

HUMBOLDT BAY AREA PLANNING UNIT ACTION PLAN



Humboldt Bay. Photo: U.S. Army Corps of Engineers, Digital Visual Library.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

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Helpful Links

UPPER JACOBY CREEK FIREWISE:	https://humboldt.gov/740/Upper-Jacoby-Creek
ARCATA FIRE PROTECTION DISTRICT:	https://www.arcatafire.org
BLUE LAKE FIRE PROTECTION DISTRICT:	http://bluelake.ca.gov/community/safety
FLDDBROOK VOLUNTEER FIRE DEPARTMENT:	https://sites.google.com/site/fieldbrookfireorg
HUMBOLDT BAY FIRE:	http://www.hbfire.org
SAMOA PENINSULA VOLUNTEER FIRE DEPARTMENT:	https://www.samoafire.org
CAL FIRE HUMBOLDT-DEL NORTE UNIT:	http://www.fire.ca.gov/HUU
HUMBOLDT COUNTY WEB GIS:	https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP
HUMBOLDT COUNTY FIRE SAFE COUNCIL (HCFSC):	https://humboldt.gov/FireSafeCouncil
HCFSC REPRESENTATIVE, CYBELLE IMMITT:	cimmit@co.humboldt.ca.us

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4.8.1 HUMBOLDT BAY AREA PLANNING UNIT DESCRIPTION



*A larger map of this planning unit can be viewed in Map 4.8.1, **Humboldt Bay Area CWPP Unit**.*

The Humboldt Bay Area Planning Unit encompasses over 143,700 acres situated along the central coast of Humboldt County and contains the most urbanized and populated areas within the county. The geography of the Unit is dominated by the Humboldt Bay, which spans approximately two-thirds of the Unit's coastline and is comprised of three sections: South Bay, Entrance Bay, and North Bay. Following the interior border of the Bay, is Highway 101—the primary transportation corridor through the Unit. Highway 299 provides eastward access and joins Highway 101 in the northern portion of the Unit. The Humboldt Bay Area *watershed* is comprised of four major waterways: Jacoby and Freshwater Creeks, which drain into the North Bay; Elk River, which flows into the Entrance Bay; and Salmon Creek, which meets the South Bay.

The cities of Eureka and Arcata surround Humboldt Bay and comprise the community population centers of this planning unit. The unincorporated town of McKinleyville to the north has experienced significant suburban growth in recent years and has become a populous community as well. The less populated City of Blue Lake is located east of Arcata along Highway 299. Several other distinct, smaller communities are interspersed throughout the Unit as well, mainly surrounding the central cities. Inland, located between Eureka and Arcata, are the communities of Freshwater, Indianola, and Bayside. Bayside is just south of and adjacent to Sunny Brae, a neighborhood on the southeastern side of the City of Arcata. Fieldbrook is located inland from McKinleyville and north of the community of Glendale, which is off Highway 299. Communities clustered along the coastal side of the Humboldt Bay inlet include Fairhaven, Samoa, and Manila.

The characteristics of these numerous communities vary widely, from distinctly urban locales, to small-town neighborhoods, rural residential areas, and more remote homes located in the *wildland-urban interface* (WUI). It is these communities located in the WUI, on the outskirts of the more populated areas, which experience the greatest risk of loss from wildfire.

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.

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

Timber production is the dominant non-residential land use within this planning unit, and significant portions of land—especially in the southeastern portion—is managed by Humboldt Redwood Company and, to a lesser extent, Green Diamond Resource Company. Agricultural land use is also common within the Unit, involving mainly pasturelands for livestock grazing and dairy production, as well as a few lily bulb farms in Arcata.

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and McKinleyville.¹ Rural residential developments are scattered throughout the timber- and pasturelands, while urbanized development dominates the central population areas. On the coast, around the Bay, and in the interior of the Unit, the cities, County, Bureau of Land Management, CA Department of Fish and Wildlife, and U.S. Fish and Wildlife Service maintain numerous protected areas and parks for the benefit of wildlife and enjoyment of residents and visitors.

4.8.2 HUMBOLDT BAY AREA ASSETS AND VALUES AT RISK

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

The assets at risk in this unit are numerous and diverse. The majority of assets include residential homes, communities, and farmsteads, along with a variety of commercial and service industries, community centers, schools, fire stations, medical and dental centers, churches, post offices, along with infrastructure components such as water treatment facilities, and cell towers. Some particularly noteworthy assets within this planning unit include Humboldt State University, College of the Redwoods, the Humboldt County Airport, Mad River Community Hospital, Blue Lake Casino, the Arcata Plaza, Redwood Acres Fairgrounds, and the Bayshore Mall. Agricultural lands, timber stands, and industrial facilities are also valuable assets at risk. An extensive oyster industry operates out of Humboldt Bay, and the harbor there is a major shipping center for the North Coast. Sites and facilities that support these industries are valuable assets as well.

This unit also contains an abundance of environmentally and culturally significant areas, with a range of recreational opportunities available as well, such as hiking, kayaking, surfing, and rock climbing. Notable swaths of greenspace interspersed throughout the Unit include BLM's Headwaters Forest Reserve; the Arcata, Jacoby Creek, and McKay Community Forests; and various state and county parks. Important coastal assets include Mad River and Clam Beach County Parks; Samoa, Manila, and Ma-le'l Dunes; and Mad River Slough and Elk River Wildlife Areas. Portions of the Humboldt Bay National Wildlife Refuge are located within this planning unit, as well. These environmentally significant areas hold great value for the communities that appreciate them and the wildlife that depend on them.

Map 4.8.2, found at the end of this Unit Action Plan, illustrates assets and values at risk to wildfire identified by community members at public workshops. More detailed descriptions of community-identified fire planning features can be found on the Humboldt County Web GIS² Portal: https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP.

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 4.8.1 HUMBOLDT BAY AREA: COMMUNITY-IDENTIFIED ASSETS AT RISK	
Community	Schools
○ Bayside Community Hall, Old Community Hall, Post Office, Mistwood School Area	○ 7th Day Adventist School
○ Fieldbrook School & Church (historical)	○ Blue Lake School
○ Fieldbrook Firehouse & Store	○ Children of the Redwood Infant Toddler Center

¹ Dyett & Bhatia. (2002). Eureka Plain (Humboldt Bay) 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/documents/background.aspx>

² Geographic Information Systems (GIS).

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FIGURE 4.8.1 HUMBOLDT BAY AREA: COMMUNITY-IDENTIFIED ASSETS AT RISK, CONTINUED	
○ Fieldbrook Grange No. 771	○ College of the Redwoods
○ Humboldt Unitarian Fellowship/Community Farm	○ Humboldt State University
○ Manila Community Center	○ Jacoby Creek School
○ Redwood Acres	○ Samoa Peninsula School
○ Sequoia Park	
<i>Greenspace</i>	<i>Medical</i>
○ Arcata and Jacoby Creek Community Forests	○ Medical District
○ Arcata Marsh	○ Two Feathers Health Center
○ Humboldt Bay National Wildlife Refuge	○ Retirement Home
○ Local forest land/timber resources	○ Seaview Skilled Nursing Facility
○ Viewshed east of Sunnybrae	<i>Infrastructure</i>
○ Viewshed northeast of Arcata, north of Hwy 299	○ Blue Lake Sewer Lift Station
<i>Industrial/Business</i>	○ California Redwood Coast - Humboldt County Airport
○ Biomass Plant	○ Coast Guard Station
○ Blue Lake Industrial Area	○ Fairhaven Power Company
○ Fieldbrook Apple Farm	○ Humboldt Bay PG&E Substation
○ Kerman Industrial Park	○ Humboldt Bay Power Plant
○ Samoa Cookhouse	○ Humboldt Hill Communications Complex
○ Simpson Pulp Dock and Mill Site	○ Lyman Pump Station
○ Small Log Sawmill	○ Manila CSD & Tanks
○ Winery	○ Manila CSD Pumphouse
<i>Tribal</i>	○ PG&E Control Station
○ Blue Lake Casino & Tribal headquarters	○ Water Pumping Station

4.8.3 HUMBOLDT BAY AREA WILDFIRE ENVIRONMENT

The majority of the Humboldt Bay Area Planning Unit (68%) is zoned “High Fire Hazard Severity,” as determined by the California Department of Forestry and Fire Protection (CAL FIRE).³ However, approximately 17% of the Unit area, including many of the central communities, are zoned “Moderate Fire Hazard Severity,” with less than 1% of the Unit zoned “Very High Fire Hazard Severity.” Inland areas further from the coast tend to have a higher *wildfire risk*. A substantial portion of the more populated areas are within the *Local Responsibility Area* (LRA) and are therefore not zoned by CAL FIRE.

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

Wildfire risk: The combination of vegetation, topography, weather, ignition sources, and fire history that leads to fire and/or ignition potential and danger in a given area.

³ CAL FIRE. (2007). Fire Resources Assessment Program (FRAP). [Map showing Fire Hazard Severity Zone ratings within various geographic areas, mapped by county]. Fire Hazard Severity Zones Map. Retrieved from http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps

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Humans and human-related activities are the main wildfire ignition sources in this area. Potential human-related fire causes include arson, equipment use, vehicle accidents, smoking, and unattended campfires and burn piles. Abandoned structures and vehicles are also ignition hazards because they present easy targets for arsonists. Lightning strikes and downed power lines are also potential fire-starters. This region is also seismically active, and the potential for earthquakes should always be considered in assessing fire risks.

*For a closer look at fire hazard severity in this planning unit, see Map 4.8.2, **Humboldt Bay Area Community-Identified Protection Resources, Values/Assets, & Risks/Hazards**.*

How is Fire Hazard Severity determined by CAL FIRE?

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

Fire History

Traditionally, fire was an integral part of the ecosystems in this region. Forest management by indigenous tribes often included low-intensity, intentional burns that helped enhance forest ecosystems

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.



Blue Fire 2017, pine tree spot fire. Photo: Mark Nelson.

and prevent the accumulation of high fuel loads. Some of the early settlers in the late 1800s also used intentional burning in order to clear and maintain grasslands for pasture animals. A heavy *fire suppression* campaign beginning in the 1930s has allowed the accumulation of dense, flammable vegetation in forest understories, which acts as fuel and increases the risk of high-intensity wildfires. Forest ecosystems, accustomed to low-intensity fires that would burn off brush and newer starts in the understory, become threatened by overcrowded forests and accumulated fuel. Intense timber harvests, which were common during the 20th century, had substantial impacts on the forest ecosystems in this region. Timber operations left behind heavy amounts of logging slash, and the replacement of old growth stands with second growth redwoods altered stand compositions, making them less resilient to wildfires.

There have been very few major wildfire events in this planning unit within **recent decades**. The Luffenholtz Fire in 1908 is a noteworthy event that burned the town of Luffenholtz to the ground just

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north of this planning unit. According to a September 25, 1908 article in the Sacramento Union, over 100 residents were left homeless, there were two deaths, thousands of acres of timberland were destroyed, and the Little River Mill burned. The southern edge of the community of Westhaven and neighborhoods along Crannell and Dows Prairie Roads now sit within the historic footprint of that devastating fire.

Despite the coastal influences and a moist climate, catastrophic wildfire has played, and could still play, a role in the local environment. There are periods within this planning unit of high fire risk when conditions are just right for a single fire ignition to have potentially devastating consequences. It is also becoming increasingly common that, during times of high fire danger within this planning unit, a large portion of local and state firefighting resources are committed to other incidents throughout the region. A wildfire ignition during one of these periods—when resources are stretched thin—could potentially spread quickly, threatening citizens’ lives, as well as homes, schools, and businesses. The October 8, 2017, Blue Fire came very close to being the catastrophic event that local firefighters worry about. The fire started under Red Flag warning conditions⁴ and began to grow quickly, primarily located north of Highway 299 but starting spot fires on the south side of the highway near the City of Blue Lake. Even though many local and state firefighting resources were away from the area, helping with wildfires in other counties, a quick and effective response was organized and the fire was suppressed before it reached homes and infrastructure. This close call underscores how important it is to be vigilant between June and October when conditions can be just right for a fire ignition to take off into a fast moving and hard to contain wildfire.

FIGURE 4.8.2 HUMBOLDT BAY AREA: FIRES OVER 10 ACRES 1908-2017⁵

Fire Name	Cause	Year	Acres	
			In Unit	Total
Luffenholtz	Unknown/ Unidentified	1908	4,014	7,434
Bay	Miscellaneous	2008	57	57
Blue	Power Line	2017	12	12

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

Structural Ignitability

Residences within this planning unit facing the greatest risk of *structural ignitability* are those located among communities in the remote hinterlands and within the wildland-urban interface (WUI). WUI communities and neighborhoods of particular concern include, but are not limited to, Humboldt Hill; Ridgewood Heights; East Fieldbrook and neighborhood off of Fieldbrook Road along Stolpe and Lyman Lanes and Sunny Acres Avenue; greater Blue Lake; Samoa, Fairhaven, and Manila; neighborhoods located along upper Jacoby Creek and Fickle Hill Roads; as well as residential areas off of Myrtle between Mitchell and Pigeon Point Roads. For homes located in the WUI, there is an increased

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

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.

likelihood that wildland fires will become 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

⁴ A Red Flag Warning means warm temperatures, very low humidities, and stronger winds are expected to combine to produce an increased risk of fire.

⁵ FRAP. (2018). State Fire Perimeters 1908-2017.

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forced inside by strong winds, or sucked in through ventilation systems. For this reason, home hardening should be a top priority for homeowners concerned about their fire resiliency. Roofs and eaves, windows, vents, and siding are all components that can be upgraded to reduce a home's vulnerability to loss. Resources for homeowners ready to take this leap in fire preparedness include *Appendix L, Living with Wildfire* and *Home Survival in Wildfire-Prone Areas*⁶, published by the University of California Agriculture and Natural Resources. **Based on field observations, there are many homes in this planning unit where steps need to be taken to ensure structure survival when wildfire is nearby.**

Wildfire risk is exacerbated by the presence of dense vegetation growing in the *Home Ignition Zone* and flammable items in direct contact with the structure. Dead plant matter and vegetation with low moisture levels within 100-150 feet of homesteads pose some of the greatest threats to structural ignitability. Of particular concern are houses with needles and leaves accumulating on rooftops or in rain gutters. Houses with wooden rooftops and siding add to this risk, as do the presence of wooden decks, particularly those with dead plant matter accumulated beneath them. Vegetation around structures in this unit vary; some residences may support farms and gardens, while other parcels may be largely forested or contain pastures in small to medium openings in the forest. Although private properties tend to be located on more gentle terrain, some homes are surrounded by steep slopes that can limit their defensible areas and put structures in the line of up-hill spreading wildfires.

Managing fuels for at least 100 feet of defensible space is highly recommended by this CWPP and is mandated by California Public Resources Code 4291⁷. By reducing the intensity and rate of spread of a fire, defensible space provides suppression personnel the option to deploy their resources to defend the home; it also reduces the likelihood that a house fire will spread outwards. Likewise, managing fuels along access roads provides safer escape routes for both residents and suppression personnel.

Map 4.8.2, 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

All of the cities and communities within this planning unit are provided with potable water and fire protection water by the Humboldt Bay Municipal Water District (HBMWD), which was formed in 1956 under the California Municipal Water Act of 1911. The HBMWD's facilities and operations include the R.W. Matthews Dam and the associated Gosselin Hydro-Electric Power House; diversion, pumping, and control facilities adjacent to the Mad River; storage and treatment facilities; and two separate pipeline systems for delivering drinking water and untreated, raw water to customers.⁸ Numerous hydrants as well as city- and privately-owned water tanks are located throughout the cities of Arcata, Blue Lake, and Eureka as well as the larger communities within this planning unit.

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

⁶ Quarles, S.L., Valachovic, Y., Nakamura, G.M., Nader G.A., & De Lasaux, M.J. (2010). *Home Survival in Wildfire-Prone Areas: Building Materials and Design Considerations*. University of California, Agriculture and Natural Resources. ANR Publication 8393. [PDF]. Retrieved from <https://anrcatalog.ucanr.edu/pdf/8393.pdf>

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

⁸ Humboldt Bay Municipal Water District. (2012). About Us. Retrieved from <http://www.hbmwd.com/about>

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firefighters, and for community members to ensure that their water sources are properly outfitted for firefighting equipment.

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 4.8.3 HUMBOLDT BAY AREA: FIRE PROTECTION WATER DRAFT SITES	
○ Baywood Golf Course ponds	○ Lane Pond
○ Blue Lake waste water ponds (helicopter)	○ Mad River
○ Davenport Pond	○ Manila CSD ponds
○ Doug's Pond (helicopter)	○ Morai's Pond
○ Essex Dipping Pond	○ Morrison Gulch drafting sites
○ Fraser Pond	○ Quarry Road drafting site
○ Guynup's Pond	○ Sampson's Pond (helicopter)
○ Kernan Pond	
<i>Note: Locations identified at community workshops and will need to be vetted further with local firefighting personnel.</i>	

Map 4.8.2, 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 Humboldt County Web GIS Portal: https://webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP.

4.8.4 HUMBOLDT BAY AREA FIRE PROTECTION CAPABILITIES



Top: Humboldt Bay Fire on the job.

Bottom: Unit-wide meeting of firefighters.

Photos: Humboldt Bay Fire.

Five fire related districts provide fire protection to the communities within this planning unit. All five fire protection service entities respond to structural fires as well as wildfires and provide emergency medical and rescue services. A substantial portion of this planning unit, including the cities of Arcata, Blue Lake, and Eureka, 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. Fire departments associated with the local fire related districts work closely with CAL FIRE to suppress wildfires when they occur, responding with a combination of volunteer and career firefighters. An auto aid agreement allows all of the fire departments to efficiently respond to emergencies without the delay of waiting for an assistance request. This prearranged agreement helps facilitate a quick response to any area within the planning unit without leaving any one jurisdiction unprotected. Fire protection services for the Humboldt Bay Area Planning Unit are summarized in the table below.

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FIGURE 4.8.4 HUMBOLDT BAY AREA: FIRE PROTECTION RESOURCES ^{9,10}			
PERSONNEL	SERVES		RESPONSE
	RESIDENTS	AREA (ACRES)	
HUMBOLDT BAY FIRE – PHONE: (707) 441-4000 EMAIL: info@HBFire.org WEB: HBFire.org			
53 Career 5 Volunteers	56,000	40	<ul style="list-style-type: none">○ Structural fires○ Medical and rescue services○ Urban Search & Rescue (USAR)
APPARATUS			
<ul style="list-style-type: none">○ (6) Type-1 fire engines○ (2) Type-3 fire engines○ (2) Ladder trucks○ Medium-duty rescue squad		<ul style="list-style-type: none">○ Water tender, 2,000 gallons○ Hazardous materials response unit○ Urban Search & Rescue (USAR) truck○ Cal-OES USAR trailer	
ARCATA FIRE PROTECTION DISTRICT – PHONE: (707) 825-2000 EMAIL: jmcdonald@arcatafire.org WEB: arcatafire.org			
22 Career 17 Volunteer 14 Auxiliary	37,000	62	<ul style="list-style-type: none">○ Structural fires○ Medical and rescue services○ Fire prevention, education, and inspection services
APPARATUS			
<ul style="list-style-type: none">○ (4) Type-1 engines○ Type-3 engine○ Rescue truck		<ul style="list-style-type: none">○ Ladder truck○ Water tender, 3,000 gallons○ Multi-casualty Incident Response Trailer	
SAMOA PENINSULA VOLUNTEER FIRE DEPARTMENT – PHONE: 707-443-9042 EMAIL: samoaVFD@gmail.com WEB: samoafire.org			
17 Volunteer 3 Auxiliary	-	3	<ul style="list-style-type: none">○ Structural fires○ Medical and rescue services
APPARATUS			
<ul style="list-style-type: none">○ Type-1 engine○ Type-2 engine○ Type-3 engine		<ul style="list-style-type: none">○ Rescue truck○ Pick-up truck, 4WD	

⁹ Humboldt County Fire Safe Council. (2018.) Humboldt County Fire Chiefs' Association Annual Report, 2017. (pp. 33-34, 37-38). Retrieved from <https://humboldtqov.org/Archive.aspx?AMID=75>

¹⁰ Humboldt County Planning Division. Fire District Boundaries and Contact Information. [GIS data]. (2018).

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FIGURE 4.8.4 HUMBOLDT BAY AREA: FIRE PROTECTION RESOURCES, CONTINUED			
PERSONNEL	SERVES		RESPONSE
	RESIDENTS	AREA (ACRES)	
BLUE LAKE VOLUNTEER FIRE DEPARTMENT – PHONE: (707) 668-5765 EMAIL: blchief@suddenlinkmail.com			
1 Career 21 Volunteer	3,000	District: 14 Out of District: 93 ¹¹	<ul style="list-style-type: none">○ Structural fires○ Medical and rescue services○ Fire prevention, education and inspections
APPARATUS			
<ul style="list-style-type: none">○ (2) Type-1 engines○ Type-3 engine○ (2) Water tenders			<ul style="list-style-type: none">○ Rescue truck○ Mobile air refill and lighting trailer (regional resource)
FIELDBROOK VOLUNTEER FIRE DEPARTMENT– PHONE: (707) 839-0931 EMAIL: sheppardjack73@gmail.com WEB: fieldbrookfire.org			
23 Volunteer 6 Auxiliary	1,235	9.4	<ul style="list-style-type: none">○ Structural fires○ Medical and rescue services
APPARATUS			
<ul style="list-style-type: none">○ Quick-attack truck○ (2) Pumper engines			<ul style="list-style-type: none">○ Water tender

In November 2014, Humboldt County voters passed the Public Safety and Essential Services half-cent sales tax—Measure Z.¹² Each year since its approval the Humboldt County Fire Chiefs’ Association has applied for and received Measure Z funding and used it to purchase much needed fire engines, personal protective gear, and other essential equipment. In 2018, voters expressed their desire to see continued improvement in the local level of service by renewing the Public Safety and Essential Services sales tax by passing Measure O, which did not include a sunset clause.

The primary challenge for the fire agencies in this planning unit is securing enough revenue to effectively and sustainably protect their respective communities. Recruiting and retaining career staff; volunteer firefighters and auxiliary members; and willing citizens to actively serve on jurisdictional boards is also a continual challenge. There is also always a need for increased community involvement and support.

In addition, providing services to out-of-district areas puts a strain on already limited resources. This is a particular burden for the Blue Lake Fire Protection District, which is consistently called to respond to an area outside of its jurisdiction that is nearly seven times the size of its district. Emergency response times to this area, as well as other areas on the outskirts of community



Eureka house fire. Photo: Humboldt Bay Fire.

¹¹ The Blue Lake Rancheria receives fire, medical, and rescue response from a MOU for services provided by Blue Lake Fire Protection District. There is also an agreement in place for service provided to the Korb Mill.

¹² County of Humboldt. Measure Z – Phillipsville Volunteer Fire Company Safety/Essential Services. [Web].

Retrieved from <https://humboldt.gov/1803/Measure-Z-Information>

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centers, can be lengthy due to poor road access that requires emergency vehicles to traverse the roads slowly and with extreme caution. There is also a need to improve access to fire protection water in several of the more remote communities.

4.8.5 HUMBOLDT BAY AREA EVACUATION

When wildfires have the potential to become disasters by threatening life and safety, procedures are initiated to support the safe evacuation of people, domestic animals, and livestock from potentially hazardous areas. During such events, community evacuation sites may be established where residents can go to survive a wildfire. **Evacuation sites will be established in different locations depending on the anticipated path of the wildfire and location of the affected population.** The determination for the location of these sites is normally made by the Humboldt County Emergency Operations Center Incident Commander in cooperation with an Incident Management Team. The Humboldt County Sheriff and Emergency Officials will use the Humboldt Alert mass communication system (<https://humboldtqov.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 Humboldt Bay Area Planning Unit will depend on the location of the community at risk and law enforcement recommendations based on fire behavior, wind patterns, traffic, and ingress of emergency vehicles. Evacuation will likely travel either north or south along Highway 101, or east on Highway 299. There are numerous smaller roads connecting residences and neighborhoods to Highway 101. The narrowness of smaller roads leading to these remote residences could create serious complications for emergency vehicle responses trying to gain access during simultaneous home evacuations. Some of these smaller routes are one-way-in, one-way-out roads, with no alternative route. Adequate ingress and egress along these roads is vital to a large portion of the population that may need to access the main highway evacuation route and for firefighters who will be using the roads to access wildfires burning in remote, upslope areas.

FIGURE 4.8.5 HUMBOLDT BAY AREA: EVACUATION ROUTES

PRIMARY EVACUATION ROUTES	ALTERNATIVE EVACUATION ROUTES
<ul style="list-style-type: none">○ Hwy 101, Eureka, Arcata, McKinleyville, Trinidad, Westhaven, Big Lagoon, Orick	<ul style="list-style-type: none">○ Old Arcata Road/Myrtle Avenue between Arcata and Eureka
<ul style="list-style-type: none">○ Hwy 299, Arcata, Blue Lake	<ul style="list-style-type: none">○ Central Avenue in McKinleyville
<ul style="list-style-type: none">○ Hwy 255, Samoa and Manila	<ul style="list-style-type: none">○ Essex Lane from 299 into McKinleyville
<ul style="list-style-type: none">○ Fieldbrook Road/Murray Road, Fieldbrook	<ul style="list-style-type: none">○ Janes Road, Spear Avenue, and Alliance Road through Arcata
<ul style="list-style-type: none">○ Walnut Drive, West Gate Drive, Ridgewood Drive, and Elk River Road, to communities on the eastern outskirts of Eureka	<ul style="list-style-type: none">○ Jackson Ranch Road leading from Highway 255 into the Arcata bottoms

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

Maintaining proper clearance on these roads is extremely important for ensuring the safety of residents within far-removed neighborhoods; overgrown vegetation can create hazardous conditions for firefighting apparatuses seeking access to these areas and can also hinder evacuation of residents in emergency situations. Other evacuation impediments may include landslides, fallen trees, downed power lines, 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.

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

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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.¹³ If residents are forced to take shelter, the horrific sound, smoke, and heat of a passing wildfire may be physically and emotionally difficult to endure. It may bring some solace and may help combat the natural urge to flee knowing that all possible measures have been taken to increase the odds of survival.

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

Humboldt Alert: Humboldt County's Mass-Notification System

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

4.8.6 HUMBOLDT BAY AREA COMMUNITY PREPAREDNESS

Fire preparedness in these communities is abetted by the Humboldt County Fire Safe Council (HCFSC), which was formed in 2002 by the County Board of Supervisors. The HCFSC's goals, in addition to implementing measures outlined in the countywide Community Wildfire Protection Plan, include sharing fire-safety information, assessing fire risk, promoting community fire-safe planning and coordination, linking fire-prevention programs and providing support to local fire services and fire safe councils (FSC).¹⁴ The HCFSC has helped several community groups in the county establish their own FSCs, and has assisted many more communities in achieving national *Firewise*® recognition, as well as helping these groups obtain grant funding for fire hazard mitigation activities such as fuel reduction projects.

Residents of the Jacoby Creek Road neighborhood—a community at risk of wildfire—formed the Upper Jacoby Creek Firewise® Committee after seeing a neighbor's home burn to the ground as the result of a chimney fire. At the end of 2012, this group produced a Community Assessment and an Action Plan, and successfully achieved national

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

¹³ 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>.

¹⁴ County of Humboldt, Natural Resources Planning. (2018). Humboldt County Fire Safe Council homepage.

Retrieved from <https://humboldtgov.org/FireSafeCouncil>

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recognition as a Firewise® community.¹⁵ Some successful Firewise® modifications include implementing the “Blue Dot Program”, where water tanks are clearly labeled and outfitted with reflective blue dots, improving signage by replacing old markers with reflective address signs, and raising fire-safe awareness by hosting a Firewise® event and producing an informational brochure.

Other communities in this planning unit may choose to follow the example of the Upper Jacoby Creek neighborhood by following through with the process of becoming recognized as Firewise®, which includes a site-specific wildfire risk assessment, an action planning process, and an annual community educational event. 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.

For those communities without a local Firewise® group or other community-level fire-planning entity, this Planning Unit Action Plan will provide a starting point for fire-planning efforts. To help guide and inspire wildfire preparedness in this planning unit, this CWPP provides a list of priority action recommendations reflective of the community concerns and ideas collected through the process described below. *See section 4.8.9, Humboldt Bay Area Action Plan for a list of priority actions recommended by this CWPP.*

FIGURE 4.8.6 HUMBOLDT BAY AREA: FIRE PREVENTION ACCOMPLISHMENTS

- Arcata Fire Department has developed plans for and is seeking funding to support both a training tower and a burn trailer that will be shared countywide.
- Fire departments from within this planning unit proudly assisted Sonoma and Ventura Counties during the 2017 fire season and Butte County in 2018. The experience gained from these assignments increases the local capacity for responding to similar events within this planning unit.
- The Blue Lake Fire Protection District successfully secured grant funds from Measure Z to support the high number of emergency calls outside of its boundaries (particularly along Highway 299) so that the burden of cost was not carried by tax payers within the District.
- The Fieldbrook CSD successfully annexed property into its fire service boundary to better match where the fire and rescue service of the VFD are being provided.
- Fire departments within this planning unit received much needed safety equipment through Humboldt County Fire Chiefs’ Association Measure Z grants (Fieldbrook, Blue Lake, Samoa Peninsula).
- In 2013, the community of Fieldbrook voted to increase the special tax that supports fire protection services. The special tax is a vital revenue source that the Fieldbrook VFD depends on for its survival.
- The Samoa Peninsula Fire District successfully completed a reorganization process to become the Peninsula Community Services District in order to expanded municipal services to the community.

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

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

¹⁵ Upper Jacoby Creek Firewise Committee. (2012). Upper Jacoby Creek Firewise Community Assessment and Action Plan. Retrieved from <https://humboldt.gov/740/Upper-Jacoby-Creek>

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Green Diamond Resource Company and Humboldt Redwood Company have substantial landholdings within this planning unit. In recent years, both companies have undertaken efforts to help reduce the risk of wildfire occurrences on their property and associated with their operations. Both companies treat logging slash in a variety of ways to help reduce fire hazards. Their methods include piling and burning, *broadcast burning*, *mastication* and on-site chipping. As market conditions have allowed, Green Diamond has also conducted post-harvesting *biomass recovery* for power generation with the vegetative debris produced by these activities. State law requires firefighting equipment be maintained at logging operations and inside all vehicles; harvesting operations be suspended at specified levels of low relative humidity; and logging crews make daily fire inspections after work is done during the fire season. Green Diamond also maintains fire trucks and heavy equipment for wildland fire emergencies. Green Diamond Forestry staff and logging and maintenance crews are available to respond to fire emergencies on the company's timberlands and to assist CAL FIRE at their request. Humboldt Redwood Company has similar capabilities to assist CAL FIRE but depends more on contractors and does not maintain its own logging crews.

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.

Mastication: Mastication treatment utilizes several different types of equipment to grind, chip, or break apart fuels such as brush, small trees and slash into small pieces.

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.

To better understand their vulnerability to fire, Humboldt Redwood Company recently completed a fire risk assessment model for their ownership. This model characterizes fire risk across the ownership utilizing inputs including, but not limited to, fuel composition, topography, weather, and ignition risks. This information is used by forest managers to focus the reduction of fuel loading in strategic areas to reduce the potential impacts of wildfire.

4.8.7 HUMBOLDT BAY AREA LOCAL WILDFIRE PREVENTION PLANS

This Planning Unit Action Plan is the primary wildfire prevention plan for the Humboldt Bay Area. Within this planning unit are various, smaller communities each with different needs. These communities are encouraged to pursue Firewise® recognition, and through that process adopt a Firewise® Action Plan that identifies and prioritizes actions that reduce the risk posed by wildfire. Upper Jacoby Creek is currently the only community in this planning unit to have successfully achieved Firewise® Recognition.

Upper Jacoby Creek Firewise® Action Plan

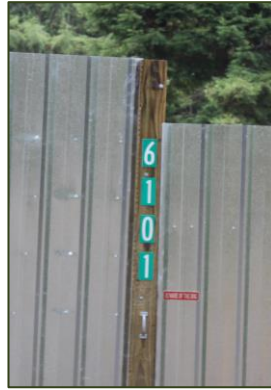
The Upper Jacoby Creek Firewise® Action Plan¹⁶, completed in 2012 as part of the Firewise® certification process, was developed in collaboration between community members, CAL FIRE, and the Arcata Fire Department. The Action Plan contains the following short-term priorities:

- Host an Annual Firewise® Event.
- Maintain defensible space throughout the entire community.
- Make fire-safety information available to community members.
- Enhance fire protection water in the community.
- Create highly visible road and address signs using green, reflective signs.
- Improve road conditions for emergency access.
- Reduce hazardous fuels along roads and near power lines.

¹⁶ Upper Jacoby Creek Firewise Committee. (2012). Upper Jacoby Creek Firewise Action Plan. Retrieved from <https://humboldtgov.org/740/Upper-Jacoby-Creek>

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- Plan for evacuation through outreach and identification of evacuation sites.
- Plan for disaster by developing a Phone Tree List and exploring options for an alarm system.
- Prevent house fires.



Examples of Upper Jacoby Creek Firewise Community accomplishments include properly labeling and outfitting water tanks (left), adding house numbers to previously unmarked homes (middle), and supplementing homemade street signs with high visibility green reflective signs (right).

Humboldt Redwood Company Fire Plan

A fire plan is developed every operating season for all operations taking place on Humboldt Redwood Company land. This fire plan includes maps of all operating areas, anticipated operating schedules, firefighting equipment available on-site, and emergency communication procedures. This fire plan is presented to CAL FIRE, reviewed, and discussed every year during an annual pre-season fire meeting. In addition, a Burn Plan is prepared every season to identify all areas where prescribed fire operations will be conducted. This burn plan provides a description of the fuel type, necessary weather conditions needed to ignite a prescribed fire, minimum resources required, an ignition plan, a containment plan, a communications plan and emergency call down list. This plan is also provided to CAL FIRE annually.

4.8.8 HUMBOLDT BAY AREA COMMUNITY IDENTIFIED PROJECTS

As part of the larger collaborative planning process to create this CWPP, 14 community wildfire preparedness workshops were held throughout the County. *See Chapter 1.2, Collaborative Planning Process and Appendix B, Planning Process Details for more information.* The workshop for this planning unit was held on November 16, 2017 at Green Point School with the following goals:

Provide information:

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

Seek Information:

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

Through the initial 2004-2005 fire-planning process and the 2012 and 2017 CWPP update processes dozens of projects were identified for this planning unit through a community workshop mapping exercise. These projects are illustrated on the community-identified projects map found at the end of this Unit Action Plan (*Map 4.8.3*). New or confirmed existing project ideas proposed during the 2017 update process are summarized in *Figure 4.8.7* and *4.8.8* in this section. *For more information on the mapping exercise, see Appendix B.5, Mapping Exercise Instructions.* The community-identified fire

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hazards, protection resources, and assets and values at risk discussed throughout this Planning Unit Action Plan (*Map 4.8.2*) 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 community-identified project ideas have been identified through the planning process described above and will not be found on the maps or GIS Portal but are important to note and evaluate for feasibility.

FIGURE 4.8.7 HUMBOLDT BAY AREA: COMMUNITY-IDENTIFIED PROPOSED PROJECTS

- Outreach to senior living facilities about wildfire.
- Improve address and street signage.
- Address fire hazard posed by homeless encampments.

The local residents who attended the November 18, 2017 workshop identified the projects in the following table 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 4.8.8 HUMBOLDT BAY AREA: COMMUNITY-IDENTIFIED PRIORITY PROJECTS

PROJECT DESCRIPTION	PROJECT TYPE	PROJECT ID
<i>Arcata/Bayside/Jacoby Creek</i>		
Sunnybrae: shaded fuel break & protection zone	Landscape	ARC035
Fickle Hill: shaded fuelbreak	Landscape	BAY032
Boynton Prairie Road: shaded fuel break between residences near community forest	Landscape	EUR071
<i>McKinleyville/Fieldbrook</i>		
Address fire hazard posed by homeless encampments	Non-geographic	-
Improve address signage throughout (particularly Murray Road Area; David, Lisby, Arthur, Elizabeth Roads; Park Avenue; Lime; A-B-1 st)	Non-geographic	-
Address access issues in the Timmons Ranch/Essex Gulch Area	Access	-
<i>Blue Lake Greater Area</i>		
Liscomb Hill Neighborhood: defensible space, improve access	Defensible Space/Access	BLU057
Upper Blue Lake Blvd: roadside clearance, water tank development, defensible space	Defensible Space/Access	BLU061
Clearing fuels above freeway below Green Hill Road	Defensible Space	BLU050
<i>Eureka Greater Area</i>		
Elk River Court bridge: fix/engineer	Access	EUR047
Headwaters: fix access haul bridge	Access	EUR049
Indianola: post address/street signs, reduce fuels, improve access	Multiple	EUR058

4.8.9 HUMBOLDT BAY AREA ACTION PLAN

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

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

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

Priority Action Recommendations:

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

- **E**valuate the feasibility of organizing a fire safe council to guide coordinated wildfire preparedness within this planning unit, specifically the WUI areas around McKinleyville, Fieldbrook, Arcata, Blue Lake, Eureka, Samoa, and Manila.
- **M**aintain the Upper Jacoby Creek Firewise Communities/USA® Site:
 - Actively implement and maintain the Firewise® action plan.
 - Focus activity on home hardening and defensible space.
 - Continue to host an annual Firewise® Day.
- **I**dentify other community organizations, tribes, and/or groups of individuals in neighborhoods adjacent to the wildland with the interest and capacity to facilitate participation in the Firewise Communities/USA® Recognition Program or other similar wildfire preparedness program.
 - This focus area could be added to already existing disaster preparedness groups.
 - Conduct a risk assessment with support from the HCFSC, local fire departments, and/or CAL FIRE and draft a Firewise® action plan (the existing Upper Jacoby Creek plan can be used as a resource for this).
 - Host a Firewise® Day to share findings and inspire action; Firewise activities could be added to an existing annual community event.
 - If necessary, seek funding to support this effort.

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- **O**nce implementation groups are formed, evaluate, further develop, seek funding for, and implement—as appropriate and feasible—the community-identified priority actions listed above as well as all community-identified potential projects stored in the Web GIS Portal. Perform this same process for the actions identified in the *Upper Jacoby Creek Firewise Action Plan*, as well as in this *Priority Action Recommendations* list and the *Action Catalogue* below. Pursue activities that align with available resources, community values, and the highest wildfire risks to local assets and values.
- **P**riority areas within this planning unit for fuels reduction and potential Firewise® programs are included in the list below. Activities might include creating defensible space, roadside clearance, chipper programs, and/or landscape treatments, as well as education and assistance for addressing structural ignitability through home hardening and evacuation preparedness. Emphasize outreach to sensitive populations such as the elderly, disabled, and/or low income within these areas:
 - McKinleyville
 - Dows Prairie (EUR089)
 - Neighborhoods off of Sutter Road (EUR090)
 - Fieldbrook
 - East side – Burnt Stump and surrounding areas (FIE047) and Old Quarry (FIE046)
 - South side – Neighborhood off of Fieldbrook Road along Stolpe and Lyman Lanes and Sunny Acres Avenue (FIE057) and Essex (FIE051)
 - Blue Lake and greater area:
 - Neighborhoods north-east of the city above Highway 299 such as Liscomb Hill (BLU057), Green Hill (BLU050), and Jackson Hill / upper Blue Lake Boulevard (Highly ranked community-identified project BLU061)
 - Areas above Blue Lake Boulevard (BLU065)
 - Blue Lake Rancheria (BLU064)
 - Upper Fickle Hill Road (EUR091)
 - Samoa, Fairhaven, and Manila (SAM062, SAM063)
 - Neighborhoods off of north Myrtle Avenue (Mitchell, Mitchell Heights, Spears, and Pigeon Point Roads – EUR056)
 - Neighborhoods to the east of Walnut Drive and towards the end of Ridgewood Drive (Ridgewood Heights), adjacent to the McKay Tract/Community Forest (EUR092)
 - Humboldt Hill (particularly neighborhoods at the top of the hill that are vulnerable to wind driven wildfire in flashy fuels (EUR088)
 - Upper Jacoby Creek is a priority area that already participates in the Firewise® Program (multiple project codes)
- **A**lthough the majority of the population within this planning unit lives in areas of moderate fire hazard severity and within incorporated cities, there are WUI neighborhoods, a large number of dead-end roads leading to multiple residences, and a general lack of wildfire preparation. For those reasons and because it was one of the top concerns of community members who

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participated in fire planning workshops, **evacuation planning** and education are a priority in this planning unit. This plan recommends that residents stay vigilant and evacuate as early as possible to avoid loss of life.

- Work with the County Office of Emergency Services (OES), local fire service, and law enforcement to engage community members in evacuation preparedness (generally, the Sheriff's Office is responsible for conducting evacuations while the fire service focuses on wildfire management). Work together to review best practices as well as emerging new approaches. Target the following priority areas:
 - Humboldt Hill
 - Upper Jacoby Creek
 - Liscomb Hill
 - End of Ridgewood Drive
 - Neighborhoods along Mitchell, Mitchell Heights, Spears, and Pigeon Point Roads and their associated offshoots
 - Other dead-end roads to WUI neighborhoods in the Greater Eureka Area and Greater Arcata Area
- Identify local community liaisons to work directly with emergency management officials.
- Identify and map local evacuation routes and sites.
- Develop an evacuation program for seniors and disabled persons.
- Notify community of evacuation center locations.
- Provide information on large animal evacuation.
- Host neighborhood evacuation preparedness block parties.
- See additional evacuation preparedness ideas in the *Action Catalogue* below under "Disaster Preparedness".
- **F**ocus roadside fuel reduction efforts on priority ingress and egress routes for safe evacuation and emergency response, especially those roads used by the highest number of residents, single access roads, and roads leading to remote, hard to access residences. Priority roads for initial evaluation and outreach efforts include:
 - Liscomb Hill Road and offshoots
 - Upper Jacoby Creek and offshoots
 - Upper Fickle Hill Road and offshoots
 - Greenwood Heights Road
 - Mitchell, Mitchell Heights, Spears, and Pigeon Point Roads
- **C**reate community chipping programs.
 - Priority areas in this unit are those listed above and those adjacent to forested wildlands, particularly where there is a predominance of older pre-WUI building code construction and dead-end roads.
 - Work with local fire departments to identify additional priorities for targeted outreach.

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- Work with green waste disposal businesses and agencies to negotiate reduced cost or free drop-off days for woodchips and yard waste resulting from creating and maintaining defensible space.
- **C**ollaborate with agency and local partners to plan and fund landscape level fuels reduction and management where appropriate and in observance of applicable environmental laws and regulations. Match the site with the best method of treatment to meet forest resiliency and community protection goals including prescribed fire, forest thinning, landscape pruning, mowing, or targeted grazing. Evaluate the following priority areas:
 - Between the forested area east of McKinleyville and the interface zones
 - Between Sunnybrae and the Sunnybrae Community Forest (ARC035)
 - Between Fickle Hill and the Sunnybrae Community Forest (BAY032)
 - Between Boynton Prairie Road and the Arcata Community Forest (EUR071)
 - Between adjacent neighborhoods and the McKay Community Forest
 - Clearing fuels above Highway 299 below Green Hill Road
 - Regularly clear fuels in empty lots in Fairhaven
- **W**ork with commercial timberland owners such as Green Diamond Resource Company and Humboldt Redwood Company to identify priority areas for strategic vegetation treatments to increase forest resiliency to wildfire.
 - Design projects to buffer residences from wildfires that originate from the timberlands and to protect timber resources and ecological values from fires that start in adjacent developed areas and along roads.
 - Inform this process with Humboldt Redwood Company's recently completed fire risk assessment model generated for their ownership.
 - Priority areas for such project development include timberlands adjacent to the east side of McKinleyville, the west side of Fieldbrook, and neighborhoods within Ridgewood Heights and Lundbar Hills.
 - Seek opportunities to collaborate on roadside vegetation management projects where public roads or private roads, leading to residences, transect timberlands.
- **W**hen new subdivisions are created within this planning unit, it should be a priority to include the development of secondary access routes in those plans.
- **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.
 - Target outreach to facilities serving sensitive populations such as senior citizens and the disabled.
 - 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

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networks, local media outlets, and any means used by the local community to share important information.

- Include compelling stories about past coastal wildfire events to overcome apathy and denial that wildfire can threaten coastal communities.
- Encourage Boy Scouts of America and or other local volunteer/service organizations or schools to perform community service activities including delivering literature to homeowners or clearing around and painting fire hydrants.
- **C**ontinue to explore options and make progress on local fire service sustainability efforts such as:
 - Recruiting and retaining volunteers (firefighters as well as auxiliary volunteers);
 - Establishing/maintaining secure, consistent, and sustainable revenue sources to meet growing needs and costs;
 - Ensuring that all developed areas and areas with imminent plans for development are within the boundaries of a fire related district and that services are being provided through the most efficient, effective, and sustainable structure. This may involve fire related district annexations and consolidations;
 - Secure funding for a training tower and burn trailer that can be used to increase the capacity of countywide fire services.
 - Pursue funding to build structures for departments with inadequate storage for fire engines and equipment.
- **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:
 - McKinleyville: Murray Rd Area; David, Lisby, Arthur, Elizabeth Roads; Park Ave; Lime Avenue; A, B, and 1st Streets
 - Greater Eureka Area: Berta, Vista, Redmond Roads and their dead-end off shoots
 - Neighborhoods north of Myrtle Ave, Ryan-Freshwater Creeks, Redmond Road
- **A**ddress road conditions that inhibit effective access impediments. The following priority access issues were identified evacuation and access by emergency responders. Begin by systematically identifying and mitigating such at community workshops and are recommended for initial action in this plan:
 - Address the issue of dead-end roads by exploring the possibility of connecting existing roads to create a secondary access point. This is particularly important for:
 - Upper Jacoby Creek Community
 - Several roads in the communities of Fieldbrook and McKinleyville
 - Greater Eureka area neighborhoods, including Berta, Humboldt Hill; Mitchell, Mitchell Heights, Spears, and Pigeon Point Roads and their associated offshoots
 - Address access issues for the Elk River Court Bridge, Headwaters haul bridge, and McKay Tract Bridge.
 - Address slide out conditions reported on Mitchell Road.
 - Address access issues for the Timmons Ranch/Essex Gulch Area.

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- **H**omeless encampments were identified by community members and fire service representatives as a fire ignition risk within this unit. To better understand and address that risk, identify homeless encampments that pose a fire hazard and work with law enforcement, the fire service and possibly social services to identify appropriate mitigation actions such as providing access to shelters and/or performing fuels reduction around frequently used campsites. There are many reasons to address these areas. Look for opportunities to tie in with other local organizations and efforts to achieve multiple benefits. In addition, develop educational materials and outreach strategies to inform the homeless population about fire prevention and safety.

Action Catalogue:

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

Wildfire Ignition Prevention

- **I**mplement One Less Spark education: www.readyforwildfire.org/One-Less-Spark-Campaign.
- **U**se *Living with Wildfire in Northwestern California* as a primary outreach tool and distribute widely: www.humboldt.gov.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.
- **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

- **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.
- **F**ocus roadside fuel reduction efforts on priority ingress and egress routes for safe evacuation and emergency response. See more about this action in *Priority Action Recommendations* above.
- **W**ork with PG&E and local landowners to reduce fuels along power line easements.
- **C**reate community chipping programs. See more about this action in *Priority Action Recommendations* above.

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- **C**ompile a directory of brushing crews and other resources for landowners seeking to reduce fuels on their property.
- **W**ork with commercial timberland owners such as Barnum Timber, Boyle Forests, and Green Diamond Resources Company to identify priority areas for strategic vegetation treatments to increase forest resiliency to wildfire. See details in the *Priority Action Recommendations* above.
- **C**ollaborate with agency and local partners to plan and fund landscape level fuels reduction and management where appropriate. See more about this action in *Priority Action Recommendations* above.

Disaster Preparedness

- **E**vacuation preparedness and the identification of local evacuation routes and sites is a priority for this unit. See details in the *Priority Action Recommendations* above.
- **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. See details in the *Priority Action Recommendations* above.
- **A**ddress road conditions that inhibit effective evacuation and access by emergency responders. See details in the *Priority Action Recommendations* above. **I**nform residents about the importance of keeping gates open or accessible during Red Flag conditions. Community members and timber companies should consider providing a key or access code to the local fire department.
- **I**nform residents of the need to have accessible, mapped and identifiable water sources for fire suppression, and the importance of sharing that information with local fire departments/companies. This type of activity can be supported by a “Blue Dot Program”, which identifies the location of firefighting water sources by marking them with blue reflective dots. Community priority was placed on the following:
 - The Humboldt Bay Fire Chiefs’ Association should coordinate to develop a Blue Dot program for priority areas within the Planning Unit. Priority areas will include neighborhoods not served by a community water system.
- **I**ncrease the availability of water for fire protection, especially in areas without municipal water service, by investing in more community water tanks and ensuring existing water tanks are

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outfitted with fittings compatible with firefighting equipment. Priority water needs to evaluate include:

- Blue Lake: Ensure that all residents in the Liscomb Hill Road and Upper Blue Lake Boulevard areas have firefighting water sources with proper hookups.
- Enhance water systems to ensure sufficient emergency water supply for future development in the Freshwater and Ridgewood Areas.

Fire Protection

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

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, and the Humboldt County Prescribed Burn Association.¹⁷
- **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.

Integrated Planning

- **I**ntegrate the evaluation, development, and implementation of all relevant planning documents. See details in *Priority Action Recommendations* above.
- **I**nitiate and maintain participation in the Firewise Communities/USA® Recognition Program with neighborhood groups in developed areas adjacent to the wildland. See more about this action in *Priority Action Recommendations* above.
- **S**hare GIS data sets between local representatives 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).

¹⁷ 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 lquinnndavidson@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.