

MATTOLE–LOST COAST PLANNING UNIT ACTION PLAN



Mattole River. Photo: Mattole Restoration Council.

HUMBOLDT COUNTY COMMUNITY WILDFIRE PROTECTION PLAN, 2019

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Helpful Links	
MATTOLE RESTORATION COUNCIL:	http://www.mattole.org
LOWER MATTOLE FIRE SAFE COUNCIL:	https://humboldt.gov/640/Lower-Mattole-FSC
HONEYDEW FIREWISE:	https://humboldt.gov/727/Honeydew
PETROLIA FIREWISE:	https://humboldt.gov/739/Petrolia
CAL FIRE HUMBOLDT-DEL NORTE UNIT:	http://www.fire.ca.gov/HUU
HUMBOLDT COUNTY WEBGIS:	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

4.12 MATTOLE–LOST COAST PLANNING UNIT ACTION PLAN

4.12.1 MATTOLE–LOST COAST PLANNING UNIT DESCRIPTION



A larger map of this planning unit can be viewed in Map 4.12.1, *Mattole–Lost Coast 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 Mattole–Lost Coast Planning Unit encompasses over 200,000 acres situated in the southwestern coastal region of Humboldt County, located west of the Humboldt Redwoods State Park. Although no major highways exist in this planning unit, both routine and emergency transportation needs are served by three separate, distinct, and interconnected county roads. These three roads are “Mattole,” “Bull Creek,” and “Wilder Ridge,” with the town of Honeydew at the origin or terminus of all three. The Unit is part of the Mattole watershed, which is characterized as “an extremely geologically active and unstable watershed.”¹ The terrain is mostly mountainous with steep valleys formed by tributaries of the Mattole River. The Mattole River comes into the Unit south of Honeydew, flows alongside Mattole Road, and joins the Pacific Ocean just south of Petrolia.

Petrolia and Honeydew are the community centers shown on most maps within this planning unit, with populations of about 500 and 600, respectively. However, there are other significant neighborhood clusters and individual homesteads scattered throughout the Unit. Well-known neighborhoods located along, or on offshoots of, the three primary roads listed above include Wilder Ridge, Panther Gap, Windy Nip/Doreen Drive, Green Fir/New Jerusalem, Conklin Creek, Lower North Fork,

Lighthouse Road, and Prosper Ridge.² Many of the residences associated with these neighborhoods are located miles off of the main transportation corridors, along rough gravel roads.

Private lands are the dominant ownership pattern in this unit; these include residential parcels, medium to large tracts of ranchland, and land owned by industrial timber companies in the northeastern portion of the Unit (primarily Humboldt Redwood Company with a scattering of properties owned by R.H. Emmerson & Son LLC). This unit also contains a large portion of public land belonging to the Bureau of Land Management (BLM)—the King Range National Conservation Area—which dominates the southwestern quadrant of the Unit. The Conservation Area is an environmentally significant area managed by the Arcata Field Office, which is responsible for the administration of natural resources, lands, and mineral programs.³ It is worth noting that the Humboldt Redwoods State Park is adjacent to the eastern boundary of this planning unit and wildfire activity and mitigation projects will have a direct impact on the residents and landscape of the Mattole–Lost Coast planning Unit.

¹ Firewise Communities/USA® Recognition Program. (2011). Petrolia Community Assessment. (p. 4).

² Lower Mattole Fire Safe Council. (2016) Lower Mattole Community Wildfire Protection Plan. Retrieved from <http://www.mattole.org/resources/fire-fuels>

³ Lower Mattole Fire Safe Council. (2016). 2016 Lower Mattole CWPP. (p. 20).

4.12.2 MATTOLE–LOST COAST 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 and water quality, recreational facilities and areas, historical structures, and any other important attribute that individual communities rely on for their well-being. The majority of assets at risk in this planning unit are residential homes and communities, along with a variety of commercial and service industries, community centers, medical clinics, schools, fire stations, churches, as well as infrastructure components, such as power lines and access roads.

Significant recreation areas in the Unit include the Mattole Campground, the A.W. Way County Park, and the King Range National Conservation Area. Shell mounds of historical and cultural significance are in the westernmost part of the Unit. The Mattole River has important ecological significance as the Unit’s primary freshwater body; it is part of a federally and state-designated Area of Special Biological Significance and drains into a Critical Coastal Area and Marine Protected Area. Sensitive and listed species in this region include steelhead trout, Chinook salmon, coho salmon, martens, fishers, and northern spotted owls—to name a few.⁴ Hardwood and coniferous forests are assets within this unit as well; they are valuable for subsistence, commercial livelihood, and ecological resources. Some areas, especially near Wilder Ridge, Panther Gap, Lighthouse Road, and the Lower and Upper North Fork, contain many of the last remaining old-growth forests in the lower Mattole Watershed.⁵

Map 4.12.2, 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 GIS⁶ Portal: webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP.

Community-identified assets at risk can be categorized as shown in the figure below. This list is not intended to be comprehensive and illustrates participating community members’ concerns.

FIGURE 4.12.1 MATTOLE–LOST COAST: COMMUNITY-IDENTIFIED ASSETS AT RISK	
○ A.W. Way Park	○ Mattole Valley Community Center
○ CAL FIRE Mattole Station	○ Mattole Valley Resource Center
○ Church of Scientology	○ Mill Creek Forest
○ Etter Enterprise Zone	○ Mount Pierce Communication Site
○ Gilham Butte Forest	○ Old South Maid Ranch House – Historical
○ Honeydew Fire Stations	○ Open Door satellite clinic
○ Honeydew Store and Post Office	○ Petrolia Fire Department
○ Mattole Camp	○ Petrolia Store and Post Office
○ Mattole Campground	○ Rainbow Ridge Cell tower repeater
○ Mattole Grange	○ Seven Day Adventist Church
○ Mattole Union School Campus (Triple Junction High and Honeydew Elementary)	○ St. Patrick’s Church
○ Mattole Salmon Group offices	○ Wilder Ridge fire house

⁴ Mattole River and Range Partnership. (2009). Mattole Integrated Coastal Watershed Management Plan. Foresight 2020. [PDF]. Retrieved from http://www.mattolesalmon.org/joomla/images/stories/Documents/Reports/MSG/SOS/MICWMP_090901.pdf

⁵ Lower Mattole Fire Safe Council. (2016). 2016 Lower Mattole CWPP. (p. 50).

⁶ Geographic Information Systems (GIS).

4.12.3 MATTOLE–LOST COAST WILDFIRE ENVIRONMENT

A detailed wildfire risk assessment is included in the Lower Mattole Community Wildfire Protection Plan.

Readers are encouraged to review that plan for more details about the **wildfire environment**.

The plan can be downloaded and more information about wildfire preparedness can be found on the Mattole Restoration Council’s webpage: <http://www.mattole.org/resources/fire-fuels>

Approximately 90% of the Mattole–Lost Coast Planning Unit is zoned “High Fire Hazard Severity,” as determined by the California Department of Forestry and Fire Protection (CAL FIRE).⁷ However, 3% of the Unit, including some locations near Petrolia and along portions of Mattole Road are zoned “Moderate Fire Hazard Severity,” while approximately 7% of the Unit, including sections of and adjacent to the King Range National Conservation Area and land surrounding the Lighthouse and Prosper Ridge neighborhoods, are zoned “Very High Fire Hazard Severity.”

*For a closer look at fire hazard severity in this planning unit, see Map 4.12.2, **Mattole–Lost Coast 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.

Humans are the most likely ignition source for fires in this planning unit. Vehicle accidents, vehicles dragging chains while towing or issues with tires that throw sparks, smoking, playing with fire, poorly maintained debris burning or camp fires, ignitions associated with marijuana cultivation and processing, and arson 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 planning unit. Other factors that are likely to have a future impact on fire risk within this unit include climate change, which is likely to extend the dry season. This, combined with local weather patterns, high fuel loads, and homesteads spread across the landscape, creates a potentially dangerous wildfire environment.

Some fire service personnel report that they have seen an increase in marijuana fire ignitions and risks over the past decade. This includes spark-generating equipment such as vehicles and generators,

⁷ CAL FIRE (California Department of Forestry and Fire Protection). (2007). Fire Resources Assessment Program (FRAP). [Map showing Fire Hazard Severity Zone ratings within various geographic areas, mapped by county]. Fire Hazard Severity Zones Map. Retrieved from http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps

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faulty wiring, and extraction labs, some using explosive butane. These ignition sources are not only a wildfire risk but can create dangerous conditions for responding firefighters.

The number of fires started by or associated with marijuana operations is not tracked, so it is difficult to document the extent of this impact. It is also unclear how the legalization and regulation of this industry will impact associated wildfire risks. However, there is enough concern to warrant prioritizing wildfire preparedness outreach to the associated population. In addition, it will be important to develop strategies to better track marijuana-related fire ignitions and determine if associated regulation and permitting result in a reduction or change in the number of ignitions. This Plan recommends monitoring regulatory effectiveness in this regard and making changes as necessary.

Fire History

Traditionally, fire has been an integral part of the ecosystems in this region. Forest management by indigenous tribes included low-intensity, intentional burns to help enhance forest ecosystems, keep ridgelines open for travel, ensure vitality of Tribal plant communities, and prevent the accumulation of high fuel loads. Some of the early settlers in the late 1800s also used intentional burning to maintain grasslands for pasture animals. There is still some burning taking place on larger landownerships and the practice is starting to make a comeback. However, a heavy *fire suppression* campaign beginning in the 1930s has disturbed the fire-adapted ecosystems within this unit and altered stand composition. Intense timber harvests, which were followed by the land being sold and subdivided 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.

“ The unprecedented combination of widespread logging and heavy fire suppression resulted in the dense second growth forests of Douglas fir and tanoak that are found throughout Mattole today.⁸ ”

These heavy fuel loads allow small fires that would otherwise burn through the understory to reach into the tree tops, increasing the likelihood of wildfires destroying whole trees and swaths of forest. In addition, the Douglas fir, unchecked by low intensity fires, is rapidly encroaching into oak woodlands, grasslands, and hardwoods in mixed conifer forests. This process is threatening ecosystems, wildlife habitat, and negatively impacting the forests' resiliency to wildfire. The extent that the landscape has been altered as a result of fire suppression is reflected in the condition class of the Unit area. Condition class describes the degree of departure from the historical natural fire regime. Where the condition class indicates that fire has been absent for an unnaturally long time, the hazard and potential damages are high to both the environment and human developments in the area. **Approximately 50% of the Mattole–Lost Coast Planning Unit is condition class 3, meaning the fire regime is significantly altered from the historical range;** and approximately 18% of the area is condition class 2, or moderately altered from the historical range.

The BLM lands within this planning unit have had a very active history of large wildfires, some of which spread into private property. Although wildfires have occurred in and around the populated areas of this planning unit, they were kept relatively small. Based on this history, it is clear that there is potential for wildfire ignition within this planning unit and there are neighborhoods located in historical wildfire footprints where fuel loads have been increasing. The conditions for wildfire are ripe and it is essential that the hazard mitigation actions already in progress continue and expand in scope. The following table lists recent large (over 10 acres) wildfires and their causes.

⁸ Lower Mattole Fire Safe Council. (2016). 2016 Lower Mattole CWPP. (p. 24).

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FIGURE 4.12.2 MATTOLE—LOST COAST: FIRES OVER 10 ACRES 1997-2017⁹

Fire Name	Cause	Year	Acres	
			In Unit	Total
Honeydew	Lightning	2003	10,098	11,794
Spanish	Equipment Use	2011	524	524
Flat	Campfire	2001	308	317
Buckeye	Equipment Use	2010	202	202
Ranch	Escaped Prescribed Burn	2009	125	125
Spanish	Campfire	2012	122	122
Chambers	Arson	2007	55	55
Driftwood	Unknown/ Unidentified	2007	52	53
Cooskie	Campfire	2013	36	36
Rainbow	Unknown/ Unidentified	2003	16	11,794

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

Structural Ignitability

Neighborhoods in this unit exist within the *wildland-urban interface (WUI)*, which increases the risk of wildland fires becoming structural fires, and vice versa. Embers carried on the wind from nearby wildfires—even miles away—could ignite homes within this planning unit. This was made all too clear during recent, catastrophic wildfire events in Northern California that claimed thousands of homes. Many of the homes lost burned from the inside out, as embers were forced inside by strong winds, or sucked in through ventilation systems. For this reason, home hardening should be a top priority for homeowners concerned about their fire resiliency. Roofs and eaves, windows, vents, and siding are all components that can be upgraded to reduce a home’s vulnerability to loss. Resources for homeowners ready to take this leap in fire preparedness include *Appendix L, Living with Wildfire* and *Home Survival in Wildfire-Prone Areas*¹⁰, published by the University of California Agriculture and Natural Resources.

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

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

It is a well-known fact—albeit difficult to quantify—that there are many homes built in this planning unit without permits. There are also many homes that were built before building code compliance was required; building codes include standards intended to harden homes against damage from wildfire. In addition, alternative owner-builder permit procedures can be used in some instances; many of the standard permit requirements do not apply, including those intended to harden homes against wildfire. Many of these unpermitted, pre-code, and alternative owner-builder permitted homes are especially vulnerable to wildfire ignition. That being said, and based on recent examples in neighboring counties, all homes in this planning unit have vulnerabilities to wildfire and steps should be taken to mitigate

⁹ FRAP. (2018). State Fire Perimeters 1908-2017.

¹⁰ Quarles, S.L., Valachovic, Y., Nakamura, G.M., Nader G.A., & De Lasaux, M.J. (2010). Home Survival in Wildfire-Prone Areas: Building Materials and Design Considerations. University of California, Agriculture and Natural Resources. ANR Publication 8393. Retrieved from <https://anrcatalog.ucanr.edu/pdf/8393.pdf>

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wildfire impacts. In an effort to incentivize building permit compliance for existing unpermitted structures, the Humboldt County Planning and Building Department is administering the Safe Homes Program.¹¹ Through December 31, 2022, the Humboldt County Planning and Building Department and the Humboldt County Division of Environmental Health will waive penalty fees associated with construction permits; all customary permit fees will still apply.

SAFE HOMES PROGRAM

For additional information and submittal requirements contact:

Humboldt County Planning & Building: **707-445-7541**

<https://humboldt.gov.org/156/Planning-Building>

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* and can limit the ability of firefighters to ensure the safety of structures. The degree to which residents maintain defensible space around their homes varies greatly from house to house among the neighborhoods. Many houses have dense vegetation growing in the home ignition zone, ladder fuels in nearby trees, or trees close to roofs. Another common issue is the buildup of highly flammable debris such as leaves, needles, and moss, on rooftops or in gutters. Flammable roofing and siding are also a concern for homes in this area.

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

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

6 Observations have been made in the planning area of homes with wood piles, fences, gates, and wood lattice in contact with structures. Dead leaves under decks or along foundations of structures were also observed in some cases. These items are generally more susceptible to combustion from embers or radiant heat and, if lighted, could lead a fire to the rest of the home.¹² ’

Managing fuels for at least 100 feet of defensible space is highly recommended by this CWPP and is mandated by California Public Resources Code 4291¹³. By reducing the intensity and rate of spread of a fire, defensible space provides suppression personnel the option to deploy their resources to defend the home; it also reduces the likelihood that a house fire will spread outwards. Likewise, managing fuels along access roads provides safer escape routes for both residents and suppression personnel.

Map 4.12.2, 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: webgis.co.humboldt.ca.us/HCEGIS2.6 CWPP.

¹¹ Humboldt County, Building Inspection Division Homepage: <https://humboldt.gov.org/153/Building-Inspection>

¹² Lower Mattole Fire Safe Council. (2016). 2016 Lower Mattole CWPP. (p. 47).

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

Water Sources

A lack of available water for fire protection is a very serious safety issue in this planning unit, particularly in the more remote neighborhoods. Because there are no municipal water services or hydrants, residents must obtain water through other means, such as drawing from nearby creeks and holding tanks. Water availability is a limiting factor for the safety of many neighborhoods in this unit, particularly the more remote communities. Although a few community water tanks have been placed in these neighborhoods, their contents can fall short of what is needed for fire suppression, posing a challenge for firefighters. Ensuring that existing water tanks are committed to fire, maintained, and functioning properly is a high priority for community members in these neighborhoods.

Fire protection water may be drafted from the Mattole River and main tributaries. However, this has become problematic in late summer months because of the impact that withdrawing water from the river can have on endangered salmon and steelhead populations.

Map 4.12.2, 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 can be found on the Humboldt County Web GIS Portal: webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP.

4.12.4 MATTOLE–LOST COAST FIRE PROTECTION CAPABILITIES

Community fire protection within the Unit is provided by the Petrolia Volunteer Fire Department (PVFD), which provides all risk protection services for the Petrolia Fire Protection District, and the Honeydew Volunteer Fire Company (HVFC).

Mutual aid agreements are in place with neighboring jurisdictions, such that all local departments often respond to calls inside and outside of their response areas. However, due to the rural nature of the area, additional help can take a long time to reach its destination. CAL FIRE also responds to wildland fires in the Unit, but the Mattole station is only in operation during declared fire season, which usually begins in June and lasts through October. The CAL FIRE Weott station can also send equipment and personnel to the Unit area when extended service is needed. Response times from the Weott station often require 60 minutes or more, depending on the location of the incident.

Mutual aid agreement: A reciprocal aid agreement between two or more agencies that defines what resources each will provide to the other in response to certain predetermined types of emergencies. Mutual aid response is provided upon request.

The CAL FIRE Mattole Station can be reached by calling **(707) 629-3344**.

Fire protection agencies in this unit are benefited by convenient access to helpful and pertinent information compiled in the Mattole Fire Atlas. It has become a primary emergency resource as other map sources are not as accurate.

“ The Lower Mattole Fire Atlas identifies firefighting resources like fire stations and trucks, and water tanks and ponds. The Fire Atlas also shows the known locations of structures.¹⁴ ”

An update to some of the lower sections included in the Mattole Fire Atlas occurred in 2011 and copies were given to the PVFD, HVFC, and the Mattole Restoration Council (MRC) as a work in progress. Future projects include updates to the remaining areas in the upper Mattole River watershed. Copies will be provided to the Telegraph Ridge, Whitethorn, Shelter Cove, and Whale Gulch fire departments as well as the BLM fire station in Whitethorn. These fire service entities may submit corrections and additions to the Atlas.

¹⁴ Lower Mattole Fire Safe Council. (2016). 2016 Lower Mattole CWPP. (p. 61).

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An update focusing on the Ettersburg and Honeydew portions of the Mattole Fire Atlas was funded in summer of 2019 that will organize neighborhood meetings to validate the incorporation of new aerial imagery, structures, water sources, and roads; funding will also go toward development of Neighborhood Emergency Service Teams, or a NEST system for emergency preparedness. This project works directly with the two volunteer fire companies: Telegraph Ridge Volunteer Fire Company and Honeydew Volunteer Fire Company to ensure new NESTs work directly with first responders. Ideally, additional funding will be acquired to buy GPS-enabled tablets onto which updated Mattole Fire Atlas PDFs can be downloaded and used by first responders during emergencies.

FIGURE 4.12.3 MATTOLE–LOST COAST: FIRE PROTECTION RESOURCES ¹⁵			
PERSONNEL	SERVES		RESPONSE
	RESIDENTS	AREA (SQ. MI)	
PETROLIA VOLUNTEER FIRE DEPARTMENT (PVFD) – PHONE: (707) 629-3558			
EMAIL: petroliafire@frontier.net			
22 Volunteer 4 Auxiliary	500	150	<ul style="list-style-type: none"> ○ Structure defense and wildland fire ○ Emergency medical and rescue services ○ Services provided from fire station in Downtown Petrolia
FIRE APPARATUS			
<ul style="list-style-type: none"> ○ Water tender, 2,100-gallon ○ Type-1 engine, 750-gallon ○ (2) Type-3 engines, 500 gallons each 		<ul style="list-style-type: none"> ○ BLS medical rescue van ○ All-terrain vehicle (ATV) with a winch and a “Side-x-Side” set up for medical rescue ○ Quick attack pick-up truck 	
HONEYDEW VOLUNTEER FIRE COMPANY (HVFC) – PHONE: 707-986-7688 (DISPATCH)			
EMAIL: honeydew@asis.com WEB: www.honeydewfire.com			
14 Volunteer 4 Auxiliary	600	100	<ul style="list-style-type: none"> ○ Structure defense and wildland fire ○ Emergency medical and rescue services ○ Services provided from three strategically located fire stations
FIRE APPARATUS			
<ul style="list-style-type: none"> ○ (3) Type-6 wildland “quick-attack” engines 		<ul style="list-style-type: none"> ○ Water tender, 6WD, 1100 gallons 	

4.12.5 MATTOLE–LOST COAST 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 will 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.** However, it should be noted that safe evacuation places, given current California wildfire events, could be outside of the unit or at the beach. 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, which will include local volunteer firefighters. Local fire departments, NEST list coordinators, and the Humboldt County Sheriff and Emergency Officials will use the Humboldt Alert mass communication system

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

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(<https://humboldtqov.org/alerts>), phone lists, and door-to-door methods to inform residents about the threat and where residents should go to take shelter.

Evacuation support from county and other outside resources could be delayed because of the remote location of this planning unit. The worst case scenario of a large earthquake igniting wildfires could result in the residents of this area being completely cut off from the rest of the county for a significant period of time. Local fire department volunteers and community members understand this and have been taking proactive measures. For example, two local emergency communication resources are maintained: a Neighborhood Emergency Service Teams (NEST) list and the Humboldt County Office of Emergency Services (OES) deputy coordinators, one of which is stationed in Petrolia and the other near Honeydew.

The NEST list was generated after an earthquake in 1992 to provide a structure for emergency communication in and around Petrolia. The NEST system organizes smaller, discrete groups of residents into autonomous units, each with a designated leader. Currently, there are 27 recognized NESTs within the larger Unit, however, there are still neighborhoods along Bull Creek Road and Wilder Ridge Road which are neither organized nor represented. Ideally, there would be a backup communication system to phones such as CB radios, especially for all NEST leaders.

6 Through the NEST and the local volunteer fire departments, the OES representatives are the line of communication between emergency community needs and OES [County and State OES].¹⁶ 9

Both the NEST and the local OES coordinator systems are valuable community communication and evacuation resources and need to be maintained, supported, and expanded. They also need to be supplemented by additional communication systems. The OES coordinator system also needs to be reviewed and updated as necessary.

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

Evacuation routes in the Mattole–Lost Coast Planning Unit will depend on the location of the community at risk and law enforcement/fire service recommendations based on fire behavior, wind patterns, traffic, and ingress of emergency vehicles.

The Mattole Road runs in what is generally held to be an east-west direction, and connects the Unit with Ferndale and eventually with Highway 101 at Fernbridge. The Bull Creek Road generally follows a northeast-southwest direction, and connects the Unit with the Highway 101 corridor at Dyerville Loop Road. The Wilder Ridge Road runs in what is generally held to be a north-south direction, and connects the Unit with Ettersburg and, farther, with Highway 101 in Redway/Garberville. There are numerous smaller roads connecting residences to neighborhoods on Mattole Road. Adequate ingress and egress along these roads is vital to a large portion of the community that may need to access the main evacuation route and for firefighters who will be using the roads to access wildfires burning in up-slope areas. It is important to note that the segment of road stretching between Honeydew and Highway 101 at Dyerville Loop Road is referred to on many county maps and likely in other important locations, as the Mattole Road. This section of road, as mentioned above, is referred to in this plan as Bull Creek Road. This discrepancy is confusing and potentially dangerous and needs to be officially addressed.

FIGURE 4.12.4 MATTOLE–LOST COAST: POTENTIAL EVACUATION ROUTES

- **Mattole Road**, west towards Petrolia, Pacific Ocean and Ferndale or east toward Honeydew.
- **Bull Creek**, north toward Humboldt Redwoods State Park and Highway 101 or south toward Honeydew.
- **Wilder Ridge Road**, north toward Honeydew or south towards Ettersburg.

¹⁶ Lower Mattole Fire Safe Council. (2016). 2016 Lower Mattole CWPP. (p. 63).

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The condition of the county roads was identified through this planning process as a top concern related to evacuation and emergency response safety. Road surfaces are hazardous for travelers under normal circumstances and during an emergency, these conditions could slow down evacuees as well as emergency responders. Residents identified the need to resurface large segments of road, replace culverts, and address safety concerns related to multiple one-lane bridges and segments of road.

Some neighborhoods in this unit are very remote and contain homes that are only accessible via narrow, steep, dirt roads, with few turnouts, some of which have no alternate exit route. Even close to town there are dense neighborhoods where access is difficult if not dangerous in an emergency. "Many roads are not maintained properly to allow access to firefighting apparatus, nor are they labeled with addresses or water storage."¹⁷ Poor or complete lack of signage at roads and intersections pose potential problems for emergency ingress and egress; this is especially true for more remote residences that are further from the towns. The narrowness of smaller roads leading to these remote residences could create serious complications for emergency vehicle response trying to gain access during simultaneous home evacuations. Routes may also be grown over with vegetation, and many properties have inadequate turn around spaces. The potential for landslides, fallen trees, downed powerlines, and ignition of roadside fuels in this area could also inhibit access or evacuation of residents. One-way-in and one-way-out roads are also a primary concern.

Severe, gusty winds common to this Unit can raise the threat level quickly. Neighborhoods must prepare, pre-plan, and practice for an emergency situation. Extreme wildfire weather is common throughout the summer in most of the Unit. Two essential areas of community concern are the need for seamless and reliable communications and the identification of suitable evacuation sites.

Preparations for and the execution of community evacuations associated with wildfire, are complex and multifaceted. Responsibilities for safe evacuations are shared by many players. The individual resident is the highest priority and, in the most remote areas, may need to depend on their own resourcefulness. This point was clearly articulated by Peter Marshal, a member of HVFC:

“ Within the context of wildfire, evacuation is defined as the movement of people from a place of imminent danger to a place of relative safety. Within the context of strategic planning for action in a wildfire, fire planners, ranging from the Initial Attack by our local Volunteers all the way up to out-of-area Incident Management Teams, always consider the protection of human life as the highest priority, exceeding the second highest priority of protecting homes, and far exceeding the third highest priority of protecting forestlands. Evacuation is best accomplished through thorough understanding of fire behavior, seamless and reliable communication and awareness of a rapidly evolving situation, and complete pre-planning and preparations. In all of these prerequisites, the individual is the foremost "player". Fire, law enforcement, and emergency service agencies serve only to assist the individual and the community in safe and timely evacuation...

Law enforcement cannot compel an individual or neighborhood to evacuate their home, even if that is unquestionably a reasonable course of action. For this reason, it is imperative that individuals and neighborhoods have complete understanding of the situation, confidence in the actions of emergency personnel and communications with them, adequate pre-planned preparations, and a relatively safe location to which they can evacuate. If all of these imperatives are in place, it is more likely that individuals and neighborhoods will evacuate early on in an evolving situation and in a relatively safe manner. If these imperatives have not been put in place, evacuation is likely to take place at the last moment in a panicked, chaotic manner, quite possibly with catastrophic outcomes. ”

¹⁷ Firewise Communities/USA® Recognition Program. (2011). Petrolia Community Firewise® Assessment. Retrieved from <https://humboldt.gov/739/Petrolia>

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If a catastrophic event occurs, residents and visitors may not be able to reach designated evacuation sites, particularly if they are outside the planning unit. In such cases, people may need to make decisions on their own about seeking shelter where they can survive the passage of the wildfire. Residents should seek shelter as a last resort, when evacuation is not an option. It can be very difficult to determine the right thing to do as the fire approaches, which is why it is so critical to **have a plan** and to **evacuate early**, if possible. Before a wildfire threatens, community members should research options and talk to fire and emergency service representatives about evacuation procedures, expected fire behavior in their neighborhood, and what to do if they get trapped.¹⁸ 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 (ex. home, office, child's school).
- ❖ The service is completely free of charge.
- ❖ To sign-up visit: humboldt.gov/alerts or contact the Humboldt County Office of Emergency Services **(707) 268-2500**.

4.12.6 MATTOLE–LOST COAST COMMUNITY PREPAREDNESS

Fire awareness within communities in this unit is abetted by the Lower Mattole Community Wildfire Protection Plan (LMCWPP), which was collaboratively developed with involvement from local, state, and federal land and fire management agencies, as well as officials from CAL FIRE, State Parks, the Mattole Restoration Council (MRC), and from the Lower Mattole Fire Safe Council (LMFSC). The LMCWPP was last updated in 2016.

The LMFSC was founded in 2002 and aims to:

- “ Reduce risks and minimize damage to life, property, and the environment from wildfire, by coordinating efforts to fund and implement fire-safe education and projects in the Lower Mattole.¹⁹ ”

LMFSC goals and objectives include reducing fuel loads in and around neighborhoods; increasing availability of water sources; assisting local fire protection agencies; educating landowners on fire-safe practices; improving community and emergency response communication networks; and promoting healthy forest and rangeland ecosystems.

The LMFSC can be reached by calling **(707) 629-3514**, or by email at: mrc@mattole.org.

¹⁸ 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>.

¹⁹ Lower Mattole Fire Safe Council. (2016). 2016 Lower Mattole CWPP. (p. 17).

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Since its inception, the LMFSC has partnered with the MRC on fuels reduction and fire safety projects. The MRC supports the efforts of the LMFSC and manages the Fuels Reduction and Fire Planning program. The MRC works with landowners and public resources to create shaded fuel breaks along key public and private access roads, connects landowners with resources for conducting their own fire safe measures, and provides services for fuels reduction including a chipper with crew²⁰. The MRC has also contracted with the County of Humboldt to implement the Fire-adapted Landscapes and Safe Homes (FLASH) program in an ongoing effort to assist community members with wildfire mitigation efforts. FLASH is a rebate program that reimburses property owners for hazardous vegetation management completed around their homes, along access routes, and in particularly hazardous areas.

Petrolia and Honeydew both received national Firewise Communities/USA[®] recognition in 2011. 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 Petrolia Firewise[®] Area includes the town of Petrolia, as well as sections of Mattole Road to the north and southeast of Petrolia, a portion of Conklin Creek Road, and the Lighthouse Road neighborhood. Successful Firewise[®] modifications around Petrolia include improving signage and defensible space for residents; fuels reduction along roads, schools, community center, and in neighborhoods; and increasing water storage tanks in the area.²¹

The Honeydew Firewise[®] Area includes the town, areas to the north and east of the town, along Bull Creek Road and Applewood Road, a large portion of Mattole Road to the west, and the Wilder Ridge Road neighborhood to the south. Some Firewise[®] modifications accomplished within the community include improving defensible space around homes, posting clearly marked addresses and water storage signs, and fuels reduction along roads and in neighborhoods.²²

An emerging community preparedness need is the identification and provision of Clean Air Refuges during periods of impaired air quality as a result of wildfire smoke inflow into the Unit. There are very limited resources presently that can be considered refuges for sensitive groups. When local Clean Air Refuges are at capacity, real-time information is needed about where refuges can be found outside the Unit.

FIGURE 4.12.5 MATTOLE–LOST COAST: FIRE PREVENTION ACCOMPLISHMENTS

- Completed the 2016 *Lower Mattole Community Wildfire Protection Plan*, an update to the *Lower Mattole Fire Plan* of 2002.
- Maintained Firewise[®] recognition for Petrolia and Honeydew through Action Plan implementation and hosting an annual Firewise[®] Day.
- Continue to hold at least two annual public meetings of the Lower Mattole Fire Safe Council since 2002.
- Shaded Fuel Break Projects MRC completed with USDA funding in the watershed:
 - Chemise Mountain/Usal Road Fuels Reduction for Neighborhood Safety - 36 acres completed in two phases by 2011
 - Telegraph Ridge Fuels Reduction for Neighborhood Safety I and II - 85 acres completed (2008)
 - Wilder Ridge Fuels Reduction for Neighborhood Safety I and II - 65 acres, 8 miles (2003 and 2005)
 - Prosper Ridge Fuel Reduction Project - 2 miles (Phase 1 - completed in 2005)
- Prairie/Ridgeline Clearing for Fire Safety:

²⁰ Mattole Restoration Council. (n.d.). Fuels Reduction and Fire Planning [Web]. Retrieved from <http://www.mattole.org/programs/land-management/fire>

²¹ Firewise Communities/USA[®] Recognition Program. (2011). Petrolia Community Assessment.

²² Firewise Communities/USA[®] Recognition Program. (2011). Honeydew Community Assessment.

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FIGURE 4.12.5 MATTOLE–LOST COAST: FIRE PREVENTION ACCOMPLISHMENTS, CONTINUED

- Between 2011 and 2017 over 277 acres were treated under the FLASH program involving approximately 97 separate parcels.
- MRC assisted CCC shaded fuel break work along 2.5 miles Mattole Road, 2 miles on middle Bull Creek Road, and 4 miles along Wilder Ridge Road.
- Since the development of the Lower Mattole Fire Safe Council in 2002 and with the help of sponsored projects by the Mattole Restoration Council, hundreds of homes have now been treated in the home ignition zone to provide defensible space. The Unit’s communities are more educated than ever before on the need to reduce fuel loads.
- Support has been provided to the local fire service through Measure Z, a half-cent sales tax passed by Humboldt County voters in 2014. These funds have been used to purchase radios, self-contained breathing apparatus or SCBAs, personal protective equipment, a fire engine, fire hose, and to pay fees for dispatch.
- Local landowners have begun to collaborate with the Humboldt County Prescribed Burn Association and CAL FIRE to increase burning on private lands as a wildfire adaptation and resiliency strategy.

4.12.7 MATTOLE–LOST COAST LOCAL WILDFIRE PREVENTION PLANS

A tremendous amount of work related to fire-planning has been completed in this planning unit including the publication of the 2016 Lower Mattole CWPP, which is narrower in scope than this county-level CWPP. In addition, the Lower Mattole communities of Petrolia and Honeydew have each completed a Firewise® Action Plan, as part of the Firewise® certification process. The lists below summarize the specific actions and projects recommended by the complimentary plans.

Lower Mattole CWPP Action Items

The Lower Mattole CWPP lists and outlines various types of projects that have been proposed to improve fire safety in the area in a five to ten year action plan. These projects fall under the following categories:

- Empowering Residents
- Reducing Structural Ignitability
- Reducing Fuels
- Enhancing Fire Protection
- Community Emergency Preparedness and Planning
- Fire Ecology and Conservation/Restoration Efforts

A complete copy of the Lower Mattole CWPP, including the details of each of the above categories, can be found on the MRC²³ and Humboldt County FSC²⁴ websites.

Petrolia and Honeydew Firewise® Action Plans

The Petrolia Firewise® Action Plan and Honeydew Firewise® Action Plan were first completed in 2011, as a result of the community Firewise® assessments conducted in their respective communities. The two Plans each contain a list of short-term actions with measurable objectives that can be done within the home ignition zone, within high risk community areas, and the community at large. The actions laid out in both plans are identical, given the common fire risks these neighboring communities face and the common resources they have at their disposal. These actions are consistent with implementation of the Lower Mattole CWPP. To view the full plans, visit the Humboldt County FSC website.

²³ Lower Mattole Fire Safe Council. (2016). Lower Mattole Community Wildfire Protection Plan. Retrieved from <http://www.mattole.org/resources/fire-fuels>

²⁴ Humboldt County Fire Safe Council. (2016). Lower Mattole FSC. [Webpage]. Retrieved from <https://humboldtqov.org/640/Lower-Mattole-FSC>

4.12.8 MATTOLE–LOST COAST COMMUNITY IDENTIFIED POTENTIAL PROJECTS

As part of the 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 28, 2017 at the Mattole Grange 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 4.12.3*). New or confirmed existing project ideas proposed during the 2017 update process are summarized in *Figure 4.12.6* and *4.12.7* in this section. *For more information on the mapping exercise, see Appendix B.5, Mapping Exercise Instructions.* The community-identified fire hazards, protection resources, and assets and values at risk discussed throughout this Planning Unit Action Plan (*Map 4.12.2*) 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: webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP. For a copy of fire-planning feature descriptions in table format, please contact the Office of Natural Resources Planning by phone **(707) 267-9542**, or email cimmitt@co.humboldt.ca.us.

All of the geographic community-identified project information is cataloged in the Humboldt County Web GIS Portal described above as well as in the Lower Mattole CWPP. This County CWPP incorporates that information by reference here. This information will continue to be made available as a resource for capturing grant funds and continued project implementation tracking. Also note that the Mattole Fire Atlas contains locally confirmed features such as firefighting resources like fire stations and trucks, water tanks and ponds, as well as the known locations of structures. The integration of these mapping tools is identified as a priority action in this plan.

The following community-identified project ideas have been identified through the planning process described above and will not be found on the maps or in the GIS Portal but are important to note and evaluate for feasibility.

FIGURE 4.12.6 MATTOLE–LOST COAST: COMMUNITY-IDENTIFIED PROPOSED PROJECTS
○ Increase participation by California State Parks and BLM in the Lower Mattole FSC.
○ Multi-lingual outreach regarding vegetation management/defensible space.
○ Identify and name roads and ridges currently unnamed for ease of emergency response.

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The local residents who attended the November 28, 2017 workshop identified the following projects as their top priority projects to be evaluated for feasibility and implemented over the next five years. The rest of the community-identified projects can be found in the CWPP Web GIS Portal described above. For a more complete list of priority projects, refer to the Lower Mattole CWPP 2016 update.

FIGURE 4.12.7 MATTOLE–LOST COAST: COMMUNITY-IDENTIFIED PRIORITY PROJECTS		
PROJECT DESCRIPTION	PROJECT TYPE	PROJECT ID
Chambers Road eucalyptus grove forest cleanup and roadside clearing	Roadside Clearance	PET065
System of ridgetop fuel breaks/prescribed burns	Non-geographic	-
Water tank at Honeydew School	Water	PET284
Chambers Road bridge repair for emergency access	Infrastructure	PET272
Cooskie Ridge Road Shaded Fuel Break	Roadside Clearance	PET067
Crane Hill cypress fuel reduction	Landscape	PET271
Bull Creek Fuel Break	Landscape	PET072

4.12.9 MATTOLE–LOST COAST ACTION PLAN

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

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

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

Priority Action Recommendations:

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

- **T**he residents of the Mattole-Lost Coast Planning Unit are fortunate to live in an area with an active group that supports efforts to prepare for and protect them from wildfire and make progress towards community wildfire resilience. For that reason, it is a top priority of this plan to maintain and support the LMFSC.
 - Maintain the supportive relationship between the MRC and the LMFSC and work together to implement the Lower Mattole CWPP and local Firewise® action plans.
 - Reach out to establish increased participation from Humboldt Redwoods State Parks, BLM, and unrepresented neighborhoods.
 - Enhance outreach and education programs by developing multi-lingual materials.
 - Inspire more community involvement in and support of the LMFSC with outreach about what they do and how to get involved.
 - Ensure that the LMFSC continues to be represented on the Humboldt County FSC.
- **M**aintain the Petrolia and Honeydew Firewise Communities/USA® sites:
 - Actively implement and maintain the Firewise® action plans.
 - Focus activity on home hardening and defensible space.
 - Continue to host an annual Firewise® Day.

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- **E**valuate, further develop, seek funding for, and implement—as appropriate and feasible—the community-identified priority actions listed above and all community-identified potential projects stored in the Web GIS Portal. Perform this same process for the actions identified in the *Petrolia* and *Honeydew Firewise Action Plans*, the *Lower Mattole CWPP*, 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. Coordinate this work among the members of the LMFSC, the PVFD and HVFC, the MRC, and other community groups.
- **S**upport and expand the fire and fuels resources offered by the MRC through the Fire and Fuels Program.
 - Continue to work with landowners to plan and implement shaded fuel breaks along roadways and around infrastructure, plan large-scale fuel breaks and community safety projects in the Mattole Watershed.
 - Continue to offer the chipper program through MRC.
 - Continue to provide defensible space incentives and/or grant-funded work.
 - Work with the HCFSC to secure more funding to continue and expand the highly successful FLASH reimbursement program (or a similar program), which has promoted hundreds of acres of fuels reduction work around homes and access roads. Continue to educate landowners about fire hazard reduction and fire safety around homes.
- **P**riority areas within this planning unit for fuels reduction are included in the list below. Activities might include creating defensible space, roadside clearance, chipper programs, and/or landscape treatments, as well as education and assistance for addressing structural ignitability through home hardening and evacuation preparedness. Emphasize outreach to sensitive populations such as the elderly, disabled, and/or low income within these areas:
 - Prosper Ridge (PET295)
 - Evergreen Way (PET068)
 - Petrolia and greater area (PET294)
 - Neighborhoods off of the Mattole Road near AW Way park (Cooskie and Green Fir Roads, Miner Lane, and Mattole Camp) (PET296)
 - Honeydew and greater area / Bull Creek Road neighborhoods (PET298)
 - Wilder Ridge (PET297)
 - Panther Gap (PET299)
- **T**he high fire danger, a large and dispersed WUI population, the large number of dead-end roads leading to multiple residences, and a need for increased wildfire preparedness combine to make **evacuation planning** and education a top priority in this planning unit. This plan recommends that residents stay vigilant and evacuate as early as possible to avoid loss of life. The importance of being prepared and evacuating early during extreme wildfire events cannot be overemphasized.
 - Work with the County Office of Emergency Services (OES), local fire service, and law enforcement to engage community members in evacuation preparedness. Work

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together to review best practices as well as emerging new approaches. Areas of high priority include:

- Prosper Ridge
- Chambers Road
- Conklin Creek Road
- Evergreen Way
- Green Fir Road
- Neighborhoods located down one-way-in and one-way-out spur roads off of Bull Creek Road (some county maps refer to this road as “Mattole Road”), Wilder Ridge Road, and Mattole Road.
- Promote the study of and widely distribute documents such as "Ready-Set-Go", "Living with Wildfire", "Ready for Wildfire", and others that are readily available. With this information, residents can begin to identify, evaluate, and mitigate those dangerous impediments to their safe evacuation, broaden their understanding of what is meant by 'extreme' wildfire weather and 'extreme' wildfire behavior, and sharpen their situational awareness.
- Identify local community liaisons to work directly with emergency management officials.
- Identify and map local evacuation routes and sites. The locally-produced Mattole Fire Atlas will be an important resource for this.
- Given the large number of residences located on long, dead end roads, residents, law enforcement, local fire departments, and FSCs should work together to identify alternative paths that may be taken or actions to initiate if primary routes become inaccessible during a wildfire.
- Identify and actively maintain areas to shelter as a last resort if safe evacuation is blocked by wildfire, especially in areas with one-way-in, one-way-out roads.
- See additional evacuation preparedness ideas in the *Action Catalogue* below under “Disaster Preparedness”.
- **D**evelop an improved disaster communication strategy.
 - Expand the NEST phone tree area, confirm participation and functionality, and diversify communication methods. Increase/initiate participation in the following areas:
 - Wilder Ridge and connecting spur roads
 - Bull Creek
 - Panther Gap
 - Both the NEST and the local OES coordinator systems are valuable community communication and evacuation resources and need to be maintained, supported, and expanded. They also need to be supplemented by additional communication systems. The OES coordinator system also needs to be reviewed and updated as necessary.
 - Confirm existing and or train new community members to use HAM radios and secure funds to purchase radios and store them strategically throughout the community.

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- Coordinate this work with the Humboldt County Office of Emergency Services (OES), CAL FIRE, and other applicable entities.
- Lobby for more cell and high band repeaters, especially on Cooskie Mountain to cover Petrolia and the King Range coastline.
- **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:
 - Chambers Road eucalyptus grove cleanup and roadside clearing (Highly ranked community-identified priority – PET065)
 - Cooskie Ridge Road (Highly ranked community-identified priority – PET067)
 - Green Fir Road
 - Old Hindley Road
 - Bull Creek Road (some county maps refer to this road as “Mattole Road”) and spur roads to clusters of residences:
 - Meaux Road
 - Doreen Drive
 - Cartwright Road
 - Cathey's Peak Road
 - Wilder Ridge Road and spur roads to clusters of residences
 - Panther Gap
 - Lighthouse Road
 - Conklin Creek Road
- **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.
 - Work with County Planning and Building to ensure all residences have an assigned physical address—information that is vital to emergency response personnel.
- **C**ollaborate with the Humboldt County Road Maintenance to strategically identify priority areas where **county** road conditions or overgrown vegetation is impacting or has the potential to impact emergency response and safe evacuation.
 - Repair Chambers Road bridge to ensure access for firefighting engines and water tankers. The current bridge is temporary and unrated for heavy loads (Highly ranked community-identified priority to be evaluated for need and feasibility – PET272)
 - Develop a prioritized list of county roads that need resurfacing.
 - The segment of road between Honeydew and Horse Mountain was identified as a particular area of concern for road surface conditions.
 - Address the evacuation hazards associated with the one-lane bridges near A.W. Way Park, Honeydew, and Ettersburg.

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- Review the Humboldt County Rural Transportation and Access Partnership program for applicability to local issues.²⁵
- Improve Panther Gap Road conditions and restore areas affected by landslides.
- **A**ddress road conditions on **private** roads that inhibit effective evacuation and access by emergency responders. Begin by systematically identifying and mitigating such access impediments, starting with the following roads:
 - Prosper Ridge Road
 - Conklin Creek Road
 - Evergreen Way
 - Green Fir Road
 - Cartwright Road
 - Meaux Road
 - Cathey's Peak Road
 - Doreen Drive/Hilde Lane
- **C**ollaborate with local fire departments, CAL FIRE, emergency dispatch centers, Humboldt County Planning and Building, and the Humboldt County Road Maintenance to develop a strategy to address confusion about official road names.
 - Seek final resolution and correction of the road segment between Honeydew and Highway 101 (Bull Creek Road vs. Mattole Road).
- **C**ollaborate with agency and local partners and landowners 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 for feasibility:
 - Bull Creek/Mattole Road fuel break (Highly ranked community-identified priority – PET072)
 - Crane Hill cypress fuel reduction (Highly ranked community-identified priority – PET271)
 - Shenanigan Ridge
 - Prosper Ridge
 - Appletree Ridge
 - Boots Canyon Ridgeline
 - Cooskie Ridge
- **R**aise awareness of Sudden Oak Death and the fire hazard that afflicted trees pose. Determine whether there are 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.
 - In the spring of 2019, landowners alerted Mattole Restoration Council (MRC) of new outbreaks of Sudden Oak Death along residential roads incurring a high safety hazard to passing cars and an increase in fire danger. MRC is in the process of updating the Mattole Fire Atlas and will propose projects in affected areas where public safety is an issue.

²⁵ Contact County Roads for more information: <https://humboldtqov.org/1405/Road-Equipment-Maintenance>

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- **C**ontinue to work with and expand participation in the Humboldt County Prescribed Burn Association to conduct prescribed burns on private lands.
- **T**ake part in fire ecology and conservation/restoration efforts designed to restore fire to Mattole ecosystems without damaging natural and community resources.
- **W**ork with Humboldt Redwood Company to identify priority areas for strategic vegetation treatments as described in the action item above.
 - 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.
 - Seek opportunities to collaborate on roadside vegetation management projects where public roads or private roads, leading to residences, transect timberlands.
 - Organize dialogue to share community concerns about the use of herbicides to kill hardwood tree species and leaving them as standing snags. This practice is commonly referred to as “hack n’ squirt” or “frilling”. The objective of the dialogue will be to find common ground for reducing the associated wildfire hazards within this planning unit.
- **C**ontinue to explore options and make progress on local fire service sustainability efforts such as:
 - Developing recruitment and retention strategies for the Petrolia and Honeydew volunteer fire departments.
 - Establishing consistent and sustainable revenue sources.
 - Ensuring that all appropriate areas are within the boundaries of a fire-related district through district formation, annexation, and/or consolidation. To this end:
 - Continue to evaluate the feasibility of establishing the HVFC as an official fire protection district supported by consistent and dependable revenue sources and/or the feasibility of a consolidation with the Petrolia Fire Protection District.
 - Reevaluate the feasibility of Petrolia Fire Protection District annexing out of district response areas.
 - Support the HVFC’s effort to purchase a much needed fire truck (funds have been raised and now the right truck needs to be located).
 - Develop a HVFC Panther Gap satellite station.
- **C**oordinate with local FSCs, fire departments, CAL FIRE, and the County to develop a method of determining whether fire ignitions and risks are declining as a result of the regulation of marijuana/cannabis cultivation and processing; make recommendations as appropriate.
- **S**hare GIS data sets between local representatives and County staff to maintain the fire planning features included in the County Web GIS Portal (webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP) or other appropriate platform.
 - Compare GIS fire planning datasets, including planned and completed fuels reduction work compiled by the MRC, CAL FIRE, other local groups and agencies with GIS capacity, and the County and determine an appropriate sharing and maintenance process to ensure that the most up-to-date and accurate information is provided through the County Web GIS Portal or other appropriate platform.

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- Secure resources to update, maintain, and expand the Mattole Fire Atlas and coordinate the associate GIS data layers with other fire planning mapping products.
 - Work with partners in the Southern Humboldt Planning Unit to update the Upper Mattole Fire Atlas in the Upper Mattole communities of Ettersburg, Whitethorn, and Whale Gulch.
 - Map the areas north of Petrolia, including Humboldt Redwood Company lands in the Mattole, and residents and infrastructure all the way to Cape Mendocino.
- Coordinate this effort with the work of the Humboldt County Fire Safe Council to implement the Integrated Planning, Fire-Planning Data Management priority action of the Countywide Action Plan (*Chapter 3, Section 3.6.4*).
- **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:
 - Water tank at the Honeydew School (Highly ranked community-identified priority – PET284)
 - Water tank on Lighthouse Road
- **E**ncourage residents with unpermitted structures or additions on their property to participate in the Humboldt County Planning & Building Department’s Safe Homes Program.²⁶ Educate those residents about the benefits of upgrading structures and/or bringing structures into compliance with current building codes.
- **W**ork with the HCFSC to share successful local strategies to help inspire similar action throughout the county.
- **W**ork with the North Coast Unified Air Quality Management District to pre-plan the distribution of Clean Air Refuges during periods of impaired air quality as a result of wildfire smoke and develop clear communication plans for helping residents find refuges if they need to go outside of this planning unit.

²⁶ Humboldt County, Building Inspection Division Homepage: <https://humboldtqov.org/153/Building-Inspection>

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Action Catalogue:

This Action Catalogue lists additional wildfire mitigation actions that can be selected in addition to, or to compliment, the priority actions above. Action items are organized under each of the six countywide 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 Humboldt County Fire Safe Council (HCFSC). To contact the HCFSC, call **(707) 267-9542**, or email cimmitt@co.humboldt.ca.us. In addition, the Lower Mattole CWPP and local Firewise Action Plans provide detailed recommendations similar to the general guidance listed on the following pages. To guide local action, review those plans first.

Wildfire Ignition Prevention

- **I**mplement One Less Spark education: readyforwildfire.org/one-less-spark-campaign.
- **U**se *Living with Wildfire in Northwestern California* as a primary outreach tool and distribute widely: humboldt.gov/livingwithwildfire.
- **I**dentify primary ignition sources in the local community and focus prevention efforts on reducing them.
- **I**ncrease community awareness and access to information about proper methods for safe pile-burning, prescribed fire, and other fuel reduction strategies in order to avoid an unintended wildfire.
- **I**nform residents about the importance of vigilance and caution during Red Flag conditions when a small ignition has a higher probability of growing into a large fire.

Wildfire Preparedness

- **D**evelop a wide range of opportunities for community education on preparing for wildfire. This effort should involve the production and/or distribution of a variety of informational materials.
 - Use existing materials as much as possible and develop materials tailored to the local community as needed and able.
 - Distribute materials through mailers (including already occurring mailers such as local utility bills); via community hubs such as the post office; at all community events; on community bulletin boards; through the use of social media and networks, local media outlets, and any means used by the local community to share important information.
 - Include compelling stories about past coastal wildfire events.
 - Encourage local volunteer/service organizations or schools to help perform community service activities including delivering literature to homeowners or clearing around and painting fire hydrants.
- **P**rovide residents with information about ways to reduce structural ignitability and maintain adequate defensible space around their homes.
- **C**ollaborate to maintain defensible space for elderly, disabled, and low-income residents who are unable to do or fund the work themselves.

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- **F**ocus roadside fuel reduction efforts on priority ingress and egress routes for safe evacuation. See details in the *Priority Action Recommendations* above.
- **W**ork with PG&E and local landowners to reduce fuels along power line easements.
- **W**ork with commercial timberland owners 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. See details in the *Priority Action Recommendations* above.

Disaster Preparedness

- **E**vacuation preparedness and the identification of local evacuation routes and sites is a priority for this unit. See details in the *Priority Action Recommendations* above.
- **I**mprove community communication networks and explore ways to increase redundancy. See details in the *Priority Action Recommendations* above.
- **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 humboldt.gov/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 should consider providing a key or access code to the local fire department.
- **I**nform residents of the need to have accessible, mapped and identifiable water sources for fire suppression, and to share that information with 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. See details in *Priority Action Recommendations* above.

Fire Protection

- **S**upport the local fire departments by becoming a volunteer. Volunteer firefighters and volunteers who are emergency medical service (EMS) trained are essential to a functional local fire service. In addition, volunteers are needed for non-firefighting and EMS duties such as logistical support, traffic control, administration, fundraising, public education, and fire prevention.

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- **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.²⁷
- **S**hare information about educational events that provide information about prescribed burning.
- **H**elp federal land managers garner local support for using prescribed fire or managed wildfire on the public lands they manage.

Integrated Planning

- **I**ntegrate, where there are mutual benefits, the community preparedness and wildfire resiliency efforts of the Lower Mattole FSC, Mattole Restoration Council, Firewise® groups, local fire departments, and other applicable agencies and organizations.
- **M**aintain participation in the Firewise Communities/USA® Recognition Program. See details 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 (webgis.co.humboldt.ca.us/HCEGIS2.6_CWPP). See details in the *Priority Action Recommendations* above.

²⁷ To learn more about UC Cooperative Extension, the Humboldt County Prescribed Burn Association, and the Northern California Prescribed Fire Council, contact Lenya Quinn-Davidson at lquinndavidson@ucanr.edu or call her at (707) 445-7351. To learn about CAL FIRE prescribed fire programs and support, contact Chris Ramey at chris.ramey@fire.ca.gov or call him at (707) 726-1206.