park & Open Space Preserve Management Plan,* Prunuske Chatham, Inc., 2017, pp. 20-21

then flows west through the lower Russian River communities before reaching the Pacific Ocean near Jenner.

Fitch Mountain encompasses a number of ephemeral drainages that flow directly to the Russian River. On the north slope of the mountain, there are seven drainages that flow through steep forested ravines in the direction of North Fitch Mountain Road and eventually join the Russian River to the north. Drainage from the south slope of the mountain also flows directly into the Russian River. Due to the steep topography, the drainages support only ephemeral flows and do not provide habitat for native fish.

Flows originating on Fitch Mountain provide clean water directly to the Russian River. For terrestrial wildlife, the drainages and their associated vegetation provide critical migration corridors from the Russian River to the uplands of Fitch Mountain. The forests on Fitch Mountain serve as a groundwater recharge and storage area. Structurally complex vegetative cover promotes rainfall infiltration through interception and absorption. Natural, vegetated tributary channels also help to regulate flows and the delivery of sediment to downstream aquatic habitats, improving conditions for the endangered fish of the Russian River watershed.

Land ownership

The largest single landowner on the mountain itself within the CWPP designated area is the City of Healdsburg which owns the Fitch Mountain Open Space Preserve (173 acres). While the City owns the preserve, it is not within the city limits and is part of unincorporated Sonoma County and the State Responsibility Area. Other significant land parcels are owned by the Rio Lindo Academy on Bailhache Ave. The majority other parcels are small lots in private ownership. See Fitch Mountain Land Use MAP, Appendix C

Community Size & Organizations

Delineations

- For the purposes of this CWPP, Fitch Mountain includes both an unincorporated portion of Sonoma County, and a portion that is within the City of Healdsburg boundary. The two are contiguous and together form a logical whole bounded by the Russian River on the north and east, South Fitch Mountain Rd to the south and the Wildland Urban Interface (WUI) along the Tayman Golf Course to the west.
- Governance of the unincorporated area is administered by Sonoma County. Unincorporated Fitch Mountain is within the Sphere of Influence and Urban Service area of the City of Healdsburg.
- The County Service Area (CSA) 41 Fitch Mountain Water System includes 339 household water service connections. The water district purchases water from the city of Healdsburg.

- The portion of Fitch Mountain within the city boundary is serviced by the Healdsburg sewer system and treatment plant south of town. Homes in the unincorporated portion have individual Onsite Wastewater Treatment Systems (OWTS or "septic systems") maintained by each homeowner.
- 173 acres that include the top of Fitch Mountain were purchased by the city of Healdsburg in 2014 and comprise the Fitch Mountain Open Space Preserve. A conservation easement limits the use of this preserve to "passive recreation". A management plan was developed by Prunuske Chatham, Inc. with input from LandPaths, the Fitch Mountain Association, the Healdsburg Parks and Recreation Commission, the Sonoma County Agricultural Preservation and Open Space District and many other Fitch mountain stakeholders. The Management Plan (Appendix E) includes robust fire prevention recommendations.
- Del Rio Woods is a park with Russian River beach access in a densely populated neighborhood at the base of Fitch Mountain. Sonoma County Regional Parks took over management of the park in 2014 with the dissolution of the former Del Rio Woods Recreation & Parks District.

Acreage:

- 173 ac. - Fitch Mountain Open Space Preserve (top of Fitch Mountain)
- 400 ac. – Fitch Mountain in unincorporated Sonoma County
- 250 ac. – Fitch Mountain within Healdsburg City Limits (West slope south of FM Road)
- 1146 ac. - Bailhache community
- 350 ac. – Rio Lindo Academy (of which 100 acres are forested)

Number of homes:

- 350 homes on Fitch Mountain in unincorporated Sonoma County (County Service Area 41)
- 200 homes on Fitch Mountain within the Healdsburg city limits
- Approximately 15% of the homes in the unincorporated portion are permitted as vacation rentals. (Vacation rentals are forbidden within most of the Healdsburg city limits.)
- Rio Lindo Adventist Academy includes 10 primary school buildings plus other out-buildings. There are 30 residential buildings comprising a total of 31 residences.

Population

- During the summer the population of Fitch Mountain itself is estimated at 1,300, during the winter 1,100. (Estimates based on number of homes with non-zero water usage by month in CSA41 + number of homes within city boundary).
- The Rio Linda Academy is a Boarding School housing 150 high school age students + 80 staff.
- Approximately 450 people reside in the Bailhache community
- An additional 120-240 visitors are on the mountain on warm days in the summer to access the Russian River. These visitors can bring 60-80 cars which park legally and illegally at various locations around the mountain. During the summer season, cars

parked illegally on our narrow single road access pose significant risks for egress and access

- There are 20 parking spaces at Sonoma County Regional Parks' Del Rio Woods.
- On warm weekend days over 100 individual & commercial kayakers pass Fitch Mountain on the Russian River on their way from put-ins at Alexander Valley Campground and Digger Bend to take-out at Memorial Beach.

Demographics

- Due to the historic use of the Russian River & Fitch Mountain as a seasonal (summer) recreation destination, the population fluctuates significantly during the year. The original subdivisions Camp Rose (1908) and Del Rio Woods (1930) were developed as vacation, summer homes primarily for owners living in San Francisco and the East Bay.
- Since the late 1970's approximately 2/3 (224) of the homes have been converted to full time residences. This number is extrapolated from CSA-41 Fitch water usage reports. During Spring & Summer vacations the population swells with folks who use their homes only in summer and outside visitors who are drawn to the Russian River and Del Rio Woods. Also, canoeists and kayakers stop along the beaches at Del Rio Woods and Camp Rose.
- Approximately 15% or 50 homes on Fitch Mountain are operated as vacation rentals.

Typical lot size:

- Lots on Fitch Mountain Rd along the Russian River are small historically summer cabin lots with some larger-sized lots along the west and southwest slopes of the mountain.
- Many of the original subdivision lots drawn up in the 1940's were 35' x 80'. Many of these lots are still shown on old real estate marketing maps, but most are no longer considered developable as home sites.
- 95% of developed lots are under ½ acre.
- There are many unimproved lots on the mountain that have been abandoned and are overgrown with vegetation. Often inherited from original owners, many of these "legacy" parcels are unbuildable due to a variety of issues including problems with percolation that will not allow for a septic system, fault and slip zones, and location on steep and inaccessible slopes. Assessed as "low-value" real estate by the County of Sonoma, most of these parcels are not taxed. Sonoma County Ordinance #6148, Chapter 13A of the Sonoma County Building Code, Requiring the Abatement of Hazardous Vegetation and Combustible Materials, allows the County of Sonoma to inspect and enforce vegetation management and defensible space standards on unimproved parcels, but funding for inspection programs is a continuing problem.

Community organizations:

- The Fitch Mountain Association (FMA) is a voluntary homeowners' group. The FMA has no Covenants, Conditions and Restrictions (CC&Rs), and no legal standing, 2018 membership is approximately 125. The FMA is active in:
    - Fire safety, including COPE
    - Road safety
    - Monitoring Septic permitting regulation changes

- Collaboration with Sonoma County Regional Parks with regard to the Del Rio Woods park on the Russian River at the base of Fitch Mountain.
- Collaboration with the city of Healdsburg regarding the Fitch Mountain Open Space Preserve at the top of Fitch Mountain.

- The Fitch Mountain Open Space Preserve is in the unincorporated county but is owned by the city of Healdsburg. A conservation easement limits the use of the preserve to "passive recreation". There is an active voluntary stewardship program, managed by LandPaths, that focuses on fire fuel reduction and invasive vegetation species control.
-

Climate[2]

(Adapted from Fitch Mountain Park & Open Space Preserve Management Plan Prunuske Chatham, Inc., 2017)

Fitch Mountain and the surrounding valleys currently have a Mediterranean climate, with a rainy, cool season typically lasting from November through April and dry, warm conditions the rest of the year. For the period from 1931 to 2005, average minimum and maximum temperatures in Healdsburg were 39 to 59° F in winter and 52 to 87° F in summer (WRCC 2016). Northeasterly winds are common in the late summer and fall months and pose the greatest wildfire risks to our area. In 2017, the catastrophic 100,000 Sonoma Complex Fires took place during severe northeast wind conditions. Two of the Sonoma Complex Fires, the Pocket and Tubbs **(See map page X),** burned near enough to Fitch mountain to lead to an evacuation advisory during the event.

[2] *Fitch Mountain Park & Open Space Preserve Management Plan,* Prunuske Chatham, Inc., 2017, pp. 18-20.

Healdsburg, California

Weather Report · Interactive Map · Extended Forecast · Hourly Forecast · Past Observations · Historic Averages

Monthly Averages & Records - °F | °C

Date	Average Low	Average High	Record Low	Record High	Average Precipitation	Average Snow
January	39°	57°	18° (1937)	85° (1962)	8.65"	0"
February	42°	62°	21° (1989)	85° (1932)	8.08"	0"
March	44°	66°	27° (1945)	90° (1972)	6.54"	0"
April	46°	73°	28° (1936)	99° (2004)	2.24"	0"
May	50°	80°	33° (1950)	107° (1950)	1.06"	0"
June	53°	87°	37° (1952)	113° (1961)	0.17"	0"
July	54°	90°	40° (1947)	116° (1972)	0.07"	0"
August	54°	88°	38° (1999)	109° (1993)	0.13"	0"
September	53°	84°	38° (1952)	114° (1971)	0.55"	0"
October	49°	76°	26° (1946)	108° (1980)	2.12"	0"
November	43°	64°	25° (1931)	96° (1967)	6.04"	0"
December	39°	57°	14° (1990)	83° (1967)	6.5"	0"

However, climate conditions are changing, as they are around the globe. Based on USGS data, between 1911 and 2000, average maximum temperatures in the North Bay Region (Sonoma, Marin, and Napa Counties) had already increased approximately 1.0°F while average minimum temperatures have increased approximately 1.7°F (NBCAI 2013 http://www.northbayclimate.org). Climate models released by the International Panel on Climate Change in 2007 have been downscaled to develop regional predictions. These predictions suggest that these increases will continue.

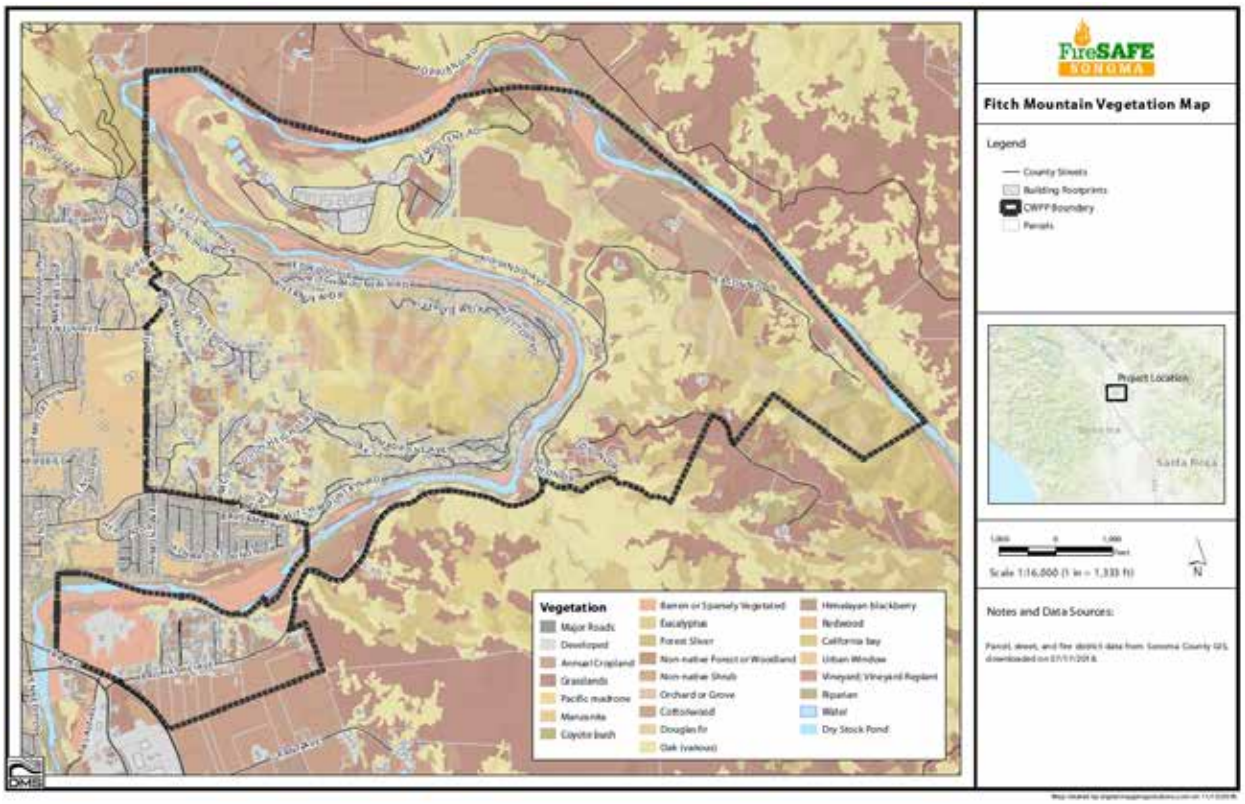
Average annual rainfall in Healdsburg is 41 inches for the period from 1893-2012 (WRCC 2016). However, Sonoma County and California in general experienced severe drought between 2011 and 2015. The 2013-2014 water-year was the third driest for the state in 119 years of record (NOAA 2016). The 2015- 2016 water year had slightly above average precipitation for the North Coast region (NOAA 2016).

Regional climate predictions differ in terms of trends in overall precipitation. However, all models predict that weather will be more variable in the future, with extreme events like droughts and floods becoming more common and more intense. Also, due to rising temperatures and the greater concentration of precipitation into short, extreme events, drought stress on soils and plants is expected to increase even if precipitation increases in the North Bay. According to NBCAI (2013) (*Climate Change in the North Bay for Residents of Marin, Sonoma, and Napa Counties. Climate Smart North Bay Fact Sheet Series. North Bay Climate Adaptation Initiative. Santa Rosa, CA.)*, even in scenarios predicting wetter winters, measures of drought stress on soils in late summer are projected to increase approximately 11-22% in the North Bay by the end of the century.

These changes in climate pose a serious challenge to natural systems and human uses of the resources on Fitch Mountain, as they do throughout California and the globe. Water resources for humans, plants, and animals may decline, as a result of either lower overall precipitation or of more extreme storm events with less opportunity for rainwater infiltration. Flooding, fire, and disease may become more common. However, Fitch Mountain's relatively intact and diverse natural landscape, as well as its topographic diversity, strongly bolsters its resilience to these changes.

Natural Vegetation

Fitch Mountain supports native forest and woodland that is remarkably robust and diverse given its proximity to urban development. Although Fitch Mountain logging appears to have occurred historically, based on historic photos and evidence of cut redwoods, the mountain's steep terrain and limited land uses in recent decades have allowed for dense forests to develop. Redwood, Douglas fir, bay, madrone, and oak forest types intermingle in a shifting mosaic with composition influenced by slope, aspect, and moisture availability. Natural regeneration is evident in many places. The understory is primarily composed of native shrubs, ferns, and forbs, and is especially rich under the dappled shade of the oak woodlands, and at the moist northern base of the mountain. There is also a small amount of annual grass-dominated vegetation present on steep rocky slopes and road cuts. In disturbed areas along roads and trails, invasive broom is abundant and has potential to extend further. Many homes on Fitch Mountain are built in very close proximity to trees. On the moister north side, some homes are actually built around redwood and fir trees. The northern slope has stands of Eucalyptus which increase fire danger due to on ground debris and the high oil content of the trees. River banks are infested with Arundo donax which increases the threat of wildfire in the area.



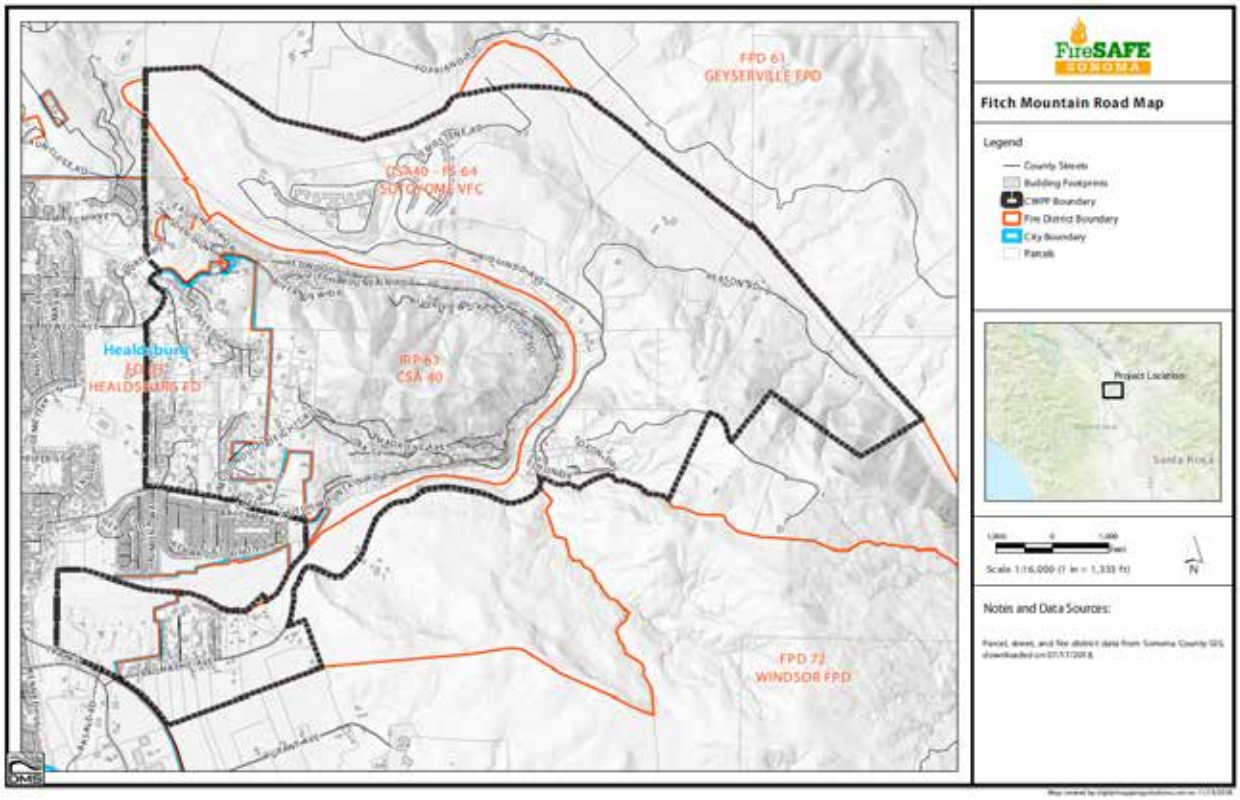
Map 4: Fitch Mountain Vegetation Communities. (See Appendix C for full size version)

Access: Ingress and egress, security gates, etc.

Primary Access to Fitch Mountain is provided by one loop road, North and South Fitch Mountain Rd. Running in a horseshoe shape around the base of the mountain, North Fitch Mountain Rd. provides access to the west side of the mountain and South Fitch Mountain Rd. to the east side. All roads on Fitch Mountain feed to either North or South Fitch Mountain Roads. Built in 1908 and 1922, it is narrow and winding with no shoulders. This road has many hazards including the following:

- Narrow road width on North and South Fitch Mtn. Rd: Many areas of the road are characterized by road width of 15 to 17 feet, with a 14 foot width on North Fitch Mountain Road. Narrow road widths are especially problematic when summer visitors further narrow access by parking on roadsides.
- The road is generally in poor condition with numerous pot holes and degraded road surface. There has been no repaving since 1989 due to county budget issues.
- Numerous large trees and branches and brush encroach laterally and overhang the road and powerlines.
- Slumps and Slides: North Fitch in particular has had numerous slides and slumps, due to erosion from the Russian River below the road, especially at the north east side. Of special concern is a persistent large slump on North Fitch Mountain Rd., just east of Scenic Lane. Geology and environmental regulations pertaining to waterways make

repairs difficult and slow to achieve. Temporary repairs keep the road open, but can narrow road width and compromise road surface. It might be expected that there will be more slides in the future, which could greatly limit access to Fitch Mountain.



Map 5: Firch Mountain Roads. See Appendix C for detailed map book.

Other Road Issues:

- Residential Roads other than Fitch Mountain Rd: All roads on Fitch Mountain are narrow. However, some are particularly narrow. Del Rio Woods Road has road widths as narrow as 7 to 9 feet, Redwood Drive, Madrone, South Fitch Mountain Court, Hilltop, Buena Vista, Manzanita, Oak, and Spring have segments that are 9-10 feet in width. There are at least 16 places on these roads that have road width of between 11 and 15 feet. There are few pull-outs on these roads, making it difficult for two cars to pass.
- There are few turn-outs, which is especially problematic on narrow roads where two passenger vehicles cannot pass side by side.
- FM is a destination for visitors who wish to access the river for day use or for vacation rental. Illegal parking is an issue, cars are frequently parked blocking roadways on NFM road at Redwood Drive near the river access particularly on holiday weekends. In addition, cars block residences and the roadway along Redwood Drive. Increasing "ticket and tow" programs will help this situation.
- Road name issues: There are several places where road names and addressing are not consistent. Homes which front on Del Rio Woods Rd., for example, have North Fitch Mountain Road addresses, which can cause significant difficulties for first responders looking for addresses. Some roads are shown on maps, but have long since been abandoned.

- There are county maps that show roads as through-roads that are really dead ends (e.g., Redwood Drive and Oak Street).
- There are many dead-end roads that have no turn arounds at the end of the road, and are often not signed as dead end roads (Redwood Drive, Riverview, Hilltop, Buena Vista, Manzanita and Oak).
- There are wide trails on the mountain that could be developed and maintained into fire roads such as the Riverview Trail. At this time, a full size car or truck would not be able to pass in places due to narrowing from mudslides and encroaching vegetation. In the FM Management Plan (page 6) the City of Healdsburg states that the Fitch Mountain Trail, Hilltop Trail and Riverview Trail will be maintained as emergency access routes.
- There are numerous gates leading into the FM preserve and private residences. Some of these gates are locked and some of them have Knox boxes.
- The topography of FM includes steep slopes and thick vegetation that limit access.

All access to the Bailhache community is via a single two lane, Bailhache Ave. which dead ends at the North end of the community at Rio Linda Academy. The road is generally well maintained although narrow in many spots, and can have significant roadside vegetation which could pose risks for evacuation.

Assets at risk

Residences:

- Fitch Mountain Unincorporated County: 350
- Fitch Mountain City of Healdsburg: 200
- Rio Lindo Adventist Academy: 31

People:

- Fitch Mountain Unincorporated County: 1100-1300 residents depending on season, plus fluctuating # of summer recreational day-visitors
- Fitch Mountain City of Healdsburg: 400 - 500
- The Rio Lindo Academy is the boarding school for the Northern California Conference of Seventh-day Adventists. Housing approximately 230 faculty and students during the school year, the academy's hilltop location includes 350 acres of natural land including forested acreage, orchards and agriculture. The school has approximately 50 buildings on the campus, including dormitories, cafeteria, class rooms, individual homes for staff, and maintenance and educational shop buildings.

Utilities:

Fitch Mountain Unincorporated County & Fitch Mountain City of Healdsburg:

- Drinking water storage & distribution system including 3 wooden tanks and infrastructure
- Electric, telephone, cable TV, natural gas lines
- Gas: Most homes on Fitch Mountain have natural gas provided by PG&E, a small proportion (under 20%) have propane tanks.

Bailhache: There is no water distribution system, all water either comes from private wells or is pumped from Russian River.

Rio Lindo Academy has its own electric utility and its own water system including 480,000 gallons of water in tanks and a fire hydrant system comprised of 13 hydrants.

Businesses:

Fitch Mountain Unincorporated County & Fitch Mountain City of Healdsburg:

- The Villa Chanticleer event site
- At least 1 agricultural farm
- 1 small equine facility (ranch)
- Several small businesses (located within residences)

Bailhache:

- Toomey Pump Service
- Willie's Trees
- Healdsburg Country Gardens - Garden Weddings
- Vineyards, and small agricultural production

Specialized vehicle manufacturing facility on Rio Lindo property

Plants and Animals:

- Fitch Mountain Park and Open Space Preserve supports Redwood, Douglas fir, bay, madrone, and oak forest types. The understory is primarily composed of native shrubs, ferns, and forbs, and is especially rich under the dappled shade of the oak woodlands, and at the moist northern base of the mountain. There is also a small amount of annual grass-dominated vegetation present on steep rocky slopes and road cuts. In disturbed areas along roads and trails, invasive broom is abundant and has potential to extend further.
- Forest and woodland habitats dominate the Preserve and support birds, mammals, amphibians, reptiles, and a variety of invertebrates. Birds represent the most numerous and prominent wildlife species within these habitats. Year-round resident birds include chestnut-backed chickadee, western-scrub jay, American robin, common bushtit, oak titmouse, Bewick's wren, California quail, dark-eyed junco, and spotted towhee.

Migratory species observed and potentially breeding within the Preserve include a number of species of vireos, flycatchers, and warblers.

- Tree-climbing birds such as woodpeckers, nuthatches, and brown creeper also frequent the Preserve. Year-round residents include acorn, Nuttall's, hairy, and downy woodpeckers. Casual winter residents include ruby-crowned kinglet, varied thrush, and Townsend's and yellow-rumped warblers. The dense fir and redwood patches are also key habitat for Sonoma County's largest woodpecker, the pileated woodpecker.
- Suitable foraging and breeding habitat also exists for raptors on the Preserve. Two of Sonoma County's most common raptors, red-tailed and red-shouldered hawks, have been confirmed on the Preserve. Cooper's and sharp-shinned hawks, uncommon forest and woodland hawks, also use the Preserve, especially in winter.
- Locally common amphibians including Ensatina, California slender salamander and arboreal salamander are likely to occur on the Preserve. Common reptiles of this community include Skilton's skink, fence lizard, alligator lizard, common kingsnake, rubber boa, gopher snake, and ring-necked snake.
- Two species of invertebrates occur on the Preserve that are relatively isolated from other populations given their limited mobility and distance to other suitable habitat. These are the banana slug and Pacific sideband snail.
- Other wildlife including mountain lion, coyote, deer, fox, bats, insects, reptiles, amphibians, fish, otters etc.
- Invasive plant species of particular concern include: French, Spanish and Scotch broom, Arundo donax (giant reed), acacia, Cotoneaster, English ivy, fennel, forget-me-not, Hymalayan Blackberry, Klamath weed, vinca, pampas grass, and ludwigia near the river
- Brooms are an invasive type of non-native plant that greatly increases fire danger. Scotch broom, Spanish broom and French broom are shrub-like plants that grow up to 9 feet tall, with green stems and yellow pea-like flowers. The brooms were originally introduced as landscape ornamentals.
- Domestic animals including horses, sheep, cattle, chickens, pets.
- Commercial Agriculture (Vineyards, vegetables, flowers)
- Several "Special Status" plants have been documented on Fitch Mountain:
    - Napa false indigo (Amorpha californica), observed in 2016 during data collection for Fitch Mountain Preserve management plan, along the trail edges on the northern slope of the mountain.
    - A previous survey of the Fitch Mountain area (extending beyond the boundaries of the current Preserve, Wood 2004) noted four special-status species
        - Green monardella (Monardella viridis),
        - Marsh violet (Viola palustris),
        - Northern California black walnut (Juglans hindsii)
        - Oregon lungwort (Mertensia bella).
- Several Special Status Animals are observed on Fitch Mountain:
    - Osprey (Pandion haliaetus)
    - White-tailed Kite (Elanus leucurus)
    - Great Egret (Ardea alba)
    - Great Blue Heron (Ardea Herodias)

- Northern Spotted Owl (Strix occidentalis caurina)
- There are approximately 15 bat species with known occurrences within northern California, and a number of these species have a high probability of occurring within the Preserve and adjacent lands. Two that have been documented:
  - Pallid Bat (Antrozous pallidus)
  - Townsend's Big-eared Bat (Corynorhinus townsendii)

Recreational Areas

- The Russian River, with its fish, amphibians, mammal, bird, reptiles and plant life as well as stone, gravel and sand banks
- Numerous springs and creeks
- Sonoma County Regional Parks, Del Rio Woods park includes tables, parking lot, signage, drinking fountains, pathways and port-a-potties (Unincorporated County)
- Fitch Mountain Park and Open Space Preserve recreational area, 173 acres within the larger 564 acre "Fitch Mountain". Fire roads, hiking trails, interpretive signage.
- Villa Chanticleer event center
  - 2 buildings, commercial kitchen, bar, restrooms, 3 paved parking lots
  - Wedding venue & gardens including heritage Redwood Tree, rose garden, gazebo, electrical utilities
  - Picnic area with fire pits, water, tables
  - Dog Park (1-1/2 acre fenced dog park with large flat area, trees), 2 shade structures, miscellaneous benches & chairs, water, signage, locked donation box, bulletin board, drinking water and troughs.
  - Children's playground with play structure within a fenced enclosure, porta-pottys

Bailhache:

- Popular cycling route from Healdsburg Ave to Rio Lindo Academy
- Departure point for River's Edge Kayaking clients via Rio Lindo property

FITCH_CWPP_Final_3_6-4-2019

Final Audit Report 2019-03-19

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