

## AVENUE OF THE GIANTS PLANNING UNIT ACTION PLAN



*Avenue of the Giants Scenic Drive. Photo: Eureka-Humboldt Visitors Bureau.*

# HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

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### Helpful Links

LOOK FOR LOCAL FIRE ORGANIZATIONS ON FACEBOOK:	<a href="https://www.facebook.com">https://www.facebook.com</a>
HUMBOLDT REDWOODS STATE PARK	<a href="https://www.parks.ca.gov/?page_id=425">https://www.parks.ca.gov/?page_id=425</a>
CAL FIRE HUMBOLDT-DEL NORTE UNIT:	<a href="http://www.fire.ca.gov/HUU">http://www.fire.ca.gov/HUU</a>
HUMBOLDT COUNTY WEB GIS:	<a href="https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP">https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP</a>
HUMBOLDT COUNTY FIRE SAFE COUNCIL (HCFSC):	<a href="https://humboldt.gov/FireSafeCouncil">https://humboldt.gov/FireSafeCouncil</a>
HCFSC REPRESENTATIVE, CYBELLE IMMITT:	<a href="mailto:cimmit@co.humboldt.ca.us">cimmit@co.humboldt.ca.us</a>

## 4.14 AVENUE OF THE GIANTS PLANNING UNIT ACTION PLAN

### 4.14.1 AVENUE OF THE GIANTS PLANNING UNIT DESCRIPTION



A larger map of this planning unit can be viewed in Map 4.14.1, *Avenue of the Giants CWPP Unit*.

The Avenue of the Giants Planning Unit encompasses over 147,000 acres in the southern portion of Humboldt County. The famous Avenue of the Giants (also known as Highway 254) runs the length of the Unit, featuring some of the most breathtaking old growth redwoods still in existence today.

Highway 101 acts as the main transportation corridor through the Unit, along which there are a number of distinct, widely dispersed communities. The highway follows the inland valley formed by the path of the South Fork of the Eel River, which traverses the Unit in a north-to-south orientation and veers slightly westward as it continues north past Phillippsville. The main stem of the Eel River also passes through this unit from the southeast corner running northwest until it is joined by the South Fork Eel River at the town aptly named “South Fork”. Notable tributary watersheds that feed into the South Fork Eel within this unit include Salmon Creek and Bull Creek.

FIGURE 4.14.1 HWY 101 COMMUNITIES	
Fruitland Ridge	Phillipsville
Holmes	Redcrest
Miranda	Salmon Creek
Myers Flat	Shively
Pepperwood	Weott

The Avenue of the Giants Planning Unit contains a variety of land uses and ownership patterns, which include residential parcels, ranchlands of various sizes, lands managed by timber companies, and state park areas. Rich, agricultural flatlands lie adjacent to the Eel River in the northern portion of the Unit. This area has a long history of productivity that has, in

recent years, seen a resurgence of small-scale organic farming within the communities of Pepperwood, Holmes, and Redcrest. About a third of this planning unit is dominated by Humboldt Redwoods State Park, which encompasses 53,000 acres. Highway 254—or the “Avenue of the Giants”—stretches from the Unit’s northern border, touring across 32 miles along the State Park’s eastern edge, providing a scenic, alternative route to Highway 101 that draws thousands of visitors every year.<sup>1</sup>

### 4.14.2 AVENUE OF THE GIANTS ASSETS AND VALUES AT RISK

**Assets and values at risk are those things that are important to quality of life that can be threatened with destruction or loss from wildfire.** These include a variety of things such as homes, businesses, critical infrastructure, cultural sites, wildlife habitat, natural resources, air quality, recreational facilities and areas, historical structures, and any other important attribute that individual communities rely on for their well-being.

The assets at risk in this planning unit are as diverse as the land uses within the region. The majority of community assets at risk include residential homes and neighborhoods, along with a variety of commercial and service industries, community centers, schools, fire stations, churches, historic sites, post offices, medical and dental clinics, municipal buildings as well as infrastructure components, such as water

<sup>1</sup> Humboldt Redwoods State Park. Park Info [Webpage]. Retrieved from [https://www.parks.ca.gov/?page\\_id=425](https://www.parks.ca.gov/?page_id=425)

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treatment plants and a communication site. The ranching, agricultural, and timber industries within the Unit are also considered assets at risk. The Unit also contains several campgrounds and RV Parks.

The Unit contains many areas of great environmental significance as well. The Avenue of the Giants and Humboldt Redwoods State Park hold some of the last remaining stands of old growth redwoods in the county. These areas provide valuable habitat for the wildlife species that depend on this unique ecosystem type. The South Fork Eel River and its tributaries are also ecologically valuable for the fish they support, including coho and Chinook salmon, and steelhead trout. However, the ability of these populations to reproduce successfully has been negatively affected by heavy sedimentation of the river, which has been exacerbated by certain timber harvest practices and road building activities.<sup>2</sup> The river also provides numerous recreational opportunities for communities in the Unit. Many culturally sensitive sites of special importance to Native Americans exist throughout the Unit, as well.

*Map 4.14.2, found at the end of this Unit Action Plan, illustrates assets and values at risk to wildfire identified by community members at public workshops.* More detailed descriptions of community-identified fire planning features can be found on the Humboldt County Web GIS<sup>3</sup> Portal: [https://webgis.co.humboldt.ca.us/HCEGIS2.6\\_CWPP](https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP).

Some of the key community-identified assets at risk within this unit are listed in the table below. This list is not intended to be comprehensive and illustrates participating community members' concerns.

<b>FIGURE 4.14.2 AVENUE OF THE GIANTS: COMMUNITY-IDENTIFIED ASSETS AT RISK</b>	
<i>Schools</i>	<i>Infrastructure</i>
○ Agnes J. Johnson School (Weott)	○ County Maintenance Yard – Elk Creek Rd.
○ Excelsior School	○ Electrical Substation (Pepperwood)
○ Miranda Junior High School	○ Grasshopper Lookout repeater
○ Salmon Creek Community School	○ PG&E Substation – Elk Creek Rd.
○ South Fork High School	○ Phone building (Weott)
○ Weott School	○ Water and Sewer Treatment Plants (Weott)
<i>Fire Protection/Community Services</i>	<i>Other</i>
○ Fruitland Ridge Volunteer Fire Station	○ Burlington Ranger Station / Visitor Center (Humboldt Redwoods State Park)
○ Miranda Community Services District (CSD) water facility	○ CAL FIRE High Rock Conservation Camp
○ Miranda Fire Station	○ Faith Chapel Assembly of God (Weott)
○ Myers Flat water tank	○ Fruitland Community Church
○ Phillipsville CSD water tank	○ Gilham Butte (nature area)
○ Phillipsville Fire Department	○ Grasshopper Lookout (nature area)
○ Salmon Creek VFD	○ Humboldt Redwoods State Park & Avenue of the Giants
○ Weott CDF	○ Weott Christian Church
○ Redcrest Community Center	○ Weott General Store (River's Edge Market)
○ Weott Community Center	○ Weott Post Office

<sup>2</sup> Dyett & Bhatia. (2002). South Fork of the Eel River Watershed. Humboldt 2025 General Plan Update: Natural Resources and Hazards; Vol. 2: Detailed Watershed Characteristics and Regulatory Framework Analysis. Retrieved from <http://www.co.humboldt.ca.us/qpu/documentsbackground.aspx>

<sup>3</sup> Geographic Information Systems (GIS).

### 4.14.3 AVENUE OF THE GIANTS WILDFIRE ENVIRONMENT

Approximately 82% of the Avenue of the Giants Planning Unit is zoned “High Fire Hazard Severity,” as determined by the California Department of Forestry and Fire Protection (CAL FIRE).<sup>4</sup> Approximately 13% of the Unit, including much of the northeastern portion and areas surrounding Garberville and Shelter Cove zoned “Very High Fire Hazard Severity,” with only about 5% of the Unit zoned “Moderate Fire Hazard Severity.”

Humans are the most likely ignition source for fires in this planning unit. Vehicle accidents, smoking, playing with fire, poorly maintained debris burning, arson, and ignitions associated with marijuana cultivation and processing are just a few potential causes. Various types of equipment use and downed power lines can also be potential ignition sources. Tourism along the scenic Avenue of the Giants has increased over time. Lonely Planet, a top travel guide publisher, gave the Redwood Coast its number-one tourism destination for 2018.<sup>5</sup> While this publicity is a welcome boost to the tourism industry of the area, more visitors can equate to a higher risk of wildfire ignition.

Lightning is the most probable natural cause of fire starts within this unit. Several large wildfires have been started by lightning during thunderstorms that ignited more fires than firefighting resources could keep up with. The steep topography of this planning unit can accelerate the rate of fire spread and make access for firefighters very difficult. This, combined with local weather patterns, high fuel loads, and homesteads spread across the landscape (particularly in the Salmon Creek and Fruitland Ridge areas), creates a potentially dangerous wildfire environment.

*For a closer look at fire hazard severity in this unit, see Map 4.14.2, Avenue of the Giants Community-Identified Protection Resources, Values/Assets, & Risks/Hazards.*

#### How is Fire Hazard Severity determined by CAL FIRE?

- The classification of a zone as moderate, high, or very high fire hazard is based on a combination of how a fire will behave and the probability of flames and embers threatening buildings.
- Zone boundaries and hazard levels are determined based on vegetation. For wildland areas, the current FHSZ model uses burn probability and expected fire behavior based on weather, fuel, and terrain conditions. For urban areas, zone boundaries and hazard levels are based on vegetation density, adjacent wildland FHSZ scores, and distance from wildland areas.
- Each area of the map gets a score for flame length, embers, and the likelihood of the area burning. Scores are then averaged over the zone areas.
- While FHS zones do not predict when or where a wildfire will occur, they do identify areas where wildfire hazards could be more severe and therefore are of greater concern.

#### Fire History

Traditionally, fire was an integral part of the ecosystems in this region. Forest management by indigenous tribes often included low-intensity, intentional burns that helped enhance forest ecosystems and prevent the accumulation of high fuel loads. Some of the early agricultural settlers in the mid-1800s used intentional burning to clear and maintain grasslands for pasture animals. However, a heavy *fire suppression* campaign beginning in the 1930s has allowed the accumulation of dense, flammable

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<sup>4</sup> CAL FIRE (California Department of Forestry and Fire Protection). (2007). Fire Resources Assessment Program (FRAP). [Map showing Fire Hazard Severity Zone ratings within various geographic areas, mapped by county]. Fire Hazard Severity Zones Map. Retrieved from [http://www.fire.ca.gov/fire\\_prevention/fire\\_prevention\\_wildland\\_zones\\_maps](http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps)

<sup>5</sup> Forgione, M. (2018). Lonely Planet chooses California's Redwood Coast as top U.S. place to go in 2018. Los Angeles Times. Retrieved from <http://www.latimes.com/travel/la-tr-california-redwood-coast-selected-lonely-planet-top-destination-20180205-story.html>

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vegetation in forest understories, which acts as fuel and increases the risk of high-intensity wildfires. Forest ecosystems, accustomed to low-intensity fires that would burn off brush and newer starts in the understory, become threatened by overcrowded forests and accumulated fuel. Intense timber harvests during the 20<sup>th</sup> century further exacerbated damages to forest ecosystem health. Encroachment of Douglas fir, which was sown into many logged areas, has contributed to alterations in stand compositions in redwood forests. Douglas fir encroachment is also an issue in oak woodlands and grassland areas as well, threatening ecosystems, wildlife habitat, and the forests' resiliency to wildfire. The extent to which the

**Fire suppression:** All the work and activities connected with control and fire-extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.

**Natural fire regime:** (1) A natural fire regime is a classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning. Fire regimes are classified based on average number of years between fires (fire frequency) combined with the severity (amount of replacement) of the fire on the dominant overstory vegetation.

landscape has been altered as a result of fire suppression is reflected in the condition class of the Unit area. Condition class describes the degree of departure from the historical *natural fire regime*. Where the condition class indicates that fire has been absent for an unnaturally long time, the hazard and potential damages are high to both the environment and human developments in the area.

**Approximately 49% of the Avenue of the Giants Planning Unit is condition class 3, meaning the fire regime is significantly altered from the historical range; and approximately 16% of the area is condition class 2, or moderately altered from the historical range.**

**FIGURE 4.14.3 AVENUE OF THE GIANTS: FIRES OVER 10 ACRES 1997-2017<sup>6</sup>**

Fire Name	Cause	Year	Acres	
			In Unit	Total
Canoe	Lightning	2003	11,044	11,044
Colony	Arson	2008	155	155
Redcrest 2	Lightning	2008	30	30
High	Lightning	2008	29	29
Bushnell	Equipment Use	2013	22	22
Brown	Equipment Use	2007	19	19
Brown	Equipment Use	2013	15	15
Larabee 3	Lightning	2008	3	29
Stafford	Unknown/Unidentified	2016	0.05	24

*Note: An interactive map of fire history through 1908 is available through the County Web GIS.*



*Scenes from the Canoe Fire (2003). Previously logged and Douglas-fir dominant slopes burned especially hot. Photos: USFS.*

<sup>6</sup> FRAP. (2018). State Fire Perimeters 1908-2017.

### Structural Ignitability

Communities within the Avenue of the Giants Planning Unit are increasingly vulnerable to damage from wildfire. The buildup of fuel has increased the potential for higher intensity of fires, loss of life and property, and higher wildfire suppression costs. The California Fire Alliance has listed many communities at risk within this planning unit. Furthermore, the increasing subdivision of timber- and ranchlands throughout the Unit area has generated an increase in the number of homes that exist in the *wildland-urban interface* (WUI), which increases the likelihood that *wildland fires* will spread to structures, and vice versa.

Embers carried on the wind from nearby wildfires—even miles away—could ignite homes within this planning unit. This was made all too clear during recent, catastrophic wildfire events in Northern California that claimed thousands of homes. Many of the homes lost burned from the inside out, as embers were forced inside by strong winds, or sucked in through ventilation systems. For this reason, home hardening should be a top priority for homeowners concerned about their fire resiliency. Roofs and eaves, windows, vents, and siding are all components that can be upgraded to reduce a home’s vulnerability to loss. Resources for homeowners ready to take this leap in fire preparedness include *Appendix L, Living with Wildfire* and *Home Survival in Wildfire-Prone Areas*<sup>7</sup>, published by the University of California Agriculture and Natural Resources. **Based on field observations, there are many homes in this planning unit where steps need to be taken to ensure structure survival when wildfire is nearby.**

Wildfire risk is exacerbated by the presence of dense vegetation growing in the *Home Ignition Zone* and flammable items in direct contact with the structure. Dead plant matter and vegetation with low moisture levels within 100-150 feet of homesteads pose some of the greatest threats to *structural ignitability*. Of particular concern are houses with needles and leaves accumulating on rooftops or in rain gutters. Houses with wooden rooftops and sidings add to this risk, as do the presence of wooden decks, particularly those with dead plant matter accumulated beneath them. Managing fuels for at least 100 feet of defensible space is highly recommended by this CWPP and is mandated by California Public Resources Code 4291<sup>8</sup>. By reducing the intensity and rate of spread of a fire, defensible space provides suppression personnel the option to deploy their resources to defend the home; it also reduces the likelihood that a house fire will spread outwards. Likewise, managing fuels along access roads provides safer escape routes for both residents and suppression personnel.

Some community members have expressed concern over the fire risk posed by *Sudden Oak Death*, which can greatly increase fuel loads as trees and tree limbs die off. While the disease is not yet widespread within the Unit, landowners should be aware of the risks and vigilant about removing afflicted trees on their property in order to prevent spread.

***Sudden oak death (SOD):*** A disease in oak trees that is caused by *Phytophthora ramorum*, an invasive forest pathogen introduced to California in the mid-1990s through the horticultural plant trade. Affected areas can have a significantly higher fire hazard due to higher proportions of dead fuels of all sizes and prevalence of snags.

***Wildland-Urban Interface (WUI):*** The zone where structures and other human developments meet, or intermingle with, undeveloped wildlands.

***Wildland fire:*** A non-structure (i.e. non-home) fire that occurs in the wildland. Three distinct types of wildland fire have been defined and include wildfire, wildland fire use, and prescribed fire.

***Home Ignition Zone:*** The home and area out to approximately 100 feet, where local conditions affect the potential ignitability of a home during a wildfire.

***Structural ignitability:*** The ease with which a home or other structure ignites.

<sup>7</sup> Quarles, S.L., Valachovic, Y., Nakamura, G.M., Nader G.A., & De Lasaux, M.J. (2010). Home Survival in Wildfire-Prone Areas: Building Materials and Design Considerations. University of California, Agriculture and Natural Resources. ANR Publication 8393. [PDF]. Retrieved from <https://anrcatalog.ucanr.edu/pdf/8393.pdf>

<sup>8</sup> California Public Resources Code 4291 is provided as *Appendix K* of this CWPP.

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Map 4.14.2, found at the end of this Planning Unit Action Plan illustrates risks and hazards identified by community members at public workshops with an underlay map of fire hazard severity zones. More detailed descriptions of community-identified fire planning features can be found on the Humboldt County Web GIS Portal: [https://webgis.co.humboldt.ca.us/HCEGIS2.6\\_CWPP](https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP).

### Water Sources

Potable water and fire protection water are provided to the majority of communities in this unit by a number of special districts; they include the Phillipsville, Miranda, and Weott Community Service Districts (CSD). Weott CSD distributes water sourced from the wilderness areas of the State Park across the Eel River, after it has been fed through the Weott water treatment plant. The Myers Flat Mutual Water Company provides water from two wells and a surface water source on Pete’s Creek to the Myers Flat community.<sup>9</sup> Residents outside of these service districts obtain water through other means, such as drawing from nearby creeks and holding tanks. Firefighters also draw upon creeks and swimming holes for fire protection.

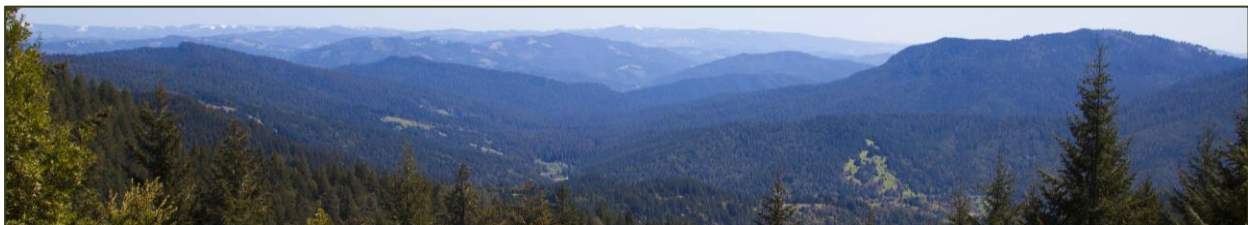
There are areas within this planning unit that have various needs associated with improving the availability of emergency water for wildfire protection. There are some locations where firefighting water is not available or where emergency water storage is needed to supplement the potentially overtaxed municipal water supply. Many existing water sources are in need of maintenance, protection, or improvements. There is also a need to make the location of existing water sources more apparent to firefighters, and for community members to ensure that their water sources are properly outfitted for firefighting equipment.

Community-identified fire protection water draft sites are listed in the table below. This list is not intended to be comprehensive and illustrates participating community members’ knowledge.

FIGURE 4.14.4 AVENUE OF THE GIANTS: FIRE PROTECTION WATER DRAFT SITES	
○ Bear Creek	○ Myers Flat, Eel River drafting site
○ Holmes Flat, Eel River drafting site	○ Williams Grove, Eel River drafting site
○ McCann, Eel River drafting site	○ Debra Lake Pond (150,000 gallons)

*Note: Locations identified at community workshops, and will need to be vetted further by firefighting personnel.*

Map 4.14.2, found at the end of this Unit Action Plan, illustrates these drafting sites as well as other community-identified wildfire protection resources. More detailed descriptions of community-identified fire planning features can be found on the Humboldt County Web GIS Portal: [https://webgis.co.humboldt.ca.us/HCEGIS2.6\\_CWPP](https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP).



*Panoramic View of the Bull Creek Area. Photo: David Baselt, Redwood Hikes.*

<sup>9</sup> Local Agency Formation Committee: Humboldt County. (2016). South County Regional Fire Services Municipal Service Review. [PDF]. Retrieved from [http://humboldtiafco.org/wp-content/uploads/Regional-FPD-MSR\\_South-County\\_ADOPTED-7.20.16.pdf](http://humboldtiafco.org/wp-content/uploads/Regional-FPD-MSR_South-County_ADOPTED-7.20.16.pdf)

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### 4.14.4 AVENUE OF THE GIANTS FIRE PROTECTION CAPABILITIES

There are various special districts that provide fire protection within this planning unit, including a community services district and two fire protection districts (FPD). These districts are financially supported by revenue generated from a variety of sources that can include property taxes, special taxes and assessments, donations, fundraisers, and payments from the state for CAL FIRE station coverage or wildfire assignments. Fire protection services within these districts are provided by volunteer fire departments (VFDs). There are also several non-tax supported volunteer fire companies (VFCs), which do not have a designated jurisdictional boundary. These companies are supported by donations, grants, and, in some cases, CAL FIRE station coverage or wildfire assignments. The local VFDs and VFCs provide protection from structural fires and wildfires, as well as medical and rescue services.

<b>FIGURE 4.14.5 AVENUE OF THE GIANTS: FIRE PROTECTION RESOURCES<sup>10,11</sup></b>			
PERSONNEL	SERVES		FIRE APPARATUS
	RESIDENTS	AREA (SQ. MI.)	
<b>FRUITLAND RIDGE FIRE PROTECTION DISTRICT – PHONE: (707) 943-3402 EMAIL: <a href="mailto:lake95554@yahoo.com">lake95554@yahoo.com</a></b>			
7 Volunteer 10 Auxiliary	338	20	<ul style="list-style-type: none"> <li>○ Freightliner water tender, 2,250 gallon</li> <li>○ International fire engine, 900 gallon</li> <li>○ Quick attack and rescue vehicle</li> </ul>
<b>MIRANDA VOLUNTEER FIRE DEPARTMENT – PHONE: (707) 223-3246 EMAIL: <a href="mailto:rrdawg911@yahoo.com">rrdawg911@yahoo.com</a></b>			
16	520	9	<ul style="list-style-type: none"> <li>○ Type-1 engine</li> <li>○ (2) Type-3 engines, 500 gallons each</li> <li>○ Type-6, 250 gallons</li> <li>○ Spartan engine, 750 gallons</li> <li>○ Freightliner water tender, 2,070 gallons</li> </ul>
<b>MYERS FLAT VOLUNTEER FIRE DEPARTMENT – PHONE: (707) 223-3175 OR (707) 273-9552 EMAIL: <a href="mailto:jake@asis.com">jake@asis.com</a></b>			
1	146	2.2	<ul style="list-style-type: none"> <li>○ (2) Type-3 engine</li> <li>○ Full set of stabilization struts, cribbing, and Sager Emergency Fracture Response System; other medical equipment</li> </ul>
<b>PHILLIPSVILLE VOLUNTEER FIRE COMPANY – PHONE: (707) 616-3107</b>			
3 Volunteer 3 Auxiliary	140	6.5	<ul style="list-style-type: none"> <li>○ Type-2 engine, 2,000 gallons</li> <li>○ Type-1 engine</li> <li>○ Type-4 engine</li> </ul>
<b>SALMON CREEK VOLUNTEER FIRE COMPANY – PHONE: (707) 943-3502 OR (707) 322-6516 EMAIL: <a href="mailto:salmoncreekfire@gmail.com">salmoncreekfire@gmail.com</a></b>			
12	300 homes	39	<ul style="list-style-type: none"> <li>○ Type-3 water tender, 1,800 gallon</li> <li>○ Type-2 fire engine</li> <li>○ Type-4 quick attack engine</li> </ul>
<b>REDCREST VOLUNTEER FIRE COMPANY – PHONE: (707) 672-5840 EMAIL: <a href="mailto:j.olander@kazandassoc.com">j.olander@kazandassoc.com</a></b>			
6	Redcrest, Holmes, Larabee, Shively, Stafford, and Pepperwood	26	<ul style="list-style-type: none"> <li>○ Type-1 engine, 500 gallons</li> <li>○ 4WD Utility Truck with medical equipment</li> <li>○ There is a satellite fire station located in Shively with associated equipment.</li> </ul>

<sup>10</sup> Humboldt County Fire Safe Council. (2018). Humboldt County Fire Chiefs' Association Annual Report, 2017. (pp. 10, 18, 20-21, 23, 26). Retrieved from <https://humboldtqov.org/Archive.aspx?AMID=75>

<sup>11</sup> Humboldt Local Agency Formation Commission. (2016). South County Regional Fire Services Municipal Service Review. Retrieved from <http://humboldtlafo.org/msr-soi-reports>

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There have been numerous successes in this planning unit over the last five years. In November 2014, Humboldt County voters passed the Public Safety and Essential Services half-cent sales tax—Measure Z.<sup>12</sup> Each year since its approval the Humboldt County Fire Chiefs’ Association has applied for and received Measure Z funding and used it to purchase much needed fire engines, personal protective gear, and other essential equipment. The purchase of new fire engines or rescue vehicles can present a significant financial obstacle for small volunteer departments. Luckily, Fruitland Ridge was able to acquire a Quick Attack and Rescue Vehicle; and Redcrest VFC was able to purchase a new fire engine, and is now working to build a firehouse adjacent to the Redcrest Community Center, where the apparatus can be safely stored and sheltered from the elements. A firehouse will also provide a focal point for training and for bringing volunteers together. In 2018, voters expressed their desire to see continued improvement in the local level of service by renewing the Public Safety and Essential Services sales tax by passing Measure O, which did not include a sunset clause.

Fruitland Ridge successfully became a Fire Protection District in 2016 by passing a \$60 parcel tax, giving the new district a reliable source of revenue to sustain their department. The Phillipsville Volunteer Fire Company is also looking into the possibility of becoming a Fire Protection District.

Of course, there have been challenges, as well. **Many of the local fire protection service groups in this planning unit have a need for more volunteer firefighters as well as volunteers willing to provide administrative, fundraising, or maintenance services.** Even with the aid of Measure Z funds, many of the fire departments still face issues with inadequate facilities and equipment. In addition, providing services to out-of-district areas puts a strain on already limited resources. There will be a continued need to improve the local level of service with support from a variety of revenue sources and efficiency strategies.

Emergency response can also be hindered by residential areas within the Unit that have poor signage and contain roads and driveways with insufficient clearance for firefighting apparatuses. The clean-up and prevention of illegal marijuana grows that can involve toxic substances is another ongoing challenge. The number of fires started by marijuana operations is not tracked, so it is difficult to document the extent of this impact.

The Weott Volunteer Fire Department, which had been in operation since 1964, disbanded in 2016. The community could not afford to rent or purchase the land on which their firehouse was located after the property was acquired by new owners. This loss, in addition to an inability to recruit and maintain a sufficient number of volunteers, led the Weott Community Services District Board to close the fire department and initiate the termination of fire services associated with the District. Representatives of the District will continue to work to identify and pursue options for providing services to the residents of Weott.

In response to the growing challenges faced by the departments in this unit, the Avenue Fire Cooperative was established to develop collaborative solutions that ensure long-term sustainability. The Cooperative is currently exploring the potential for the formation of a regional fire district or some other organizational change that will support sustainable services. Combining the assets of multiple departments into a regional district could enhance response capabilities and increase budgetary efficiency. The Cooperative has been receiving technical support from a planning team, funded through the Humboldt County Fire Chiefs’ Association Measure Z grant.

AVENUE FIRE COOPERATIVE PARTICIPANTS
○ Redcrest Volunteer Fire Company
○ Shively Volunteer Fire Company
○ Weott Community Services District
○ Myers Flat Fire Protection District
○ Fruitland Ridge Fire Protection District
○ Miranda Volunteer Fire Department
○ Phillipsville Volunteer Fire Company
○ Salmon Creek Volunteer Fire Company

<sup>12</sup> County of Humboldt. Measure Z – Phillipsville Volunteer Fire Company Safety/Essential Services [Web]. Retrieved from <https://humboldtgov.org/1803/Measure-Z-Information>

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The planning team and the greater Cooperative will continue to evaluate the political will and capacity to support several regional options designed to address challenges within this planning unit.

CAL FIRE also has several stations located throughout the Planning Unit. Staffing levels at the CAL FIRE stations in Weott vary throughout the year, but remain adequate for emergency response during most of the year. CAL FIRE also operates a Conservation Camp in the Unit: High Rock Camp, located between Redcrest and Weott. The camp provides five hand crews for firefighting purposes, and each crew has up to 17 firefighters and a captain. These crews are an all-risk department resource used both within Humboldt County and on a statewide basis year-round. During non-emergency response, these crews are deployed to work on fuel reduction projects and projects requested by other public agencies throughout the year. These crews are trained in emergency responses including, but not limited to, fire, flood, earthquake, medical, and vehicle accidents.

The CAL FIRE Weott Station can be reached by calling **(707) 946-2215** and the High Rock Camp can be reached by calling **(707) 946-2343**.

### 4.14.5 AVENUE OF THE GIANTS EVACUATION

When wildfires have the potential to become disasters by threatening life and safety, procedures are initiated to support the safe evacuation of people, domestic animals, and livestock from potentially hazardous areas. During such events, community evacuation sites may be established where residents can go to survive a wildfire. **Evacuation sites will be established in different locations depending on the anticipated path of the wildfire and location of the affected population.** The determination for the location of these sites is normally made by the Humboldt County Emergency Operations Center Incident Commander in cooperation with an Incident Management Team. The Humboldt County Sheriff and Emergency Officials will use the Humboldt Alert mass communication system (<https://humboldt.gov/alerts>) and door-to-door methods to inform residents about the threat and where residents should go to take shelter.

**Evacuation routes in the Avenue of the Giants Planning Unit will depend on the location of the community at risk and law enforcement recommendations based on fire behavior, wind patterns, traffic, and ingress of emergency vehicles.** Highway 101 is the central ingress and egress route. Several secondary roads connect smaller communities and residential roads to the central highway.

As discussed in the *Wildfire Environment* section above, the subdivision of timberlands and subsequent sale to homesteaders has created fragmented, unmanaged forests intermixed with homes—a landscape vulnerable to damaging wildfire and difficult to convert back to natural fire regimes. The narrowness and disrepair of many private, often gravel roads leading to these remote homesteads could create serious complications for emergency vehicle response trying to gain access during simultaneous home evacuations. Poor or complete lack of signage at roads and intersections pose potential problems for ingress and egress; this is especially true for more remote residences that are further away from the main towns. Problems with poor signage are exacerbated by ambiguity of road names and partial addresses used throughout the Unit. Many roads and driveways may also be overgrown with flammable vegetation, and have inadequate turn around spaces. The potential for landslides in the area could also inhibit access, particularly if wildfires were initiated by a severe earthquake.

Other evacuation impediments may include dense, steep road sections, landslides, fallen trees or power lines, overgrown vegetation preventing emergency vehicle access, and one-way-in, one-way-out roads that could inhibit evacuation and emergency response vehicles, or leave residents stranded should the roads become blocked.

If a catastrophic event occurs, residents and visitors may not be able to reach designated evacuation sites. In such cases, people may need to make decisions on their own about seeking shelter where they can survive the passage of the wildfire. Residents should seek shelter as a last resort, when evacuation is not an option. It can be very difficult to determine the right thing to do as the fire approaches, which is

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why it is so critical to **have a plan** and to **evacuate early**, if possible. Before a wildfire threatens, community members should research options and talk to fire and emergency service representatives about evacuation procedures, expected fire behavior in their neighborhood, and what to do if they get trapped.<sup>13</sup> If residents are forced to take shelter, the horrific sound, smoke, and heat of a passing wildfire may be physically and emotionally difficult to endure. It may bring some solace and may help combat the natural urge to flee knowing that all possible measures have been taken to increase the odds of survival.

*See Appendix H, **Living with Wildfire** for more information on preparing for safe evacuation, and evacuation planning for pets and livestock. See also Chapter 5.4.6, **Evacuation Preparedness** in Part 5, **Risk-Assessment Detail** for information about evacuation procedures and challenges in Humboldt County.*

### **Humboldt Alert: Humboldt County’s Mass-Notification System**

- ❖ The best way for emergency personnel to alert you of an emergency in your geographic area. You may choose to be contacted by email, text message, landline, or cellphone – or all four.
- ❖ It is geographically targeted. You will only receive alerts relevant to your geographic area, which is based on the address(es) you provide. The system can hold multiple addresses under one account (ex. home, office, child’s school).
- ❖ The service is completely free of charge.
- ❖ To sign-up visit: <https://humboldtqov.org/alerts> or contact the Humboldt County Office of Emergency Services **(707) 268-2500**.

### **4.14.6 AVENUE OF THE GIANTS COMMUNITY PREPAREDNESS**

None of the communities within the Avenue of the Giants Planning Unit have yet achieved *Firewise Communities/USA*® recognition. The process of becoming recognized as Firewise® includes a site-specific wildfire risk assessment, an action planning process, and an annual community educational event. The Firewise Communities/USA® Recognition Program teaches people living within the WUI how to adapt to living with wildfire by preparing for a fire before it occurs. This program empowers communities with tools and resources for reducing their wildfire risk and encourages neighbors to work together to take action to minimize losses from wildfire. Community members have expressed interest, through this CWPP update process, in pursuing Firewise® recognition for the Miranda community as well as for the Pepperwood, Holmes, and Redcrest area. The Firewise® process would also be beneficial for more communities and neighborhoods within this planning unit. The Avenue Fire Cooperative and Southern Humboldt Fire Chiefs’ Association are two local resources that may be able to aid in this process.

**Firewise®/Firewise Communities/USA® Recognition Program:** (1) A national, multi-agency effort designed to reach beyond the fire service by involving homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire before a fire starts. (2) Firewise® offers a series of practical steps that individuals and communities can take to minimize wildfire risks to people, property, and natural resources. It emphasizes community responsibility for planning in the design of a safe community as well as effective emergency response, and individual responsibility for safer home evacuation and design, landscaping and maintenance.

<sup>13</sup> CAL FIRE and Idaho Firewise offer advice on what to do if you become trapped:

<http://www.readyforwildfire.org/What-To-Do-If-Trapped> and <http://idahofirewise.org/evacuation/if-you-get-trapped>.

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Fire prevention accomplishments within this unit over the past five years are summarized below.

### FIGURE 4.14.6 AVENUE OF THE GIANTS: FIRE PREVENTION ACCOMPLISHMENTS

- Support has been provided to the local fire service through Measure Z, a half-cent sales tax passed by Humboldt County voters in 2014. These funds have been used to purchase equipment, make progress on establishing secure structures to house fire engines, and pay fees for dispatch.
- Redcrest VFC made significant progress on planning and building a fire station at the Redcrest Community Center site. This effort is being supported by funding from Measure Z and community fundraising.
- The residents of Shively have been working hard and making great progress on developing local community fire protection capacity. Volunteers have received training, equipment has been donated, and Redcrest VFC is currently providing an organizational umbrella for the service.
- Fruitland Ridge VFD successfully passed a \$60 parcel tax, which will provide a reliable source of revenue for the department.
- Members of the Miranda VFD proudly participated in a Humboldt local government strike team to assist with the suppression of California wildfires during the 2017 and 2018 fire seasons. The experience gained from these assignments increases the local capacity for responding to similar events within this planning unit.

### 4.14.7 AVENUE OF THE GIANTS LOCAL WILDFIRE PREVENTION PLANS

As of the date of this CWPP, there were no completed local planning documents such as a CWPP or Firewise® Assessment in this planning unit. Communities and/or neighborhoods may choose to pursue Firewise® recognition, and through that process would adopt Firewise® Action Plans that identify and prioritize actions which reduce the risk posed by wildfire. Alternatively, a local *fire safe council* could facilitate the writing and implementation of a community-level wildfire protection plan. As a first step, a point person or group of individuals must come forward to lead these efforts from within the community.

This Planning Unit Action Plan will provide a starting point or may serve as the equivalent to a local CWPP for these fire-planning efforts. A list of priority action recommendations reflective of the community concerns and ideas collected through the process described in *section 4.14.8* was developed by the HCFSC to help guide and inspire wildfire preparedness in this planning unit. *See section 4.14.9, Avenue of the Giants Action Plan for a list of priority actions recommended by this CWPP.*

**Fire Safe Council (FSC):** Public and private organizations that comprise a council intended to minimize the potential for wildfire damage to communities and homeowners, while also protecting the health of natural resources. Goals are achieved by distributing fire prevention materials, organizing fire safety programs, implementing fuel-reduction projects, and more. Visit [www.firesafecouncil.org](http://www.firesafecouncil.org).

### Humboldt Redwoods State Park Plans

The Humboldt Redwoods State Park (HRSP) developed the Unit Prescribed Fire Management Plan<sup>14</sup> in 1993 to support its Prescribed Burn Program. The Plan and the Program are founded on the understanding that fire plays a vital role in the native ecosystem. Recognizing the negative impacts of its absence in recent decades, the Plan lays out a number of management strategies aimed at reintroducing fire into the park. The overarching goals of the Prescribed Burn Program are to protect the resources of the park from unwanted and unnaturally intense fires; to re-establish the natural vegetative seral stages, mosaics, and fuel loading; and to generate data that will facilitate setting further objectives or adjust stated objectives.

<sup>14</sup> California Department of Parks and Recreation, North Coast Redwoods District. (1993). Humboldt Redwoods State Park Unit Prescribed Fire Management Plan. Prepared by J. Stuart, L. Fox III, and Gary Emery of the Humboldt State University Dept. of Forestry.

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Since 1998, HRSP has successfully utilized this plan to complete 16 prescribed burns in five different units within the park for a total of 3,011 acres. Additional units are being developed, each of which is burned every 2-4 years. Most burns were conducted in grasslands and adjacent forests to discourage woody vegetation from encroaching into grasslands. Approximately half of the grasslands within HRSP have been converted to forest or shrubland due to a lack of fire. In addition to restoring native grassland, these burns are aimed at reducing fuel loads that encourage high severity fire, maintaining fire dependent ecosystems such as oak woodlands, and restoring fire as an ecological process.

In 1998, the Park rolled out a Wildfire Management Plan<sup>15</sup>. In contrast to the plan discussed above, the Wildfire Management Plan is focused on clarifying the policies, responsibilities, and objectives of the Park as they relate to unwanted fire—before, during, and after. It also identifies sensitive park resources that should be protected such as cultural sites, recreational areas, sensitive plant communities, and power lines. As the primary fire protection agency for the park, CAL FIRE is a signatory of the Plan. The land management objectives related to wildfire are to prevent unwanted fire; to protect life, property, and resources; to take initial control actions on all fires that threaten the park; to minimize resource damage; and to identify appropriate mitigation actions after the fire. An update to the Plan was in progress at the time of this CWPP's publication.

### 4.14.8 AVENUE OF THE GIANTS COMMUNITY IDENTIFIED POTENTIAL PROJECTS

As part of the larger collaborative planning process to create this CWPP, 14 community wildfire preparedness workshops were held throughout the County. *See Chapter 1.2, Collaborative Planning Process and Appendix B, Planning Process Details for more information.* The workshop for this planning unit was held on November 6, 2017 at South Fork High School with the following goals:

#### Provide information:

- Fire protection capabilities and needs.
- Prevention of unplanned human-caused wildfires.
- Wildfire and emergency preparedness.
- The role of wildfire in our local environment.
- The Humboldt County Community Wildfire Protection Plan (CWPP).

#### Seek Information:

- Obtain local knowledge and concerns regarding assets and hazards.
- Provide an opportunity for direct input into priorities for community fire safety.

Through the initial 2004-2005 fire-planning process and the 2012 and 2017 CWPP update processes dozens of projects were identified for this planning unit through a community workshop mapping exercise. These projects are illustrated on the community-identified projects map found at the end of this Unit Action Plan (*Map 4.14.3*). New or confirmed existing project ideas proposed during the 2017 update process are summarized in *Figure 4.14.7* and *4.14.8* in this section. *For more information on the mapping exercise, see Appendix B.5, Mapping Exercise Instructions.* The community-identified fire hazards, protection resources, and assets and values at risk discussed throughout this Planning Unit Action Plan (*Map 4.14.2*) reflect information generated by these community workshop mapping exercises, as well as information resulting from direct outreach to local fire departments and residents.

The data collected through these planning processes can also be viewed within the fire-planning GIS Portal. The GIS Portal allows users to search for and view specific community-identified fire-planning features by location or to zoom into a desired area from an aerial view. The GIS Portal also provides descriptions of each planning feature. To access the Portal, go to: [https://webgis.co.humboldt.ca.us/HCEGIS2.6\\_CWPP](https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP). For a copy of fire-planning feature descriptions in table format, please contact the Office of Natural Resources Planning by phone **(707) 267-9542**, or email [cimmitt@co.humboldt.ca.us](mailto:cimmitt@co.humboldt.ca.us).

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<sup>15</sup> California Department of Parks and Recreation, North Coast Redwoods District. (1998). Wildfire Management Plan.

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The following community-identified project ideas have been identified through the planning process described above and will not be found on the maps or in the GIS Portal but are important to note and evaluate for feasibility.

**FIGURE 4.14.7 AVENUE OF THE GIANTS: COMMUNITY-IDENTIFIED PROJECTS**

- Increase redundancy of communication system.
- Perform more regular maintenance of fire hydrants.
- Enhance public outreach. Topics should include Blue Dot, defensible space, and locked gates.
- Collaborate with the Parks to accomplish fuel reduction projects.
- Create an alternate evacuation route out of the Salmon Creek community.

The local residents who attended the November 6, 2017 workshop identified the following projects as their top priority projects to be evaluated for feasibility and implemented over the next five years. The rest of the community identified projects can be found in the CWPP Web GIS Portal described above.

**FIGURE 4.14.8 AVENUE OF THE GIANTS: COMMUNITY-IDENTIFIED PRIORITY PROJECTS**

PROJECT DESCRIPTION	PROJECT TYPE	PROJECT ID
Miranda State Park fuel break/buffer	Landscape	MIR050
Miranda defensible space/road access	Defensible Space	MIR154
Salmon Creek Road to Thomas Road shaded fuel break	Roadside Clearance	MIR140
Barnum Road fuel treatment	Roadside Clearance	MIR170

### 4.14.9 AVENUE OF THE GIANTS ACTION PLAN

Ideally, everything recommended in this action plan will be implemented. However, feasibility analysis and implementation will be subject to the availability of funds and other resources, and the willingness and ability of community members and plan partners to take action. This action plan can be used to guide the action of community members, organizations, and agencies working and living within each of the 14 planning units within Humboldt County. It is the intention of the HCFSC that one or more local groups be sustained within each planning unit to lead local action. It is understood that some units have more capacity than others. The HCFSC, with individual members from higher-capacity areas and partner agencies, can provide guidance for building capacity where needed.

Any recommended vegetation treatments in this CWPP must be undertaken with the consent and involvement of the property owner and the observance of all applicable local, Tribal, state, and federal laws and regulations. Please work closely with the applicable regulatory and permitting authority as projects are developed, particularly if public funds are being used and/or the project will take place on public lands or in public right-of-ways. For more information about how to ensure regulatory compliance, refer to *Appendix I, Regulations and Compliance*.

**The following Action Plan is intended as a resource to guide and inspire action, as well as to cite in grant applications to leverage implementation funds.**

#### Priority Action Recommendations:

The following recommendations are based on a review and evaluation of community-identified fire planning features, local fire planning documents where they exist, and findings from this Humboldt County CWPP risk assessment. Given the results of this analysis, a growing understanding of local capacity, and potential supporting resources, it was determined that the following list of **priority actions** would best serve as a starting place towards the fire safety of the communities in this planning unit.

- **E**valuate the feasibility of organizing an Avenue of the Giants fire safe council to guide coordinated wildfire preparedness within this planning unit. The Avenue Fire Cooperative could be a good starting point for this effort.
- **I**dentify community organizations or groups of individuals in neighborhoods adjacent to the wildland with the interest and capacity to facilitate participation in the Firewise Communities/USA® Recognition Program or other similar wildfire preparedness program.
  - This focus area could be added to already existing disaster preparedness groups.
  - Conduct a community risk assessment with support from CAL FIRE, the Avenue Fire Cooperative or individual fire departments, and the HCFSC, and draft a Firewise® action plan. Use information from this unit action plan as a starting point for the development of community assessments and action plans.
  - Actively implement and maintain the Firewise® action plans on an annual schedule.
  - Host a Firewise® Day to share findings and inspire action; Firewise® activities could be added to an existing annual community event.
  - If necessary, seek funding to support this effort.
- **O**nce implementation groups are formed, evaluate, further develop, seek funding for, and implement—as appropriate and feasible—the community-identified priority actions listed above as well as all community-identified potential projects stored in the Web GIS Portal. Perform this same process for the actions identified in this *Priority Action Recommendations* list, and the

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*Action Catalogue* below. Pursue activities that align with available resources, community values, and the highest wildfire risks to local assets and values.

- **P**riority areas within this planning unit for fuels reduction and potential Firewise® programs are included in the list below. Activities might include creating defensible space, roadside clearance, chipper programs, and/or landscape treatments, as well as education and assistance for addressing structural ignitability through home hardening and evacuation preparedness. Most of these areas will benefit from close coordination and collaboration with Humboldt Redwoods State Park and Humboldt Redwood Company. Emphasize outreach to sensitive populations such as the elderly, disabled, and/or low income within these areas:
  - Miranda (Particularly in the Forest Grove neighborhood, as well as dispersed residences in the outskirts of the town. Highly ranked community identified priority – MIR154)
  - Salmon Creek (MIR184)
  - Shively (RIO096)
  - Eel Rock (located in a Very High Fire Hazard Severity Zone – MIR164)
  - Fruitland Ridge (MIR0157)
  - Neighborhood along Cathey Road (MIR159)
  - Pepperwood/Holmes/Redcrest (MIR187, 186, 185)
- **T**he high fire danger, a large and dispersed WUI population, and a need for increased wildfire preparation combine to make **evacuation planning** and education a top priority in this planning unit. Based on observations of construction design and home siting in many areas throughout this planning unit, many homes are vulnerable to ignition from wildfires (even embers from far off fires). This plan recommends that residents stay vigilant and evacuate as early as possible to avoid loss of life.
  - Work with the County Office of Emergency Services (OES), local fire service, and law enforcement to engage community members in evacuation preparedness (generally, the Sheriff’s Office is responsible for conducting evacuations while the fire service focuses on wildfire management). Work together to review best practices as well as emerging new approaches.
  - Identify local community liaisons to work directly with emergency management officials.
  - Identify and map local evacuation routes and sites.
  - Given the large number of residences located on long, dead end roads, residents, law enforcement, and local fire departments should work together to identify alternative paths that may be taken or actions to initiate if primary routes become inaccessible during a wildfire. The highest priority area is:
    - Salmon Creek – a priority for this area is to create and/or confirm and ensure that residents are aware of an alternate evacuation route out of the Salmon Creek community.
  - Identify and actively maintain areas to shelter as a last resort if safe evacuation is blocked by wildfire, especially in areas with one-way-in, one-way-out roads. Areas of high priority include:
    - Shively
    - Salmon Creek

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- Residences along Spring Canyon Lane near Phillipsville
- Eel Rock
- Improve community communication networks and explore ways to increase redundancy. This might include developing a community phone tree list and/or compiling a list of contacts to call in case of emergency or when help is needed from (or in) other areas. As another form of emergency communication, consider training or identifying a few community members to use HAM radios and secure funds to purchase radios and store them strategically throughout the community.
- Work with local organizations, the Humboldt County Board of Supervisors, Humboldt County FSC and GIS staff, state legislators, CAL FIRE, and/or utilities to address communications challenges including the lack of internet access in some areas; radio repeater dead zones; confusion about road names and local addresses; and more.
- See additional evacuation preparedness ideas in the *Action Catalogue* below under “Disaster Preparedness”.
- **F**ocus roadside fuel reduction efforts on priority ingress and egress routes for safe evacuation and emergency response, especially those roads used by the highest number of residents, single access roads, and roads leading to remote, hard to access residences. Priority roads for initial evaluation and outreach efforts include:
  - Salmon Creek Road/Thomas Road and offshoots leading to residences (Highly ranked community identified priority – MIR140)
  - Barnum Road and dead-end off shoots (Miranda; Highly ranked community identified priority – MIR170)
  - Felt Road and dead-end off shoots (Miranda)
  - Eel Rock Road and other roads in the Eel Rock neighborhood
  - Shively Road, Larabee Creek Road, and Johnson Lane
  - Dyerville Loop Road and Elk Creek Road (egress and ingress to and through Fruitland Ridge) as well as offshoots leading to residences
  - Cathey Road (East of Myers Flat)
  - Spring Canyon Lane, leading to dispersed residences near Phillipsville
  - Sequoia Road (Myers Flat)
  - Frost Lane (Myers Flat)
  - Newton Road (Upper Weott)
  - Madrone Road (Upper Weott)
- **C**ollaborate with agency and local partners to plan and fund landscape level fuels reduction and management where appropriate and in observance of applicable environmental laws and regulations. Match the site with the best method of treatment to meet forest resiliency and community protection goals, including prescribed fire, forest thinning, landscape pruning, mowing, or targeted grazing.
  - Evaluate the following priority areas for potential collaboration between community members, local fire service, CAL FIRE, and Humboldt Redwoods State Park:

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- Miranda, where state park lands are adjacent to private property (Highly ranked community identified priority – MIR050).
- Myers Flat
- Salmon Creek, where state park lands are adjacent to private property.
- Redcrest
- Pepperwood
- Weott
- CAL FIRE and Humboldt Redwoods State Park staff should conduct outreach in neighboring communities to increase understanding of and support for the use of prescribed fire on park lands.
- **W**ork with commercial timberland owners such as Humboldt Redwood Company and Sierra Pacific Industries to identify priority areas for strategic vegetation treatments to increase forest resiliency to wildfire.
  - Design projects to buffer residences from wildfires that originate from the timberlands and to protect timber resources and ecological values from fires that start in adjacent developed areas and along roads.
    - Inform this process with Humboldt Redwood Company’s recently completed fire risk assessment model generated for their ownership.
    - Priority areas for such project development include timberlands adjacent to Redcrest and Shively.
  - Seek opportunities to collaborate on roadside vegetation management projects where public roads or private roads, leading to residences, transect timberlands. Initial areas to evaluate include Dyerville Loop Road and Shively Road.
  - Organize dialogue to share community concerns about the use of herbicides to kill hardwood tree species and leaving them as standing snags. This practice is commonly referred to as “hack n’ squirt” or “frilling”. The objective of the dialogue will be to find common ground for reducing the associated wildfire hazards within this planning unit.
- **C**oordinate with CAL FIRE, local fire departments, and community members and/or groups to develop a strategy to ensure that unmaintained vegetation on parcels that pose a wildfire threat to neighboring homes is abated.
  - Start by reaching out to the property owner(s) with the goal of helping them understand the fire danger and the importance of working across property lines to reduce wildfire hazards. If there are many properties of concern, consider organizing a neighborhood meeting to discuss the issue; invite CAL FIRE, local fire department representatives, and/or fire safe council/Firewise® community representatives.
  - Request assistance from the local fire agency (for vacant properties, if there is a local ordinance) or CAL FIRE (for properties with a structure) and ask for an inspection.
  - As a last resort, send a certified letter that describes the hazard, including photos, and states that if a fire that originates on their property spreads to yours, resulting in damage, legal action will be taken.
  - Contact the HCFSC for more details and examples of how to address this situation.

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- **O**rganize community workshops that demonstrate best practices for mitigating fire hazard risks including how to create and maintain defensible space, ensure firefighter access, and set up firefighting water sources. CAL FIRE could participate by presenting on the effects of wildfire.
- **E**ncourage Humboldt Redwoods State Parks to increase their outreach to visitors regarding ignition prevention. This could include information at the Visitor Center, signage, or pamphlets.
- **C**ontinue the work of the Avenue Fire Cooperative to explore options and make progress on local fire service sustainability efforts such as:
  - Recruiting and retaining volunteers (firefighters as well as auxiliary volunteers);
  - Establishing/maintaining secure, consistent, and sustainable revenue sources to meet growing needs and costs;
  - Continuing to develop the capacity of the Shively Fire Company;
  - Pursuing funding to construct a Redcrest Fire Station, repair Fruitland Ridge facilities, and build an addition to the Miranda station to accommodate all fire trucks;
  - Increasing the regularity of fire hydrant maintenance within this planning unit;
  - Establishing strategies for industrial timber companies and the state park to support the survival of local fire departments;
  - Ensuring that all developed areas and areas with imminent plans for development are within the boundaries of a fire related district and that services are being provided through the most efficient, effective, and sustainable structure. This may involve fire related district annexations, formations, and consolidations;
  - Exploring the feasibility of establishing and funding a Rural Fire and Rescue Coordinator or Coordinators to keep their finger on the pulse of the larger fire service;
  - Helping local fire chiefs meet increasing requirements;
  - Facilitating collaboration on efforts that benefit all fire departments and companies that participate in the Southern Humboldt Fire Chiefs' Association;
  - Staying abreast of rural funding opportunities and offering guidance and administrative support to help with their acquisition; and more.
- **I**ncrease the availability of water for fire protection, especially in areas without municipal water service, by investing in more community water tanks and ensuring existing water tanks are outfitted with fittings compatible with firefighting equipment. Priority water needs to evaluate include:
  - Salmon Creek
  - Cathey Road Neighborhood
  - Fruitland Ridge
  - Eel Rock

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### Action Catalogue:

This Action Catalogue lists additional wildfire mitigation actions that can be selected in addition to, or to compliment, the priority actions above. Action items are organized under each of the six countywide goal categories outlined in *Part 3, Countywide Action Plan*. Local groups are encouraged to implement these actions within their communities wherever possible and to actively seek opportunities to engage with and benefit from the associated work being done countywide by the Humboldt County Fire Safe Council (HCFSC). To contact the HCFSC, call **(707) 267-9542**, or email [cimmitt@co.humboldt.ca.us](mailto:cimmitt@co.humboldt.ca.us).

#### Wildfire Ignition Prevention

- **I**mplement One Less Spark education: [www.readyforwildfire.org/One-Less-Spark-Campaign](http://www.readyforwildfire.org/One-Less-Spark-Campaign).
- **U**se *Living with Wildfire in Northwestern California* as a primary outreach tool and distribute widely: <https://humboldt.gov.org/livingwithwildfire>.
- **I**dentify primary ignition sources in the local community and focus prevention efforts on reducing them.
- **I**ncrease community awareness and access to information about proper methods for safe pile-burning, prescribed fire, and other fuel reduction strategies in order to avoid an unintended wildfire.
- **I**nform residents about the importance of vigilance and caution during Red Flag conditions when a small ignition has a higher probability of growing into a large fire.

#### Wildfire Preparedness

- **D**evelop a wide range of opportunities for community education on preparing for wildfire. This effort should involve the production and/or distribution of a variety of informational materials.
  - Use existing materials as much as possible and develop materials tailored to the local community as needed and able. Examples of new materials include locally based before-after fuel treatment and or home hardening pamphlet with high quality photographs.
  - Distribute materials through mailers (including already occurring mailers such as local utility bills); via community hubs such as the post office; at all community events; on community bulletin boards; through the use of social media and networks, local media outlets, and any means used by the local community to share important information.
  - Include compelling stories of past wildfire events.
  - Encourage local volunteer/service organizations or schools to help perform community service activities including delivering literature to homeowners or clearing around and painting fire hydrants.
- **P**rovide residents with information about and assistance with reducing structural ignitability and maintaining adequate defensible space around their homes.
- **C**ollaborate to maintain defensible space for elderly, disabled, and low-income residents who are unable to do or fund the work themselves.

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- **F**ocus roadside fuel reduction efforts on priority ingress and egress routes for safe evacuation and emergency response. See more about this action in *Priority Action Recommendations* above.
- **W**ork with PG&E and local landowners to reduce fuels along power line easements.
- **S**upport or create community chipping programs.
- **C**ompile a directory of brushing crews and other resources for landowners seeking to reduce fuels on their property.
- **R**aise awareness of Sudden Oak Death and the fire hazard that afflicted trees pose. Determine whether there are hot-spots for Sudden Oak Death infected trees. Conduct fuels reduction projects in those areas to prevent spread and mitigate fire hazard. Seek guidance from organizations such as University of California Cooperative Extension. Focus efforts on the following area:
  - Salmon Creek Road (evaluate area near the beginning of the road)
- **W**ork with commercial timberland owners to identify priority areas for strategic vegetation treatments to increase forest resiliency to wildfire. See more about this action in *Priority Action Recommendations* above.
- **C**ollaborate with state park and local partners to plan and fund landscape level fuels reduction and management where appropriate and in observance of applicable environmental laws and regulations. See more about this action in *Priority Action Recommendations* above.

### Disaster Preparedness

- **E**vacuation preparedness and the identification of local evacuation routes and sites is a priority for this unit. See details in the *Priority Action Recommendations* above.
- **W**ork with the County Office of Emergency Services (OES) and local fire service to engage community members in evacuation preparedness. See more about this action in *Priority Action Recommendations* above.
- **I**mprove community communication networks and explore ways to increase redundancy. See more about this action in *Priority Action Recommendations* above.
- **W**ork with a local fire or law enforcement agency to form a Community Emergency Response Team or CERT. Coordinate with the Humboldt CERT Coalition.
- **P**romote the creation of family disaster and evacuation plans.
- **I**nform residents about Humboldt Alert and encourage them to sign up to receive emergency notifications at <https://humboldtgov.org/alerts>.
- **W**ork with residents to ensure adequate road and home address signage for more efficient emergency response. Signs should be large, reflective, and have lettering at least three-inches in height. Less noticeable but more sentimental address signs may remain but it is important to post reflective signs as well.
- **A**ddress road conditions that inhibit effective evacuation and access by emergency responders. Begin by systematically identifying and mitigating such access impediments.

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- **I**nform residents about the importance of keeping gates open or accessible during Red Flag conditions. Community members and timber companies should consider providing a key or access code to the local fire department.
- **I**nform residents of the need to have accessible, mapped, and identifiable water sources for fire suppression, and the importance of sharing that information with local fire departments/companies. This type of activity can be supported by a “Blue Dot” program, which identifies the location of firefighting water sources by marking them with blue reflective dots.
- **I**ncrease the availability of water for fire protection. See details in *Priority Action Recommendations* above.

### Fire Protection

- **S**upport the local fire departments by becoming a volunteer. Volunteer firefighters and volunteers who are emergency medical service (EMS) trained are essential to a functional local fire service. In addition, volunteers are needed for non-firefighting and EMS duties such as logistical support, traffic control, administration, fundraising, public education, and fire prevention.
- **A**ssist in the development of recruitment and retention strategies for volunteer fire departments.
- **H**elp local fire departments raise funds by making donations directly and/or organizing fundraising events or campaigns.

### Restoration of Beneficial Fire

- **C**ollaborate with Humboldt Redwoods State Park to create a buffer zone between the park and communities using prescribed fire.
- **P**rovide resources to private landowners interested in implementing prescribed burns on their property, including the contact information for CAL FIRE, UC Cooperative Extension, the Humboldt County Prescribed Burn Association, and the Northern California Prescribed Fire Council.<sup>16</sup>
- **S**hare information about educational events that provide information about prescribed burning.
- **E**ncourage landowners with larger acreages to work with the Humboldt County Prescribed Burn Association to conduct prescribed burns on their lands.
- **H**elp federal land managers garner local support for using prescribed fire or managed wildfire on the public lands they manage.

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<sup>16</sup> To learn more about UC Cooperative Extension, the Humboldt County Prescribed Burn Association, and the Northern California Prescribed Fire Council, contact Lenya Quinn-Davidson at [lquinndavidson@ucanr.edu](mailto:lquinndavidson@ucanr.edu) or call her at (707) 445-7351. To learn about CAL FIRE prescribed fire programs and support, contact Chris Ramey at [chris.ramey@fire.ca.gov](mailto:chris.ramey@fire.ca.gov) or call him at (707) 726-1206.

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### Integrated Planning

- **I**ntegrate, where there are mutual benefits, the community preparedness and wildfire resiliency efforts of the Avenue Fire Cooperative, Humboldt Redwoods State Park, local fire departments, and future Firewise® groups. See details in *Priority Action Recommendations* above.
- **I**nitiate and maintain participation in the Firewise Communities/USA® Recognition Program. See more about this action in *Priority Action Recommendations* above.
- **S**hare GIS data sets between representatives within the Planning Unit and County staff to maintain the fire planning features included in the County Web GIS Portal ([https://webgis.co.humboldt.ca.us/HCEGIS2.6\\_CWPP](https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP)). In the absence of GIS data, share geographic information/descriptions about project planning and implementation so that it can be digitized and incorporated into the Web GIS Portal.