COMMUNITY WILDFIRE PROTECTION PLAN

GROVE STREET FIRE SAFE COUNCIL, INC.

FOR THE COMMUNITIES LOCATED ALONG THE GROVE STREET CORRIDOR IN THE WEST SONOMA HILLS

Development

This Community Wildfire Protection Plan (CWPP) was developed by the *Grove Street Fire Safe Council, Inc. (GSFSCI)* with guidance and support from Fire Safe Sonoma, the County of Sonoma, The California Fire Safe Council, and the California Department of Forestry and Fire Protection. This CWPP supplements the Sonoma County Community Wildfire Protection Plan. AUGUST 2020

Grove Street Fire Safe Council Inc.
http://grovestreetfsc.org/

DISCLAIMER

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This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. This Community Wildfire Prevention Plan (CWPP) 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 CWPP is intended for use as a planning and assessment tool only, utilizing a compilation of community issues/goals and projected fire mitigation strategies and 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.

AMENDMENTS (as applicable)

Community Wildfire Protection Plan Amendment
For
The Grove Street Fire Safe Council, Inc.

Date amendment submitted: _____
Section(s) amended _____
Amended by _____

1. Provide text of amendment and place in document here using the following format: Use ~~red text and strikeout~~ for text omitted and red text with underline for new text.

2. Then remove original pages and replace with amended pages.

Contents

Table of Contents

ACKNOWLEDGEMENTS

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- A grant from the California Fire Safe Council.[1]
- A generous gift from the Diamond 'A' Neighborhood Association.
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Grove Street Fire Safe Council, Inc. is deeply grateful for the support provided by these funders, which will help keep the Grove Street corridor communities safer far into the future.
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- George Ranch Mutual Water Company
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[1] The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the California Fire Safe Council, any government agency, or our funders. Mention of trade names or commercial products does not constitute their endorsement by the California Fire Safe Council, Inc., any government agency, or our funders.

INTRODUCTION

This Community Wildfire Protection Plan (CWPP), created by the Grove Street Fire Safe Council Inc. (GSFSC), was collaboratively developed, with input from Federal, State, and local governments, community-based groups, landowners, and other interested persons, has identified, prioritized treatment areas and mitigation strategies, and treatments and provides recommended measures to reduce the ignitability of structures.

This CWPP provides a general overview and assessment of wildfire risks to the communities and assets noted in the plan. Using input from local government, fire agencies, landowners and other interested community stakeholders a set of priority tasks was developed to increase fire resiliency. These tasks, once accomplished, may reduce the potential loss of human life, property, and natural and cultural resources due to wildfire.

This document shall be known as the Grove Street Fire Safe Council, Inc. Community Wildfire Protection Plan. GSFSC is comprised of community volunteers: its officers and directors are the decision makers for the GSFSC.

Objectives of the Corporation include, but are not limited to:

- Preparation and implementation of an approved Community Wildfire Protection Plan in accordance with the requirements and guidelines of the Healthy Forests Restoration Act.
- Public education regarding defensible space, fire-resistant landscaping and construction principles, fire behavior, fire meteorology, and evacuation planning within the Council area.
- Coordination and collaboration with government offices and agencies, public utilities, and property owners to promote fire safety preparation and response within the Council area.
- Seek and obtain grant funding to implement fuel reduction and vegetation mitigation projects, establish approved evacuation protocols, reduce structure ignition risks, and put into effect fire prevention measures to improve public health and safety while reducing greenhouse effects.

The GSFSC's CWPP meets the three requirements of the Federal Healthy Forests Restoration Act of 2003: 1) to be developed collaboratively with input from fire agencies and the community; 2) to identify and prioritize treatment areas and mitigation strategies and treatments, and 3) to recommend measures to reduce the ignitability of structures.

This CWPP provides a general overview and assessment of wildfire risks using the Federal CWPP requirements and the Sonoma County CWPP.

Working with fire agencies, landowners and other interested community stakeholders, a set of priority project actions have been developed to increase fire resiliency. These actions are intended to reduce the potential loss of human and animal life, structures and ecosystems due to wildfire.

The initial CWPP priorities are evacuation and vegetation management. Based on extensive input from members of our community, our proposed projects will focus on evacuation route planning and evacuation protocols and wildfire risk mitigation activities throughout those areas in our community that have been identified as high-to-moderate fire risk. Grove Street is currently the only public route into and out of the GSFSC area. Grove Street is the "spine" which connects multiple side streets

serving approximately 365 properties. The terrain on Grove Street is steep, the road is narrow and curvy, and the road surface is in poor condition above the entrance to the George Ranch community.

The street is currently categorized by Sonoma County as a local street. Due to increasing traffic volumes and its critical role as an escape route, it should be upgraded to a minor collector road as part of the next revision of the Sonoma County General Plan.

The GSFSC will continue to implement projects, intends to assess the progress annually and to invite agencies and landowners to submit projects that provide community protection.

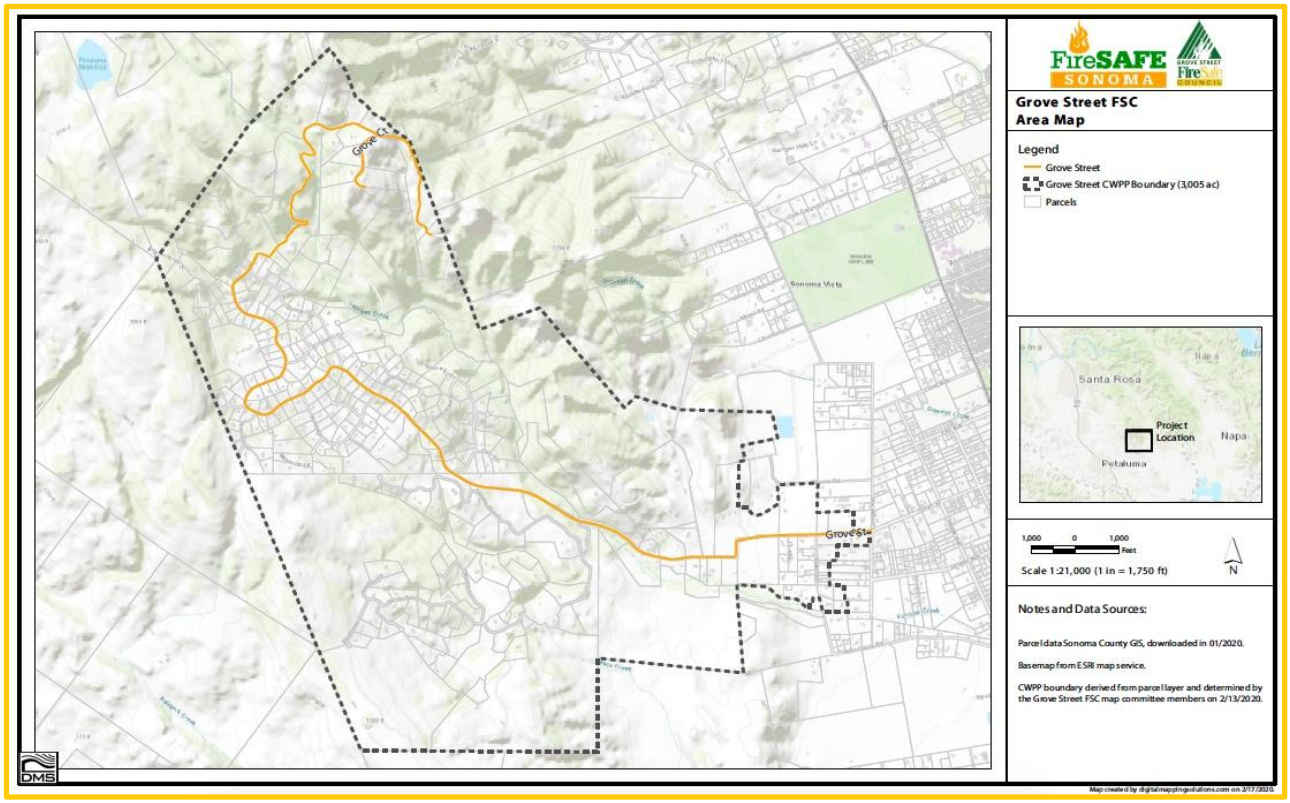
SECTION I: COMMUNITY OVERVIEW

SONOMA COUNTY

The combination of highly flammable fuel, long dry summers and steep slopes creates a significant natural hazard of large wildland fires in many areas of Sonoma County. Wildland fire season in Sonoma County spans the months after the last spring rains have fallen and until the first fall or winter rains occur. The months of August, September and October have the greatest potential for wildland fires as vegetation dries out, humidity levels fall, and off shore winds blow. However, due to the effects of climate change, fire season is longer and fires can occur at any time of year in the county.

THE GROVE STREET FIRE SAFE COUNCIL AREA (GSFSC)

This CWPP covers an area located on the southeast flank of Sonoma Mountain, that consists of around 301 homes, three businesses (not including the homeowners' associations, recreational centers and mutual water companies), extensive agricultural or vineyard land and open space on 2,954 parceled acres. The GSFSC is a formal non-profit community organization providing wildland fire protection education and outreach, and fuels reduction project management.



COMMUNITY PROFILE

Brief history of Southern Sonoma Valley and Western Grove Street

(See Appendix D for Brief History of Southern Sonoma Valley and Western Grove Street.)

Western Grove Street

In the recent past the properties that bordered on Grove Street were the Anderson Ranch on the highest Eastern sides of Sonoma Mountain, the George Ranch Community below that on the south side of Carriger Creek, and the Van Hoosear Ranch, El Rancho Rodeo, which used to encompass most of El Verano, up to the George and Anderson Ranches. (See Appendix D for the histories of Anderson and George Ranches.)

Geology and Topography

The geology of the portion of Sonoma Mountain within the area of this CWPP consists of three types of deposits and formations. The main portion from the top reaches of Grove Street down to around the George Ranch Community entrance consists of Tu-bv or Andesitic to basalt from Sonoma volcanics from 8-2.5 million years ago. The next segment of Grove Street area geology consists of Tu-md (QT-sm) which is the Petaluma Formation laid down 9-5 Million Years ago and is hard to distinguish from the Glen Ellen Formation laid down 3.25 million years ago. The Petaluma Formation is part of the Franciscan Complex from 40 million years ago, which is often present as stream cobbles. And finally, on the lower reaches of Grove Street from about the Westerbeke Conference Center entrance to Carriger Street the geology consists of late Pleistocene alluvium laid down 125,000-12,000 years ago. The mountain is still being uplifted about a millimeter a year due to tectonic uplift while at the same time it is being eroded by rain water and stream erosion in addition to the soil slippage and subsidence caused by the instability of the soil and the steepness of the slopes.

The terrain varies from flat land rising gently from around 190 feet to 310 feet above sea level over 3.2 miles from Carriger to the entrance to the George Ranch Community. From there the hillside rises rather steeply from 310 feet above sea level to 1803 feet above sea level at the highest reaches of Diamond A over approximately one and a half miles at an average slope of 18.85 percent and/or 10.68 degrees.

Portions of the hillsides are prone to landslide and soil creep which has limited development due to increased foundation requirements. The GSFSC sits near but not on the Roger's Creek Fault which runs north-south to the west of the GSFSC about one mile. GSFSC would be impacted by a major earthquake along that fault partially because there is a smaller fault running right through GSFSC terrain east of the Roger's Creek Fault. (See Appendix D for Geology and Topography maps.)

Weather

Most of the year the area experiences strong winds from the West which can break limbs and topple trees but generally bring cool, damp weather and fog from the Coast. During the fire

season in August through October or later, winds can also blow from the northeast bringing dry hot air from the interior valleys, called Diablo winds. This is when fire danger is at its highest. Multiple natural factors contribute to the fire hazard: drought drying out the vegetation, intermittent years of copious rain bringing increased growth of vegetation including underbrush, high winds further drying the vegetation and potentially carrying embers and flames. The winds also tend to cause wires to come in contact with tree branches and put stress on transmission boxes, both of which can ignite fires.

Land Use – Wildland/Urban Interface-Intermix (WUI) Conditions

The term "WUI" comprises both Wildland Urban interface and Intermix, but there is a distinction. This plan uses the term Wildland Interface/Intermix as it is 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 abut 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 and an advancing wildland fire. An alternative definition of 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, most of the Grove Street Fire Safe Council Community Wildfire Protection Plan area is designated as Wildland/Urban Intermix except the first few properties closest to Carriger on each side of Grove Street which are designated Interface.

Vegetation

The vegetation on the lower, flatter portion of GSFSC consists of vineyards, grass lands and Oak Woodland with scattered Eucalyptus, Bay and Buckeye trees. Vegetation is most dense along Carriger Creek. As you go up Sonoma Mountain, the vegetation continues as Oak Woodland and Bay groves interspersed with grasslands and vineyards. At higher elevations, there are also Madrones and Big Leaf Maples. Because the area is not intensely developed, there are large

swaths of native growth intermixed with homes. Native shrubs in the area include Coyote Brush, Toyon, Coffee Berry, Poison Oak, Snowberry, Blackberry, Gooseberry and California Wild Rose. Landscaped areas around the homes are generally well maintained. There is also a broad array of native wildflowers encompassed by the GSFSC, as evident in the creation of the Van Hoosear Wildflower Preserve, which both preserves the open space where the flowers grow and also allows access via guided tours. (See Appendix D for Vegetation map.)

Human Factors

Human factors contributing to the wildfire hazard to the properties in GSFSC are multiple and diverse:

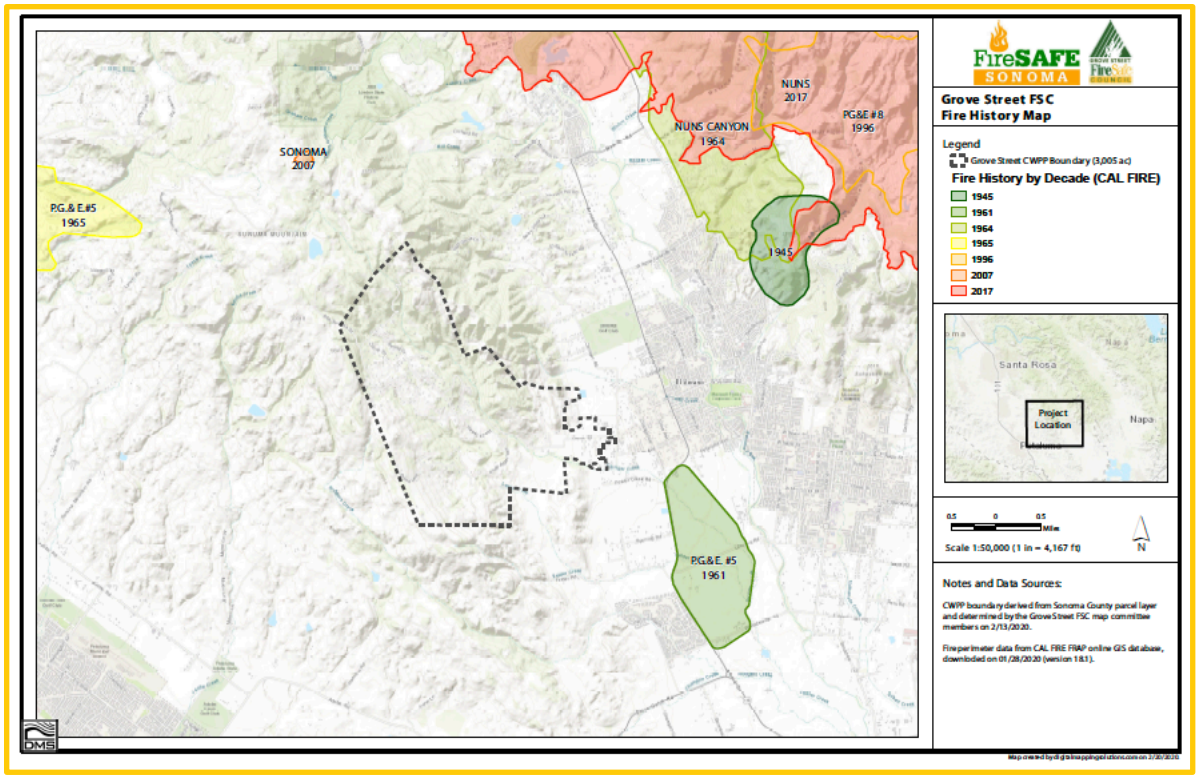
- Housing development in wildlands.
- Failure to clear or prune underbrush and trees around residences, along roads and around power lines.
- Flicking of a lit cigarette out the car window.
- Tossing of a bottle into the dry grass. A bottle can act like a magnifying glass and start a fire.
- Burning brush after it has been cleared can start a larger fire if not properly maintained.
- “Controlled burns” that are not properly controlled or are started at a time when the wind picks up unexpectedly.
- Vegetation clearing can itself cause fires by the equipment sparking fires.
- Electric lines have been shut down, turning them on again can sometimes cause fires if all the lines have not been secured.
- Car crashes into utility poles causing wires to cross or fall to the ground, and car crashes where the car ignites, can start fires that get out of hand. Vehicles driving through high grass when it is particularly dry can spark a fire.
- Use of fireworks has caused fires in the area as well.
- Chimneys that are not well maintained can throw off large embers that can start fires and the buildup of creosote in a chimney can start a chimney fire that starts a house fire.
- Failure to properly screen vents under the eaves can allow fire to enter the attic of houses, burning them from the inside out.
- Wooden decks surrounding a house can put the house at greater risk of fire that gets under the deck and brings the house down.
- Firewood and propane containers, like in a barbecue, should not be stored next to the house.
- Houses should not be surrounded by landscape shrubs within the first five feet as they provide ladder fuel for a fire to get up under the eaves or onto the roof.
- Absentee or part time owners are not present as frequently to ensure that their dwellings are protected from fire risks.

Community Fire History

Over the past 75 years, the areas around the base-map of this CWPP have experienced fires with increasing frequency and intensity.

- In 1945, an unnamed fire burned roughly 500 acres about 1.5 miles Northeast of the GSFSC area
- On September 2, 1961, an otherwise unnamed fire - PG&E #5, 1961 - burned 825 acres about one-half a mile Southeast of the GSFSC area.
- On September 18, 1964 while the Hanley Fire was burning, the Nuns Canyon fire burned nearly 9,808 acres in the foothills of the Valley of the Moon along the slopes of Bald Mountain and Mount Veeder.
- On September 16, 1965, East of Rohnert Park, and about 1.5 miles West of the GSFSC area, an otherwise unnamed fire - the PG&E #5, 1964 - fire, burned 3,250 acres.
- Also, in 1965, an unnamed fire burned 8,445 acres in the grasslands along Highway 12. It seems to have originated in the Carneros Valley in Napa County and moved south (an unusual direction) into Arrowhead Mountain and the low marshlands along San Pablo Bay.
- In 1982, the Silverado fire burned 6,200 acres along the Napa/Sonoma County line east of Knights Valley and north of Highway 128.
- On August 1, 1996, generally called the Cavedale Fire, an otherwise unnamed fire - PG&E #8 - burned 2,107 acres east of the communities within the GSFSC area.
- On August 31, 2007 the Sonoma Fire burned 14 acres less than one-mile Northwest of the community.
- In 2017, the Nuns Fire was part of the Northern California firestorm that included over 21 major fires that began in early October. This fire merged into the Norrbom, Adobe, Patrick, Pressley, and Oakmont fires and was responsible for destroying 1,355 structures and burning 56,556 acres. Coupled with the other fires burning that fall, these wildfires were the most destructive of the 2017 California wildfire season.

  The October 2017 fires were the costliest group of wildfires on record, causing around $14.5 billion (2017 USD) in damages, including $11 billion in insured losses and $1.5 billion in fire suppression costs, surpassing the 1991 Oakland firestorm, which until then had been the single costliest fire on record. In addition, the Northern California fires were predicted to cost the US economy at least $85 billion.



While luckily except for a few minor fires alongside Grove Street due to thrown cigarettes, firecrackers, compromised electric lines, and sparking weed whacking equipment, the area has escaped the wrath of fire. However, despite its East-facing aspect, the combination of fuels, population density, and limited access make the GSFSC area vulnerable to wildfire risks.

Evacuation Challenges – Limited Ingress and Egress

The only public access to the GSFSC area is provided by Grove Street, a paved County maintained road that goes west from Carriger Road for 5.2 miles and up and into the eastern facing hills of Sonoma Mountain to serve the communities of Diamond 'A', George Ranch and Lower Grove.

Because GSFSC is a single ingress and egress community, choke points and hazards are of significant concern along Grove Street. The hazards are as follows:

- **Sharp successive turns:** The lower part of Grove Street is relatively flat, but includes two successive very sharp 90 degree turns that slow traffic and cause accidents.
- **Narrow stretch due to trees:** Further west there is a particularly narrow stretch of the road between the entrance to the Westerbeke Conference Center and the George Ranch Community with very large trees (including eucalyptus) growing next to the road.
- **Narrow stretch due to geography:** Just before the entrance to the George Ranch Community there are fences and trees right next to the road on the south side and a steep, unstable embankment that comes down to the edge of the road on the north

side, which is also overhung with trees. This narrow stretch is made even more difficult by run-off from springs and winter rains that flood across Grove Street.

- **Subsiding roadway:** Continuing west there is a very steep portion of the road between the entrance to the George Ranch Community and the beginning of Diamond 'A' Ranch Estates where the roadbed is slowly subsiding. This portion of the road also typically has trees overhanging it.
- **Multiple steep and narrow roadways:** Farther up the hill there are many narrow, winding and steep roads. Sonoma County, as of 2014, permits no grades steeper than 20%; however, significant sections of Grove Street leading to Diamond 'A' as well as sections of roads within Diamond A that were constructed prior to 2014 exceed that limit.

There are a few mitigating safety factors:

- **Diamond 'A' Recreation Center:** The Diamond 'A' Recreation Center has a large open space that could be available as a temporary refuge area covering 7.97 acres consisting of a clubhouse and large open grass area, encompassing a baseball field, tennis courts, a horse rink, and a pool.
- **Local Fire Station:** Additionally, there is a small fire station in Diamond 'A' next to the Recreation Center at the intersection of Prospect and Spring Streets. The Residents of the GSFSC have contributed to purchasing a Type VI Fire Engine (as defined by the National Wildfire Coordinating Group Wildland Fire Incident Management Field Guide) to more easily access the narrow winding roads of the area.
- **Pond in Diamond 'A':** There is a large pond in Diamond 'A' at 19025 Kenleigh Drive, parcel 064-050-007. Additional water that is available for fire fighters can be found in numerous swimming pools that are dotted throughout the GSFSC properties.
- **Ponds in the George Ranch Community:** The George Ranch Community also has a large common area pond 500 feet in diameter and four additional ponds on privately owned lots that can provide water for firefighters.
- **Vineyards:** There is also one ten-acre vineyard in the George Ranch community that might provide an area for temporary refuge in case of an emergency.
- **Fire hydrants:** There are fire hydrants located throughout the Diamond 'A' community and the George Ranch community that would be accessible to firefighters as sources for water.
- **Pasture on Grove Street:** On the lower stretch of Grove Street, the 20-acre field at 1920 Grove Street is available as a temporary refuge area and/or available to CAL FIRE and other fire agencies for a staging area with space for helicopters to land, workers to camp, and access to 5000 gallons of water from two 2500-gallon storage tanks.
- **Vineyards near Carriger Road:** There are six vineyards along Grove between the Westerbeke Conference Center and Carriger Road that could be used as temporary refuge areas.

A high priority pf the GSFSC is the exploration, in collaboration with emergency services agencies, of alternative routes for safe, orderly, supervised evacuation.

THE COMMUNITIES AND ORGANIZATIONS WITHIN THE GROVE STREET CWPP

The Grove Street Fire Safe Council

As stated earlier, the area of this CWPP includes the Southeastern flank of Sonoma Mountain and covers a large portion of Carriger Creek's upper watershed. Carriger Creek is a tributary of Sonoma Creek via Fowler Creek. GSFSC encompasses all the lots which access Grove Street and all its spur roads from Carriger Street to the farthest extent proceeding west and uphill. It consists of the inhabitants of the George Ranch Community, Diamond 'A' Ranch Estates, the Diamond A Ranches, properties within the boundaries of the old Anderson Ranch that are not affiliated with either the Diamond 'A' Ranch Estates or the Diamond 'A' Ranches, and the homes and properties along lower Grove Street from Carriger to the entrance to the Diamond 'A' Ranch Estates including those along Wyatt Road and Najm Lane. There are no public lands adjacent to the GSFSC.

The Diamond 'A' Community

Diamond 'A' refers to all of the property that was the original Anderson Ranch and developed into three main developments over time: Diamond 'A' Ranch Estates, Diamond 'A' Ranches and 34 properties within the original Anderson Ranch property that are not part of either of the other two developments. There is a total of 257 parcels in Diamond 'A', including 243 residential lots, five agricultural parcels, eight commercial parcels (seven held by the Diamond 'A' Mutual Water Company and one for a Recreation Center), and one private road. In total, Diamond 'A' encompasses 1,188 parceled acres.

There are 206 homes in Diamond 'A' that occupy 818 acres ranging in size from .91 acres to 54.86 acres and averaging 4.06 acres in size. There are 40 parcels without homes that total 225 acres for residential development (mostly owned by contiguous occupied parcels). The five agricultural parcels total 130 acres and the 7 commercial parcels total 2 acres (again belonging to the Diamond 'A' Mutual Water Company). The Diamond 'A' Community has a Recreation Center and Fire Station occupying 1 parcel covering eight acres, and a single parcel of less than an acre that is owned by a neighboring ranch and serves as a private road to the border of that ranch.

Property owners in the Diamond 'A' developments can belong to two voluntary organizations, the Diamond 'A' Neighborhood Association (DANA) and the Diamond 'A' Recreation Association (DARA). The DANA is a non-governing association for the landowners, consisting of nine elected Directors who manage two committees (Architecture Review and Emergency Planning) and a comprehensive web site, as well as a neighborhood information exchange (on Google Group). The DARA governs the use of the Recreation Area through a seven-member Board who oversees maintenance of the facilities of a clubhouse, pool and recreational ball fields and their membership use.

The Diamond 'A' Ranches constitute a small formal homeowner's association in the northwestern corner of Diamond 'A'. Residents of this HOA can participate in both DANA and DARA. (See Appendix D for community map.)

The George Ranch Community

The George Ranch Community is a common interest subdivision development consisting of 973 parceled acres with parcel sizes ranging from 3.1 acres to 235 acres and an average of 15.7 acres per parcel. There are 62 parcels that include 54 homes, three vineyard/agricultural parcels, a common area clubhouse and a large pond.

The George Ranch Community Association (GRCA) is a California non-profit mutual benefit corporation and is governed by a five-member elected Board. The Board conducts the business of the GRCA and supervises committees whose responsibilities include maintenance of common areas, cooperates with the George Ranch Mutual Water Company (a separate California non-profit mutual benefit corporation), and reviews and approves building plans. Their mandate is to preserve the rural nature and aesthetic characteristics of the George Ranch Community. (See Appendix D for community map.)

The Lower Grove Street

Grove Street is a paved County maintained road that goes west from Carriger Road for 5.2 miles and up and into the eastern facing hills of Sonoma Mountain to serve the communities of George Ranch and Diamond 'A'. There are 47 parcels accessing Grove Street and its spur roads between Carriger Road and the entrance to Diamond 'A' Ranch Estates covering 794 parceled acres. Of these parcels, 40 have residences on them, some more than one. Two have pastures and five have vineyards. Each developed lot maintains its own well, pump and water delivery system. Of these properties at least five have generators to keep their pumps running when the electricity is cut off. There are at least six pools and one property has a small pond. Acreage varies from .47 acres to 182 acres and an average of 16.9 acres per parcel.

Within the Lower Grove Street community, The Van Hoosear Wildflower Preserve accessible from Grove Street encompasses 149.37 acres of open space grass lands and Oak Woodlands with no street address or residence.

There is a loosely constituted neighborhood emergency contact list consisting of fewer than half of the property owners in this Lower Grove Street neighborhood. (see Appendix D for community map)

In sum, the entire GSFSC area comprises a total of 366 mostly developed parcels cover 2954 acres of predominantly wildland intermix on a one way in one way out road and are at high risk of wildfire due to numerous factors including fuels build up, most houses are built in the wildland, narrow winding roads, and homeowners who are not fully aware of the risks and prepared to meet them.

FIRE RESPONSE CAPABILITIES

Vegetation Fire Resources

Within the CWPP boundaries, there are no areas within a Local Responsibility Area (LRA). However, there are approximately 4600 acres in the State Responsibility Area (SRA), which are in unincorporated Sonoma County.

Fire Services within the GSFSC community are provided by the Sonoma Valley Fire Protection District and CAL FIRE.

In the unincorporated 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, including the area of this CWPP. These agreements provide for services, including responses to structure and wildland fires, traffic accidents, rescues and medical aids.

Response Time & Staffing

California Department of Forestry and Fire Protection (CAL FIRE)

For initial attack, CAL FIRE located at 14000 Sonoma Hwy can provide two Type 3 engines as well as one Type 2 bulldozer and Battalion Chief, with a staff of 9 within 10 minutes and deliver 1000 gallons per minute. (Additionally, on a high wildland dispatch CAL FIRE would provide three additional Type 3 engines for a total of five, one additional bulldozer for a total of two, two Type 1 hand crews, one Air Attack, two Type 2 air tankers and one Type 1 helicopter.

Sonoma Valley Fire Protection District (SVFPD)

There are four SVFPD fire stations with resources that will respond to wildland fire incidents within the community base-map.

The two SVFPD fire stations listed below provide immediate initial attack resources within the base-map area as noted.

SVFPD **Station 2;** located at 877 Center Street, Sonoma, CA 95476. This is the initial response station for the base-map area.

SVFPD **Station 4;** located at 18798 Prospect Drive, Sonoma, CA 95476. This is a volunteer station and is located within the base-map area.

SVFPD INITIAL ATTACK RESOURCES					
Qty	Type	Staff	Ea. H2O	Sub-Tot H2O	Sub Tot Staff
3	T-3 Engine	3	500	1500	9
1	T-1 Engine	3	750	750	3
1	T-6 Engine	2	400	400	2
1	T-1Water Tend.	2	2000	2000	2
2	Med Unit	2	0	0	4
1	Batt Chief	1		0	1
TOTALS:		**13**	**3650**	**4650**	**21**

The following SVFPD fire stations would provide additional resources as noted.

SVFPD **Station 1**; located at 630 2nd Street, Sonoma, CA 95476.
SVFPD **Station 3**; located at1 Agua Caliente Road West, Sonoma, CA 95476
SVFPD **Station 5**; located at 13445 Arnold Drive, Sonoma, CA 95476

SVFPD ADDITIONAL RESOURCES					
Qty	Type	Staff	Ea. H2O	Sub-Tot H2O	Sub Tot Staff
3	T-1 Engine	3	750	2250	9
1	T-3 Engine	3	500	500	3
1	T-1 Water Tend.	2	2000	2000	2
1	T-6 Engine	2	400	400	2
TOTALS:		**10**	**3650**	**5150**	**16**

SVFPD Response Time Example

The following calculated response times provide an example to illustrate potential response times for responding wildland fire resources within the areas of the base-map:

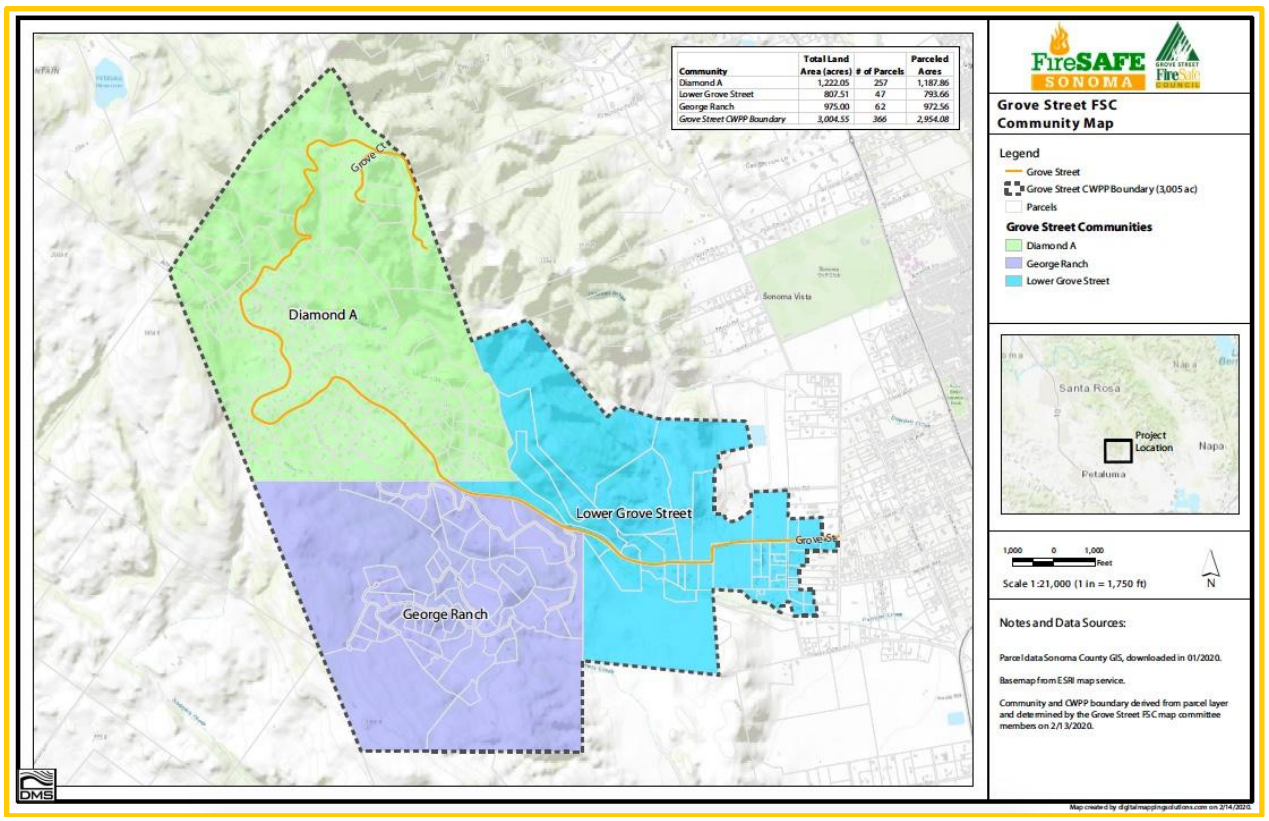
- Grove Street & Carriger Road: 5-minute response time from SVFPD **Station 2**
- Grove Street & Spring Drive: 7-minute Response time from SVFPD **Station 2**
- Grove Street & Spring Drive: 1-minute response time from SVFPD **Station 4**
- Grove Street & Grove Court: 5-minute response time from SVFPD **Station 4**
- Grove Street & Grove Court: 12-minute response time from SVFPD **Station 2**
- White Alder & Brooklime (George Ranch Community): 10-minute response time from SVFPD **Station 2**

IDENTIFICATION OF COMMUNITY VALUES AT RISK

Using nationally recognized standards, technology and local expertise, including; team meetings, governmental stakeholder meetings, community meetings targeted surveys, and a proven risk assessment tool developed by Fire Safe Sonoma, the development team developed an accurate assessment of the risks within the base-map.

Communities at risk

The map below provides an overview of the communities at risk within the GSFSC area. (Please see Appendix C for all maps.)



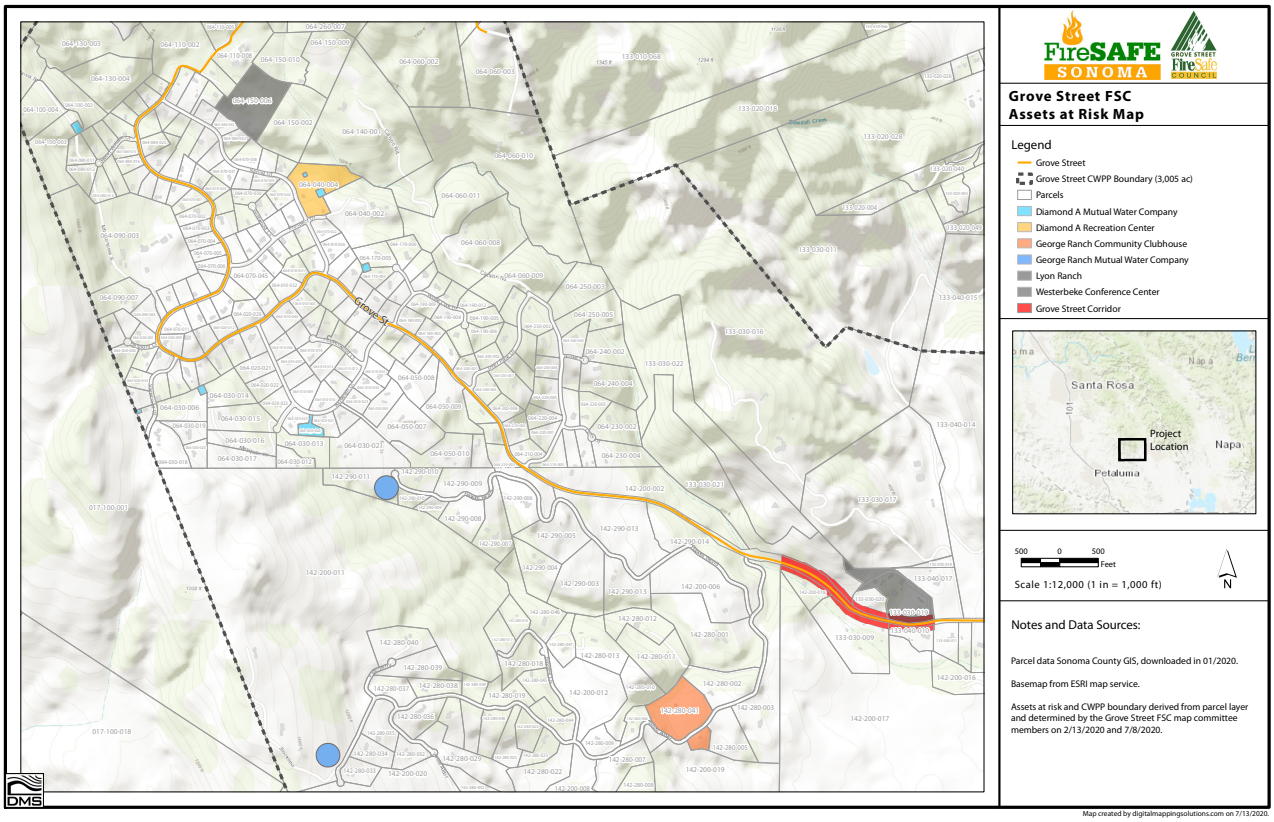
The three Communities at risk identified within the CWPP Base Map are described above in the Community Overview section and listed in the table below with their associated risk-ranking based on our individualized risk assessments. In the Mitigations column, those mitigations noted in **bold text indicate a high-priority**.

\

Community	Risk Ranking	Mitigation(s)
Lower Grove Street Community	Very High (79)	**Home hardening, defensible space, strategic fuel breaks, fuels modification and evacuation planning**
George Ranch Community	Very High (81)	**Home hardening**, defensible space, **strategic fuel breaks, fuels modification and evacuation planning**
Diamond A Community	Very high (92)	**Addressing, home hardening, defensible space, strategic fuel breaks, fuel modification and evacuation planning**

Significant assets at risk

There are seven Assets at risk identified within the CWPP Base Map are shown on the map below.



The Assets at risk are described as:

The Grove Street Corridor

As discussed in the Community Overview, the primary and only access to the GSFSC area is Grove Street, a paved County maintained road that runs west from Carriger Road into the

Sonoma Mountain. The Corridor is the stretch of Grove Street from the entrance to the Westerbeke Center to the George Ranch Community that is particularly narrow (with steep hillsides) and large overgrown trees growing next to the road.

The Diamond 'A' Recreation Center

The Diamond 'A' Recreation Center is located at 18843 Spring Street and consists of an 8-acre parcel that includes a community clubhouse, pool, tennis courts, horse arena and a large ball field. The Diamond 'A' Recreation Center is managed by a seven-member Board who oversees maintenance of the facilities of the clubhouse, pool and recreational ball fields and their membership use.

The George Ranch Clubhouse

The George Ranch Clubhouse is located at 3200 White Alder and consists of a 10-acre Common Area parcel (to the Community Association) and includes a clubhouse, large pond, and tennis court. It is managed by a five-member Board of the George Ranch Community Association.

The Diamond 'A' Mutual Water Company

The Diamond 'A' Ranch Estates' Mutual Water Co., Inc., is located in the Diamond 'A' community and provides water service to 198 residents in the community. It is governed by a seven-member Board and manages four wells, four steel storage tanks with a combined capacity of 335,161 gallons of water, five transfer pumps and 37 fire hydrants, 23 of which have over 500 gpm capacity.

The George Ranch Mutual Water Company

The George Ranch Mutual Water Company is located in the George Ranch community and provides water service to the 52 residential parcels. It is run by a five-member Board and manages two wells (both with generators for back-up power), two steel storage tanks with a combined capacity of 275,000 gallons of water and 27 fire hydrants, all of which have over 500 gpm capacity. The system is monitored via a SCADA system, which allows monitoring of wells and tank capacities via the internet.

The Westerbeke Conference Center and Star West Ranch

The Westerbeke Conference Center at 2300 Grove Street encompasses 10.5 acres, including a conference center, pool area, kitchen facilities, guest housing, and extensive grounds. The Star West Ranch and Retreat at 2500 Grove Street covers 33.3 acres and provides guest housing, ropes course and spa facilities for up to eight people in addition to the main house and accessory buildings.

The Lyon Ranch

Included in the Diamond 'A' unaffiliated properties is a privately owned 10.62-acre animal refuge called The Lyon Ranch located at 19221 Lyon Ranch Road. The Lyon Ranch rehabilitates animals, both exotic and domestic, and employs them to provide therapy for ill, elderly, and disabled persons who can enjoy interaction and comfort with them. The Lyon Ranch has a broad range of animals including, but not limited to: mini-horses, mini-donkeys, a Ze-donk (mix of zebra and donkey), standard horses, ocelots and Geoffrey's cats, parrots, a Hyacinth macaw, a fennec (which is a small fox), an American alligator, a Bactrian camel, an emu and four large dogs. These animals will present a unique need for evacuation planning and/or maintenance in place should a fire sweep through the area. The Lyon Ranch has developed a detailed evacuation plan.

The Assets at risk are listed in the table below with their associated risk-ranking based on our individualized risk assessment. In the Mitigations column, those mitigations noted in **bold text indicate a high-priority**.

Asset	Risk Ranking	Mitigation(s)
Grove Street Corridor	High (72)	**Fuels modification and evacuation planning**
Diamond A Rec Center	Very high (85)	**Addressing, home hardening, defensible space, strategic fuel breaks, fuel modification**
George Ranch Clubhouse	High (66)	Home hardening**, strategic fuel breaks**, **fuels modification and evacuation planning**
Diamond A Mutual Water Company	Very high (89)	**Addressing, home hardening, defensible space, strategic fuel breaks, fuel modification**
George Ranch Mutual Water Company	High (63)	Home hardening**, defensible space, strategic fuel modification**
Westerbeke Conference Center	Very high (86)	H**ome hardening, defensible space, strategic fuel breaks, fuels modification and addressing**
Lyon Ranch	Very high (93)	**Addressing, home hardening, defensible space, strategic fuel breaks, fuel modification**

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SECTION II: STRUCTURAL IGNITABILITY

OVERVIEW

This Section describes existing structural ignitability challenges and recommends measures to reduce ignitability of structures throughout the area addressed by the plan.

The recommended measures to reduce structural ignitability are included because structural ignitability was identified as a moderate or high risk based on: an objective risk assessment for each of the three communities identified within the base-map; an objective risk assessment of 7 assets identified as at-risk assets; and community surveys received from nearly 50 community members that measure the primary wildland fire risk concerns of the community residents.

In cooperation with the County of Sonoma, the GSFSC CWPP supports and promotes fire safe activities and supports and educates its citizens in ways to reduce structure ignitibility through meeting the requirements of the Sonoma County Building Codes, Fire Codes and Fire Safe Standards.

STRUCTURAL IGNITABILITY CHALLANGES

In the WUI where natural fuels and structure fuels are intermixed, fire behavior is complex and difficult to predict. Research based on modeling, observations, and case studies in the WUI indicates that structure ignitability during wildland fires depends largely on the characteristics and building materials of the home and its immediate surroundings.

The dispersion of burning embers from wildfires is the most likely cause of home ignitions. When embers land near or on a structure, they can ignite near-by vegetation or accumulated debris on the roof or in the gutter. Embers can also enter the structure through openings such as an open window or vent, and could ignite the interior of the structure or debris in the attic. Wildfire can further ignite structures through direct flame contact and/or radiant heat. For this reason, it is important that structures and property in the WUI become less prone to ignition by ember dispersion, direct flame contact, and radiant heat.

The California Building Code (CBC)—Chapter 7A specifically—addresses the wildland fire threat to structures by requiring that structures located in state or locally designated WUI areas be built of fire-resistant materials. There are also requirements for fire safe construction in Chapter 13 Sonoma County Fire Code. Currently, the code specifies fire safe requirements that only apply to new construction or extensive remodels.

Building in the Grove Street corridor tends to be unique projects on a single lot, either new construction or extensive remodels, with different design and construction teams. Studies show that more recently constructed buildings are more likely to survive a wild fire due to fire resistant materials required by building codes.

MEASURES TO REDUCE STRUCTURAL IGNITABILITY

Structural Hardening Improvements

The best opportunity to protect our largely built out community would be to harden existing properties. Large ticket items such as roofing and windows require periodic replacement albeit at long periods of up to 40 years. Sonoma County requires Class A Roofing Materials for replacement of more than 50% of an existing roof or a remodel adding 640 square feet or more of floor area. Class A is the highest rating, offering the highest resistance to fire, and unrated is the worst. Examples of a Class A roof covering include concrete or clay roof tiles, fiberglass asphalt composition shingles and metal roofs. Since most roofing projects require permits, this code requirement will lead to hardening of vulnerable roof surfaces over time. However, there are educational opportunities to evaluate existing roof stocks for fire resistance and to encourage upgrades sooner rather than later as appropriate.

On the other hand, Sonoma County does not require permits to replace existing windows provided the replacement windows are the same size as existing windows. Windows form a front-line defense in fire hardening, and selecting double or triple pane, tempered or annealed glass, provide significantly greater fire resistance than do the single pane glass windows that exist in some older homes. In addition, metal window screens and some window films enhance fire resistance. Finally, shutting windows in a wild fire scenario is crucial to prevent embers from entering a home and igniting a fire. Windows present an excellent opportunity to educate building owners. New windows also reduce energy use and ambient sound penetration into the home.

Low-cost Recommendations

Some of the most effective things that can be done to fire harden a structure do not require large expenditures. In a study based on more than forty thousand records of structures exposed to wildfires from 2013 to 2018, it was found that, overall, defensible space distance explained very little variation in home survival and that structural characteristics were generally more important. Structure survival was highest when homes had enclosed or no eaves, screened vents, and multiple-pane windows previously discussed. These results suggest that one of the potentially most effective methods of protecting homes from wildfire destruction would be to perform simple building retrofits, such as placing fine mesh screens over vents and coverings over other openings in the structures, such as gaps in roofs, and enclosing structure eaves.

Similarly, since firebrands or embers are the most common source of structure ignition, it is important to ensure that all building material joints and connections are well maintained and sealed or caulked as necessary. Lap joints in siding, blocking in eaves and window frames are all areas that can separate creating gaps allowing wind driven embers to enter and ignite the structure. Other maintenance items, such as cleaning leaves from gutters and removing accumulated leaves, debris, and combustible materials from under decks or wind trap areas are important to remaining fire safe. Combustible materials, such as fire wood, stored adjacent to structures or on decks should be relocated.

Some types of roofing, such as barrel tiles, can have openings that may collect debris and trap embers allowing embers to ignite roofs. Bird stops, or other types of sealing can remediate this hazard.

All of these items are relatively low cost and would significantly reduce structural ignitability. This can be addressed programmatically in two ways. First, we can educate people through public events, such as fire fairs. There are three HOA or Neighborhood Associations in our district; we can request to present at their events.

Home Assessments

Assessments of structures at the request of owners to identify opportunities to fire harden can be performed by trained wildland fire risk assessors. The Wildland Fire Assessment Program (WFAP) is a joint effort by the U.S. Forest Service and the National Volunteer Fire Council to provide training on how to properly conduct assessments for homes located in the wildland-urban interface (WUI). This is the first program targeted to volunteers that specifically prepares them to evaluate a home and provide residents with recommendations to protect their property from wildfires in order to make their community more fire adapted. WFAP offers in person and online training, and a tool kit for conducting assessments. The GFSC will recruit, train and offer assessments to property owners in our area.

Education

The partnership that exists between the listed organizations and citizens in this CWPP allows the community of the Grove Street Fire Safe Council (GSFSC) to provide structural hardening education and outreach and promote structural hardening projects to reduce the risk of structural ignition due to a wildland fire in the community.

SECTION REFERENCES:

Marin County Fire Department and Fire Safe Marin, Community Wild Fire Protection Plan, July 2016. Available at:
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https://surviving-wildfire.extension.org/fire-ratings-for-roofing-material/

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https://www.firesafemarin.org/home-hardening/windows

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SECTION III: FUEL REDUCTION

Vegetation Treatment Options

There are a wide variety of methods and programs available to help reduce the fuel load in a forested area, and several vegetation treatments options to better manage our forests for fire resilience and other natural characteristics. Several of the most common techniques are described below, and many may be used simultaneously, or in succession, on a given piece of land, to achieve the desired effect. Consultation with a Registered Professional Forester and the pertinent natural resource agencies should obviously be done prior to planning or conducting any action that might have an impact on protected resources, as permits may be necessary in many cases.

Fuel Reduction

Fuel reduction treatments improve forest resiliency by reducing wildfire severity and related mortality, improving tree growth, and stabilizing carbon retained in trees. Thinning activities implemented could change stand structure to concentrate carbon storage in more widely-spaced trees that are more resistant to wildfire, drought, and insect attack, and reduce the likelihood of wildfire transitioning into the forest canopy.

Treatments should focus on treating understory trees or brush to reduce surface and ladder fuels, disrupt both vertical and horizontal continuity of vegetative fuels, with forest management practices intended to stabilize sequestered carbon by changing forest stand structure to increase carbon storage in more widely dispersed trees in a more fire-resilient stand. Selection of practices must be done on a site-specific basis, and an assortment of practices to suit the circumstance should be selected.

Available management options for thinning the forested areas of the Grove Street area include: Mechanical (using large machines such as masticators), manual labor, grazing of domestic livestock, pile burning, broadcast burn/prescribed fire, use of herbicide, and shaded fuel breaks.

Mechanical: Employing large machines like masticators, grinders, and chippers, trees are taken down and chipped on-site. Chips can be disposed of by broadcasting, or removed off-site for disposal or reuse (firewood, chips for cogeneration, finished wood products, etc.). Mechanical treatment can only be used when roads allow access to the site. Costs for mechanical means of treatment per acre vary considerably, and the cost of treatment will increase along with fuel loading, steepness, and difficulty of access to terrain. Disruption to sensitive natural resources must be considered when using mechanical means.

Manual Labor: Chainsaws and other tools are used to cut trees and brush, either lopping and scattering, chipping debris in place, or burning in piles. Per-acre cost for hand work varies considerably, and the cost of treatment will increase along with fuel density, difficulty of access, and steepness of terrain.

Grazing: Properly managed, grazing of domestic livestock such as sheep, goats, and cattle can be an efficient and cost-effective means to control grasses and brush, and can greatly benefit soil health and the ecosystem. Grazing animals can browse noxious plants such as poison oak that are difficult to manage, and greatly reduce fuels on slopes too steep for maintenance.

Pile Burning: Pile burning is a method of eliminating vegetative material by incineration. Material is cut down and piled in relatively open areas with decent access by vehicles. The piles are fully or partially covered with waterproof material to cure, typically for one year, until they are dry. The piles are burned

on cool moist days, and typically on days where rain is expected. Pile burning requires permits from the Bay Area Air Quality Management District.

Broadcast Burn/Prescribed Fire: Prescribed fire is the intentional use of fire to help control and reduce vegetation by removing small trees and brush. Broadcast burning, often called prescribed burning, is conducted during times of the year when fuel moisture tends to be higher, such as the spring or winter.

Not all fuels are the same. Fine fuels start, and carry fire, while large fuels sustain fire. Large-diameter logs and snags often provide habitat for various animals, and their retention should be considered despite concerns of fire. Snags (dead standing trees) over 24" diameter are often prioritized for retention, unless they pose a hazard to people, property, or access routes. Snags and downed logs of this size are too large to start a fire, although in the event of a fire they will potentially increase the intensity of fire due to their low moisture content. This issue will be negligible if the forest is maintained in a condition as described above.

By reintroducing fire into the fire-adapted environment, one can improve the health of the local ecosystem. However, needless to say, it does come with inherent risks and complications. Anyone planning a prescribed burn must have all necessary permits and permissions, and ensure that there are sufficient qualified individuals on hand to support burn activities. In areas where there are significant fuels build up, prescribed burns cannot be attempted until mechanical treatment has reduced available fuel. "Prescribed Burn Associations" are forming across the county to help property owners use prescribed fire. Community and fire agency acceptance and buy-in for any burn operation is critical. Increasing capacity for prescribed burning across the project area is a high priority.

There are many benefits to restoring a regular fire return interval to forested landscapes. Frequent fire consumes fuels while they are at a moderate level, which results in flame length and fire line intensities that are moderate; allowing larger trees to survive unscathed. This reduction in fuel loading lowers the risk of catastrophic wildfire over the long term, and it has the added benefit of creating park-like conditions that are preferred for hiking and recreation. Fire creates habitat elements, especially in redwood ecosystems, in the form of basal cavities (often called goose pens). Fire also is known to stimulate responses in forest foods, as acorns flush from oaks and tanoaks in response to fire.

In order to realize the benefits of moderate-intensity, low-severity, fire, broadcast burning must be conducted in a safe and controlled manner. Prior to any burns, fuels reduction treatments are often necessary. Usually treatments involve cutting down vegetation and laying it closer to the ground, so when prescribed fire is applied there are no fuel ladders to carry the fire into the forest canopy.

Herbicide: Licensed and permitted herbicide application can be a useful tool for removing invasive and undesirable vegetation in selected areas, especially for maintaining safe clear roadsides and along shaded fuel breaks, where emerging and flammable plants can be quickly eradicated before they create a fire hazard.

Shaded Fuel Breaks, including reduction of ladder fuels, opened canopies, and reduced ground fuels, are helpful features on the landscape because they provide relatively safe areas for firefighters to fight wildfire, and they provide areas of relatively light fuels from which to begin prescribed fire treatments. They also can be utilized to reduce fuels near roads and utility lines, which are the largest sources of ignitions. The exact location of where to strategically create shaded fuel breaks should be done in consultation with a registered professional forester and relevant regulatory land agencies.

Treatments may also include creating fuel breaks that are completely cleared of fine fuels and readily combustible material, so that prescribed burns can be directed into areas where the fire will burn itself out in a predictable way.

Forest Management Plans (FMPs)

The plan clearly describes the current and desired conditions of the forest resources, what short- and/or long-term goals the landowner has for the land, what management actions can be taken to achieve those goals, and what resources are needed for implementation. Forest Management Plans are individual plans created for a parcel which outline goals and objectives for a forested property, identify cultural and biological resources on site, identify constraints to management, and provide recommendations or prescriptions for silvicultural treatments, vegetation management, road maintenance, etc. These documents are required in order to utilize government incentives programs, such as the California Forest Improvement Program under CALFIRE and the Environmental Quality Incentives Program under the Natural Resource Conservation Service (NRCS). A completed plan can also help the landowner meet grant requirements when collaborating with state and federal agencies for project funding. Workshops could be conducted to help landowners develop Forest Management Plans (FMPs) to increase the forest resilience and help them meet their ecological, economic and fire-management goals.

The FMP workshops could address landowner management objectives and planning, forest restoration, fuels reduction, project development, permitting, and cost-share opportunities. Participants could connect with other landowners and learn how to collect information to develop their own management plans. Participants who complete their plans could be eligible for a visit by a Registered Professional Forester to assess its content and discuss next steps.

Post-Fire Treatments

The strategies discussed above all have as their goal fuel reduction to help mitigate the risk and damage from a wildfire. A wildfire will inevitably come, and substantial effort will be required to promote and restore forest health in a post-fire scenario. Potential projects in a post-fire scenario might include: toxic waste containment for the protection of the watershed, debris removal, salvage logging, slash/fuel removal, road work for erosion control, water quality, stream sediment reduction replanting, reforestation and habitat recovery. Given the recent fire history in Sonoma County, there is much local expertise to draw from on this topic.

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SECTION IV: CONCLUSIONS

Maintaining properties and roadways with the appropriate defensible space and strategic fuel breaks are keys to protecting lives and properties.

Other wildland fire risk reduction efforts, including but not limited to, early notifications, wildland fire safety education and outreach, home hardening to reduce structural ignitability, and improved street signage are also keys to protecting lives and properties.

This Section identifies areas that will be the most effective for reducing wildland fire risk within the base-map area based on a thorough study and analysis that included objective risk assessments for each of the three communities identified within the base-map; objective risk assessments of 7 assets identified as at-risk assets; and community surveys received from nearly 50 community members that measure the primary wildland fire risk concerns of the community residents.

EXISTING PROJECTS

At the time of the development of this CWPP, the following projects have either been implemented or have been discussed:

- Education and outreach
- Fire-wise workshop
- Home assessments
- Home address numbers project
- Fuels reduction along part of Grove Street

PRIORITIES

This section summarizes projects that we believe will be the most effective for reducing wildland fire risk within the GSFSC base-map area. The projects are based on a thorough study and analysis that included objective risk assessments for each of the three communities identified within the base-map. The projects are also based on objective risk assessments of seven assets identified as at-risk assets and community surveys received from community members & government stakeholders. The surveys measured the primary wildland fire risk concerns of the community residents.

Priorities include the protection of people, structures, infrastructure, natural resources, and unique ecosystems that contribute to our way of life. Our CWPP balances private property rights of landowners with personal safety and responsibility to prepare residents for wildfire situations.

We will continue to identify projects that are consistent with the Council's goals and that meet or exceed the requirements of the all applicable statutes and ordinances.

We have prioritized the following areas to reduce wildfire risk to the community:
Emergency evacuation

Evacuation

- Collaborate with County agencies and private landowners to develop protocols, procedures, and criteria for the controlled and supervised evacuation of residents at the appropriate stage of a fire incident. GSFSC's role in such an initiative will be focused on collaboration with the appropriate agencies and education of Council residents.

Vegetation management

- Seek grants to conduct fuels reduction and vegetation mitigation projects and include a community chipping program. Initially, such projects will be focused on Grove Street, powerline ignition risks and side streets. Projects on privately and publicly owned properties will be explored and pursued as circumstances dictate.

Education & Outreach

- Conduct wild fire risk education to establish an informed and engaged community, including but not limited to, installation and maintenance of fire danger signs, early notifications, wild fire safety education and outreach such as, home hardening to reduce structural ignitability, and improved street signage.

A detailed list of proposed projects in each of these categories is provided in Appendix B.

SECTION V: DEVELOPMENT

PROJECT METHODOLOGY

The methodology used to craft this CWPP included; team meetings, site evaluations, historical research, community meetings, objective risk assessments and community surveys to establish risk priorities and reduction treatments. The development team made a significant effort to reduce subjective bias to a minimum.

Community Collaboration

This Community Wildfire Protection Plan as developed for the Grove Street Fire Safe Council, was collaboratively developed. It is intended to meet 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 it places priority on treatment areas identified by communities themselves in a CWPP.

CWPP Development Team

Representatives directly involved in the development of the GSFSC CWPP are included in the following table along with their roles and responsibilities.

CWPP Development Team	
Name / Organization	**Role**
David Duncan GSFSCI President	CWPP Team Leader
Harold Marsh GSFSCI Vice President	Group Leader: Values at Risk & Mapping
Bob Kraynak GSFSCI Director	Group Leader: CWPP Introduction
Nancy Evers Kirwan GSFSCI Director	Group Leader: Community Overview
Joe Lieber GSFSCI Director	Co-Group Leader: Firefighting Capability
Brady Mullin GSFSCI Director	Co-Group Leader: Firefighting Capability
Mark Hannon GSFSCI Director	Group Leader: Structural Ignitability
Tom Jones, GSFSCI Director & Treasurer	CWPP contributor
Leslie Kraynak, Director and Secretary GSFSCI Director & Secretary	CWPP contributor
Ron Stanley, Director GSFSCI Director	CWPP contributor
Roberta MacIntyre Fire Safe Sonoma President & CEO	GSFSCI Advisor
Stuart Mitchell	Fire Safe Sonoma Advisor

Governmental Stakeholders

Substantive input from a diversity of interests ensured that this CWPP reflects the highest priorities of the community. Interested parties and federal land management agencies in the vicinity of this CWPP have been solicited for input. It is expected that this collaboration will also help to facilitate timely implementation of recommended projects.

The following table includes the local government, fire department(s), and state land management agencies who were actively involved in the collaborative process.

Participating Governmental/Quasi-Governmental Stakeholders

Name	Organization
Susan Gorin (or Representative)	County Supervisor
Chief Ben Nicholls	CAL FIRE
Captain Steve Millosovich	CAL FIRE
Nathan Garrett	Pacific Gas & Electric
Sergeant Greg Piccinini	Sonoma County Sheriff's Office
Arielle Kubu-Jones	Field Rep. to Susan Gorin's office
Richard Diaz	Sonoma County Emergency Management
Battalion Chief Kirk Van Wormer	CAL FIRE

Community Stakeholders

The following local community leaders or stakeholder representatives provided input into the decision-making process.

Participating Community Stakeholders

Name	Organization
Dick Bryan	Diamond 'A' Mutual Water Company
Allen Jones	George Ranch Water Company
Jason Mills	Sonoma Ecology Center
Judy Scotchmoor	Sonoma Land Trust
Nancy Evers Kirwan	Sonoma Mountain Preservation
Nancy Sheppard	George Ranch Community Association
Ellie Insley	Sonoma Ecology Center
Christine Tickner	State Farm Insurance
Evie Duncan	Diamond 'A' Recreation Center
Bob Shokes	Diamond 'A' Emergency Preparedness
Tymm Rodriguez	Westerbeke Conference Center

Required Signatures

The following entities attest that the standards listed above are proposed to be met and mutually accept the content of this Community Wildfire Protection Plan:

Susan Gorin (Sep 14, 2020 10:57 PDT) — Sep 14, 2020

Supervisor Susan Gorin — Date
Sonoma County Board of Supervisors

Stephen Akre (Sep 10, 2020 13:05 PDT) — Sep 10, 2020

Steve Akre, Fire Chief — Date
Sonoma Valley Fire Protection District

Sep 14, 2020

Chief Shana Jones — Date
Unit Chief, CAL FIRE

ROBERTA MACINTYRE — Sep 14, 2020

Roberta MacIntyre (Sep 14, 2020 14:16 PDT) — Sep 14, 2020

Roberta MacIntyre — Date
Chair, Fire Safe Sonoma

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Leslie Kraynak	Director and Secretary	lesliekraynak@gmail.com
Ron Stanley	Director	ronestanley@yahoo.com

SECTION VI: RESOURCES AND REFERENCES

1. County of Sonoma Hazardous Mitigation Plan (2016)
2. CAL-FIRE FRAP MAPS http://frap.cdf.ca.gov for maps, data, and documents
3. Others
4. California Building Code Chapter 7A - Materials and Construction Methods for Exterior Wildfire Exposure
5. California Fire Code Chapter 47 - Requirements for Wildland-Urban Interface Fire Areas
6. Sonoma County Code Chapter 13 - Sonoma County Fire Safety Ordinance
7. Sonoma County Code Chapter 13A – Abatement of Hazardous Vegetation and Combustible Material
8. CAL-FIRE http://www.cafirealliance.org California Fire Alliance website for additional documents.
9. Fire Safe Sonoma – Living with Fire in Sonoma County
10. California Fire Safe Council
11. USGS http://wildfire.cr.usgs.gov/fireplanning
12. California Fire Alliance mapping tool
13. International Association of Fire Chiefs http://www.iafc.org/grants/wildland_fire.asp#downloads
14. A Fire-Service Leader's Guide to Preparing a Community Wildfire Protection Plan – I-Chief's 200
15. Preparing a Community Wildfire Protection Plan - A Handbook for Wildland–Urban Interface Communities (2004)
16. Documentation Affecting Fuels Reduction, Building Construction, and Community Fire Protection
17. National Wildfire Coordinating Group Wildland Fire Incident Management Field Guide

LIST OF APPENDICES

- Appendix-A: Risk assessments
- Appendix-B: Project Priorities
- Appendix-C: Maps
- Appendix-D: Reference material