

WILLOW CREEK AREA PLANNING UNIT ACTION PLAN



Trinity River, Willow Creek. Photo: Eureka-Humboldt Visitors Bureau.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

Table of Contents — Willow Creek Planning Unit Action Plan

4.7	Willow Creek Area Planning Unit Action Plan	
4.7.1	Willow Creek Area Unit Description	4.7-1
4.7.2	Willow Creek Area Assets and Values at Risk	4.7-2
4.7.3	Willow Creek Area Wildfire Environment.....	4.7-3
4.7.4	Willow Creek Area Fire Protection Capabilities	4.7-7
4.7.5	Willow Creek Area Evacuation.....	4.7-8
4.7.6	Willow Creek Area Community Preparedness.....	4.7-9
4.7.7	Willow Creek Area Local Wildfire Prevention Plans	4.7-13
4.7.8	Willow Creek Area Community Identified Potential Projects.....	4.7-15
4.7.9	Willow Creek Area Action Plan	4.7-17

Figures

Figure 4.7.1	Willow Creek Area Neighborhoods.....	4.7-1
Figure 4.7.2	Willow Creek Area: Community-Identified Assets at Risk	4.7-2
Figure 4.7.3	Willow Creek Area: Fires Over 10 Acres 1997-2017	4.7-5
Figure 4.7.4	Willow Creek Area: Fire Protection Water Draft Sites.....	4.7-7
Figure 4.7.5	Willow Creek Area: Fire Protection Resources	4.7-7
Figure 4.7.6	Willow Creek Area: Alternate Evacuation Routes to HWYs 299 and 96.....	4.7-9
Figure 4.7.7	Willow Creek Area: Fire Prevention Accomplishments	4.7-11
Figure 4.7.8	Willow Creek Area: Proposed Projects	4.7-16
Figure 4.7.9	Willow Creek Area: Community-Identified Priority Projects	4.7-16

Helpful Links

WILLOW CREEK FIRE SAFE COUNCIL:	http://www.willowcreekfsc.org
WILLOW CREEK COMMUNITY SERVICES DISTRICT:	http://www.willowcreekcsd.com
CAL FIRE HUMBOLDT-DEL NORTE UNIT:	http://www.fire.ca.gov/HUU
HUMBOLDT COUNTY WEB GIS:	https://webqis.co.humboldt.ca.us/HCEGIS2.6_CWPP
HUMBOLDT COUNTY FIRE SAFE COUNCIL (HCFSC):	https://humboldtqov.org/FireSafeCouncil
HCFSC REPRESENTATIVE, CYBELLE IMMITT:	cimmit@co.humboldt.ca.us

4.7 WILLOW CREEK AREA PLANNING UNIT ACTION PLAN

4.7.1 WILLOW CREEK AREA UNIT DESCRIPTION



A larger map of this planning unit can be viewed in Map 4.7.1, **Willow Creek Area Planning Unit**.

FIGURE 4.7.1 WILLOW CREEK AREA NEIGHBORHOODS	
Bigfoot	Knights
Brannon Mountain	Patterson Road
Clover Flat	Riteway Lane
The Farms	Rowley
Hodgson	Seely-McIntosh
Kimtu	Terrace

terrain with deep valleys formed by the Trinity River and its network of tributaries. "The New River, the South Fork of the Trinity, and Willow Creek all confluence with the main stem of the Trinity along with numerous streams, creeks, and unnamed water courses."¹ Elevations in this unit range from 440 to 9,025 feet above sea level.

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

majority of the neighborhoods in this planning unit exist along or just off of Highway 299 or Highway 96. Although the majority of the population has access to phone and electrical services, there is limited cellular phone reception and many residents live "off-the-grid".³

The Willow Creek Area Planning Unit encompasses over 168,000 acres situated in eastern Humboldt County within the south-central Klamath Mountains, bordering Trinity County. Currently, public lands managed by the Six Rivers National Forest make up the majority of this unit's landmass, much of which falls within the Hupa Ancestral Territory. The boundaries of this planning unit are based on the Humboldt County portion of the Willow Creek Fire Safe Council's planning area, which also includes portions of Trinity County. While the scope of this planning unit action plan includes Humboldt County only, the Willow Creek Greater Area Community Wildfire Protection Plan (Willow Creek Greater Area CWPP), includes details about Trinity County as well and should be used in conjunction with this plan. However, because some residents of Trinity County participated in the Humboldt plan update, there are some references to out of county areas and project ideas.

The two main transportation routes within this planning unit are Highway 299, which leads southeast towards Weaverville or west towards Arcata, and Highway 96, which follows the Trinity River north towards Hoopa. These primary roads intersect in the central town of Willow Creek, about 35 miles from the Pacific coast.

Part of the Trinity River watershed, this planning unit is made up of mostly steep and mountainous

Willow Creek is the community and commercial hub of this unit. Willow Creek, with many homes located within the *wildland-urban interface* (WUI) and adjacent to federal forest lands, is designated as a community at high risk of damage from wildfire.² The

¹ Willow Creek Fire Safe Council. (2011). Willow Creek Greater Area Community Wildfire Protection Plan. (p. 6). Retrieved from <http://willowcreekfsc.org/cwpp.html>

² CAL FIRE. (2001). Communities at Risk List. Retrieved from http://osfm.fire.ca.gov/fireplan/fireplanning_communities_at_risk

³ Willow Creek Fire Safe Council. (2011). Willow Creek Greater Area CWPP. (p. 6).

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

As mentioned above, the majority of this planning unit falls within Six Rivers National Forest boundaries and is managed by the US Forest Service (USFS). The distribution of private and public lands within this unit is somewhat like a checkerboard, with private in-holdings interspersed throughout USFS land. Private ownerships include residential parcels, timberlands, and ranchlands. The area also supports small produce and specialty farms, vineyards, and marijuana farms. Dominant land uses include recreation, timber, fisheries, wildlife habitat, and grazing.

4.7.2 WILLOW CREEK AREA 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 majority of assets at risk in this planning unit are residential homes and neighborhoods, along with a variety of commercial and service industries, community centers, medical clinics, schools, fire stations, as well as infrastructure components such as a water treatment facility. Several small organic farms and local wineries within this unit are also considered assets at risk.

Natural resource assets such as waterways, forests, fisheries and wildlife are highly valued by residents in this area. These assets contribute positively to local quality of life and to the tourist-related economy as well. Many culturally sensitive sites of special importance to Native Americans exist throughout the Unit as well.⁴

Map 4.7.2, 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 GIS⁵ Portal: 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.

FIGURE 4.7.2 WILLOW CREEK AREA: COMMUNITY-IDENTIFIED ASSETS AT RISK	
All residences and communities	Shaded fuel break: Hanson Property/ Bigfoot Area Subdivision
California Highway Patrol Resident Post	Six Rivers National Forest Field Office
Cal Trans Maintenance Field Office	Trinity Valley Elementary School
Cell Tower above Peach Tree Lane	Willow Creek Community Health Center
Commercial District – US Post Office	Willow Creek Community Services District
County SWAP project areas where fuels reduction work needs to be maintained	Willow Creek Community Services District Water Pumping and Treatment Station
Creek Side Park	Willow Creek Fire Department
Farms and wineries	Willow Creek repeater
<i>Note: Community-identified assets located in Trinity County can be found in the Willow Creek Greater Area Community Wildfire Protection Plan.</i>	

⁴ Willow Creek Fire Safe Council. (2011). Willow Creek Greater Area CWPP. (pp. 18-19).

⁵ Geographic Information Systems (GIS).

4.7.3 WILLOW CREEK AREA WILDFIRE ENVIRONMENT

There are several existing plans and resources where the wildfire environment of this area is described in much more detail.

Readers interested in learning more on this topic are encouraged to begin by reviewing the following:

- Willow Creek Greater Area Community Wildfire Protection Plan: <https://humboldt.gov/1890/Willow-Creek-FSC>
- Willow Creek Firewise® Community Assessment: <https://humboldt.gov/745/Willow-Creek>
- The Six Rivers National Forest Land and Resource Management Plan: <https://www.fs.usda.gov/detailfull/srnf/landmanagement/planning/?cid=stelprdb5084033&width=full>
- Ecological Restoration Implementation Plan: <https://www.fs.usda.gov/detail/srnf/landmanagement/?cid=stelprdb5411627>

Nearly the entire Willow Creek Area Planning Unit (97%) is zoned "Very High Fire Hazard Severity," as determined by CAL FIRE,⁶ although fire risk tends to be slightly lower in the flatter and less vegetated areas. The mountainous terrain and steep river canyons that are characteristic of this region, combined with long, hot summers that generate fuels with low moisture levels can amplify the rate that fires spread and their level of intensity.

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.

Humans have been the primary cause of fires in the last 50 years. Most fires have occurred along main road systems, down in the river valley, and near residences and recreation areas. Lightning strikes are another cause of fire, but they are spread more evenly throughout the Unit, often occurring at higher elevations and in remote locations. Numerous wildfires may be generated from multiple strikes within the same lightning storm, which can put a strain on firefighting resources. Vehicles are also a potential ignition source, with higher risks resulting from roadside fuels built up along town streets, back roads, and highways. Recreation operations draw in an increased population during the summer months, which can create a higher ignition risk as well. Additional ignition risks include unattended campfires, structure fires spreading into the wildlands, arson, and power lines.⁷

For a closer look at fire hazard severity in this unit, see Map 4.7.2, Willow Creek Area Community-Identified Protection Resources, Values/Assets, & Risks/Hazards.

⁶ 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

⁷ Willow Creek Fire Safe Council. (2011). Willow Creek Greater Area CWPP. (p. 2).

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

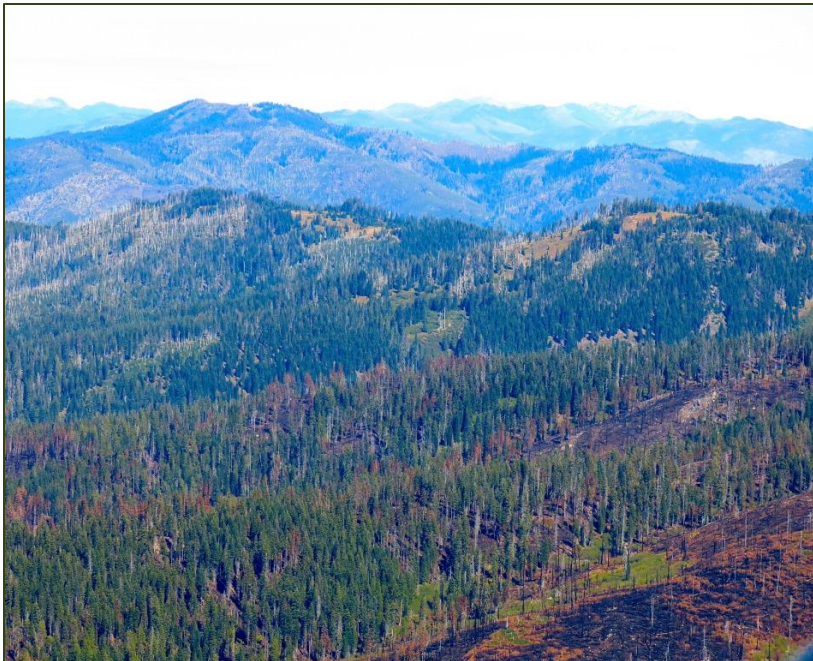
Fire History

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. This change from the *natural fire regime* has also altered vegetation composition and the ecological structure of forests in these areas, such that the majority of ecosystems in this area are "out-of-whack" and susceptible to losing key ecosystem components.⁸ Intense timber harvests during the 20th century have further exacerbated damages to forest ecosystem health. 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.

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: Description of the patterns of fire occurrences, frequency, size, severity, and sometimes vegetation and fire effects as well, in a given area or ecosystem.

Approximately 56% of the Willow Creek Area Planning Unit is condition class 3, meaning the fire regime is significantly altered from the historical range; and approximately 32% of the area is condition class 2, or moderately altered from the historical range.



*Corral Fire (2013) with footprint of Megram Fire (1999) visible in background.
Photo: Kimberly Baker via Environmental Protection Information Center.*

The Fire History Map⁹ within the Willow Creek Greater Area CWPP shows some of the more widespread fires. Although several of these fires burned in the Shasta-Trinity National Forest (NF) area, outside of Humboldt County, the proximity of these fires was near enough for the communities within this planning unit to experience their impacts, particularly in the form of degraded air quality.

⁸ Willow Creek Fire Safe Council. (2011). Willow Creek Greater Area CWPP. (p. 9).

⁹ Willow Creek Fire Safe Council. (2011). Fire History Map. [Map]. In Willow Creek Greater Area CWPP. (p. 14).

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

FIGURE 4.7.3 WILLOW CREEK AREA: FIRES OVER 10 ACRES 1997-2017¹⁰

Fire Name	Cause	Year	Acres	
			In Unit	Total
Megram	Lightning	1999	31,044	125,073
Corral	Lightning	2013	9,914	12,541
Half	Lightning	2008	9,097	15,130
Groves	Lightning	2015	3,997	6,803
Blake	Lightning	2015	2,432	11,439
Sims	Equipment Use	2004	2,031	4,036
East	Lightning	2015	1,531	1,531
Johnson	Lightning	2015	1,477	17,821
Lt-17 (Backbone)	Lightning	2009	1,092	5,194
Happy	Lightning	2015	502	68,095
Friday	Equipment Use	2003	389	389
Saddle	Lightning	2015	161	1,543
Chance	Lightning	2015	160	160
Telescope	Miscellaneous	1997	37	38
Bennett-Lime Complex	Lightning	2008	31	31
Sugar	Arson	2003	17	17

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

Structural Ignitability

Homes within this unit exist within the wildland-urban interface (WUI), which increases the risk of wildland fires becoming structural fires, 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*¹¹, 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.**

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 structure ignites.

¹⁰ FRAP. (2018). State Fire Perimeters 1908-2017.

¹¹ 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>

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

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 such as woodpiles, fences, gates and wood lattices. 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 siding 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 4291¹². 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.

Map 4.7.2, found at the end of this 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

The Willow Creek Community Services District (CSD), which was incorporated in 1964, provides water to over 1,700 customers with 945 service connections. Fire hydrants within the urbanized portions of Willow Creek are installed and maintained by the CSD. Services are provided by a staff of approximately five to an area of a little over 6 square miles. The District's critical facilities include a water treatment plant, pump stations, and multiple water tanks.¹³ The CSD also provides park services, recreation facilities, and street lighting to the community and is involved in establishing a wastewater system for the commercial area of town. Residents outside the Services District obtain water through other means, such as drawing from nearby creeks and holding tanks.

For nearly ten years, the Willow Creek Fire Safe Council has worked with the CSD, the local fire department, and residents to identify and confirm the availability of firefighting water sources. Suitable sources are marked with a blue reflective dot, visible from key access points. This activity is referred to as the Blue Dot Program and the water sources that meet specific conditions are shared with firefighting agencies. Water sources include hydrants, water tanks, ponds, swimming pools, and water tankers.

Many neighborhoods in this unit 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 over-taxed municipal water supply. Many existing water sources are in need of maintenance, protection, or improvements. There is also a need to expand and continually review the work of the Blue Dot Program to make the location of existing water sources more apparent to firefighters and ensure that water sources are properly outfitted for firefighting equipment.

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

¹² California Public Resources Code 4291 is provided as *Appendix K* of this CWPP.

¹³ County of Humboldt, Natural Resources Planning. (2014). Part 3 – Annexes for Community Service Districts [PDF]. Humboldt Operational Area Hazard Mitigation Plan; Volume 2 – Planning Partner Annexes. (pp.18-1-18-2). Retrieved from <http://www.humboldtqov.org/506/Local-Hazard-Mitigation>

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

FIGURE 4.7.4 WILLOW CREEK AREA: FIRE PROTECTION WATER DRAFT SITES

- Big Rock – USFS river access
- Bigfoot golf course
- Kimtu Beach
- Burnt Ranch Mill water intake (Trinity County)
- Hennessy Creek (Trinity County)
- Hawkins Bar – USFS river access (Trinity County)
- Skycrest Lake (private property, Trinity County)

Note: Locations identified at community workshops will need to be vetted further with local firefighting personnel. In addition, firefighting water sources are identified as part of the Willow Creek Blue Dot Program and provided to firefighting resources.

Map 4.7.2, 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.

4.7.4 WILLOW CREEK AREA FIRE PROTECTION CAPABILITIES

The Willow Creek Volunteer Fire Department (WCVFD) is primarily responsible for responding to structural fires and medical emergencies within this planning unit; however, volunteers are also trained for wildfire management and may be called upon to assist in case of fire emergencies. WCVFD was founded in 1957 after two major business fires in downtown Willow Creek. The Willow Creek Fire Protection District (FPD) was established in 1959. WCVFD provides fire service for the FPD and responds to the town of Willow Creek and a large portion of eastern Humboldt, serving a population of over 1,800. The Willow Creek VFD is an all-risk fire department dedicated to serving the community with integrity and professionalism. Emergency response is also provided within this unit as needed from neighboring VFDs in Trinity County (Hawkins Bar and Salyer).

Hawkins Bar VFD can be reached at **(530) 629-3920**. Salyer VFD can be reached at **(707) 677-3638**.

FIGURE 4.7.5 WILLOW CREEK AREA: FIRE PROTECTION RESOURCES¹⁴

PERSONNEL	SERVES		FIRE APPARATUS	RESPONSE
	RESIDENTS	AREA (SQ. MI)		
WILLOW CREEK VOLUNTEER FIRE DEPARTMENT (WCVFD) – PHONE (530) 629-2229				
14	1,800	District: 6.4 Out of District: 57	<ul style="list-style-type: none"> ○ (2) Type-2 engines ○ (1) Type-6 wildland engine ○ (1) Rescue truck ○ (1) 3,000 gallon water tender ○ (1) Type-1 engine 	<ul style="list-style-type: none"> ○ Structural fires ○ Medical and rescue services ○ Wildfire management

¹⁴ Humboldt County Fire Safe Council. (2018). Humboldt County Fire Chiefs' Association Annual Report, 2017. (p. 48). Retrieved from <https://humboldtqov.org/Archive.aspx?AMID=75>

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

The Willow Creek Area Planning Unit has excellent coordination and collaboration between various fire protection groups. Federal, state, and local agencies have a cooperative agreement for exchanging protection responsibility in specific areas; for example, CAL FIRE provides both 911 dispatching services to the WCVFD, and suppression resources to the Six Rivers National Forest when requested.

“ Because fires do not respect jurisdictional boundaries and in the spirit of shared protection responsibility, local, state, and federal resources work together to ensure a well-coordinated wildfire management strategy.¹⁵ ”

The USFS is responsible for wildland fire protection, primarily on federal lands. However, a cooperative agreement enables the USFS to respond to fires on private properties with consent from landowners, Tribal representatives, and the WCVFD. Additionally, the USFS – Lower Trinity Ranger District may provide firefighting resources if the WCVFD is in need of aid; reciprocally, the WCVFD may respond to requests for additional support from the USFS. These two agencies also share the responsibility of responding to threats of fire spreading as a result of vehicular accidents.

The Six Rivers National Forest Lower Trinity Ranger District can be reached at: **(530) 629-2118**. Visit the District’s webpage at: <https://www.fs.usda.gov/recarea/srnf/recarea/?recid=11477>

4.7.5 WILLOW CREEK AREA 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 Willow Creek Area 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 south-east or -west along Highway 299 or north on Highway 96. There are numerous smaller roads connecting residences and

Fire behavior: The manner in which a fire reacts to the influences of fuel, weather, and topography. Common terms used to describe behavior include: smoldering, creeping, running, spotting, torching, and crowning

neighborhoods to Highway 96. Adequate ingress and egress along these roads is vital to a large portion of the community that may need access to the main highway evacuation route and for firefighters who will be using the roads to access wildfires burning in these areas.

Topographical features of the Unit such as narrow winding roads and hilly terrain create potential problems for orderly evacuation and delivery of emergency services. The terrain also poses problems for water delivery in fire protection. Many private roads originating off Highways 299 and 96 serve isolated residences but do not provide a secondary emergency evacuation route. This problem of one-way-in/one-way-out roads is prevalent throughout the Unit and poses a serious potential risk to firefighter access, particularly if home evacuations are occurring simultaneously. One prominent example is the bridge on Country Club Road, which serves as

¹⁵ Willow Creek Fire Safe Council. (2011). Willow Creek Greater Area CWPP. (p. 20).

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

the only way for residents of the Bigfoot Subdivision, Seely-McIntosh, Patterson Road, and Oak Lane neighborhoods to get across the river to Highways 299 and 96. These neighborhoods are otherwise surrounded by the steep, dense forests of Six Rivers National Forest.¹⁶ Several US Forest Service Routes could potentially provide for alternative evacuation; however, residents would most likely require permission and assistance to utilize these routes.

FIGURE 4.7.6 WILLOW CREEK AREA: ALTERNATE EVACUATION ROUTES TO HWYS 299 AND 96

- **Surrounding Willow Creek:** Campbell Ridge Road, Brannan Mountain Road, Beebe Ranch Road, Coon Creek Road, and USFS Rte 4
- **SW portion of the Unit:** USFS Rte 5N01, USFS Rte 5N10, USFS Rte 1, and PVT – Redwood Valley
- **NE portion of the Unit:** USFS Rte 4, USFS Rte 06N10, and USFS Rte

Note: The suitability of these roads will need to be evaluated before they are included in evacuations plans or used during an emergency.

Other evacuation impediments may include landslides, fallen trees, downed power lines, overgrown vegetation, and poorly marked streets and intersections that could inhibit evacuation and emergency response, 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 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.¹⁷ 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 (e.g. home, office, child's school).
- ❖ The service is completely free of charge.
- ❖ To sign-up visit: <https://humboldt.gov/alerts> or contact the Humboldt County Office of Emergency Services **(707) 268-2500**.

¹⁶ Willow Creek Fire Safe Council. (2011). Willow Creek Greater Area CWPP. (p. 13).

¹⁷ 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>.

4.7.6 WILLOW CREEK AREA COMMUNITY PREPAREDNESS

Willow Creek Fire Safe Council

Over the last ten years, the members of the Willow Creek Fire Safe Council (WCFSC) have worked hard to help their community prepare for wildfire. The WCFSC was incorporated in 2008 and operates as a 501(c)(3) non-profit to fulfill the following mission:

“ Reduce wildfire risk and increase survivability by implementing fuels reduction projects and encouraging residents of the greater Willow Creek area to make their homes, neighborhoods, and communities fire safe.”¹⁸

The WCFSC is a very active volunteer group that has achieved an admirable amount of work. The group has secured grant funding for supplies, equipment, and some contracting and has received technical support from both the Humboldt and Trinity County FSCs. WCFSC coordination and operations are supported by the volunteer labor of its members. The WCFSC has done an excellent job of coordinating with CAL FIRE, the California Conservation Corps (CCC), and the Humboldt County Sheriff's Work Alternative Program to plan and implement continual hazardous fuels reduction work throughout their area. The group has also provided an excellent example of working through permitting processes with Caltrans and Humboldt County Public Works to make way for roadside fuels reduction projects.

The WCFSC is also committed to educating and supporting their community through a variety of activities including the annual Firewise® Community Fair and Youth Ecology Day, chipper days, and a “Blue Dot Program”, which makes water sources available for fire protection more apparent to firefighters. In addition, they have constructed their own website, through which community members can access fire safety information, and produced their own and contributed to a regional “Living with Fire” publication. The WCFSC works in coordination with the Willow Creek Volunteer Fire Department (WCVFD) to provide community education, and with CAL FIRE to conduct a fire prevention program. The WCFSC also maintains and implements the Willow Creek Greater Area CWPP, which was completed in 2011 and is in the process of being updated.

Willow Creek Firewise

The community of Willow Creek received national recognition as a Firewise® community in 2010 and has actively maintained this status since then. Some successful Firewise® modifications include hazardous vegetation management around homes, roads, parks, and businesses; eliminating *ladder fuels* in the Home Ignition Zone; creating well positioned, reflective address and road signs; implementing fire safe landscaping around homes in the community (such as stone and gravel pathways that can act as *fuelbreaks*); and obtaining funding assistance for property owners making these modifications via the Fire-adapted Landscapes and Safe Homes (FLASH) program.¹⁹ FLASH is a rebate program that reimburses property owners for hazardous vegetation management completed around homes, along access routes, and in particularly hazardous areas. Between 2010 and 2016, Willow Creek area landowners treated over 60 acres under the FLASH program and over 30 home risk assessments were conducted by WCFSC volunteers.

¹⁸ Willow Creek Fire Safe Council. (n.d.) Our Mission. Willow Creek Fire Safe Council Homepage. Retrieved from www.willowcreekfsc.org

¹⁹ Firewise Communities/USA® Recognition Program. (2010). Willow Creek Community Firewise® Assessment.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

The WCFSC and Firewise® program can be contacted by calling (707) 499-0767 or by email at: admin@willowcreekfsc.org. Visit their website at: www.willowcreekfsc.org or the Humboldt County WCFSC page at: www.humboldt.gov/1890/Willow-Creek-FSC.

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.

Ladder fuels: Fuels that provide vertical continuity between strata and allow fire to carry from surface fuels into the crowns of trees or shrubs with relative ease. They help initiate and assure the continuation of crowning.

Fuelbreaks: A natural or constructed barrier used to stop or check fires that may occur, or to provide a control line from which to work.

Six Rivers National Forest

The Six Rivers National Forest recognizes that wildfires do not respect jurisdictional boundaries and consequently, the agency strives for effective partnerships with other federal, state, and local agencies. These relationships foster a safer and more efficient firefighting organization for the public and help to communicate consistent fire prevention messages to adjacent landowners and the visiting public.²⁰ Faced with longer fire seasons, the impacts of climate change, excessive fuel buildup, and increasing lightning activity, the Forest is responding with programs intended to strategically reduce fuels near communities.²¹ Forest Service personnel out of the Lower Trinity Ranger District have a long history of working closely with the WCFSC to help prepare the community for wildfire.

The Willow Creek community has made great progress over the last five years in preparing for wildfire. The table below summarizes many of their accomplishments.

FIGURE 4.7.7 WILLOW CREEK AREA: FIRE PREVENTION ACCOMPLISHMENTS

- The **Willow Creek VFD** brought a new rescue truck into service in 2017. It is a great addition to the community and surrounding areas during a time of record emergency calls.
- Public safety funding from Measure Z has helped support **WCVFD's** continued response to out of district calls for service along Highway 299 (primarily vehicle collisions).
- **WCFSC** continues to support the Willow Creek Volunteer Fire Department by promoting recruitment efforts, and participating in the department's annual crab feed fundraiser.
- **WCFSC** assists WCVFD at the Trinity Valley Elementary and Creekside Elementary schools during Fire Safety Week.
- **WCFSC** continues to maintain the Willow Creek Blue Dot Program, which involves recording the locations of hydrants, tanks, swimming pools, ponds, or other water sources available for fighting any type of fire within the Willow Creek Community and making this information available to the local fire department.
- **WCFSC** maintains a Defensible Space Chipping Program open to any private landowner within WCFSC's district. **WCFSC** continues to promote the Defensible Space Chipping Program by mailing notices to entire neighborhoods and posting notices at the Willow Creek Community Service District Office and other businesses throughout the community.

²⁰ Six Rivers National Forest. Fire Management. [Webpage]. Retrieved from <https://www.fs.usda.gov/main/srnf/fire>

²¹ Six Rivers National Forest. Land & Resources Management. [Webpage]. Retrieved from <https://www.fs.usda.gov/land/srnf/landmanagement>

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

FIGURE 4.7.7 WILLOW CREEK AREA: FIRE PREVENTION ACCOMPLISHMENTS

- **WCFSC** completed numerous home assessments of defensible space projects through the FLASH program, and worked with landowners to plan fuels reduction projects through the program.
 - **WCFSC** offers free home risk assessments to homeowners.
 - **WCFSC** began participating in Dream Quest’s youth program “Agents of Change” in 2017. Local youth earn community service credit by providing brush removal and yard work services free of charge to elderly and disabled residents to help create defensible space. WCFSC furnishes hand tools and safety equipment (gloves, helmets, vest, etc.) for this program, and is responsible for chipping the generated material.
- WCFSC** fire-safe education accomplishments include:
- Hosting their annual Firewise® Community Fair and Youth Ecology Day the third Saturday in May each year at the Veteran Park in Willow Creek; 2019 will be their 17th annual event. The event highlights fire-safe education, in addition to other demonstrations and displays prepared by WCFSC, CAL FIRE, US Forest Service, Pacific Gas & Electric, Sheriff Department, Office of Emergency Services, and the local fire department.
 - Continuing to use educational booths at local events as an outreach tool. Local events include the Farmer’s Market, Taste of Willow Creek, and Bigfoot Days and other community events.
 - Partnering with Pacific Gas and Electric to host an in-school fire safety program about trees and home safety at Trinity Valley Elementary School & Preschool to celebrate Arbor Day. Afterward, students plant trees and flowers at the school and park.
 - Hosted the SkyCrest Lake Youth Fish Derby and Firewise® Day in Burnt Ranch for 10 years on the second Saturday in June. The event highlighted fire-safe education, in addition to other demonstrations and displays prepared by WCFSC, CAL FIRE, US Forest Service, and the local fire department.
 - **WCFSC** – The Willow Creek Greater Area CWPP, Willow Creek Action Plan, and Willow Creek Community Assessment Plan are in the process of being updated.
- WCFSC** has completed, and has maintained, the following fuel reduction projects since 2013:
- Worked with the Sheriff Work Alternative Program on implementing fuel reduction projects, including brush clearing in two local parks (approx. 30 acres); preparing emergency evacuation routes, including 3 miles of Patterson Road; and creating fuel breaks on the north and south sides of Willow Creek, as well as on the west side of Highway 96 (approx. 20 acres); and 2 acres along Hwy 299 east of Willow Creek.
 - Fuel reduction projects—accomplished in collaboration with CAL FIRE—include projects in downtown Willow Creek, Kimtu Road, Bigfoot Subdivision, and Patterson Road. WCFSC chipped 12.75 acres of brush removed from these projects.
 - Fuel reduction projects—accomplished in collaboration with the CCC—include a fuel break in downtown Willow Creek, Highway 96, and Kimtu Road. WCFSC chipped 17 acres of brush removed from these projects. An additional 7 acres along Hwy 299 west of Willow Creek was in progress in late 2018.
 - Carried out the Neighborhood Defensible Space Chipping Program whereby WCFSC chips brush and trees that homeowners removed. The program serves 30 to 35 residents per year.
 - **WCFSC** actively works to identify and clear brush off the sides of emergency evacuation roads.
 - **WCFSC** informs local residents of potential evacuation routes and provides educational material regarding safe evacuation at all WCFSC events and fundraisers
 - **WCFSC** distributes educational material concerning home hardening and structural ignitability at all WCFSC events and fundraisers.
 - **WCFSC** provides information on how to register for Humboldt Alert at all WCFSC events and fundraisers.
 - **WCFSC** chips materials on site for landowners to mulch or use for landscaping. For landowners who wish to have the materials removed, WCFSC provides the contact information of a local recycling business that accepts chipped brush. Unwanted material suitable for firewood is donated to seniors or disabled persons.
 - **WCFSC** encourages landowners to contact **NCUAQMD** to acquire a permit before burning and to comply with Air Quality rules and regulations.
 - **WCFSC** works with local agencies and complies with fire-safety regulations and policies.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

FIGURE 4.7.7 WILLOW CREEK AREA: FIRE PREVENTION ACCOMPLISHMENTS

- **WCFSC/Firewise Board** created and published the “Living with Fire in the Lower Trinity” newspaper insert.
- **WCFSC** worked with Redwood Valley and Burnt Ranch on organizing Firewise® events, required as part of the Firewise® Community certification process.
- **WCFSC** obtained a USFS grant to purchase a Cargo Trailer, safety equipment, and power and hand tools.
- **WCFSC** obtained a RAC grant in 2017 for to purchase a Vemeer Chipper.
- **WCFSC** has participated in Cal Trans’ “Adopt-A-Highway” program for the last 7 years, which involves litter cleanup and maintenance of shaded fuel break along one mile of Hwy 96 east of Willow Creek.
- **WCFSC** works with the Trinity Village Homeowners’ Association on chipping brush, which they clear and stack along the roadway. WCFSC chips brush for landowners with the Village, as needed.
- **WCFSC** worked with the Humboldt County Fire Safe Council, Cal Fire, and USFS in developing the regional “Living with Wildfire” magazine.
- **WCFSC** actively participates in the Humboldt County Fire Safe Council.
- **WCFSC** is a member of the Willow Creek Chamber of Commerce, attends monthly meetings with the Willow Creek Community Service District and updates the community on projects/activities of the WCFSC.
- **WCFSC** promotes defensible space and the free chipping program at Neighborhood Watch meetings.

4.7.7 WILLOW CREEK AREA LOCAL WILDFIRE PREVENTION PLANS

A tremendous amount of work related to fire-planning has been completed in this planning unit, including the publication of the Willow Creek Greater Area CWPP in 2011 and the Firewise® Action Plan, completed in 2010 and updated in 2014 as part of the Firewise® certification process. The Willow Creek Greater Area CWPP encompasses the communities in Humboldt and Trinity counties, including Willow Creek, Salyer, Hawkins Bar, Burnt Ranch, and Cedar Flat.

Willow Creek Greater Area CWPP

Some of the main objectives of the Willow Creek Greater Area CWPP are **to improve the protection of lives and properties from wildfire; merge the goals of landowners with community needs regarding wildfire risk reduction; coordinate fire protection strategies across property boundaries; and provide a tool to help coordinate grant funding for such efforts.** The plan is also aimed at increasing public awareness of good fire safety practices for living in the WUI and providing residents with resources to help them reduce fire risk on their own properties. The update of the Willow Creek Greater Area CWPP is near completion and will soon be available on the Willow Creek FSC website.²² The most recent published version (2011) is currently available on the website. Listed below are the project categories recommended in the Willow Creek Greater Area CWPP to improve fire safety in the area over the five to ten years following publication.

- Reduce Structural Ignitability
- Support and Improve Fire Protection Capabilities
- Treatment of Hazardous Fuels
- Education
- Planning

²² Willow Creek Fire Safe Council. (2011). Willow Creek Greater Area CWPP. Retrieved from www.willowcreekfsc.org/cwpp.html

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

Firewise® Action Plan

The Firewise® Action Plan²³, which resulted from the Firewise® Community Assessment, contains a list of short-term actions with measurable objectives that can be done within the Home Ignition Zone, within high-risk community areas, and the community at large. These actions are consistent with implementation of the Willow Creek Greater Area CWPP. The following list summarizes the projects proposed in the Firewise® Action Plan:

- Update and revise the Willow Creek Community Assessment and Firewise® Action Plan.
- Assist CAL FIRE and CCC with fuel reduction projects.
- Hold twelve Neighborhood Cleanup Days to help property owners get rid of flammable debris and byproducts; this will be done with assistance from PG&E and CAL FIRE.
- Hold ten Sheriff Work Alternative Program (SWAP) Work Days to reduce buildup of roadside fuels throughout the community.
- Host the “Willow Creek Firewise Community Fair & Youth Ecology Day”—Willow Creek’s annual Firewise® event.

Willow Creek’s high capacity Fire Safe Council and Firewise Board provide support to other Firewise® Communities including Redwood Valley and Burnt Ranch in Trinity County. WCFSC/Firewise Board supports Redwood Valley by participating in their annual Firewise® event and providing chipper demonstrations and educational presentations. WCFSC/Firewise Board also assists Trinity County Fire Safe Council in maintaining the Firewise® Community certification for Burnt Ranch.

Six Rivers National Forest Plans

The Six Rivers National Forest Land and Resource Management Plan (LRMP)²⁴, published in 1995, directs the management of the Six Rivers National Forest for a 10-15 year planning period. The Plan provides specific direction to national forest managers and identifies specific goals related to watershed health, plants and wildlife, and wildfire. The standards and guidelines set forth under the Fire and Fuels Management section of the Plan emphasize protection of structures and sensitive natural resources while also encouraging managers to seize opportunities to let wildfire take its natural course, whenever possible. In recognition of the ecological importance of fire to the health of California forests, particular emphasis is placed on using prescribed fire as a tool for achieving resource management objectives.

In 2011, the Forest Service, Pacific Northwest Region published the Ecological Restoration Implementation Plan²⁵, which echoes many of the management goals of the LRMP but focuses in on resiliency, productivity, and diversity. The Plan’s chapter on Six Rivers National Forest cites the SRNF Rivers to Ridges Restoration program, which has supported a number of successful fuels reduction projects in recent years.

The Six Rivers National Forest also participates in implementing the National Cohesive Wildland Management Strategy, a collaborative and broad-based guidance document rooted in the best available science. The National Strategy “establishes a national vision for wildland fire management, defines three national goals, describes the wildland fire challenges, identifies opportunities to reduce wildfire risks, and establishes national priorities focused on achieving the national goals.”²⁶ The Western Regional Action Plan

²³ Willow Creek Fire Safe Council/Firewise Board. (2014). Willow Creek Greater Area Firewise Action Plan. Retrieved from <https://humboldt.gov/745/Willow-Creek>

²⁴ Six Rivers National Forest Service. (1995). Six Rivers National Forest Land and Resource Management Plan. Retrieved from <https://www.fs.usda.gov/detailfull/srnf/landmanagement/planning/?cid=stelprdb5084033&width=full>

²⁵ Six River National Forest Service. (2011). Ecological Restoration Implementation Plan. Retrieved from <https://www.fs.usda.gov/detail/srnf/home/?cid=STELPRDB5411627>

²⁶ Forests and Rangelands. (2014). National Cohesive Wildland Fire Management Strategy. Retrieved from <https://www.forestsandrangelands.gov/strategy>

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

provides more specific direction for western states, including California. Its implementation is supported and facilitated by the Western Regional Strategy Committee.²⁷

4.7.8 WILLOW CREEK AREA COMMUNITY IDENTIFIED POTENTIAL PROJECTS

As part of the larger collaborative planning process to create the Humboldt County 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 unit was held on November 8, 2017 at the Trinity Valley Elementary 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 (Humboldt County 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 Humboldt County 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 4.7.3*). New or confirmed existing project ideas proposed during the 2017 update process are summarized in *Figure 4.7.8* and *4.7.9* 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 4.7.2*) 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.

All of the geographic community-identified project information is cataloged in the Humboldt County Web GIS Portal described above as well as in the Willow Creek Greater Area CWPP. This County CWPP incorporates that information by reference here. This information will continue to be made available as a resource for capturing grant funds and continued project implementation tracking.

²⁷ Visit the West Regional Strategy Committee website for more information and a copy of the Western Regional Action Plan: <http://wildfireinthewest.blogspot.com/p/p.html>

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

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 4.7.8 WILLOW CREEK AREA: PROPOSED PROJECTS	
○	Organize to lobby for tax incentive to support Best Management Practices on private land.
○	Identify community liaisons that can assist in evacuation planning.
○	Develop a strategy for engaging with absentee landowners regarding overgrown vegetation.

The local residents who attended the November 8, 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 4.7.9 WILLOW CREEK AREA: COMMUNITY-IDENTIFIED PRIORITY PROJECTS		
PROJECT DESCRIPTION	PROJECT TYPE	PROJECT ID
Fuel Break, west of Willow Creek (wildland buffer)	Landscape	WCK110
Fuel reduction on evacuation route (Baldwin Creek Road)	Roadside Clearance	WCK122
Bigfoot Subdivision understory clearing on Forest Service land	Landscape	WCK141
Bigfoot Subdivision West fuel breaks (wildland buffer)	Landscape	WCK220
Upper Brannon Mt. Road Clearance: fuel reduction on roadway/driveways	Roadside Clearance	WCK224
Shaded fuel break: Willow Creek town entrance on either side	Roadside Clearance	WCK226
Bigfoot subdivision: brush clearance along foot trail	Trail Clearance	WCK229
Bigfoot subdivision defensible space	Defensible Space	WCK436
Outreach to PG&E to clear brush under powerlines	Non-geographic	-
More participation in chipper program: Trinity Acres	Non-geographic	-
More participation in chipper program: Willow Creek Area	Non-geographic	-
More participation in chipper program: Bigfoot subdivision	Non-geographic	-

4.7.9 WILLOW CREEK AREA 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.

- **T**he residents of the Willow Creek Area Planning Unit are fortunate to live in an area with a dedicated group like the WCFSC continually working towards wildfire preparedness. The highest priority is to maintain and support the WCFSC to facilitate community wildfire preparedness and mitigation.
 - Inspire more community involvement in and support of the WCFSC with outreach about what they do and how to get involved.
 - Continue to develop a succession planning strategy to ensure survival of the organization into the future.
 - Reach out to establish increased participation from Six Rivers National Forest and unrepresented neighborhoods.
 - Ensure that the WCFSC continues to be represented on the Humboldt County FSC.
- **M**aintain the Willow Creek Firewise Communities/USA® Site:
 - Actively implement and maintain the Firewise® action plan.
 - Focus activity on home hardening and defensible space in partnership with residents in Willow Creek and neighborhoods throughout the planning unit.
 - Continue to host an annual Firewise® Day.
- **W**CFSC, WCVFD, and the Willow Creek CCSD work with community members to evaluate, further develop, seek funding for, and implement—as appropriate and feasible—the

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

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 the *Willow Creek CWPP* and *Firewise Action Plan*, this list of *Priority Recommendations*, and the *Action Catalogue* below. Pursue activities that align with available resources, community values, and the highest wildfire risks to local assets and values. WCFSC, WCVFD, and the Willow Creek CCSD work with community members to further refine and integrate the lists of potential projects identified through the various fire planning processes discussed above and collaborate to prioritize and implement them.

- **P**riority areas within this planning unit for fuels reduction 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. Emphasize outreach to sensitive populations such as the elderly, disabled, and/or low income within these areas:
 - Bigfoot Subdivision (highly ranked community-identified priority – WCK436)
 - Upper Friday Ridge Road neighborhood (WCK445)
 - Brannan Mountain neighborhoods (WCK223)
 - Patterson neighborhood (WCK444)
 - Neighborhoods off of Seeley McIntosh Road (WCK443)
- **O**rganize to lobby for tax incentive to support Best Management Practices on private land and tie this effort in with the countywide action plan and associated Working Group.
- **T**he high fire danger, a large and, in some cases, dispersed WUI population, the large number of dead-end roads leading to multiple residences, and the need for increased wildfire preparation combine to make **evacuation planning** and education a top priority in this planning unit. This plan recommends that residents stay vigilant and evacuate as early as possible to avoid loss of life.
 - WCFSC and WCVFD work with the County Office of Emergency Services (OES) 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. Target the following priority areas:
 - Bigfoot Subdivision, Seely-McIntosh, Patterson Road, and Oak Lane neighborhoods.
 - Brannan Mountain Road.
 - Friday Ridge Road (evaluate condition of secondary access and confirm feasibility).
 - Identify local community liaisons to work directly with emergency management officials.
 - Identify and map local evacuation routes and sites (Start with the community-identified features in this plan and associated GIS data).
 - Given the large number of residences located on long, dead end roads, residents, law enforcement, local fire departments, and FSCs should work together to identify

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

alternative paths that may be taken or actions to initiate if primary routes become inaccessible during a wildfire.

- 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.
 - 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:
 - Baldwin Creek Road (highly ranked community-identified priority – WCK122)
 - Upper Brannan Mountain (highly ranked community-identified priority – WCK224)
 - Willow Creek town entrance on either side (highly ranked community-identified priority – WCK226)
 - Bigfoot subdivision, west side
 - Patterson Road
 - Patterson Road, north side
 - Friday Ridge
- Secondary priorities include:
- Conducting fuel clearance along Otter Lane.
 - Improving defensible space in Trinity Acres neighborhood.
 - Landscape clearing and modifications to improve bottleneck situation on Highway 299, west of Willow Creek.
 - Conducting roadside clearance on fuels along Old Three Creeks.
- **C**ollaborate with Six Rivers National Forest 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 treatment to meet forest resiliency and community protection goals, including prescribed fire, forest thinning, landscape pruning, mowing, or targeted grazing. See the Willow Creek CWPP for priority areas. Highly ranked community-identified priorities to evaluate for feasibility:
 - Managed buffer of wildfire reliant forest on the west side of the town of Willow Creek (WCK110)
 - Bigfoot Subdivision understory clearing on Forest Service land (WCK141)
 - Managed buffer of wildfire reliant forest on the west side Bigfoot Subdivision (WCK220)
 - **S**upport the WCFSC community chipping program and seek increased participation. The town of Willow Creek, the Bigfoot Subdivision in particular, and Trinity Acres were highly ranked community-identified areas for more participation in the program.
 - **C**onduct outreach to PG&E to clear brush under power lines and dispose of brush in a safe and effective manner. Learn more about their wildfire programs and maintain a liaison with the WCFSC.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

- Continue to explore options and make progress on local fire service sustainability efforts such as:
 - Increase WCVFD recruitment and retention efforts to meet the need for more qualified volunteers and rebuild the auxiliary volunteer base to support firefighters and emergency medical service volunteers.
 - Establishing consistent and sustainable revenue sources.
 - Ensuring that all appropriate areas are within the boundaries of a fire related district through district formation, annexation, and/or consolidation.
 - Secure funding to replace the WCVFD's 1989 Type-1 fire engine.
 - Upgrade the existing WCVFD fire station and continue to work towards establishing a second station and associated equipment and apparatus on the other side of the Trinity River.
- Increase the availability of water for fire protection by investing in more community water tanks. Ensure existing water tanks are outfitted with fittings compatible with firefighting equipment and replace tanks where necessary. Work with the Willow Creek CSD.
- Continue and expand the Willow Creek Blue Dot Program. Continually add new water sources to the inventory and review and confirm existing ones. Secure funding or establish a partnership to digitize the water source locations and create GIS datasets and maps.
- Coordinate with USFS and/or CAL FIRE, WVFD, the WCFSC/Willow Creek Firewise® to develop a strategy to ensure that unmaintained vegetation on parcels that pose a wildfire threat to neighboring homes is abated.
 - Expand on the process already developed by the WCFSC and share success with the HCFSC as an example for other areas.
 - 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.
 - Confirm the defensible space inspection responsibility agreement between CAL FIRE and Six Rivers National Forest and ensure that these inspections are being done.
 - 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 WCFSC for more details and examples of how to address this situation.
- Share GIS datasets between local representatives, Six Rivers National Forest, and County staff to maintain the fire planning features included in the County Web GIS Portal (webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP). Compare GIS fire planning datasets and determine an appropriate sharing and maintenance process to ensure that the most up-to-date and accurate information is provided through the County Web GIS Portal or another appropriate location. Coordinate this effort with the work of the HCFSC to implement the Integrated Planning, Fire-Planning Data Management priority action of the *Countywide Action Plan* (Chapter 3, Section 3.6.4).

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

- **W**ork with the HCFSC to share successful local strategies to help inspire similar action throughout the county.

Action Catalogue:

This Action Catalogue lists 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 HCFSC. To contact the HCFSC, call **(707) 267-9542**, or email cimmitt@co.humboldt.ca.us. In addition, the Willow Creek Greater Area CWPP and Firewise® Action Plan provide detailed recommendations similar to the general guidance listed on the following pages. To guide local action, review those plans first.

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 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.
 - 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.
 - 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 ways to reduce structural ignitability and maintain adequate defensible space around their homes.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

- **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. See details in the *Priority Action Recommendations* above.
- **W**ork with PG&E and local landowners to reduce fuels along power line easements.
- **S**upport the WCFSC community chipping programs. See more about this action in *Priority Action Recommendations* above.
- **C**ompile a directory of brushing crews and other resources for landowners seeking to reduce fuels on their property.
- **C**ollaborate with agency and local partners to plan and fund landscape level fuels reduction and management. See details in the *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.
- **I**mprove 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.
- **W**ork with a local fire or law enforcement agency to form or build up an existing Community Emergency Response Team or CERT. Coordinate with the Humboldt CERT Coalition.
- **P**romote the creation of family disaster and evacuation plans.
- **I**nforn 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.
- **A**ddress road conditions that inhibit effective evacuation and access by emergency responders. Begin by systematically identifying and mitigating such access impediments.
- **I**nforn 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**nforn 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 the “Blue Dot Program”, which identifies the location of firefighting water sources by marking them with blue reflective dots.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

- Increase the availability of water for fire protection See more about this action 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

- **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.²⁸
- **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

- **I**ntegrate the evaluation, development, and implementation of all relevant planning documents. See details in *Priority Action Recommendations* above.
- **I**nitiate and maintain participation in the Firewise Communities/USA® Recognition Program other neighborhood groups in developed areas adjacent to the wildland. See details in *Priority Action Recommendations* above.
- **S**hare GIS data sets between local, state and federal representatives working in this unit and County staff to maintain the fire planning features included in the County Web GIS Portal. See more about this action in *Priority Action Recommendations* above.

²⁸ 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.