

REDWOOD CREEK PLANNING UNIT ACTION PLAN



View from top of Chezem Rd., overlooking Hwy 299 and the Redwood Creek drainage.

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Helpful Links	
REDWOOD VALLEY/CHEZEM FIREWISE®:	https://humboldt.gov/1929/Redwood-ValleyChezem
CAL FIRE HUMBOLDT-DEL NORTE UNIT:	http://www.fire.ca.gov/HUU
HUMBOLDT COUNTY WEBGIS:	https://webqis.co.humboldt.ca.us/HCEGIS2.6_CWPP
HUMBOLDT COUNTY FIRE SAFE COUNCIL (HCFSC):	https://humboldt.gov/FireSafeCouncil
HCFSC REPRESENTATIVE, CYBELLE IMMITT:	cimmit@co.humboldt.ca.us

4.6 REDWOOD CREEK PLANNING UNIT ACTION PLAN

4.6.1 REDWOOD CREEK PLANNING UNIT DESCRIPTION



A larger map of this planning unit can be viewed in Map 4.6.1, *Redwood Creek CWPP Unit Map*.

The Redwood Creek Planning Unit encompasses over 190,000 acres situated in the northern heart of Humboldt County. Highway 299 is the main transportation route through the area and winds across the middle of the Unit in an east-to-west direction. This planning unit encompasses a substantial part of the Redwood Creek watershed, from its headwaters to the southern Redwood National Park boundary. Redwood Creek flows across the eastern side of the Unit in a northerly direction towards Orick, where it meets the Pacific Ocean. Other major waterways include the North Fork of the Mad River in the western area, and Canon Creek in the southwestern area.

This planning unit is sparsely populated and there are no designated towns or cities within its boundaries. Three prominent neighborhood groupings are identifiable: the Redwood Creek community, clustered in the northern portion of the

Unit along Stover Road; the Titlow Hill community, which is dispersed throughout the eastern portion of the Unit on Titlow Hill Road, just south of Highway 299; and the Chezem Road community, west of Titlow Hill Road. Numerous homesteads are also scattered throughout the Planning Unit, branching off Highway 299 and the smaller roads throughout the southern region of the Unit, such as Bald Mountain Road and Snow Camp Road.

Private land is the dominant ownership pattern in this planning unit, with the majority of land owned and managed by Green Diamond Resource Company. Barnum Timber Company and Eel River Saw Mills are also industrial timber proprietors with considerable land ownership in the northern Unit area. A few parcels of Bureau of Land Management (BLM) land lie west of the Hoopa Reservation, and a small part of the southeastern Unit area includes a portion of Six Rivers National Forest, which is managed by the U.S. Forest Service. Primary land uses are timber and livestock production.

4.6.2 REDWOOD CREEK 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 other important attributes that individual communities rely on for their well-being.

The majority of assets at risk in this planning unit are residential homes, neighborhood areas, and ranchlands, as well as infrastructure components such as access roads/evacuation routes and a transfer station. Timberland resources are also valuable assets at risk to loss from wildfire. Environmentally significant assets include the habitat provided by the Redwood Creek watershed, which includes at least

33 *special-status* species of wildlife (threatened, endangered, or sensitive to human activities), five of which are fish species.¹

Map 4.6.2, 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 GIS² Portal: https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP.

Special status species: Animal or plant species that are officially listed, proposed for listing, or are a candidate for possible listing under the State and/or Federal Endangered Species Act. Also includes species that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring.

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.

FIGURE 4.6.1 REDWOOD CREEK: COMMUNITY-IDENTIFIED ASSETS AT RISK	
Bair Road to Hoopa	Green Diamond water hole access
Barber Construction; helicopter landing zone	Green Point School
Barnum meadow and bull pasture	Hooker Cabin (historical)
Barnum Ranch House "Bair House" stage coach stop	Mill Creek Bar (Green Diamond)
Beaver Flat (at Green Point School)	Old growth redwood stands
Camp Anderson (historical)	Old Three Creeks Rd.
Cemetery	Prairies, oak trees, bunch grass
Chezem Flat RV Sites	Redwood Creek Camp/ Adventist Cookson Ranch
Chezem Road creek access (Chezem Flat)	River Bar at Stover Ranch
Chezem Road Hwy 299 – buildings	Stover Road to Bair Road to Hwy 299
Chezem Road at Redwood Creek crossing (Lane Hoffman)	Stover Road to Bald Hills Road
Cookson Ranch neighborhood	Transfer Station
Creek Pool at bridge on Bair Road	

4.6.3 REDWOOD CREEK WILDFIRE ENVIRONMENT

The majority (62%) of the Redwood Creek Planning Unit, particularly the eastern half, is zoned “Very High Fire Hazard Severity”, as determined by the California Department of Forestry and Fire Protection (CAL FIRE).³ The remaining 38% of the Unit, including most of the western half and some of the more populated areas on the eastern side (such as Titlow Hill) is zoned “High Fire Hazard Severity”.

Possible ignition sources include human-related causes, such as arson, poorly maintained campfires or brush piles, smoking, equipment use, and vehicles or vehicular accidents. Lightning and downed power lines are other potential fire starters. Other factors that are likely to have a future impact on fire risk within this unit include climate change, which is likely to extend the dry season and large fuel

¹ Dyett & Bhatia. (2002). Redwood Creek Watershed. Humboldt 2025 General Plan Update: Natural Resources and Hazards; Vol. 2: Detailed Watershed Characteristics and Regulatory Framework Analysis. (p.82). Retrieved from <https://humboldtqov.org/571/Background-Reports>

² Geographic Information Systems (GIS).

³ CAL FIRE. (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

increases resulting from the spread of *sudden oak death (SOD)*—which has already been detected in areas of the watershed. In addition to true oaks, SOD kills tan oak trees, of which there are many interspersed throughout the area. As trees and tree limbs die off, a patchwork of dry fuel is left behind, greatly increasing the fire danger.

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.

For a closer look at fire hazard severity, see Map 4.6.2, *Redwood Creek 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 late 1800s used intentional burning to clear and maintain grasslands for pasture animals. A heavy *fire suppression* campaign beginning in the 1930s has allowed the accumulation of dense, flammable 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 20th century further exacerbated damages to forest ecosystem health.

Fire suppression: All the work of extinguishing or containing a fire, beginning with its discovery.

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 (Agee 1993, Brown 1995). Five natural (historical) 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.

The extent that the 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 44% of the Redwood Creek Planning Unit is condition class 3, meaning the**

fire regime is significantly altered from the historical range; and approximately 25% of the area is condition class 2, or moderately altered from the historical range.

FIGURE 4.6.2 REDWOOD CREEK FIRES OVER 10 ACRES 1967-2017⁴

<i>Fire Name</i>	<i>Cause</i>	<i>Year</i>	<i>Acres</i>
Red	Debris	2014	332
Snow	Escaped Prescribed Burn	2011	63
River	Debris	2009	33
Little	Escaped Prescribed Burn	2009	29
Bald Fire	Lightning	2015	27
Valley	Debris	2009	25
Summit	Unknown/ Unidentified	2016	20

Note: An interactive map of fire history through 1908 is available through the County WebGIS.

Structural Ignitability

All residences in this planning unit exist within the *wildland-urban interface* (WUI), where wildfires can easily become structural fires, and vice versa. 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. The Redwood Valley/Chezem Firewise® Community Assessment reports many homes in direct contact with flammable vegetation, debris accumulated on roof tops, and tree branches overhanging structures.⁵ These are all hazards that could contribute to structure losses during a wildfire.

Wildland-urban interface (WUI): The zone where structures and other human developments meet, or intermingle with, undeveloped wildlands.
Structural ignitability: The ease with which a structure ignites.

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*⁶, published by the University of California Agriculture and Natural Resources.

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

⁴ FRAP. (2018). State Fire Perimeters 1908-2017.

⁵ Redwood Valley/Chezem Firewise® Community Working Group. Redwood Valley/Chezem Firewise® Community Wildfire Assessment. Retrieved from <https://humboldt.gov/1929/Redwood-ValleyChezem>

⁶ 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. Retrieved from <https://anrcatalog.ucanr.edu/pdf/8393.pdf>

decks, particularly those with dead plant matter accumulated beneath them. Many homes in this unit are surrounded by steep slopes that can limit their defensible areas and put structures in the line of up-hill spreading wildfires.

Managing fuels for at least 100 feet of defensible space is highly recommended by this CWPP and is mandated by California Public Resources Code 4291⁷. 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.

Community-identified hazards are listed in the table below. This list is not intended to be comprehensive and illustrates the concerns of participating community members.

FIGURE 4.6.3 REDWOOD CREEK: COMMUNITY-IDENTIFIED SIGNIFICANT HAZARDS	
○	Eroding roads and slides hindering evacuation and emergency vehicle access.
○	Long dead-end roads with only one way in and one way out.
○	Slash buildup resulting from timber harvest activities adjacent to residential properties.
○	Significant unpermitted construction that is not in compliance with Humboldt County Fire Safe Regulations, particularly in Titlow Hill neighborhoods.

Map 4.6.2, 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.

Water Sources

No municipal water sources service the neighborhoods within this planning unit. Rather, residents obtain water through other means, such as drawing from nearby creeks and holding tanks.

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

FIGURE 4.6.4 REDWOOD CREEK: FIRE PROTECTION WATER DRAFT SITES	
○	Chezem Road – creek access (Chezem Flat)
○	Creek Pool at bridge on Bair Road
○	Green Diamond water hole access
○	Mill Creek Bar (Green Diamond)
<i>Note: Locations identified at community workshops and will need to be vetted further.</i>	

Map 4.6.2, 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.

⁷ California Public Resources Code 4291 is provided as *Appendix K* of this CWPP.

4.6.4 REDWOOD CREEK FIRE PROTECTION CAPABILITIES

CAL FIRE is primarily responsible for wildland fire management within this planning unit. However, the closest CAL FIRE station is in Trinidad and it can take nearly an hour for an engine to arrive on scene. Air response, if available, will respond to wildfires from the CAL FIRE Kneeland Helitack or Rohnerville Air Attack bases.

This planning unit is outside of the boundaries of any local fire related district. Residents rely on the “goodwill service” of Blue Lake and Willow Creek fire protection districts for structure fire and rescue emergencies. Blue Lake and Willow Creek fire resources will usually respond to emergency calls outside of their designated districts, so long as their services are not required within their immediate districts at the time. In addition, the towns of Blue Lake and Willow Creek are far enough away from the neighborhoods within this unit that response times can take as long as 30 minutes or more. Emergency responders from outside the area may also have difficulty navigating the area and locating remote residences, especially when roads or addresses are poorly marked.

Goodwill service: Fire protection services provided by a fire district to a location that is outside of the district’s jurisdictional boundaries and for which no compensation is provided neither through direct payment, nor through a tax base.

Local groups of residents have been taking steps to build informal firefighting capacity within this planning unit. Firefighting equipment has been donated to locations in the Titlow Hill and Chezem neighborhoods and some training has taken place. These entities are not dispatched through the Fortuna Command Center but may provide a quick local initial attack or incident support while waiting for responders from CAL FIRE, Willow Creek, and/or Blue Lake. It will be important for these residents to understand their capabilities and the associated risks and keep their level of response within those bounds.

The lack of a fire related district or recognized volunteer fire company within this planning unit is a high priority concern, particularly because of the way that neighborhoods and residences are scattered across the landscape and intermixed within the wildlands. Community members should understand the potential for lengthy response times from out-of-the-area fire protection and emergency services. A strong emphasis should be placed on proactive, preventative measures, such as maintaining defensible space, maintaining local emergency supply caches, and developing enough situational awareness to support quick and appropriate action during an emergency. Knowledge should be shared about which community members have experience or training in first aid and medical response, particularly those with Community Emergency Response Team, or CERT training.

4.6.5 REDWOOD CREEK 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 Redwood Creek 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. Evacuation will likely travel either east or west along Highway 299. Adequate ingress and egress along the numerous smaller roads connecting residences to Highway 299 is vital to

the majority of the community that may need to access the main highway evacuation route and for firefighters who will be using the same roads to access wildfires burning in up-slope areas.

For residents located along Stover Road, an alternative evacuation route may be accessed via Bair Road, leading northeast toward Hoopa. Residents living along Snow Camp, Ward, and Barr Roads could access Bald Mountain Road as an alternative route, west towards Korbel. Titlow Hill residents would most likely require permission and assistance from the United States Forest Service (USFS) to utilize alternative evacuation route USFS6N08 into Six Rivers National Forest, with access to Highway 299 and Willow Creek.

Poor or complete lack of signage at roads and intersections poses potential problems for ingress and egress. Most of the residences in this unit are remote and many are only accessible via steep and narrow roads, some of which have no alternative exit route. The narrowness of these smaller roads leading to remote residences could create serious complications for emergency vehicle response trying to gain access during simultaneous home evacuations. Other evacuation impediments may include landslides, fallen trees, downed power lines, overgrown vegetation, 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 until they can reach an evacuation site. It can be very difficult to determine the right thing to do as the fire approaches. Before a wildfire threatens, community members should consult with CAL FIRE and Humboldt County Office of Emergency Services (OES) about evacuation procedures and expected fire behavior in their neighborhood.

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://humboldtgov.org/alerts> or contact the Humboldt County Office of Emergency Services (707) 268-2500.

*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.*

4.6.6 REDWOOD CREEK COMMUNITY PREPAREDNESS

The Redwood/Valley Chezem Community was first recognized as a Firewise® Community in 2014. 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.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, PUBLIC REVIEW DRAFT

Each year since 2014, the community has hosted a Firewise® Day at Green Point Elementary School and successfully completed at least one action identified in their Firewise® Action Plan.⁸ As a result of this Plan and the motivated community members behind it, the Redwood Valley/Chezem community has made some notable accomplishments in the last five years, each of which are summarized in the table below. The Firewise® process would be beneficial for more neighborhoods within this planning unit, particularly in the Titlow Hill area.

As resources are available, CAL FIRE conducts defensible space inspections within this planning unit as part of their Fire Safety Education Program. These inspections are intended to determine and encourage compliance with Public Resource Code 4291, which requires residents of California to provide and maintain 100 feet of defensible space around all property structures. These inspections can be a valuable source of information about what a property owner can do to improve their defensible space and increase the odds that their home will survive a wildfire. Inspections usually take place in the spring but special arrangements can be made by contacting CAL FIRE directly.

CAL-FIRE HUU can be reached by calling (707) 725-4413 or visiting <http://www.fire.ca.gov/HUU>.

No local *fire safe council* (FSC) currently exists in this planning unit.

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.

The table below summarizes many of the accomplishments of the Redwood Park Planning Unit over the last five years.

FIGURE 4.6.5 REDWOOD CREEK: FIRE PREVENTION ACCOMPLISHMENTS

- Hosted a Firewise® Day each year since gaining recognition as a Firewise® Community in 2014.
- Installed two community bulletin boards on which fire safety tips are regularly posted. The bulletin boards are located at the entrance to Green Point School and at the entrance to Redwood Valley, where Bair Rd. meets Hwy 299.
- Posted green reflective address signs on previously unmarked locations through a grant secured from Humboldt Area Foundation.
- Prepared Green Point School for use as an emergency shelter, stocked with essential supplies.
- Started a Community Emergency Response Team (CERT).
- Created a shaded fuelbreak around Green Point School to enhance defensible space.
- Completed a Map Book including addresses in Redwood Valley and on Chezem Road for emergency response personnel.
- Built a shelter for local, resident-owned fire truck
- Built a two million gallon plastic lined pond for fire water.

⁸ Redwood Valley/Chezem Firewise® Community Working Group. Redwood Valley/Chezem Firewise® Action Plan. Retrieved from <https://humboldt.gov/1929/Redwood-Valley-Chezem>

4.6.7 REDWOOD CREEK LOCAL WILDFIRE PREVENTION PLANS

As part of the initial Firewise® certification process in 2014, a Firewise® Action Plan was developed by the Redwood Valley/Chezem Firewise Community Working Group. Firefighters with CAL FIRE and the Blue Lake and Willow Creek volunteer fire departments provided guidance for the development of the action plan.

The priority actions identified in the Plan are as follows:

- Improve firefighters' ability to find homes.
- Conduct evacuation planning and provide local training.
- Improve water supply and access.
- Hazardous fuels reduction (flammable vegetation management).
- Enhance emergency preparedness capacity.

In addition to the Redwood Valley/Chezem Firewise® Action Plan, this Planning Unit Action Plan will help guide the development of additional projects and priorities aimed at increasing wildfire preparedness in this planning unit. This CWPP provides a list of priority action recommendations reflective of the community concerns and ideas collected through the process described below. *See section 4.6.9, Redwood Creek Action Plan for a list of priority actions recommended by this CWPP.*

4.6.8 REDWOOD CREEK COMMUNITY IDENTIFIED 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 16, 2017 at Green Point 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 4.6.3*). New or confirmed existing project ideas proposed during the 2017 update process are summarized in *Figure 4.6.6 and 4.6.7* 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 4.6.2*) 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 in the GIS layers 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. 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.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, PUBLIC REVIEW DRAFT

The following non-geographic 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 4.6.6 REDWOOD CREEK: COMMUNITY-IDENTIFIED PROPOSED PROJECTS, NON-GEOGRAPHIC

- Start a local fire department or collaborate with Blue Lake Fire Department to expand their service area. Possibly get surplus equipment from other fire departments in the area.
- Develop/improve community Phone Tree list; compile 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 train a few community members to use the HAM Radios that are currently housed at the school.
- Improve signage throughout the community. Make home addresses and road signs more visible and add mile markers along main roads.
- Encourage evacuation planning and talk to property owners about supplying keys to locked gates on private properties in case emergency access is needed.
- Hold a “Living on Shaky Ground” course.

The local residents who attended the November 16, 2017 workshop identified the following projects as their top priority projects to be evaluated for feasibility and implemented over the next five years.

FIGURE 4.6.7 REDWOOD CREEK: COMMUNITY-IDENTIFIED PRIORITY PROJECTS

PROJECT DESCRIPTION	PROJECT TYPE	PROJECT ID
Develop Stover Road as an evacuation route	Evacuation	RWV070
Water Storage at Beaver Flat	Water	RWV047
Stover Road (from school to end) shaded fuel break	Roadside Clearance	RWV043
Beaver Flat brush clearing & helicopter landing zone	Landscape	RWV044
Fix eroding evacuation route: Chezem Road	Evacuation	RWV057

4.6.9 REDWOOD CREEK 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. 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, 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, actions identified in the *Redwood Creek/Chezem Firewise® Action Plan*, as well as in this *Priority Action Recommendations* list, and the *Action Catalogue* below. Pursue activities that align with available resources, community values, and the highest wildfire risks to local assets and values.
- **T**he high fire danger, a large and dispersed WUI population, and a general lack of 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 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).
 - Identify local community liaisons to work directly with emergency management officials.
 - Identify and map local evacuation routes and sites.
 - Due to the large number of residences located on long, dead end roads, residents and emergency response personnel should work together to identify alternative paths that may be taken or actions to initiate if primary routes become inaccessible during a wildfire. Organize a group of community members to test the feasibility of evacuating along Stover Road towards Bald Hills Road and actively pursue the removal of any obstacles encountered.

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- Create and maintain a helicopter landing zone at Beaver Flat (get PG&E power lines marked). Evaluate the potential of the site as a last resort area to shelter if safe evacuation is blocked by wildfire.
 - Coordinate with County OES to ensure that the local Community Emergency Response Team (CERT) has appropriate training and certification. Expand membership of this team or create additional CERTs.
 - 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.
 - Maintain a list of local contacts with specialized skills such as first aid, firefighting, or HAM radio operation that may be useful in an emergency.
- **M**aintain the Redwood Valley/Chezem Firewise® program by keeping the wildfire risk assessment and action plan up-to-date and holding an annual Firewise® event. Consider adding the development of a community chipper program into action plan updates. Support the continuation of this group to facilitate community wildfire preparedness and mitigation. Reach out to establish increased participation from residents as well as Barnum Timber Company and Green Diamond Resource Company. Inspire more community involvement and support with continued outreach about what the group does and how to get involved.
 - **I**nitiate and maintain participation in the Firewise Communities/USA® Recognition Program with neighborhoods in the Titlow Hill area. Seek assistance from CAL FIRE and the HCFSC for the Firewise® application and community assessment process. Participation will include an annual update of Firewise® action plans and organizing an annual Firewise® Day.
 - **E**xplore options for increasing the level of service for local community fire protection and rescue within this planning unit such as:
 - Continuing to build local firefighting capacity and/or collaborating with the Blue Lake and Willow Creek fire protection districts to expand their jurisdictional boundaries.
 - Continuing to seek surplus equipment from other fire departments in the area as well as opportunities for additional firefighting training for residents living within the Planning Unit.
 - Fundraising for a water tender or trailer with a water tank and establishing a group of community members who are trained to use it.
 - Finding a permanent home for the fire engine in the Chezem neighborhood or establishing a sustainable agreement for it to be housed at its current location.

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.

Wildfire Ignition Prevention

- **I**mplement One Less Spark education: www.readyforwildfire.org/One-Less-Spark-Campaign.
- **U**se *Living with Wildfire in Northwestern California* as a primary outreach tool and distribute widely: www.humboldt.gov/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 that could result in unintended wildfires.
- **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. Distribute materials through mailers; via community hubs such as the post office; at all community events; on community bulletin boards; through the use of social media, local media outlets, and any means used by the local community to share important information.
- **P**rovide residents with information about ways to reduce structural ignitability and maintain adequate defensible space around their homes.
- **C**ollaborate to create defensible space for elderly, disabled, and low-income residents who are unable to do the work themselves.
- **F**ocus roadside fuel reduction efforts on priority ingress and egress routes for safe evacuation, especially those roads used by the highest number of residents. Priority roads to evaluate include:
 - Construct a shaded fuel break on Stover Rd. (from school to end).
 - Construct a shaded fuel break around Chezem campgrounds
 - Create a buffer between Green Diamond and Barnum Timber lands and adjacent residential properties to protect both the community and the resource lands.
 - Collaborate with UC Cooperative Extension and BLM on Lack's Creek efforts to reduce spread of Sudden Oak Death.
- **W**ork with PG&E and local landowners to reduce fuels along power line easements.

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- **S**upport or create community chipping programs. The following priority areas were identified at community meetings and are recommended for treatment in this plan:
 - Neighborhoods along Titlow Hill Road.
 - Neighborhoods along Stover Road.
- **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. Identify 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.
- **W**ork with commercial timberland owners such as Green Diamond Resource Company to create strategic fuelbreaks on their land to buffer residences from wildfires that originate from the wildlands and to protect timber resources and ecological values from fires that start in adjacent developed areas.
- **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 including prescribed fire, forest thinning, landscape pruning, mowing, or targeted grazing.

Disaster Preparedness

- **W**ork with the County OES and local fire service to engage community members in evacuation preparedness. (See details in *Priority Action Recommendations* above).
- **I**mprove community communication networks and explore ways to increase redundancy. This might include developing or improving a community phone tree list; 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 the HAM radios currently stored at the school.
- **F**ocus evacuation planning efforts in populated areas located along single access roads, especially those used by the highest number of residents. Priority roads to evaluate include:
 - Areas of heavy erosion on Chezem Road and Stover Road.
 - Timber company roads.
- **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://humboldtqov.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. Focus initial efforts on the following:
 - Post address signs at the bottom of long driveways branching off the main roads.
 - Install mile markers along Stover Road and Titlow Hill Road.

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- **A**ddress road conditions that inhibit effective evacuation and access by emergency responders. Begin by systematically identifying and mitigating such access impediments. The following priority access issues were identified at community workshops and/or through analysis and are recommended for initial evaluation and action:
 - Sawdust Trail
 - Bair Road, bridge to Hwy 299
 - Stover Road
 - Upper Redwood Valley Ranch Road
 - Old Tree Creeks Road
 - Chezem Road
- **I**nform residents about the importance of keeping gates open or accessible during Red Flag conditions. Community members 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 to share that information with firefighters. Priority areas to evaluate include:
 - Titlow Hill Road
 - Stover Road at Beaver Flat

Fire Protection

- **I**ncrease level of service for local community fire protection and rescue within this planning unit. (See details in *Priority Action Recommendations* above).

Restoration of Beneficial 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.⁹
- **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.

Integrated Planning

- **C**ontinue to maintain participation in the Firewise Communities/USA[®] Recognition Program. (See details 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). 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.

⁹ 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 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 or call him at (707) 726-1206.