

EEL PLANNING UNIT ACTION PLAN



Eel River. Photo: A River's Last Chance (documentary, 2017).

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Helpful Links

Humboldt County Fire Safe Council: <https://humboldtqov.org/689/Fire-Safe-Council>
Humboldt County WebGIS: https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP
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4.10 EEL PLANNING UNIT ACTION PLAN

4.10.1 EEL PLANNING UNIT DESCRIPTION



Map 4.10.1 Map of Eel Planning Unit

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.

The Eel Planning Unit encompasses over 222,000 acres situated in the south-western portion of Humboldt County. This unit contains some of the more populated areas of Humboldt County, apart from the Greater Eureka Area. The geography of the Unit is dominated by the lower portion of the Eel River basin and its tributary *watersheds*. A major confluence of primary waterways and transportation routes takes place just south of Fortuna near the community of Alton: the Eel River, which is paralleled by Highway 101, is joined by the Van Duzen River, which is paralleled by Highway 36.

The community population centers of this planning unit include the cities of Fortuna, Rio Dell, and Ferndale, as well as the communities of Alton, Carlotta, Hydesville, Loleta, and Scotia. Also included within this planning unit is the Table Bluff Rancheria of Wiyot Indians which is located in Table Bluff, northwest of Loleta, where the Tribe occupies an 88 acre reservation. An additional 20 acres known as the “Old Reservation”, is located a mile away. Over 600 members make up today’s Wiyot Tribe.¹

The Bear River Band of Rohnerville Rancheria is located off Highway 101 just north of Fortuna. The Bear River Band is a federally recognized tribe of the Mattole and Eel River, Bear River and Wiyot People of Humboldt County. Bear River has 619 Enrolled

Tribal Citizens, which is based on residency on the Rohnerville Rancheria and being a lineal descent of those residents.²

Private land is the prevailing ownership pattern within this planning unit. Rural-residential parcels dominate the areas surrounding Fortuna and Ferndale, with dense clusters of development amassed around the main roads and community centers, while most of the southwestern area of the planning unit is comprised of large ranchlands, with properties dispersed more widely. Rio Dell and the communities to the south are surrounded by land managed primarily by Humboldt Redwood Company, along with some parcels owned by Green Diamond Resource Company and other timber companies. Agriculture and timber production are the primary industries within this planning unit.

A map of this planning unit can be viewed in Map 4.10.1, Eel CWPP Unit Map.

4.10.2 EEL 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,

¹ Wiyot Tribe. (n.d.). Cultural. [Web page]. Retrieved from <http://wiyot.us/cultural>

² Bear River Band. Our History. [Web page]. Retrieved from <http://www.brb-nsn.gov/our-story>

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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 communities, along with a variety of commercial and service industries, community centers, medical and dental clinics, schools, churches, museums, as well as infrastructure components, such as water treatment plants. The Bear River Casino and Rohnerville Airport are noteworthy assets as well. The ranching, agricultural, dairy, and timber industries within the Unit are also considered assets at risk. The Unit also contains a few city parks, an industrial park, and RV parks, which are scattered among the various communities.

Map 4.10.2, 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 GIS³ 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 4.10.1 EEL: COMMUNITY-IDENTIFIED ASSETS AT RISK	
○ Carlotta Fire Stations	○ Russ Park
○ Carlotta School	○ Eel River
○ Ferndale High School	○ Eel River Wildlife Area
○ Ferndale Elementary School	○ Frances Creek Watershed
○ Ferndale Churches	○ PG&E Substation, Waddington
○ Main Street Ferndale	○ Mount Pierce Communications Site
○ Cookhouse Ranch Capetown – Historical	○ Pacific Lumber Mills, Scotia and Carlotta
○ Old South Maid Ranch house – Historical	○ Eel River Sawmills
○ Wiyot Reservation, Table Bluff	○ LDS Church (potential shelter)
○ Humboldt Creamery Association	○ Golf Course, Redwood Empire (potential shelter)
○ Table Bluff County Park	○ Miranda’s Rescue (potential animal shelter)
○ Crab Park	

The Eel River itself is an environmentally significant asset; it supports the largest remaining native coho salmon population in California, as well as fall-run Chinook salmon, steelhead trout, coastal cutthroat trout, green sturgeon, and Pacific Lamprey.⁴ The Eel River Wildlife Area also has significant ecological value; its diverse array of habitats support an abundance of wildlife, such as, river otters, harbor seals, tundra swans, bald eagles, egrets, herons, salmon and steelhead trout.⁵ Other notable wildlife species within the Unit include: black tailed deer, beaver, mink, gray fox, ring tailed cats, weasels, coyote, and bobcats.⁶

³ Geographic Information Systems (GIS).

⁴ Dyett & Bhatia. (2002). Lower Eel River Watershed. Humboldt 2025 General Plan Update: Natural Resources and Hazards; Vol. 2: Detailed Watershed Characteristics and Regulatory Framework Analysis. Retrieved from <http://www.co.humboldt.ca.us/gpu/documentsbackground.aspx>

⁵ The Wildlands Conservancy. (2012). Eel River Estuary Preserve. Retrieved from http://www.wildlandsconservancy.org/preserve_eelriver.html

⁶ Dyett & Bhatia. (2002). Lower Eel River Watershed. (p.17).

4.10.3 EEL WILDFIRE ENVIRONMENT

The majority of the Eel Planning Unit (70%) is zoned “High Fire Hazard Severity,” as determined by CAL FIRE.⁷ However, approximately 13% of the Unit area is zoned “Moderate Fire Hazard Severity,” including the more populated areas surrounding towns and the main transportation corridors. A portion of the Unit, primarily land to the west of Fortuna and surrounding Ferndale, falls within *Local Responsibility Area (LRA)*, which is outside of CAL FIRE’s jurisdiction and is therefore not zoned for Fire Hazard Severity; this accounts for 15% of the Unit acreage.

Humans are the most likely ignition source for fires in this planning unit. Vehicle accidents, smoking, playing with fire, poorly maintained brush pile burns, and incendiary burning are just a few potential causes. Various types of equipment use and downed power lines can also be potential ignition sources. Lightning is the most probable natural cause of fire starts within this unit.

For a closer look at fire hazard severity in this planning unit, see Map 4.10.2, Eel Protection Resources, Values/Assets, & Risks/Hazards.

Local Responsibility Area (LRA): Lands in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the local jurisdiction.

How is Fire Hazard Severity determined by CAL FIRE?

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

Fire History

Traditionally, fire was an integral part of the ecosystems in this region. Forest management by indigenous tribes often included low-intensity, intentional burns that helped enhance forest ecosystems and prevent the accumulation of high fuel loads. Communities in this planning unit are known for having a long history of ranching and agricultural practices; some of the early 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 increases the risk of high-intensity wildfires. Forest ecosystems, accustomed to low-intensity fires that would burn off brush and newer starts in the understory, become threatened by overcrowded forests and accumulated fuel. Intense timber harvests during the 20th century further exacerbated damages to forest ecosystem health

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

⁷ 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

by contributing large quantities of slash to the fuel load and disrupting species and age-class distribution within the forests.

Recent fire history on the Wiyot Reservation includes a five-acre fire that occurred adjacent to the Reservation (1996) which was extinguished by the Loleta Volunteer Fire Department within ten feet of the Reservation boundary and fifty feet from the nearest house; a small fire but noteworthy as a close call. Another five-acre fire occurred in the pasturelands on the Reservation (2008), nearly thirty feet from the nearest tribal home and ten feet from neighboring pasturelands before being extinguished by the Loleta Volunteer Fire Department and CAL FIRE.

FIGURE 4.10.2 EEL FIRES OVER 10 ACRES 1967-2017 ⁸			
Fire Name	Cause	Year	Acres
Jaunarena	Unknown/ Unidentified	1980	539
Capetown Series	Unknown/ Unidentified	1980	433
Yager	Escaped Prescribed Burn	2011	55
Stafford	Unknown/ Unidentified	2016	24

Structural Ignitability

Although the majority of communities in this unit reside within the “fog belt” and experience an abundance of precipitation, residents must not be lured into a false sense of security regarding their risk of wildfire. Many homes exist within the *wildland-urban interface* (WUI) in which *wildland fires* can easily become structural fires, and vice versa. 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.

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

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

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

Homes within this planning unit could be vulnerable to ignition from embers from nearby wildfires. The 2017 Napa and Sonoma fires showed that homes can be destroyed by flying embers, often miles away. If there are places on or around the home for embers to take hold, this greatly increases a home’s vulnerability to loss. Many of the homes lost in the 2017 fires burned from the inside out, as embers were forced inside by strong winds, or sucked in through ventilation systems. Based on field observations, there are many homes where steps need to be taken to ensure structure survival when wildfire is nearby.

Map 4.10.2, found at the end of this Planning Unit Action Plan, illustrates risks and hazards identified by community members at public workshops. More detailed descriptions of community-identified fire planning features can be found on the Humboldt County Web GIS Portal: https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP.

⁸ CAL FIRE. (2018). FRAP. State Fire Perimeters 1908-2017.

Water Sources

The central cities of Ferndale, Fortuna, and Rio Dell provide potable water and fire protection water to the majority of the population within this unit. The City of Ferndale serves a population of approximately 1,400; The City of Fortuna serves a population of approximately 11,200; and the City of Rio Dell serves a population of approximately 3,250. The Scotia and Carlotta Community Service Districts also provide their communities with water. Residents outside of the cities and service districts obtain water through other means, such as drawing from nearby creeks and holding tanks.

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

FIGURE 4.10.3 EEL: FIRE PROTECTION WATER DRAFT SITES	
○ Bear River drafting area	○ Elinor Flat river drafting
○ Blue Slide Road river drafting	○ Holmes river drafting area
○ Dyerville river drafting	○ Price Creek drafting areas
○ Eel River tributaries drafting locations	○ Shively river drafting areas
○ Three drafting locations on Palco Log Pond	○ Yager Creek
○ Carlotta Mill	

Map 4.10.2, 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.

4.10.4 EEL FIRE PROTECTION CAPABILITIES

Seven volunteer fire departments (VFDs) and volunteer fire companies (VFCs) collaborate to provide fire protection to the communities within this planning unit. The seven fire chiefs from these fire departments and companies comprise the Eel River Valley Fire Chiefs’ Association. This group meets on a quarterly basis to discuss and coordinate issues in the Eel River Valley and along Highway 36.

Volunteer Fire Department vs. Volunteer Fire Company

Volunteer fire departments are associated with a local agency (either a city or a special district authorized to provide fire protection) and receive revenue from a tax or fee gathered within a mapped boundary. Volunteer companies, on the other hand, have no such association with a local agency and instead are funded primarily through fundraisers and donations. Both are comprised of volunteer, unpaid, firefighters, whose primary objective is community fire protection.

The fire protection service entities in this planning unit respond to structural fires as well as wildfires. Fire agencies in this planning unit also provide emergency medical and rescue services. A substantial portion of the Unit, particularly the area west of Highway 101 surrounding Ferndale, falls under the wildfire management jurisdiction of the Local Responsibility Area (LRA). The remaining area is State Responsibility Area (SRA) where wildfires are the responsibility of CAL FIRE. The CAL FIRE – Humboldt-Del Norte Unit (CAL FIRE-HUU) Administrative Headquarters is located in Fortuna and houses the primary dispatch center in Humboldt: the Fortuna Interagency Command Center. Staffing at the Fortuna CAL FIRE station varies throughout the year, but remains adequate for emergency response most of the year.

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

FIGURE 4.10.4 EEL: FIRE PROTECTION RESOURCES ⁹			
PERSONNEL	SERVES		FIRE APPARATUS
	RESIDENTS	AREA (SQ/M)	
LOLETA VFD – PHONE: (707) 845-3090 EMAIL: loletafire@suddenlink.net			
23 Volunteer	1,500	48	<ul style="list-style-type: none"> ○ Type-1 engine ○ (2) Type-2 engines ○ Type-3 engine ○ Water tender, 4,000 gallon ○ Quick-attack off-road Gator with pump
FERNDALE VFD – PHONE: (707) 786-9909 OR (707) 845-7399 EMAIL: chief@ferndalefire.org WEB: www.ferndalefire.org			
29 Volunteer 16 Auxiliary	2,745	45	<ul style="list-style-type: none"> ○ (2) Type-1 engines ○ Type-2 engine ○ Type-4 quick attack truck ○ Rescue truck ○ (2) Water tenders, 5,000 gallons each
FORTUNA VFD – PHONE: (707) 725-5021 EMAIL: info@fortunafire.com WEB: www.fortunafire.com			
3 Career, 77 Volunteer, 22 Auxiliary	15,000	29	<ul style="list-style-type: none"> ○ (6) Fire engines ○ (2) Ladder trucks ○ (2) Water tenders ○ (2) Rescue trucks ○ (3) Command vehicles
RIO DELL VFD – PHONE: (707) 764-3329 EMAIL: info@riodellfire.com WEB: www.riodellfire.com			
27 Volunteer 4 Auxiliary	3,300	District: 2.5 Out of District: 62	<ul style="list-style-type: none"> ○ Type-1 engine, 1,000 gallon ○ (2) Type-3 engine, 750 gallons each ○ Type-4 rescue truck, 250 gallon ○ Water tender, 4,000 gallon ○ Incident Command vehicle
CARLOTTA VFD – PHONE: (707) 768-1714 EMAIL: kaburke61@hughes.net			
13	-	46	<ul style="list-style-type: none"> ○ (2) Pumper engines ○ (2) Rescue trucks ○ Utility truck ○ (2) Water tenders
SCOTIA VOLUNTEER FIRE COMPANY – PHONE: (707) 764-4322 OR (707) 845-2995 EMAIL: jbroadstock@townofscotia.com WEB: www.svfdfire.com			
10 Volunteer, 3 Auxiliary	800	1	<ul style="list-style-type: none"> ○ (2) Type-1 engines ○ Mini pumper engine ○ Medical response vehicle ○ Chief Command Vehicle (Pickup) ○ Rescue trailer with equipment ○ UTV vehicle

⁹ Humboldt County Fire Safe Council. (2018). Humboldt County Fire Chiefs’ Association Annual Report, 2017. (pp. 6, 8, 11, 16-17, 25). Retrieved from <https://humboldtqov.org/Archive.aspx?AMID=75>

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In November 2014, Humboldt County passed Measure Z, a half-cent sales tax to provide funding for public safety services.¹⁰ This tax has enabled those local fire departments who applied to receive the funding, to purchase new fire engines, personal protective gear, and other essential equipment.

The primary challenge for the fire agencies in this planning unit is a lack of volunteers. This overarching need is summarized by the Fortuna Fire Department in the 2017 Humboldt County Fire Chiefs' Association Annual Report:

“We, like all volunteer fire service agencies, continue to struggle with not only recruiting new volunteers but retaining them as well. The demands that we are forced to put on our volunteers due to mandates as well as routine training to assure their efficiency and safety are, for many, overwhelming. For those that stick it out and become one of the “fire family”, the benefits realized are unmeasurable. For the communities they serve, they are a true blessing and an extremely valuable asset.”¹¹

Many communities 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 overtaxed municipal water supply. Many existing water sources are in need of maintenance, protection, or improvements. There is also a need to make the location of existing water sources more apparent to firefighters, and for community members to ensure that their water sources are properly outfitted for firefighting equipment.

Emergency responders in this unit are also challenged by a lack of proper signage throughout some of the more remote neighborhoods. Poorly visible or missing signage can make it difficult for firefighters to locate incident sites and can also hinder emergency response times. Difficulty accessing residences is exacerbated in areas where narrow roads are grown over with vegetation and have insufficient width to accommodate firefighting apparatuses.

The fire protection entities within this planning unit do their best to provide their communities with fire protection as well as medical and rescue services. However, individually, these departments struggle with staffing levels and volunteer retention, time, and funding to support the more specialized goal of rescue services. This is why the fire chiefs of the Van Duzen and lower Eel River Valley areas came together to form the Eel River Valley Technical Resource Team (ERVTRT), to address the many risks that these departments face (water rescue, collapse rescue, confined space rescue and more). Participating fire departments include: Bridgeville, Carlotta, Ferndale, Fortuna, Loleta, Rio Dell, and Scotia. The ultimate goal of the ERVTRT is, through the pooling of resources, to have the ability to provide a higher level of rescue operations to their communities. These operations include: low and high angle rope rescue, confined space and trench rescue, collapse and water rescue, as well as providing additional personnel and equipment as needed during any emergency event. Operations and training are overseen by one team leader, while each department has a squad leader who oversees their individual squads, in turn. The ERVTRT is dispatched by the CAL FIRE Command Center.

4.10.5 EEL 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.** The determination for the location of these sites is normally made by

¹⁰ Humboldt County. (n.d.). Measure Z – Public Safety/Essential Services [Web]. Retrieved from <https://humboldtqov.org/1803/Measure-Z-Information>

¹¹ Humboldt County Fire Safe Council. (2018). Humboldt County Fire Chiefs' Association Annual Report, 2017. (p. 17). Retrieved from <https://humboldtqov.org/Archive.aspx?AMID=75>

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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://humboldtgov.org/alerts>) and door-to-door methods to inform residents about the threat and where residents should go to take shelter.

Evacuation routes in the Eel Planning Unit will depend on the location of the community at risk and law enforcement recommendations based on fire behavior, wind patterns, traffic, and ingress of emergency vehicles. Highway 101 and Highway 36 are the central ingress and egress routes, with numerous smaller roads connecting residences and neighborhoods to these central corridors. Adequate ingress and egress along these smaller roads is vital to a large portion of the community that may need to access primary evacuation routes and for firefighters who will be using the roads to access wildfire incidents. Poor or complete lack of signage at roads and intersections pose potential problems for ingress and egress; this is especially true for more remote residences that are further away from the main towns. The narrowness of smaller roads leading to remote residences could create serious complications for firefighting apparatuses trying to gain access during simultaneous home evacuations.

Other evacuation impediments may include: landslides, fallen trees, overgrown vegetation, poorly marked streets and intersections, 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.

FIGURE 4.10.5 EEL: POTENTIAL EVACUATION ROUTES

- Southeast or northwest along **Highway 101**.
- East on **Highway 36**.
- Ferndale residents will connect to Highway 101 either by traveling north on **Highway 211** or southeast on **Grizzly Bluff Rd**, which becomes **Blue Slide Road**.

Humboldt Alert: Humboldt County's Mass-Notification System

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

If a catastrophic event occurs, residents may not be able to reach designated evacuation sites. In such cases, residents may need to make decisions on their own about seeking shelter where they can survive the passage of the wildfire until they can reach an evacuation site. It can be very difficult to determine the right thing to do as the fire approaches. Before a wildfire threatens, community members should talk to their local fire department about evacuation procedures in their neighborhood and expected fire behavior in their neighborhood.

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

4.10.6 EEL COMMUNITY PREPAREDNESS

No local *fire safe councils* (FSC) exist in this planning unit. Hydesville is the only community within this planning unit to achieve Firewise Communities/USA® recognition. This recognition was received in 2015 and has been maintained to this date. The process of becoming recognized as Firewise® includes a site specific wildfire risk assessment, an action planning process, and an annual community educational event. The Firewise Communities/USA Recognition Program teaches people living within the WUI how to adapt to living with wildfire by preparing for a fire before it occurs. This program empowers communities with tools and resources for reducing their wildfire risk and encourages neighbors to work together to take action to minimize losses from wildfire. The Firewise® process would be beneficial for more communities and neighborhoods within this planning unit.

Efforts to educate community members about fire safety and to improve emergency preparedness is also guided by the local fire protection services with some support from the Humboldt County FSC (HCFSC). In addition, community Emergency Response Team (CERT) training took place within this unit to equip community members with basic disaster response skills for dealing with a variety of emergency situations. Such skills become extremely valuable in situations where professional responders cannot act immediately. CERT participants gain experience implementing collaborative problem solving and develop a greater sense of community cohesion.

The Fortuna VFD provides fire prevention and safety services through their Fire Prevention Division and Public Education Division. Their efforts include implementing and maintaining community outreach programs that educate and inform the public about fire prevention; in addition to giving safety presentations on a range of topics, the Fortuna VFD also distributes informational materials at local community events. The Fortuna VFD is also committed to enhancing public safety by conducting fire safety inspections at businesses, residences, schools, as well as children’s day cares and senior residential care units.

The Wiyot Tribe is working to increase fire protection capabilities on the Table Bluff Reservation and better prepare their tribal members for wildfire. The Loleta Volunteer Fire Department provides fire services to the Reservation but is located five and half miles away—a distance that could prove critical during a fast moving fire. Being so remote, the Tribe recognizes the necessity of taking proactive measures to protect their community. In 2016, the Tribe secured a large grant from the Department of Homeland Security that provided funding for vital disaster preparedness equipment. The new equipment includes a generator for the community center—which will help increase the Tribe’s capacity to act as an evacuation shelter—and a 150-gallon mini-pumper and brush hog that will aid in fire suppression, mitigation, and prevention.¹² The Tribe is also currently fulfilling a Wildland Urban Interface (WUI) grant funded by the Bureau of Indian Affairs (BIA) to remove fuels and maintain defensible space around Tribal residential developments.¹³ This project will address the heavy concentrations of annual and perennial grasses built up around the Reservation. These grasses, dried over the summer season, pose a serious fire hazard, especially on the windy days common on the bluff. Another focus of fuel management on the Reservation has been on the “back-40” or the half of the Reservation on which the ceremonial dance grounds are located. Even as they carry out fuels reduction activities, the Tribe is working to keep nature intact to preserve the natural beauty of the dance grounds. Moving forward, the Tribe will continue to pursue funding to expand fire protection resources on the Table Bluff Reservation.

¹² U.S. Department of Homeland Security. Fiscal Year 2016 Tribal Homeland Security Grant Program: Overview. Retrieved from https://www.fema.gov/media-library-data/1467230939915-0fd9be75ebaa139535540126d08f4403/FY_2016_THSGP_Fact_Sheet_Final.pdf

¹³ Wiyot Tribe. (n.d.). Hazardous Fuels Removal [Web]. Retrieved from <http://www.wiyot.us/180/Hazardous-Fuels-Removal>

FIGURE 4.10.6 EEL: FIRE PREVENTION ACCOMPLISHMENTS

General Accomplishments

- Most fire departments within this planning unit host annual events and fundraisers where residents are provided with the opportunity to support fire and rescue services and learn about their local department. Many of these events offer fire prevention information.
- The Eel River Valley Fire Chiefs’ Association has made significant progress towards improving and streamlining administrative and operational objectives with a major focus on interoperability. The collaboration of this group has led to various auto-aid agreements, communications plans, and fire pre-plans throughout the area. The Eel River Fire Academy was born out of this group and provides training opportunities for firefighters throughout the county. In addition, the group hosts driver-operator training, company officer training, and various other trainings including live-fire training focused on the valley as a whole. This group is also responsible for the development and direction of the Eel River Valley Technical Rescue Team. In addition, through the Boy Scouts of America, the Eel River Valley Fire Chiefs support the Explorer Learning for Life Program—a career education program that is open to youth ranging from 14 to 20 years of age.
- Ferndale VFD continues their Annual Fund Drive, during which they visit every home and business in the district, checking smoke detectors, and providing information about the department.
- Loleta VFD has successfully graduated firefighters from the Explorer program to active members of the fire department.
- The Wiyot Tribe secured WUI and Homeland Security funds to support efforts to prepare for wildfire.

2018

- Successfully applied for a received Measure Z funding for new fire protection equipment for many of the fire departments within the planning unit.
- Hydesville Firewise Committee meet to discuss 2018 projects
- Brushing of North Fisher Road and South Fisher Road (4,000’ of road)

2017

- Successfully applied for a received Measure Z funding for new fire protection equipment for many of the fire departments within the planning unit.
- Hydesville Firewise Committee meet to discuss 2017 projects
- Firewise Hydesville Open House 2017 (14+ Participants)
- Brushed Hill Lane (2,500’ of road)

2016

- Successfully applied for a received Measure Z funding for new fire protection equipment for many of the fire departments within the planning unit.
- Hydesville Firewise Committee meet to discuss 2016 projects
- Firewise Hydesville Open House 2016 (12+ participants)

<ul style="list-style-type: none">○ Brushed Tawndale Fire Lane (500' of fire lane)
2015
<ul style="list-style-type: none">○ Successfully applied for a received Measure Z funding for new fire protection equipment for many of the fire departments within the planning unit.○ Rio Dell VFD was able to use assessment funds approved by voters in 2014, to purchase a new engine.○ Formed a Hydesville Firewise Committee○ Developed Hydesville Action Plan○ Firewise Hydesville Open House (15+ participants)○ Brushed Quail Hill Lane (1400' of road)○ Hydesville recognized as a Firewise® Community
2014
<ul style="list-style-type: none">○ The Ferndale VFD installed reflective address signs for most homes outside the city limits which reportedly improved emergency response times.○ Rio Dell voters approved a new assessment to support the fire department.

4.10.7 EEL LOCAL WILDFIRE PREVENTION PLANS

As of the date of this CWPP, there are no completed local CWPP in this planning unit. This Planning Unit Action Plan may be used as the equivalent of a local CWPP. To help guide and inspire wildfire preparedness in this planning unit, the HCFSC has, in collaboration with local fire service representatives and stakeholders, developed a list of priority actions reflective of the community concerns and ideas collected through the process described below. *See section 4.10.9, Eel Action Plan for a list of priority actions recommended by this CWPP.*

Any community within this planning unit may choose to pursue Firewise® recognition, and through that process would adopt a Firewise® Action Plan that identifies and prioritizes actions intended to reduce the risk posed by wildfire in the Eel Unit. Alternatively, a local Fire Safe Council could facilitate the writing and implementation of a community-level wildfire protection plan. As a first step, a point person or group of individuals must come forward to lead these efforts from within the community.

Hydesville Firewise Action Plan

As part of the initial Firewise® certification process in 2015, a Firewise® Action Plan was developed by the Hydesville Firewise Committee.¹⁴ The Committee developed the action plan with guidance from CAL FIRE and Humboldt County staff.

Multiple priority actions were identified in the Plan under the following categories:

- Conduct Firewise Education and Outreach (including hosting an annual Firewise event for community residents).
- Reduce Hazardous Fuels throughout the Community (Specific priority locations were identified).
- Enhance Fire Protection Water Supplies in the Community.
- Improve Signage and Road Conditions for Emergency Responders.
- Emergency Evacuation and Disaster Planning.

¹⁴ Hydesville Firewise Action Plan. (2015). Retrieved from <https://humboldtgov.org/DocumentCenter/View/64414/Hydesville-Firewise-Action-Plan-2015>

4.10.8 EEL COMMUNITY IDENTIFIED POTENTIAL PROJECTS

As part of the larger collaborative planning process to update this CWPP, 14 community wildfire preparedness workshops were held throughout the County. See Chapter 1.2, Collaborative Planning Process and Appendix B, Planning Process Details for more information. The workshop for this planning unit was held on November 27, 2017 at the Fortuna Fire Hall 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 4.10.3). 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 4.10.2) also 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 4.10.7 EEL: COMMUNITY-IDENTIFIED PROPOSED PROJECTS, NON-GEOGRAPHIC
○ Host neighborhood evacuation preparedness block parties.
○ Develop an evacuation and fuel reduction assistance program for seniors and disabled persons.
○ Map and mitigate homeless encampments that pose a fire hazard.
○ Notify community of evacuation center locations; provide information on large animal evacuation.
○ Provide education and outreach about living in an area vulnerable to wildfires. Include compelling stories about past coastal wildfire events. Send this information out with various already occurring mailers.
○ Post more address and road signs in some areas.
○ Identify roads that are impassable with fire trucks. Ferndale is considering posting a red reflective strip at the bottom of roads that cannot accommodate their fire trucks.
○ Include a link to the County Fire Safe Council and State Fire Safe Council websites on all fire department websites.

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- Use Facebook and other popular social networking tools to get the fire safe message out to more people.
- Encourage Boy Scouts of America to perform community service activities including delivering literature to homeowners or clearing around and painting fire hydrants.
- Partner with the California Conservation Corps to treat hazardous vegetation in priority locations.

The local residents who attended the November 27, 2017 workshop identified the following projects as their top priority projects to be evaluated for feasibility and implemented over the next five years.

FIGURE 4.10.8 EEL: COMMUNITY-IDENTIFIED PRIORITY PROJECTS		
PROJECT DESCRIPTION	PROJECT TYPE	PROJECT ID
Fisher Road - Hydesville (Pending project with CCC)	Roadside Clearance	BRD120
WUI; fuel treatment buffer between residence and wildland: NE boundary Fortuna/timber lands	Landscape	PAC007
Install address and Rd signs. Public education and outreach: Tompkins Hill Rd, Fortuna	Access	PAC011
Install address and Rd signs. Public education and outreach: Mill St (single access), Fortuna	Access	PAC013
Widen Redwood Avenue & improve bridge crossing for fire truck access (Near Rio Dell)	Access	RIO083

4.10.9 EEL ACTION PLAN

Ideally, everything recommended in this action plan will be implemented. However, feasibility analysis and implementation will be subject to the availability of funds and other resources, and the willingness and ability of community members and plan partners to take action. Any recommended vegetation treatments in this CWPP must be undertaken with the consent and involvement of the property owner and the observance of all applicable local, state, and federal regulations.

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

Priority Action Recommendations:

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

- **E**valuate the community-identified priority actions listed above and further develop, seek funding for, and implement them as appropriate and feasible.
- **A**ctively maintain Hydesville Firewise status and identify other communities (including tribal communities) that would benefit from participation in the Firewise Communities/USA® Recognition Program. For each community, conduct a risk assessment with support from the HCFSC and CAL FIRE and draft a Firewise® action plan (the existing Hydesville plan can be used as a resource for this). Host a Firewise® Day to share findings and inspire action; Firewise

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activities could be added to an existing annual community event. If necessary, seek funding to support this effort. Evaluate the following neighborhoods for participation:

- Near Fortuna: Tompkins Hill and loop roads, top of Home Avenue, and Mill Street
 - Near Ferndale: William Creek Road and Eugene Street
 - Near Rio Dell: Monument Road
 - Near Carlotta: Cummings Creek and Fox Creek roads
- **O**nce local groups are organized, review the *Action Catalogue* below to identify activities that align with available resources and highest wildfire risks to local assets and values.
 - **C**ontinue to explore options and make progress on local fire service sustainability efforts such as fire district annexations and consolidations including the annexation of the Carlotta, Ferndale, Rio Dell, and Scotia out of district response areas. Evaluating the potential consolidation of Rio Dell and Scotia and the expansion of the associated jurisdictional boundary is a priority. Determine if Redcrest and Shively should be included in this consolidation process. These two communities are currently included in the Avenue of the Giant Planning Unit and have been participating in a consolidation feasibility analysis in that area but may also fit into something similar to the north.
 - **I**ncrease the firefighting capacity of the Wiyot Tribe on the Table Bluff Reservation by seeking out fireline training for members of the Tribe and pursuing funding for a fire engine or water tender.
 - **H**omeless encampments were identified by community members in Fortuna as a fire ignition risk. To better understand and address that risk, map homeless encampments that pose a fire hazard and work with law enforcement, the fire service and possibly social services to identify appropriate mitigation actions. There are many reasons to address these areas. Look for opportunities to tie in with other local organizations and efforts to achieve multiple benefits.

Action Catalogue:

This Action Catalogue lists additional suggested actions can be used as a menu to select wildfire mitigation actions in addition to or to compliment the priority actions above. Action items are organized under each of the six countywide Action Plan goal categories outlined in Part 3 of this CWPP. 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.

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.

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- **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. Focus initial educational efforts in the following neighborhoods:
 - Fortuna: Tompkins Hill Road, Home Avenue, Mill Street
 - Ferndale: Eugene Street, Williams Creek Road
 - Hydesville neighborhoods interface areas
 - Carlotta interface areas north of Highway 36
 - Rio Dell: Price Creek, Monument Road, Rio Vista Lane
- **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.
 - Include compelling stories about past coastal wildfire events.
 - Encourage Boy Scouts of America to 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.
- **C**ollaborate to maintain defensible space for elderly, disabled, and low-income residents who are unable to do or fund the work themselves.
- **R**each out to property owners with high levels of hazardous fuels that could threaten the safety of neighbors to inform them of the hazards. If necessary, seek assistance from CAL FIRE, the local fire department, the city, or local tribal government depending on the location. In some cases, legal action can be taken to mitigate the hazard.
- **F**ocus roadside fuel reduction efforts on priority ingress and egress routes for safe evacuation, especially those roads used by the highest number of residents. Priority roads to evaluate include:
 - Fisher Road
 - Williams Creek Road
 - Cummings Creek Road
 - Church Lane
 - Fox Creek Road
 - Highway 36 where needed

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- H-Line (Old lumber company haul road)
- Monument Road
- **W**ork with PG&E and local landowners to reduce fuels along powerline easements.
- **P**artner with the California Conservation Corps to treat hazardous vegetation in priority locations.
- **S**upport or create community chipping programs. The following priority areas were identified at community meetings and are recommended for treatment:
 - The neighborhood at the top of Home Avenue in Fortuna
 - The neighborhood along Church Lane, Southeast of Carlotta
- **C**ompile a directory of brushing crews and other resources for landowners seeking to reduce fuels on their property.
- **R**aise awareness of Sudden Oak Death and the fire hazard that afflicted trees pose. Identify hot-spots for Sudden Oak Death infected trees. Conduct fuels reduction projects in those areas to prevent spread and mitigate fire hazard. Seek guidance from organizations such as University of California Cooperative Extension.
- **W**ork with commercial timberland owners such as Humboldt Redwood Company and Green Diamond Resource Company to create strategic fuelbreaks on their land to buffer residences from wildfires that originate from the wildlands and to protect timber resources and ecological values from fires that start in adjacent developed areas.
- **C**ollaborate with agency and local partners to plan and fund landscape level fuels reduction and management where appropriate and in observance of applicable environmental laws and regulations. Match the site with the best method of treatment including prescribed fire, forest thinning, landscape pruning, mowing, or targeted grazing. Evaluate the following priority areas:
 - A shaded fuelbreak buffering WUI neighborhoods along the Northeast side of Fortuna, between the city and timberlands.
 - A shaded fuelbreak North of neighborhoods in Palmer Creek (North Fortuna)
 - A buffer between the neighborhoods along Church Lane and the wildlands (Southeast of Carlotta)

Disaster Preparedness

- **W**ork with the 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. In addition, identify local community liaisons to work directly with emergency management officials.
- **H**ost neighborhood evacuation preparedness block parties.
- **I**mprove community communication networks and explore way 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

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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 more Community Emergency Response Teams or CERTs. Coordinate with the Humboldt CERT Coalition.
- **F**ocus evacuation planning efforts in populated areas located along single access roads. Priority roads for outreach efforts include:
 - Fortuna: Tompkins Hill Road, Home Avenue, Mill Street, Pinecrest Drive
 - Ferndale: Eugene Street, Williams Creek Road
 - Carlotta: Cummings Creek Road, Fox Creek Road
 - Rio Dell: Monument Road, Rio Vista Lane
- **P**romote the creation of family disaster and evacuation plans.
- **I**nform residents about Humboldt Alert and encourage them to sign up to receive emergency notifications at <https://humboldtqov.org/alerts>.
- **W**ork with residents to ensure adequate road and home address signage for more efficient emergency response. Signs should be large, reflective, and have lettering at least three-inches in height. Less noticeable but more sentimental address signs may remain but it is important to post reflective signs as well. Focus initial efforts in the following areas:
 - Fortuna: Tompkins Hill Road, Loop Road and offshoots, and Mill Street
 - Ferndale: Eugene Street
 - Rio Dell: Monument Road
- **A**ddress road conditions that inhibit effective evacuation and access by emergency responders. Begin by systematically identifying and mitigating such access impediments. Consider posting a red reflective strip at the bottom of roads that cannot accommodate a fire trucks. The following priority access issues were identified at community workshops and/or through analysis and are recommended for initial evaluation and action:
 - Widen Redwood Avenue near Rio Dell and improve the bridge crossing for fire truck access.
- **I**nform residents about the importance of keeping local gates open or accessible during Red Flag conditions. Community members should consider providing a key or access code to the local fire department.
- **I**nform residents of the need to have accessible, mapped, and identifiable water sources for fire suppression, and 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:
 - Pepper Tree Lane, North of Rio Dell and West of Highway 101.
 - Price Creek, North of Rio Dell and West of Highway 101.
 - Monument Road, Southwest of Rio Dell

Fire Protection

- **S**upport the local fire departments¹⁵ 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.
- **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.
- **P**ursue funding for expansion of Rio Dell fire station facilities.

Integrated Planning

- **I**nitiate and maintain participation in the Firewise Communities/USA® Recognition Program as described in the Priority Action Recommendations above.
- **S**hare GIS data sets between representatives within the Planning Unit and County staff to maintain the fire planning features included in the County Web GIS Portal (https://webqis.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.

¹⁵ All local fire departments within this unit are listed above with their contact information in the “Fire Protection Capabilities” section.