

UPPER YUOK RESERVATION PLANNING UNIT ACTION PLAN



The Klamath River running through the Yurok Reservation. Photo: Western Rivers Conservancy.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

Table of Contents — Upper Yurok Reservation Planning Unit Action Plan

4.2	Upper Yurok Reservation Planning Unit Action Plan	
4.2.1	Upper Yurok Reservation Planning Unit Description	4.2-1
4.2.2	Upper Yurok Reservation Assets and Values at Risk.....	4.2-2
4.2.3	Upper Yurok Reservation Wildfire Environment	4.2-4
4.2.4	Upper Yurok Reservation Fire Protection Capabilities.....	4.2-8
4.2.5	Upper Yurok Reservation Evacuation	4.2-8
4.2.6	Upper Yurok Reservation Community Preparedness	4.2-10
4.2.7	Upper Yurok Reservation Local Wildfire Prevention Plans	4.2-11
4.2.8	Upper Yurok Reservation Community Identified Potential Projects	4.2-13
4.2.9	Upper Yurok Reservation Action Plan.....	4.2-14

Figures

Figure 4.2.1	Klamath River Tributaries.....	4.2-1
Figure 4.2.2	Upper Yurok Communities	4.2-1
Figure 4.2.3	Upper Yurok Reservation: Assets at Risk	4.2-2
Figure 4.2.4	Upper Yurok Reservation: Fires Over 10 Acres 1997-2017	4.2-6
Figure 4.2.5	Upper Yurok Reservation: Water Drafting Sites.....	4.2-7
Figure 4.2.6	Upper Yurok Reservation: Fire Protection Resources	4.2-8
Figure 4.2.7	Upper Yurok Reservation: Potential Evacuation Routes	4.2-9
Figure 4.2.8	Upper Yurok Reservation: Fire Prevention Accomplishments	4.2-11
Figure 4.2.9	Upper Yurok Reservation: Community-Identified Proposed Projects, Non-geographic.	4.2-13
Figure 4.2.10	Upper Yurok Reservation: Community-Identified Priority Projects.....	4.2-14

Helpful Links

YUROK TRIBE OFFICIAL WEBSITE:	www.yuroktribe.org
YUROK TRIBE FORESTRY:	www.yuroktribe.org/departments/forestry
CULTURAL FIRE MANAGEMENT COUNCIL:	www.culturalfire.org
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

4.2 UPPER YUOK RESERVATION PLANNING UNIT ACTION PLAN

4.2.1 UPPER YUOK RESERVATION PLANNING UNIT DESCRIPTION



A larger map of this planning unit can be viewed in Map 4.2.1, **Upper Yurok Reservation Planning Unit**.

The Upper Yurok Reservation Planning Unit encompasses nearly 160,000 acres situated in north-central Humboldt County. The Klamath River basin and its many tributaries characterize the Unit’s geography.¹

Highway 169 is the main transportation corridor, following the Klamath River in a north-south direction across the Unit. However, it is important to note that Highway 169 is a non-continuous route and comes to a dead-end near the Johnsons community in the northern portion of the Planning Unit.

The majority of communities in this planning unit are largely contained within what is known locally as the “up-river” portion of the Reservation, which is located in Humboldt County. The down-river portion of the Reservation is located in Del Norte County near the mouth of the Klamath River.

The heart of the Unit area falls within the Yurok Tribe’s territory, which consists entirely of Ancestral lands, specifically including but not limited to, the Yurok Reservation and Tribal fee lands. The Reservation extends one mile out on each side of the Klamath River, from the mouth of the river to an upriver distance of about 44 miles. In total, the Yurok Indian Reservation spans 63,035 acres across Humboldt and Del Norte Counties. The Yurok Tribe is the largest Indian Tribe in California, with over 6,500 enrolled members. According to the most recent population record, the entire Reservation has a population of 4,912.²

Based on the communities at risk analysis conducted by the California Fire Alliance, all of the communities listed in *Figure 4.2.2* have been identified as “communities at risk for wildfire”.³ Weitchpec—situated in the southeastern corner of the Unit near the intersection of Highways 169 and 96—is the hub of community life in this planning unit.

FIGURE 4.2.1 KLAMATH RIVER TRIBUTARIES	
Mettah Creek	Notchko Creek
Pecwan Creek	Bear Creek
Coon Creek	Achelth Creek
Halagow Creek	Surpur Creek
Roach Creek	Pine Creek
Ah Pah Creek	Blue Creek

FIGURE 4.2.2 UPPER YUOK COMMUNITIES	
Weitchpec	Bald Hills
Tulley Creek	McKinnon Hill
Notchco	Ke’pel
Pecwan	Wautec

¹ Dyett & Bhatia. (2002). Lower Klamath Watershed. Humboldt 2025 General Plan Update: Natural Resources and Hazards; Vol. 2: Detailed Watershed Characteristics and Regulatory Framework Analysis. (p. 43). Retrieved from <https://humboldtqov.org/571/Background-Reports>

² County of Humboldt, Natural Resources Planning. (2014). Part 1 – Introduction. Humboldt Operational Area Hazard Mitigation Plan; Volume 2 – Planning Partner Annexes. (pp. 2-14-2-15). Retrieved from <http://www.humboldtqov.org/506/Local-Hazard-Mitigation>

³ Yurok Tribe, Planning and Community Development. Prepared by Tetra Tech. (2013). Chapter 13 Community Wildfire Protection Plan. Yurok Tribe Hazard Mitigation Plan, Draft 3. [PDF]. (p. 13-13). Retrieved from http://yuroktribe.org/departments/planning/documents/Yurok_Tribe_HMP&CWPP_2013-01-16.pdf

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

Weitchpec contains the Yurok Tribal Office and Community Center, where many community services are located and events take place.

While much of the Reservation is owned by the Yurok Tribe, a substantial amount of land within the Planning Unit is also privately owned. Private lands include residential parcels, and large tracts of ranchlands and industrial timberlands. A small section of the northeastern portion of the Unit falls within Six Rivers National Forest boundaries and is therefore managed by the US Forest Service. Only a small portion of the Yurok Reservation has been developed for residential housing, and much of that lacks basic services such as electricity and telephone service.⁴

4.2.2 UPPER YUROK RESERVATION 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.



*Lyons Ranch barn.
Photo: Redwood Hikes.*



*Morek Won Community Center.
Photo: Yurok Tribe.*



*Community hub of Weitchpec.
Photo: Lost Coast Outpost.*

The majority of community assets at risk in this planning unit are residential homes along with commercial and service industries, community facilities, schools, fire stations, as well as infrastructure components, such as communications towers, power lines, and bridges. Highly important cultural sites and natural resources are also at substantial risk to wildfire. Commercial assets at risk in this planning unit include timber stands and associated carbon resources, the Yurok Community Forest, and livestock range. 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 4.2.3 UPPER YUROK RESERVATION: ASSETS AT RISK	
Blue Creek Salmon Sanctuary	Transfer Station
Burrill Creek drafting site, may require cultural approval	Tribal Police Station
Church and convenience store	Weitchpec water tanks
Forest and carbon resources	Weitchpec Elementary School
Gibbons Road water/power	Yurok Community Forest
Lyons Ranch Barns – Historical	Yurok Fire Station #1 and #2
Pine Creek drafting site, may require cultural approval	Yurok Tribal Head Start and Early Head Start
RAWS weather station	Yurok Tribal Office
River access for river rescue and swift water safety training	

⁴ County of Humboldt, Natural Resources Planning. (2014). Humboldt Operational Area Hazard Mitigation Plan; Volume 2 – Planning Partner Annexes. (p. 2-14).

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

Map 4.2.2, found at the end of this Planning 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.

The Reservation contains many culturally significant Ancestral landscapes, which are often also areas of environmental significance. Protecting these spaces is a top priority for communities in this planning unit. The Yurok Tribe has partnered with the Western Rivers Conservancy over the last ten-plus years to help conserve over 47,000 acres along the lower Klamath River. Over 14,000 acres of this acquisition lies within the Blue Creek watershed. Blue Creek is a vital cold-water tributary to the lower Klamath River that provides high-quality spawning habitat for *endangered* Chinook and coho salmon, as well as steelhead trout.

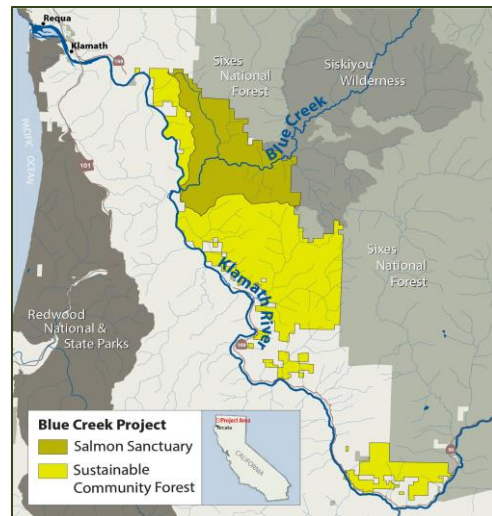
Watershed: All of the land that drains water runoff into a specific body of water. Watersheds may be referred to as drainage areas or drainage basins. Ridges of higher elevation usually form the boundaries between watersheds by directing the water to one side of the ridge or the other. The water then flows to the low point of the watershed.

Endangered: A population of organisms classified by the state or federal government as being at risk of becoming extinct because it is few in number and/or threatened by changing environmental or predation parameters.

Protecting Blue Creek will help restore salmon runs and protect the watershed, which provides valuable habitat for other important wildlife species such as marbled murrelets, northern spotted owls, Humboldt marten, deer and bears. In February 2018, Western Rivers Conservancy successfully purchased the last 9,000 acres of private industrial timberland within the Blue Creek watershed from Green Diamond Resource Company by leveraging a creative mix of public and private funding sources.⁶ This Ancestral land has since been returned to the care and ownership of the Yurok Tribe, who will manage the restoration of these former timberlands toward old growth structure and characteristics to ensure the health of the 14,790 acre Salmon Sanctuary. Equally important, this project also helps re-establish a homeland and economic base for the Yurok Tribe by creating a 32,307 acre sustainably managed community forest. The graphic below illustrates planned management areas for the Salmon Sanctuary and the Yurok Community Forest.⁷



The mouth of Blue Creek, as it enters the Klamath River.
Photo: Yurok Tribe.



Blue Creek Project Map
Graphic: Western Rivers Conservancy.

⁵ Geographic Information Systems (GIS).

⁶ Western Rivers Conservancy. (n.d.). Klamath-Blue Creek. Retrieved from <http://www.westernrivers.org/projectatlas/blue-creek>

⁷ Graphic retrieved from <https://lostcoastoutpost.com/2018/feb/28/yurok-tribe-acquires-thousands-acres-blue-creek-wa>

4.2.3 UPPER YUOK RESERVATION WILDFIRE ENVIRONMENT

A detailed wildfire risk assessment is included in Chapter 13, Community Wildfire Protection Plan of the Yurok Tribe Hazard Mitigation Plan.

Readers are encouraged to review that plan for more details about the wildfire environment: www.yuroktribe.org/departments/planning/documents/Yurok_Tribe_HMP&CWPP_2013-01-16.pdf.

Approximately 88% of the Upper Yurok Reservation Planning Unit is zoned “Very High Fire Hazard Severity,” as determined by the California Department of Forestry and Fire Protection (CAL FIRE).⁸ However, several small areas throughout the Unit, particularly in the southern region near Pine Creek and Weitchpec, and surrounding Highway 169 are zoned “High Fire Hazard Severity” (totaling 11%). The Unit area is largely comprised of rugged, steep forestland with valleys and drainages running from the mountainous regions toward the ocean. The steep slopes within this unit can increase fire risk by accelerating the rates at which fires spread uphill; these slopes can have topographical influences on wind patterns as well.

Possible ignition sources in this planning unit are primarily human-related, including arson, poorly maintained campfires or brush piles, smoking, equipment use, vehicles or vehicular accidents, and downed power lines. Lightning is the primary source of naturally induced wildfire in this planning unit.

For a closer look at fire hazard severity, see Map 4.2.2 Upper Yurok Reservation 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.

⁸ CAL FIRE (California Department of Forestry and Fire Protection). (2007). Fire Resources Assessment Program (FRAP). [Map showing Fire Hazard Severity Zone ratings within various geographic areas, mapped by county]. Fire Hazard Severity Zones Map. Retrieved from http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps

Fire History

Ecosystems and plant communities in this region are historically adapted to wildfire occurrence to the extent that some varieties are not only fire-tolerant but *fire-dependent* for healthy ecosystem functioning. In the past, the Yurok people implemented intentional burns, or *prescribed fire*, throughout the Reservation area for ecological and cultural purposes. However, a history of *fire suppression* beginning in the 1930s has allowed the accumulation of dense, flammable vegetation in the forest understory. This vegetation can fuel wildfires and increases the risk of high-intensity burns. The exclusion of fire from these landscapes adapted to low-intensity fires that would burn off brush and newer starts in the understory has led to overcrowding of forests, accumulated fuels, and alterations in species compositions and forest structure. This ecosystem dynamic is creating risk for wildfires of greater intensities and on a larger scale than the local vegetation is adapted to withstand.

The extent to which the landscape has been altered as a result of fire suppression and industrial timber management 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 50% of the Upper Yurok Reservation Planning Unit is condition class 3, meaning the fire regime is significantly altered from the historical range; and approximately 39% of the area is condition class 2, or moderately altered from the historical range.

On average, there are between ten and twelve brush fires each year on the Yurok Indian Reservation.⁹ Fortunately, despite its “Very High” fire hazard severity zoning, there have been few fire events of significant size in the Unit within the past decade.

Fires in the lands adjacent to this planning unit have impacted residents of the Reservation as well. The Megram Fire in November 1999 was located approximately 60 miles east of Weitchpec, and generated dense smoke and ash that spread throughout Northern California, decreasing visibility and air quality. Many people were evacuated from the Reservation at this time due to health concerns. Similarly, the Biscuit Fire in July 2002, which began in Southern Oregon as a result of lightning strikes, generated smoke that created health problems for residents within a 100-mile radius.¹⁰ More recently, residents were impacted by smoke from a wildfire just outside of the Planning Unit—the Mill Creek 1 Fire, which burned north of Hoopa throughout the month of August. The fire was detected on August 16, 2018 and was reportedly caused by arson.

Fire-dependent: Plants, vegetation communities, and specific habitat types that have evolved to rely on fire in order to exist and/or thrive.

Prescribed fire (Controlled Burning): A fire that burns within a range of predetermined conditions (such as fuel moisture content, weather conditions, etc.) that will keep it controllable, at low intensity, and able to achieve its stated objectives. A written, approved prescribed fire plan must exist, and environmental requirements (where applicable) must be met, prior to ignition.

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

Natural fire regime: (1) A natural fire regime is a classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning (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.

⁹ Yurok Tribe, Planning and Community Development. Prepared by Tetra Tech. (2013). Chapter 13 Community Wildfire Protection Plan. Yurok Tribe Hazard Mitigation Plan (HMP), Draft 3. (p. 13-44).

¹⁰ Yurok Tribe. (2013). Chapter 13 Community Wildfire Protection Plan. Yurok Tribe HMP, Draft 3. (p. 13-41).

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

FIGURE 4.2.4 UPPER YUOK RESERVATION: FIRES OVER 10 ACRES 1997-2017¹¹

Fire Name	Cause	Year	Acres	
			In Unit	Total
No Name	Unknown/ Unidentified	1998	18,190	18,692
Nickowitz	Lightning	2015	1,256	7,576
Tulley	Arson	2016	607	607
Queen	Arson	2015	159	159
Tectah	Lightning	2003	97	97
Arrow Complex	Arson	2012	81	81
Elk	Arson	2006	0.37	73
Johnson	Equipment Use	2016	23	23
Pecwan	Unknown/ Unidentified	2014	21	21
Cappel	Unknown/ Unidentified	2007	13	13
Williams	Arson	2007	5	10
Pecwan	Unknown/ Unidentified	2009	10	10

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

Structural Ignitability

Homes in this unit exist within the *wildland-urban interface* or 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*¹², 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.**

¹¹ CAL FIRE. (2018). FRAP. State Fire Perimeters 1908-2017.

¹² 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

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

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

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

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 siding add to this risk, as do the presence of wooden decks,

particularly those with dead plant matter accumulated beneath them. These items are generally more susceptible to combustion from embers or radiant heat and, if lighted, could cause the rest of the home to catch fire as well.

Managing fuels for at least 100 feet of defensible space is highly recommended by this CWPP and is mandated by California Public Resources Code 4291¹³. 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 4.2.2, 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

The Public Utilities Division within the Yurok Tribe’s Planning and Community Development Department provides potable water and fire protection water to residents throughout the Reservation. Fire protection water is available from a number of natural water sources. However, the smaller, cold-water creeks are extremely valuable to fisheries health in the area, and firefighters should always attempt to draft fire protection water from the river prior to accessing the cooler creeks.

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. In addition to these sites, there are 10,000 gallon water storage tanks located throughout the forest dedicated to fire suppression. *Map 4.2.2, found at the end of this Planning 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 GIS¹⁴ Portal: https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP.

FIGURE 4.2.5 UPPER YUROK RESERVATION: WATER DRAFTING SITES	
Pine Creek	Gist Creek
Burrill Creek	School Creek
Garland Pond	Rube Ranch
Charlie’s Pond	Ha Amar Creek
<i>Note: Locations identified at community workshops and will need to be vetted further with local firefighting personnel.</i>	

¹³ California Public Resources Code 4291 is provided as *Appendix K* of this CWPP.

¹⁴ Geographic Information Systems (GIS).

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

4.2.4 UPPER YUOK RESERVATION FIRE PROTECTION CAPABILITIES

The Yurok Wildland Fire Department operates out of the Tully Creek Fire and Fitness Center in Weitchpec. In addition to providing fire-protection services to the Upper Yurok Reservation, the Department has some staff and resources for contract wildland firefighting throughout the region. The BIA also maintains an agreement with CAL FIRE to provide wildfire protection for Yurok Tribal trust lands in this area. The Upper Yurok Reservation Planning Unit falls within CAL FIRE Battalion 4 and ground resources would be sent from the Trinidad station and/or Elk Camp, depending on the incident type. Additional firefighters would be requested from throughout the region as needed through mutual aid agreements.

The Yurok Volunteer Fire Department was formed in 2004 with supporting grant funding to build two fire stations in the upper Yurok Reservation area. The Yurok Tribe has, when available, also provided funding, equipment, and facilities for the Department. Volunteers have worked with Reservation citizens to establish fire programs and awareness efforts to mitigate fire danger. The Tribe is building capacity to maintain fire-protection service Reservation-wide through the volunteer fire program and the Tribal Fire Management program. The Volunteer Fire Department is working to recruit more volunteers, secure much-needed additional equipment, and improve response communications.

Fire and rescue response is challenging within the Upper Yurok Reservation Planning Unit due to a variety of factors. Many access roads off of the main roadways are in poor condition and cannot support larger fire suppression and emergency response vehicles. Response times can be long because of road conditions, long travel distances, and limited and fluctuating numbers of available firefighters.

FIGURE 4.2.6 UPPER YUOK RESERVATION: FIRE PROTECTION RESOURCES¹⁵				
PERSONNEL	SERVES		FIRE APPARATUS	RESPONSE
	RESIDENTS	AREA (SQ. MI.)(SQ. MI)		
YUOK VOLUNTEER FIRE DEPARTMENT – PHONE: (530) 625-4130				
4	350	80	1 fire engine	When active, the department responds to and supports: <ul style="list-style-type: none"> ○ Structural and wildland fires ○ Medical and rescue incidents ○ Cultural burns/prescribed fire ○ Tribal ceremonies; cultural events
YUOK WILDLAND FIRE DEPARTMENT – PHONE: (530) 625-4130 EXT. 1900				
				<ul style="list-style-type: none"> ○ Wildland fires ○ Cultural burns/prescribed fires ○ Tribal ceremonies; cultural events ○ Other fires/emergencies
CAL FIRE ELK CAMP – PHONE: (707) 499-2240				
				<ul style="list-style-type: none"> ○ Wildland fires ○ Other fires/emergencies

4.2.5 UPPER YUOK RESERVATION 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

¹⁵ Humboldt County Fire Safe Council. (2018). Humboldt County Fire Chiefs’ Association Annual Report, 2017. (p. 49). Retrieved from <https://humboldt.gov/Archive.aspx?AMID=75>

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

can go to survive a wildfire. **Evacuation sites may be established in different locations depending on the anticipated path of the wildfire and location of the affected population.** On the Upper Yurok Reservation, the determination for the location of these sites is normally made by the Yurok Tribe Office of Emergency Services (OES), in coordination with the American Red Cross and the Humboldt County Office of Emergency Services. The Humboldt County Sheriff's Office and Emergency Officials will use the Humboldt Alert mass communication system (<https://humboldtqov.org/alerts>), door-to-door methods, social media, and media releases—in coordination with the Tribe—to inform residents about the threat and where residents should go to take shelter.

Evacuation routes in the Upper Yurok Reservation Planning Unit will depend on the location of the community at risk and law enforcement recommendations based on fire behavior, wind patterns, traffic, and ingress of emergency vehicles. Highway 169 is the central ingress and egress route;

however, users should be cautioned that this is a non-continuous route that dead ends in the northern portion of the Unit, far from any other major roads. The abrupt end of the primary access route in this unit exacerbates risks associated with the remoteness of homes in this area and limits residents' options for evacuation and creates the potential for dangerously long emergency response times.

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.

FIGURE 4.2.7 UPPER YUROK RESERVATION: POTENTIAL EVACUATION ROUTES

- South along **Highway 169**, connecting with **Highway 96** to precede either northeast towards Orleans, or south towards Hoopa.
- If evacuation is blocked to the east and south, **Bald Hills Road** may also be used to travel west.

There are numerous smaller roads connecting residences and neighborhoods to Highway 169, Highway 96, and Bald Hills Road. Adequate ingress and egress along these roads is vital to a large portion of the community that may need access to main evacuation routes and for firefighters who will be using the roads to access wildfires in these areas. Many of the smaller roads throughout the Reservation are in poor condition, which can challenge effective delivery of fire suppression resources. Poor or complete lack of signage on these roads and at intersections also poses potential problems for emergency responders; this is especially true for more remote residences further away from any community center. In addition, the narrowness of smaller roads leading to remote residences could create serious complications for emergency vehicles trying to gain access during simultaneous home evacuations. Many roads are also overgrown with vegetation, and some properties have inadequate vehicle turn around spaces. Other ingress and egress impediments may include steep road sections, fallen trees or power lines, wooden bridges susceptible to burning, 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. The potential for landslides in the area could also inhibit access, particularly if wildfires were initiated by a severe earthquake.

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.¹⁶ If residents are forced to take shelter, the horrific sound, smoke, and heat of a passing wildfire

¹⁶ 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>.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

may be physically and emotionally difficult to endure. It may bring some solace and may help combat the natural urge to flee knowing that all possible measures have been taken to increase the odds of survival.

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

Humboldt Alert: Humboldt County’s Mass-Notification System

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

4.2.6 UPPER YUOK RESERVATION COMMUNITY PREPAREDNESS

The Yurok Tribe indicates in its 2013 Hazard Mitigation Plan that it is working towards establishing a local *Fire Safe Council* (FSC) to guide the implementation of their Community Wildfire Protection Plan.¹⁷ This group was organized to help educate residents about fire safety and wildfire preparedness. The Tribe recruited potential FSC members from the Hazard Management Plan update Steering Committee.

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 Cultural Fire Management Council (CFMC) was formed in 2012 out of a desire to increase the use of cultural burning on Yurok Tribal lands while also promoting wildfire awareness and safe practices within the community. The mission of the CFMC is to:

- 6 Facilitate the practice of cultural burning on the Yurok Reservation and Ancestral lands, which will lead to a healthier ecosystem for all plants and animals, long term fire protection for residents, and provide a platform that will in turn support the traditional hunting and gathering activities of Yurok.¹⁸

The CFMC has been working to bring what they refer to as cultural burning back to the Upper Yurok Reservation. Much of this burning has been completed through their biannual Yurok Training Exchange or TRES. CFMC partners with the Nature Conservancy and the Fire Learning Network to “bring fire back to Yurok land in a way that emphasizes cultural resource management, building of relationships, and healthy communities”.¹⁹ The TRES burning objectives have included propagation of basket weaving materials, medicinal plants and traditional foods; prairie restoration; home protection; and fuel reduction along the Highway 169 corridor.²⁰

¹⁷ Yurok Tribe. (2013). Chapter 13 Community Wildfire Protection Plan. Yurok Tribe HMP, Draft 3. (p. 13-1).

¹⁸ Cultural Fire Management Council. (2018). About Us. Retrieved from <http://culturalfire.org/about-us>
Learn more about CFMC history from a “Power of Stories” production produced by KCET in partnership with the California Endowment. (2018). Retrieved from <https://www.kcet.org/shows/departures/yurok-fight-for-cultural-burning>

¹⁹ Cultural Fire Management Council. (2018). TRES. Retrieved from <http://culturalfire.org/trex>

²⁰ Fire Learning Network - Notes from the Field Number 129: Yurok TRES. Retrieved from <https://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/USFLNPublications/Pages/Notes-YurokTRES-spring2018.aspx>

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

The Yurok Forestry Program is planning and hiring staff to build capacity to write and implement burn plans for landscape level treatments. Fuels mitigation and wildland fire management must be addressed with a layered approach to be successful. Fuels around homes are to be managed intensively and fuels in the surrounding forest must also be manipulated to make the forest more resilient to fire. Tribal representatives hold the strong belief that only the application of prescribed fire will protect homes and communities from the effects of a warming and drying climate, more extreme weather and fire behavior, and longer, drier summers.

The table below summarizes the most notable accomplishments made in this unit over the past five years.

FIGURE 4.2.8 UPPER YUROK RESERVATION: FIRE PREVENTION ACCOMPLISHMENTS	
○	The CFMC has completed biannual TREX burns with support from the Nature Conservancy since 2013.
○	CFMC has worked to increase awareness about what they call cultural burning through various outreach activities, including the maintenance of a website (culturalfire.org), an educational float at the Salmon Festival in Klamath, and the production of community training days in collaboration with the Nature Conservancy that teach community members how to safely use fire as a tool for home protection and cultural resources.
○	Made progress on a road and address signage project.
○	CAL FIRE completed seven acres of roadside shaded fuel break along Highway 169. Partial funding support was provided through the County Fire-adapted Landscapes and Safe Homes or FLASH program. (2017-2018)
○	Over the last five years, the Yurok Tribe has achieved several important milestones in their running partnership with the Western Rivers Conservancy to create the 47,000-acre Blue Creek Salmon Sanctuary and Yurok Tribal Community Forest. Bringing these sacred Ancestral lands back under the management and stewardship of the Tribe will help rehabilitate damaged habitat. Although the project has a clear focus on restoring the ecosystem for fish and wildlife, there will be multiple benefits including increased wildfire resiliency from forest health and fuels management projects.
○	The Yurok Office of Emergency Services successfully updated the Yurok Hazard Mitigation Plan, which will be available in late 2018. Look for this plan on the Yurok Homepage (http://www.yuroktribe.org) under Departments, Yurok Office of Emergency Services.

Green Diamond Resource Company, which owns significant acreage in this planning unit, has undertaken efforts to help reduce risk of wildfire occurrences on company lands. Firefighting equipment is maintained at logging operations and inside all vehicles; harvesting operations are suspended at specified levels of low relative humidity; and logging crews are required to make daily fire inspections after work is done during the fire season. The company also maintains fire trucks and heavy equipment for wildland fire emergencies. Green Diamond Forestry staff, logging and maintenance crews, and contractors are available to respond to fire emergencies on the company's timberlands and to assist CAL FIRE at their request. The company also treats logging slash in a variety of ways to help reduce fire hazards. Their methods include piling and burning, *broadcast burning*, and at times mastication and on-site chipping. As market conditions have allowed, Green Diamond has also conducted post-harvesting *biomass recovery* for power generation, resulting in fuel hazard reduction.

Broadcast burning: A controlled burn, where the fire is intentionally ignited and allowed to proceed over a designated area within well-defined boundaries for the reduction of fuel hazard, as a resource management treatment, or both.

Biomass utilization/recovery: The harvest, sale, offer, trade, or utilization of woody biomass to produce bioenergy and the full range of bio-based products including lumber, composites, paper and pulp, furniture, housing components, round wood, ethanol and other liquids, chemicals, and energy feedstocks.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

4.2.7 UPPER YUOK RESERVATION LOCAL WILDFIRE PREVENTION PLANS

The Yurok Tribe Hazard Mitigation Plan (HMP) contains a wildfire risk assessment and recommendations for wildfire prevention and preparedness actions.²¹ The purpose of the plan was to “identify hazards, establish community goals and objectives, and select mitigation activities that are appropriate for the Yurok Indian Reservation.” The HMP includes an embedded community wildfire protection plan (CWPP).

“The CWPP is intended to serve as the guiding document for reducing the risk of fire to the Yurok Reservation and its surrounding communities.”²²

The CWPP planning process involved a compilation of efforts from various groups and agencies from throughout the planning area that came together in an effort to address the mitigation of wildfire hazards to communities at risk. The CWPP is intended to guide the following actions:

- Promote fire safety.
- Build capacity of local fire organizations.
- Coordinate local activities with the federal and state agencies charged with fire protection and management responsibilities.
- Incorporate planning for fire safe communities into the County land use planning process.
- Provide planning tools for fire safe communities.
- Identify funding sources to support local organizations that provide fire prevention and protection services.

The Yurok-Hupa-Karuk Healthy Country Plan²³ is being prepared through a team effort involving Tribal members and invited guests. The process is being guided by facilitators from the Fire Learning Network²⁴. Many who are involved in this process serve on the leadership and/or advisory team of the Indigenous Peoples Burn Network (IPBN). The May 2018 edition of the Yurok Voice reported that the “IPBN is a coalition comprised of members of the Yurok, Karuk and Hoopa Valley Tribes. The Healthy Country Plan is a document that will be used to guide the future application of fire in the Tribes' respective territories”. Ideally, this plan will help bring traditional burning back to levels practiced before European contact. Strategies outlined in the draft plan include the following:

- Establish a family-led burn program in each Tribe/community.
- Build local capacity for cultural burning.
- Initiate collaborative burning and learning opportunities.
- Strengthen state support of cultural burning.
- Strengthen federal support of cultural burning.

²¹ Yurok Tribe, Planning and Community Development. Prepared by Tetra Tech. (2013). Yurok Tribe Hazard Mitigation Plan Draft 3. [PDF]. Retrieved from http://www.yuroktribe.org/departments/planning/documents/Yurok_Tribe_HMP&CWPP_2013-01-16.pdf

²² Yurok Tribe, Planning and Community Development. Prepared by Tetra Tech. (2013). Chapter 13 Community Wildfire Protection Plan. Yurok Tribe Hazard Mitigation Plan, Draft 3. (p. 13-2).

²³ When the Yurok-Hupa-Karuk Healthy Country Plan is finalized, it will be available at: www.culturalfire.org

²⁴ The Fire Learning Network (FLN), launched in 2002, is a joint project of The Nature Conservancy, the USDA Forest Service and several agencies of the U.S. Department of the Interior (Bureau of Indian Affairs, Bureau of Land Management, Fish and Wildlife Service and National Park Service). Find out more about the FLN at: <https://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/Pages/fire-learning-network.aspx>

4.2.8 UPPER YUOK RESERVATION COMMUNITY IDENTIFIED POTENTIAL PROJECTS

As part of the larger collaborative planning process to create this CWPP, 14 community wildfire preparedness workshops were held throughout the County. *See Chapter 1.2, Collaborative Planning Process and Appendix B, Planning Process Details for more information.* The workshop for this planning unit was held on December 4, 2017 at the Weitchpec Tribal Office 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 4.2.3*). New or confirmed existing project ideas proposed during the 2017 update process are summarized in *Figure 4.2.9* and *4.2.10* 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 4.2.2*) 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.

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 4.2.9 UPPER YUOK RESERVATION: COMMUNITY-IDENTIFIED PROPOSED PROJECTS, NON-GEOGRAPHIC	
○	Support efforts to work with PG&E on slash treatment under power lines.
○	All roads should be evaluated for understory clearing needs.
○	When clearing for wildfire hazard mitigation is done, burning or chipping the piles as soon as possible should be a priority so they do not become a hazard.
○	Write a comprehensive burn plan that will assist efforts to start burning traditional, cultural burn areas again to improve ecological resource production.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

The local residents who attended the December 4, 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 4.2.10 UPPER YUOK RESERVATION: COMMUNITY-IDENTIFIED PRIORITY PROJECTS		
PROJECT DESCRIPTION	PROJECT TYPE	PROJECT ID
Shaded fuel break/water supply: Head Start School	Defensible Space	ORL452
Fuel break: Hwy 96 to Weitchpec Elementary School	Roadside Clearance	ORL064
Fuel break: Upper Prairie Lake Rd.	Landscape	ORL065
Understory burning: bear grass resource production/fire protection	Roadside Clearance	ORL446
Understory burning and fuel break	Roadside Clearance	ORL447
Understory burning: HWY 169 to Klamath River	Landscape	ORL457
Defensible space around Jack Norton School (tall tree hazard)	Defensible Space	ORL461

4.2.9 UPPER YUOK RESERVATION 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, 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.

- **D**etermine the community wildfire preparedness roles of, and potential for collaboration and/or coordination of activities among Yurok Tribal Departments involved in wildfire mitigation activities, the CFMC, the FSC developed by the Yurok Tribe through the local hazard mitigation planning process, the YTVFD and wildland fire department, the Yurok Tribal government, CAL FIRE, Six Rivers National Forest, and the Humboldt County Fire Safe Council. There may be opportunities for these groups and agencies to work together on mutually beneficial projects.
- **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. Perform this same process for the actions identified in the *Yurok Hazard Mitigation Plan (CWPP)*, *The Heathy Country 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.
- **P**riority areas within this planning unit for fuels reduction and outreach 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:
 - Landscape surrounding Head Start School (ORL452).
 - Landscape surrounding Weitchpec Tribal Center (ORL449).
 - Landscape around Weitchpec
 - Wo-tekw Village area.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

- School (ORL454).
 - Jack Norton School (tall tree hazard) (ORL461).
 - Subdivision on Tully Creek Road, west of Highway 169.
- New Village area, off of Highway 96.
- Notchko Flat Road RAWS.
- The high fire danger, a dispersed WUI population, the large number of dead-end roads leading to multiple residences, and a general lack of 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.
 - Prioritize evacuation planning and education programs for residents located along roads where there is a high possibility of a wildfire blocking safe evacuation. Priority roads for outreach efforts include:
 - Roads and driveways off of Highway 169.
 - Weitchpec Road, between Highway 169 and Weitchpec School.
 - Upper Prairie Lake Road.
 - Work with Yurok Tribal departments (fire management, YOES, and law enforcement), County Office of Emergency Services (OES), and local fire service to engage community members in evacuation preparedness and the identification of local evacuation routes and sites.
 - 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, work together to identify alternative paths that may be taken or actions to initiate if primary routes become inaccessible during a wildfire.
 - Identify and actively maintain large open areas where community members can seek refuge if evacuation routes are blocked, especially in areas with one-way-in, one-way-out roads. Areas of high priority in need of such preparation include:
 - Johnsons community along Highway 169.
- Focus 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 to evaluate include:
 - Hazardous fuels reduction (as needed) along upper Cappell Road and Rube Road.
 - Brush thinning along Highway 96 near Bluff Creek Resort.
 - Hazardous fuels reduction and understory burning along Po'to'yo Road (Iron Gate Road), off Cappell Road.
 - A shaded fuelbreak along Alameda Road.
- Collaborate with agency and local partners to plan and fund landscape level fuels reduction and management where appropriate and in observance of applicable environmental laws and regulations. Match the site with the best method of treatment to meet forest resiliency and community protection goals including prescribed fire, forest thinning, landscape pruning, mowing, or targeted grazing. Evaluate the following priority areas:
 - Collaborate to design strategic fuel breaks between Six Rivers National Forest lands and private/Tribal forestlands to protect timber, cultural, and natural resource assets from wildfires that start on public lands.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

- Develop and implement forest health and landscape fuels management projects within this planning unit to increase wildfire resiliency and restore ecosystem function and cultural values.
 - Upper Prairie Lake Road fuelbreak. (ORL065).
 - Understory burning to support fire protection / bear grass production / fire protection along Bald Hills Road. (ORL446).
 - Understory Burning along Po'to'yo Road (Iron Gate Rd). (ORL447).
 - Reduce fine fuels and grass in Old Village Area.
 - Conduct understory burning between Highway 169 and the Klamath River.
 - Upper Cappell fuelbreak (Cappell and Rube Roads).
 - McCaulley Land prescribed burn; ongoing project.
 - Fuelbreak between Highway 96 and the Weitchpec School.
- **C**ontinue to host the biannual CFMC TREX conducted on the Yurok Reservation on both private and Tribal lands.
 - **C**ontinue efforts to build up a volunteer-base, secure equipment, and improve communications for the YTVFD.
 - **W**ork with the Yurok Tribal departments (Planning and OES), County OES, and County Planning and Building to ensure all residences have an assigned address—information that is vital to emergency response personnel.

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. In addition, the Yurok Tribe Hazard Mitigation Plan and embedded CWPP 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.humboldtqov.org/livingwithwildfire.
- **I**dentify primary ignition sources in the local community and focus prevention efforts on reducing them.
- **I**ncrease community awareness and access to information about proper methods for safe pile-burning, prescribed fire, and other fuel reduction strategies that could result in an unintended wildfire.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

- **I**nform residents about the importance of vigilance and caution during Red Flag conditions when a small ignition has a higher probability of growing into a large fire.

Wildfire Preparedness

- **D**evelop a wide range of opportunities for community education on preparing for wildfire. This effort should involve the production and/or distribution of a variety of informational materials.
 - Use existing materials as much as possible and develop materials tailored to the local community as needed and able. Examples of new materials include locally based before-after fuel treatment and or home hardening pamphlet with high quality photographs.
 - Distribute materials through mailers (including already occurring mailers such as local utility bills); via community hubs such as the post office; at all community events; on community bulletin boards; through the use of social media and networks, local media outlets, and any means used by the local community to share important information.
 - Encourage local volunteer/service organizations or schools to help perform community service activities including delivering literature to homeowners or clearing around and painting fire hydrants.
- **P**rovide residents with information about and assistance with reducing structural ignitability and maintaining adequate defensible space around their homes.
- **C**ollaborate to maintain defensible space for elderly, disabled, and low-income residents who are unable to do or fund the work themselves.
- **F**ocus roadside fuel reduction efforts on priority ingress and egress routes for safe evacuation and emergency response. See details in *Priority Action Recommendations* above.
- **W**ork with PG&E and local landowners to reduce fuels along power line easements.
- **C**reate community chipping programs to support defensible space maintenance and vegetation management in priority areas. See details in *Priority Action Recommendations* above.
- **C**ompile a directory of brushing crews and other resources for landowners seeking to reduce fuels on their property.
- **R**aise awareness of Sudden Oak Death and the fire hazard that afflicted trees pose. Determine whether hot-spots for Sudden Oak Death infected trees exist. Conduct fuels reduction projects in those areas as necessary 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. See details in the *Priority Action Recommendations* above.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

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 a Community Emergency Response Team or CERT. Coordinate with the Humboldt CERT Coalition.
- **P**romote the creation of family disaster and evacuation plans.
- **I**nform residents about Humboldt Alert and encourage them to sign up to receive emergency notifications at <https://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**nform residents about the importance of keeping local gates open or accessible during Red Flag conditions. Community members and timber companies should consider providing a key or access code to the local fire department.
- **I**nform residents of the need to have accessible, mapped, and identifiable water sources for fire suppression, and the importance of sharing that information with local fire departments/companies. This type of activity can be supported by a “Blue Dot” program, which identifies the location of firefighting water sources by marking them with blue reflective dots.
- **I**ncrease the availability of water for fire protection by investing in more community water tanks and ensuring existing water tanks are outfitted with fittings compatible with firefighting equipment. Priority water needs to evaluate include:
 - Head Start School fire protection water supply.

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.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

- **H**elp local fire departments raise funds by making donations directly and/or organizing fundraising events or campaigns.

Restoration of Beneficial Fire

- **E**xplore ways to reintroduce fire to broader landscapes and especially medicinal and material gathering places.
- **S**upport and promote cultural burning education and training.
- **P**rovide resources to private landowners interested in implementing prescribed burns on their property, including the contact information for the Yurok Tribe, the Tribe's Forest Management Program, the CFMC, CAL FIRE, UC Cooperative Extension, the Humboldt County Prescribed Burn Association, and the Northern California Prescribed Fire Council.²⁵
- **S**hare information about educational events that provide information about prescribed fire and cultural burning.
- **H**elp federal and state land managers garner local support for using prescribed fire or managed wildfire on the public lands they manage.
- **F**acilitate collaboration with neighboring tribes and organizations involved in organizing TREX and other prescribed fire activities; identify opportunities to share resources and knowledge.

Integrated Planning

- **I**dentify and map priority medicinal and material gathering places.
- **I**nitiate and maintain participation in the Firewise Communities/USA® Recognition Program with neighborhood groups in developed areas adjacent to the wildland. This will include active implementation and maintenance of a Firewise® action plan and organizing an annual Firewise® Day.
- **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.

²⁵ 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.