

Humboldt County Community Wildfire Protection Plan

IV.8. Eureka Plain Planning Unit Action Plan

IV.8.1. Eureka Plain Planning Unit Description

The Eureka Plain *Planning Unit* encompasses 143,780 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. Highway 101 serves as the primary transportation corridor through the Unit, bordering the bay and coastline with a north-to-south orientation. Highway 299 provides eastward access and joins Highway 101 in the northern portion of the Unit. The Eureka Plain *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 become a populous community as well. The lesser 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. The Fields Landing and Ridgewood Heights communities are located south of Eureka. 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 community 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, en route to Blue Lake. Communities clustered along the coastal side of the Humboldt Bay inlet include Fairhaven, Samoa and Manila. A map of this planning unit can be viewed in Figure IV.8-1. Eureka Plain Unit: CWPP Unit Map.

The characters 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 hinterlands and in the WUI, on the outskirts of the more populated areas, which experience the greatest risk of loss from wildfire events.

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 Redwoods Company and, to a lesser extent, Green Diamond Resource Company (GDRCo). 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 and McKinleyville.¹ Rural residential developments are scattered throughout the timber/grazing interface, which includes several parcels of ranchland, while urbanized development dominates the central population areas. Public lands including state and county parks make up a substantial proportion of the Unit. Areas of particular significance are:

- Headwaters Forest Reserve; managed by the Bureau of Land Management (BLM) and located southeast of Eureka amidst the timberlands;
- Humboldt Bay National Wildlife Refuge;
- Mad River Wildlife Area, also known as the Arcata Marshes;
- Elk River Wildlife Area;

¹ Dyett & Bhatia. (2002, September). 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>.

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- Lamphere Dunes; managed by the U.S. Fish and Wildlife Service.

IV.8.2. Eureka Plain Community Process Summary

Several open-house community workshops were held in various areas throughout the Planning Unit for the purpose of gathering local information and garnering public input regarding various factors contributing to the extent of wildfire risk and/or preparedness among the communities in this Unit, and to provide information about the countywide *community wildfire protection plan* (CWPP) update process. One workshop was held on May 14, 2012 at the Bayside Grange in Arcata, which included residents from Arcata, Bayside, and the Jacoby Creek neighborhood. A second workshop was held on June 21, 2012 at the Fieldbrook Elementary School for residents in the McKinleyville, Fieldbrook, Glendale, and Blue Lake communities. And a third workshop was held on June 25, 2012 at the Redwood Acres Fairgrounds in Eureka, involving residents in Eureka and its surrounding communities. A group exercise, which involved maps of the Planning Unit area, invited those attending each of these workshops to help identify and pinpoint on the map where particular *fire hazards* exist, the location of *protection resources*, such as fire water drafting sites, as well as values and *assets at risk* within the community that could be threatened by wildfire. These workshop processes also provided an opportunity for participating community members to ask questions and provide information based on their local knowledge.

Participants were also asked to review pre-existing information illustrated on the maps which had been added by community members during similar workshops that took place during the initial planning process in 2006. These workshops and mapping exercises also facilitated discussion among community members about potential actions that could be taken to reduce fire risk in their communities. Through discussion and collaborative processes, participants identified major hazard areas and compiled lists of project proposals for enhancing their communities' fire preparedness.

The community-identified fire hazards, protection resources, and values and assets at risk discussed throughout the following sections of this Planning Unit Action Plan reflect information generated by these community workshop mapping exercises, as well as information resulting from direct outreach to local fire departments and residents.

The project proposals resulting from community member discussions are contained in section IV.8.8. Community-Identified Projects in this Planning Unit Action Plan.

IV.8.3. Eureka Plain Wildfire Environment

The majority of the Eureka Plain Planning Unit (68%) is zoned "High Fire Hazard Severity," as determined by the California Department of Forestry and Fire Protection (CAL FIRE).² 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." A substantial portion of the more populated areas are within the *Local Responsibility Area* (LRA) and are therefore not zoned by CAL FIRE. The terrain around the bay is primarily made up of flat lands consisting of urbanized areas and pasturelands. Further inland, where *wildfire risk* is greater, the terrain is mostly comprised of moderately steep forested areas.

The forestlands within this Unit are dominated by redwoods. To a much lesser extent, there are also fir and pine forests, as well as swaths of annual grasslands and areas of oak woodland. Wetlands and *riparian* areas are also distributed throughout the area. The Unit is characterized by cool, wet winters and mild summers. Weather patterns are heavily influenced by the Unit's

² 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://frap.cdf.ca.gov/>

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proximity to the Pacific Coast, with regularly occurring fog blankets in the mornings that tend to break up by mid-afternoon, only to return again in the evenings.

Traditionally, fire was an integral part of the *ecosystems* in this region. Forest management by indigenous tribes often included low-intensity, intentional burns that helped enhance forest ecosystems and prevent the accumulation of high *fuel loads*. Some of the early 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 1940s 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 growths with second growth redwoods altered *stand compositions*, making them less resilient to *wildfires*.

In recent years, GDRCo has undertaken efforts to help reduce risk of wildfire occurrences within their territory. Firefighting equipment is maintained at logging operations and inside all vehicles; harvesting operations are suspended at specified levels of low *relative humidity*; and logging crews are required to make daily fire inspections after work is done during the *fire season*. Furthermore, the company maintains fire trucks and heavy equipment for wildland fire emergencies and GDRCo Forestry staff, logging and maintenance crews, and contractors are available to respond to fire emergencies on the company's timberlands and to assist CAL FIRE at their request. The company also treats logging fuels in a variety of ways to help reduce *fire hazards*. Their methods include piling and burning, *broadcast burning*, *mastication* and on-site chipping; they also employ *biomass recovery* for power generation with the vegetative debris produced by these activities.

Fortunately, fire occurrences in this Planning Unit have been minimal in recent decades, and CAL FIRE has no major fire events on record within this area since the Luffenholtz Fire in 1908, which burned over 690 acres in the northern region of the Unit.

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 campfire 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.

Residences within this Planning Unit facing the greatest risk of *structural ignitability* are those located among communities in the remote hinterlands and within the WUI. These communities include Ridgewood Heights, Freshwater, Indianola, Fieldbrook, and neighborhoods located up along Jacoby Creek and Fickle Hill Roads. For these homes, there is an increased likelihood that wildland fires will become *structural fires* and vice versa.

Dead plant matter and vegetation with low *moisture levels* within 100-150 feet of homesteads pose some of the greatest threats to structural ignitability. Of particular concern are houses with needles and leaves accumulating on rooftops or in rain gutters. Houses with wooden rooftops and sidings 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. Figure IV.8-2 found at the end of this Unit Action Plan illustrates risks and hazards identified by community members at public workshops and can be used as a key to access detailed descriptions of community-identified fire

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planning features on the Humboldt County Web GIS Portal, “Fire Planning” section: <http://gis.co.humboldt.ca.us/>.

Highway 101 is the central *ingress and egress* route, followed by Highway 299, with numerous other primary roads, neighborhood streets, and backwoods roads splintering off of the main highway. Poor or complete lack of *signage* at roads and addresses in some neighborhoods pose potential problems for emergency ingress and egress; this is especially true for more remote residences that are further away from the main towns. The narrowness of smaller roads leading to 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. Routes may also be grown over with heavy brush and tree limbs, and many properties have inadequate vehicle *turn around spaces*. The potential for landslides in these upslope areas could also inhibit access.

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.³ Numerous hydrants as well as city- and privately-owned water tanks are located throughout the cities of Eureka and Arcata. Additional fire protection water may be drawn from the following locations:

- Baywood Golf Course ponds (drafting)
- Doug’s Pond (helicopters-yes; draft-no)
- Sampson’s Pond (helicopter)
- Manila CSD ponds
- Morai’s Pond
- Kernan Pond
- Mad River
- Morrison Gulch drafting sites
- Essex Dipping Pond
- Guynup’s Pond
- Davenport Pond
- Blue Lake waste water ponds (helicopter)
- Fraser Pond
- Lane Pond
- Quarry Rd. drafting site

The map in Figure IV.8-2 found at the end of this Unit Action Plan illustrates these *drafting sites* as well as other community-identified wildfire *protection resources*. The map can be used as a key to access detailed descriptions of community-identified fire planning features on the Humboldt Web GIS Portal, Fire Planning section: <http://gis.co.humboldt.ca.us/>.

IV.8.4. Eureka Plain Values and Assets at Risk

Assets at risk can be defined as those things that are important to quality of life that can be threatened with destruction or loss from wildfire. These may include community assets such as homes and businesses, as well as environmental values such as wildlife habitat, natural resources, and air quality, along with any other important attribute that individual communities rely on for their well being. Loss or damage to community assets as a result of wildfire can have short- or long-term impacts of varying severity, depending on the asset. Short-term loss caused by a wildfire can include the destruction of residences, commercial assets, timber, wildlife habitat, scenic vistas, and *watersheds*. Long-term effects may include displaced persons, smaller timber

³ Humboldt Bay Municipal Water District. (2012). *About Us*. Retrieved from <http://www.hbmwd.com/about>.

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harvests, reduced access to affected recreational areas, and destruction of cultural, ecological, and economic resources, and community infrastructure.

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: California State University Humboldt, College of the Redwoods, the Arcata/Eureka Airport, the Mad River Community Hospital, the Blue Lake Casino, the Arcata Plaza, Redwood Acres Fairgrounds, and the Bayside 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. Commercial and recreational fishing is common throughout the coastal region as well; sites and facilities that support these industries are valuable assets as well.

The map in Figure IV.8-2 found at the end of this Unit Action Plan illustrates values and assets at risk to wildfire identified by community members at public workshops. The map can be used as a key to access detailed descriptions of community-identified fire planning features on the Humboldt County Web GIS⁴ Portal, “Fire Planning” section: <http://gis.co.humboldt.ca.us/>. Some of the community-identified assets at risk within this Unit include:

- Bayside Grange, Old Community Hall, Post Office, Mistwood School
- Samoa Cookhouse
- Humboldt Hill Communications Complex
- Blue Lake Industrial Area
- Manila CSD and Tanks
- Biomass Plant
- Two Feathers Health Center
- Boy Scout Camp
- Apple Orchard/farm –Fieldbrook Apple Farm
- Fairhaven Power Company
- Coast Guard Station
- Simpson Mill Site

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. In addition to the principal public lands aforementioned (e.g. the Headwaters Reserve and wildlife areas) there are numerous state/county parks and beaches throughout the Planning Unit, including:

- Mad River and Clam Beach County Parks
- Sequoia Park, Eureka
- Arcata Community Forest
- Hiller Park, McKinleyville

These environmentally significant areas hold great value for the communities that appreciate them and the wildlife that depends on them.

IV.8.5. Eureka Plain 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 Master Fire 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

⁴ Geographic Information Systems (GIS).

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services and fire safe councils (FSC).⁵ 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® Group 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 recognition as a Firewise® community. Some successful Firewise® modifications include: implementing the “*Blue Dog 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.

IV.8.6. Eureka Plain Wildfire Protection Capabilities

A host of *volunteer fire departments* (VFDs) provide fire protection, medical, and rescue services to communities within the many *fire protection districts* (FPDs) in this Planning Unit. The following fire protection services exist for the Eureka Plain Planning Unit:⁶

- **Humboldt Bay Fire (a joint operation between Humboldt #1 Fire Protection District and City of Eureka Fire Department)** has 25 volunteers out of 83 members. They serve 56,000 residents in approximately 56 square miles. They are equipped with three type-1 engines, with two additional type-1 engines on reserve, two vehicles for responding to hazardous emergencies, a type-2 search and rescue trailer, and one technical rescue equipment trailer. Humboldt Bay Fire can be reached by calling (707) 445-41900, or (707) 441-4000, or by visiting their website at: www.humboldtbayfire.org.
- **Arcata Fire Protection District** has 25 volunteers and a total of 54 members. They serve over 37,000 citizens in an area of 62 square miles that encompasses Arcata, McKinleyville, Manila, Jacoby Creek, Glendale, Indianola, and provides automatic aid, Fairhaven, Fieldbrook, Blue Lake, Eureka, Eureka / Arcata Airport, and Humboldt State University. The Arcata FPD can be reached by calling (707) 825-2000, or by visiting their website at: www.arcatafire.org.
- **Samoa Peninsula Fire District** has 14 volunteers who serve 350 residents in approximately 3.4 square miles. Their apparatuses include: two type-1 engines—E8611 and E8614, which hold 500 gallons and 1000 gallons, respectively, as well as E8646, a type-4 quick attack engine. The Samoa Peninsula Fire District can be reached by calling (707) 443-9042 or by visiting their website at: www.samoapeninsualfire.org.
- **Blue Lake Fire Protection District** has 26 volunteers. Their district area includes 14 square miles with a total response area of approximately 200 square miles. Their apparatuses include: two type-1 engines, 1 type-2 engine, one type-4 quick attack engine, a utility truck, a 2,200 gallon *water tender*, and a 1,750 gallon water tender. The Blue Lake FPD can be reached by calling (707) 668-5765, by email at: admin@bluelakefire.net, or by visiting their website at: www.bluelakefire.net.

⁵ County of Humboldt, Natural Resources Planning. (2012). *Humboldt County Fire Safe Council*. Retrieved from

www.co.humboldt.ca.us/natural-resources/fire_safe_council/fireserviceannualreport.aspx

⁶ County of Humboldt, Natural Resources Planning. (2012). *Humboldt County Fire Chiefs Association Annual Report, 2010*. Humboldt County Fire Safe Council. Retrieved from http://www.co.humboldt.ca.us/natural-resources/fire_safe_council/fireserviceannualreport.aspx.

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- **Fieldbrook Volunteer Fire Department** has 22 volunteers who serve approximately 1,200 residents in 10 square miles. Their apparatuses include: WT8756, an international Van Pelt water tender; E8715, a type-1 International Becker pumper; E8717, a type-1 Spartan Beck pumper; and E8747, a type-4 quick attack truck. The Fieldbrook VFD can be reached by calling (707) 839-0931, by email at: info@fieldbrookfire.org, or by visiting their website at: www.fieldbrookfire.org.

Both the Blue Lake and Fieldbrook FPDs are in the process of exploring the possibility of annexing properties to which they frequently provide fire protection services but are not currently included within their district boundaries. The Korbel Volunteer Fire Brigade is not included within any FPD, but rather is maintained by Green Diamond Resource Company to help protect its mill site.

Emergency *response times* to the further removed communities in this Planning Unit 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.

IV.8.7. Eureka Plain Evacuation

Evacuation from the Eureka Plain Planning Unit will either travel north or south along Highway 101, or east on Highway 299, depending on law enforcement recommendation based on *fire behavior*, wind patterns, traffic, and ingress of emergency vehicles. There are numerous smaller roads connecting residences and neighborhoods to Highway 101. 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 upslope, remote areas.

Highway 255 (Samoa Blvd.) is crucial for accessing communities on the west side of the bay, although it can be accessed via both Eureka and Arcata. Access along Fieldbrook Rd. and Murray Rd. is necessary for reaching the community of Fieldbrook. Similarly, Walnut Dr. and West Gate Dr. are the only roads leading to the Ridgewood Heights community; and the community that exists up Elk River Rd. may only be accessed via that route. Maintaining proper clearance on these roads is extremely important for ensuring the safety of residents within these 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.

Alternative evacuation routes within this Unit include:

- Old Arcata Rd./Myrtle Avenue in between Arcata and Eureka;
- Central Avenue into McKinleyville;
- Essex Ln. from 299 into McKinleyville;
- Janes Rd., Spear Ave., and Alliance Rd. through Arcata;
- Jackson Ranch Rd leading from Highway 255 into the Arcata bottoms;
- Walnut Dr., Ridgewood Dr., and Elk River Rd., to communities on the eastern outskirts of Eureka.

During wildfire events that have the potential to threaten personal safety, community evacuation sites may be established where residents can go to survive a wildfire. Evacuation sites will be established in different locations depending on the anticipated path of the wildfire. The

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determination for the location of these sites is normally made by Humboldt County Emergency Operations Center Incident Commander in cooperation with an *Incident Management Team*. The Humboldt County Sheriffs and Emergency Officials will use mass communication and door-to-door methods to inform residents about the threat and where residents should go to take shelter.

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

See section V.2.3 in Part V. Fire-Safe Communities for more information on preparing for safe evacuation and evacuation planning for pets and livestock. Also see section II.3.5 Evacuation Routes and Vulnerability in Part II. Risk Assessment for information about evacuation procedures and challenges in Humboldt County.

IV.8.8. Eureka Plain Community Identified Potential Projects

The following list and matrix includes community identified proposed projects based on input from the community processes discussed above. A detailed description of each heading in the matrix can be found in Appendix G: Descriptive Characteristics for Community Identified Projects Matrix. These projects are illustrated on the community-identified projects map found at the end of this Unit Action Plan (Figure IV.8-3). Projects include those carried over from the 2006 fire-planning process and those identified and refined during the 2012 CWPP update process. This information can also be viewed on the fire planning GIS Portal. The GIS Portal allows users to search for and view specific fire planning features by location or to zoom into a desired area from an aerial view. To access the Portal, go to: <http://gis.co.humboldt.ca.us/> and choose “Fire Planning” from the list of mapping applications. The data collected through this Planning process are included in the GIS layers within the Portal.

No vegetation *treatments* recommended in this plan will be carried out without the consent and involvement of the property owner and all applicable local, state and federal regulations must be observed.

Non-geographic community identified proposed projects based on community workshop notes:

Greater Eureka

- Conduct *defensible space* education in interface areas.
- Close loop on dead-end/access roads where possible, and clear brush along roads. Areas with steep brushy slopes should be the top priority.
- Enhance water systems; especially Freshwater and Ridgewood for new developments.
- Implement a *Blue Dot Program* to identify water that is available for firefighting with a reflective blue dot. The program will also provide information about the importance of making firefighting water available and how to set it up properly. The Bottom Line: Water tanks must be full of water, accessible, and labeled.
- Create and distribute public education flyers where needed.
- Countywide project: Use creative ideas to maintain fuels reduction treatments. Eagle Scouts might want to maintain project.

Samoa

- Recruit more volunteers for fire department.
- Obtain more funding for fire department.

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- Make emergency radios available.
- Install sirens for fire and tsunami alerts.
- Make emergency supplies (especially first aid) available for Manila residents.
- Improve mapping and communication with how CAL FIRE calls them out on incidents.
- Need better response maps for firefighters.
- Evacuation plan for assisting disabled children from Samoa Peninsula School.

Bayside

- Raise/obtain sufficient funding for adequate fire protection.
- Hog fuel *biomass utilization* support
- Defensible space incentives for Upper Jacoby Creek neighborhoods
- Community fire safety education
- Explore back access evacuation route from Jacoby Creek.—There is a need to punch roads through to connect with other nearby roads so that there is more than one-way-in and one-way-out for evacuation and emergency response. This will also facilitate getting full buildout of land zoned for more development. Right now, even though it is properly zoned, the rules about roads (width, length of dead-end road, turnouts, etc.) are an obstacle to more development. Priority areas of need are connecting Jacoby Creek Rd. with Baywood Lane and connecting Jacoby Creek Rd. to Kneeland Rd.
- Need for education about on-site water supply and visibly marking water available for fire protection.

Blue Lake

- Obtain permission to access ponds on private lands.
- Create more fire stations.
- Conduct community fire-safe education regularly (annually or every six months); dovetail fire-safe education with other community events.
- Start a fire safe council.
- Recruit more volunteer firefighters.
- Conduct door-to-door fire-safe education in high risk areas.

Fieldbrook

- Implement *Red Truck Program*, with community defensible space education.
- Allow no new development without year-round water supply and good road grading.
- Improve address signs (house #s) in the community.
- Design a fuels reduction demonstration project and follow it up with a fun educational event to showcase the project.
- Conduct community education on defensible space and dovetail these efforts with community events and fire department fundraisers – provide handouts and localized wildfire mitigation information.

McKinleyville

- Improve road sign and home address sign visibility throughout the community.
- Work towards obtaining sufficient funding for fire protection services.

Green Diamond

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- Prioritize interface areas and high trespass areas for fuels reduction work – biomass as much of the residue as possible because burning is difficult in these areas (air quality and escape risks).
- Enhance wildfire detection and prevention program – teach people to call 911 if they see smoke.

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LOCATION		Treatment/Project Information Eel Fire Planning Unit							
Number Corresponds with location on map	Community, Structure, or Area (Value at Risk)	Description	Status	Year	Type	Acres	Veg Type	Maintenance (actual or proposed)	Funding source (actual or proposed)
ARC035	Perimeter of forest Sunnybrae to Fickle Hill Rd	Sunnybrae shaded fuelbreak & protection zone	Treat-Med	2012	Landscape				grant-landowner-Assn.
ARC037	Eastern boundary of Woodland Heights	Woodland Heights: create shaded fuelbreak	Treat-Med	2012	Landscape				grant-landowner-Assn.
ARC038	All of Arcata east of Hwy 101	Arcata east of Hwy 101, ALL: encourage defensible space	Treat-Med	2012	Defensible Space				grant -landowner
BAY029	Upper Jacoby Creek	Upper Jacoby Creek water tank network	Action Need	2012	Other - Water				grant - fire dept.
BAY032	Fickle Hill Road	Fickle Hill: create shaded fuelbreak.	Treat-Med	2012	Landscape				grant-landowner-Assn.
BAY033	Garden Lane and Jacoby Creek Rd.	Develop safe zone at old quarry site	Treat-Med	2012	Other - Safe Zone	6.69			grant-landowner-Assn.
BAY045	Roberts Height Ln, off Jacoby Creek Rd	Roadside brush clearing for ingress and egress	Treat-Med	2012	Roadside Clearance and Other - Access				grant-landowner-Assn.
BAY046	Roberts Height Ln, off Jacoby Creek Rd	Pool could be developed as a water site	Action Needed	2012	Other - water				grant-landowner-Assn.
BAY047	Roberts Height Ln	Good site for the water id blue dot program	Action Needed	2012	Other - Water				grant-landowner-Assn.

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LOCATION		Treatment/Project Information Eel Fire Planning Unit							
Number Corresponds with location on map	Community, Structure, or Area (Value at Risk)	Description	Status	Year	Type	Acres	Veg Type	Maintenance (actual or proposed)	Funding source (actual or proposed)
BAY048	Jacoby Creek Forest	Fuel reduction to create buffer between residential area and forest land in Jacoby Creek Forest	Treat-High	2012	Landscape				grant-landowner-Assn.
BAY049	Garden Ln, THREE SITES, off Jacoby Creek Rd	Need vegetation clearance around existing water tanks (protect H2O source)	Treat-High	2012	Defensible Space				grant-landowner-Assn.
BAY050	Garden Ln, off Jacoby Creek Rd	Understory clearing along Garden Lane	Treat-High	2012	Roadside Clearance				grant-landowner-Assn. (FLASH)
BAY052	Glory Lane, off Garden Lane	Understory clearing along Garden Lane	Treat-High	2012	Roadside Clearance				grant-landowner-Assn.
BAY053	Mtn Bike Trail, South Quarry Rd off Jacoby Cr Rd	Clearance along public recreation and fire access trail	Treat-Low	2012	Landscape and Other - Trails				grant-landowner-Assn.
BAY054	Abbey Ln, off Jacoby Creek Rd	Understory clearing along Abbey Lane	Treat-Med	2012	Roadside Clearance				grant-landowner-Assn.
BAY055	Upper Creek Rd	Understory clearing along Upper Creek Rd	Treat-Med	2012	Roadside Clearance				grant-landowner-Assn.
BLU050	Green Hill Rd Neighborhood	Fuel reduction above freeway below Green Hill Rd	Treat-Med		Roadside Clearance	5.36			grant-landowner-Assn.
BLU051	Community of Blue Lake	Brush clearance along walking paths	Treat-Med		Other - Trails	36.09			grant-landowner-Assn.

Humboldt County Community Wildfire Protection Plan

LOCATION		Treatment/Project Information Eel Fire Planning Unit							
Number Corresponds with location on map	Community, Structure, or Area (Value at Risk)	Description	Status	Year	Type	Acres	Veg Type	Maintenance (actual or proposed)	Funding source (actual or proposed)
BLU052	Liscomb Hill Neighborhood	Liscomb Hill Rd. - 2.5K gal. water source/tank for all area residents	Action Need	2010	Other - Water				
BLU057	Liscomb Hill Rd off Glendale Dr, E of Glendale	Liscomb Hill Neighborhood: maintain defensible space, improve road access	Treat - Med	2012	Defensible Space and Other - Access				
BLU059	West End Rd/Warren Creek Area, W of Blue Lake	West End/Warren Creek - connect Elizabeth to Cedar Hill; plan turnouts spaces for better access	Treat - Med	2012	Other - Access				
BLU061	Upper Blue Lake Blvd, Hwy 299, E of Blue Lake	Upper Blue Lake Blvd: roadside clearance, water tank development, and maintain defensible space	Treat - Med	2012	Roadside Clearance; Defensible Space; and Other - Water				Address access issues for the Elk River Court bridge, Headwaters haul bridge, and McKay Tract Bridge
BLU063	West End Rd, W of Blue Lake	West End Rd.: roadside brush clearing	Treat - Med	2012	Roadside Clearance				
EUR036	Freshwater Park	Freshwater Park: create a summer dam	Action need	2010	Other - Water				

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EUR037	Pine Hill neighborhood	Pine Hill Ave: drafting location @ Martin Slough	Action need	2010	Other - Water				
EUR047	Elk River Community	Elk River Court bridge: fix/ engineer bridge to improve access.	Action need	2010	Other - Access				
EUR048	McKay Tract	Fix McKay Tract Bridge	Action need	2010	Other - Access				
EUR049	Headwaters	Fix Headwaters haul bridge to improve access.	Action need	2010	Other - Access				
EUR051	Berta Rd and off shoot roads	Post address and street signs (esp. on private roads); roadside clearance; improve access and water availability.	Treat - Med	2012	Roadside Clearance and Other - Signage and Other - Water				
EUR053	Vista Rd and dead-end off shoot roads	Post address and street signs (esp. on private roads); roadside clearance; improve access and water availability.	Treat - Med	2012	Roadside Clearance and Other - Signage and Other - Water				

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EUR056	Neighborhoods north of Myrtle Ave, Ryan-Freshwater Creeks	Post address and street signs (esp. on private roads); roadside clearance; improve access and water availability.	Treat - Med	2012	Roadside Clearance Other - Access and Other - Signage and Other - Water				
EUR058	Indianola neighborhoods	Post address and street signs (esp. on private roads); roadside clearance; improve access and water availability.	Treat - Med	2012	Landscape and Other - Access and Other - Water				
EUR060	Redmond Rd and off shoots and dead-end roads	Post address and street signs (esp. on private roads); roadside clearance; improve access and water availability. Paint hydrants to improve visibility.	Treat - Med	2012	Landscape and Other - Access and Other - Water				
FIE039	Community of Fieldbrook	County brush clearance along Fieldbrook Rd	Treat-Med		Roadside Clearance				County Rds.

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FIE040	Van Eck Neighborhood	North Line of Fieldbrook / Van Eck unit: shaded fuelbreak	Treat- Med		Landscape	1.31			grant-landowner- Assn.
FIE041	Van Eck / Lindsey Creek & Mather Estates Neighborhood	Shaded fuelbreak between Van Eck / Lindsey Crk & Mather Estates	Treat- Med		Landscape	7.84			grant-landowner- Assn.
FIE042	Community of Fieldbrook	Sawdust Trail: brush clearance for shaded fuelbreak.	Treat- Med		Roadside Clearance	0			grant-landowner- Assn.
FIE045	Community of Fieldbrook	Old Railroad Grade North: brush clearance along roadsides.	Treat- Med		Roadside Clearance	0			grant-landowner- Assn.
FIE046	Rock Pit Rd, north of Fieldbrook	Rock Pit Quarry - roadside clearing for access/hazard reduction	Treat - Med	2012	Roadside Clearance and Other - Access	0			grant-landowner- Assn.
FIE047	Old Railroad Grade North. north of Fieldbrook	Old Railroad Grade North: roadside clearing for access; maintain defensible space	Treat - Med	2012	Roadside Clearance and Defensible Space				grant-landowner- Assn.

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FIE051	Hwy 299, Timmons Ln - Essex Ln, W of Glendale	Essex Gulch - improve access, , turnouts; conduct roadside brush clearing	Treat - Med	2012	Roadside Clearance and Other - Access				grant-landowner-Assn.
FIE053	Cloudwood Rd, E of Fieldbrook	Cloudwood Rd - understory clearance	Treat - Med	2012	Landscape				grant-landowner Assn.
FIE054	Buckman Trail Ln, Murray Rd, W of Fieldbrook	Buckman Tr Ln - understory clearance	Treat - Med	2012	Landscape				grant-landowner Assn.
FIE056	Hughes Way, Murray Rd, W of Fieldbrook	Hughes Way - fuel reduction, 3 hydrants, pump station, 15000gal tank	Treat - Med	2012	Landscape and Other - Water				? green diamond ?
KNE047	Greenwood Heights Drive	Greenwood Hts Dr./Freshwater Rd: maintain defensible space and road buffers and improve access clearance.	Treat-Med	2012	Landscape and Roadside Clearance				grant-landowner-Assn.
KNE056	Barry and Tim Mullen's Road, Kneeland	Clear brush and mow grass along roads (buffers), people's driveways, homes	Treat - Med		Roadside Clearance and Defensible Space				

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MCK006	McKinleyville Community	Create a buffer between area east of town and interface zones	Treat- Med	2012	Landscape				grant-landowner- Assn.
MCK008	Arthur and Elizabeth Road area	Clearly mark houses and roads (street names and numbers)	Action Need		Other - Signage				grant-landowner- Assn.
PAC001	Northern boundary Humboldt Redwood Company; Freshwater- Kneeland area	Fuel reduction in WUI areas.	Treat- Med		Landscape				grant-landowner- Assn.
PAC002	04N 01E SEC's 21,22,26,25 & 04N 02E SEC 19	Fuel reduction to improve breaks on fire suppression ridges; targeted for additional treatment	Treat- Med		Landscape				grant-landowner- Assn.
SAM061	W of Lincoln Ave, Fairhaven	Regularly clear fuels in empty lots	Treat - Med	2012	Landscape				

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IV.8.9. Eureka Plain Action Plan

The following items are the initial priorities for community action for the Eureka Plain Planning Unit as recommended by this Humboldt County CWPP (not listed in order of priority). In an ideal world, everything recommended here would be implemented. However, it must be understood that implementation will be subject to the availability of funds and other resources and the willingness/ability of community members and Plan Partners to take action. This Action Plan can be cited in grant applications to leverage needed implementation funds and used to guide and inspire action.

Enhancing Fire Protection

- **Sustainable Fire Departments:** Community members within this Planning Unit should support their local fire department⁷ through activities such as volunteering as firefighters or auxiliary members, making donations, supporting fundraisers, writing grants, and/or helping with administrative tasks. With community support, local fire departments can continue to provide a wide variety of vital emergency services. Focus initial efforts on the following priorities:
 - Develop a recruitment strategy for adding more volunteers to the local fire departments; particularly Samoa Peninsula and Blue Lake Fire Departments.
 - Explore possibilities for expanding the boundaries of the Blue Lake Fire Protection District to provide service to the Maple Creek and Redwood Creek areas. These efforts will likely necessitate the approval of a special tax or benefit assessment to support service in the expanded jurisdiction.
- **Road Improvements:** Address road conditions that inhibit effective evacuation and access by emergency responders. Begin by systematically identifying and mitigating such access impediments. The following priority access issues were identified 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 excising roads to create a secondary access point. This is particularly important for the Upper Jacoby Creek Community and several roads in the community of Fieldbrook as well as greater Eureka area neighborhoods.
 - Address access issues for the Elk River Court bridge, Headwaters haul bridge, and McKay Tract Bridge
- **Signage:** To aid emergency responders, residents and road associations should improve road and address signage throughout their communities. Make signs larger and reflective to increase visibility and install road and address signs where they are missing. Less noticeable but more sentimental address signs may remain but it is important to also post reflective signs with lettering at least three inches in height. Focus initial efforts in the following areas:
 - McKinleyville: Arthur and Elizabeth Road area
 - Greater Eureka Area: Berta, Vista, Redmond Roads and their dead-end off shoots
 - Neighborhoods north of Myrtle Ave, Ryan-Freshwater Creeks, Redmond Road
- **Firefighting Water:** Increase the availability of water for fire protection by making water access locations known to fire departments and investing in more community water tanks. Neighborhood and road associations and/or Firewise® communities work with local fire departments to develop a “Blue Dot” program, which identifies the location of firefighting water sources by marking them with a blue reflective dot. It is also helpful to

⁷ All local fire departments within this unit are listed above with their contact information in the “Wildfire Protection Capabilities” section.

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Paint hydrants to improve visibility. This program also ensures that tanks and water systems are outfitted with fittings compatible with firefighting equipment. Begin by identifying where such a program is most needed.

- The Humboldt Bar 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.
- Blue Lake: Ensure that all residents in the Liscomb Hill Road area have a 2,500 gallon water tank.
- Enhance water systems to ensure sufficient emergency water supply for future development in the Freshwater and Ridgewood areas.

Creating Fire Safe Communities

- **Firewise® Communities:** Pursue participation in the Firewise Communities/USA® Recognition Program with neighborhood groups in developed areas adjacent to the wildland, particularly where there are many residences located along dead-end roads. Actively implement and maintain the Firewise® action plan on an annual schedule. Target the following neighborhoods on edges of communities in the higher risk interface areas, possibly through an affiliation with a road association:
 - Upper Jacoby Creek
 - Blue Lake
 - Fieldbrook

Ensuring Safe and Effective Evacuation

- Encourage fire department representatives from each department within this Planning Unit to work with the Humboldt County Office of Emergency Services and local law enforcement to conduct local evacuation preparedness planning and outreach. Efforts should be made to ensure that local gates are open or accessible during Red Flag conditions. Focus evacuation planning efforts in neighborhoods located along the following single access roads:
 - Upper Jacoby Creek
 - Liscomb Hill
 - Dead-end roads to WUI neighborhoods in the Greater Eureka Area

Promoting Fire Safe Education

- Conduct public education and outreach efforts regarding strategies for fire safety, maintaining defensible space, and evacuation planning. Send out informational material in mailers throughout the communities. Consider involving Boy Scouts and Girl Scouts of America in outreach efforts. Focus initial educational efforts in all of the WUI neighborhoods on the outskirts of the more urbanized areas.
 - Provide education on fire protection and preparedness for community members. Inform people about how to call 911 more effectively and familiarize residents with fire protection service jurisdictional areas and response times.
 - Utilize the Bayside Grange as an information resource with a kiosk or bulletin board.

Reducing Wildfire Fuels (Flammable Vegetation)

- **Defensible Space:** Those residents living in areas within this Planning Unit that are at risk to wildfire should manage the flammable vegetation within their home ignition zone. Maintaining *defensible space* through vegetation treatments should be a routine and ongoing practice for all homes and *landscapes*. Community *Chipper Days* can facilitate this process by helping landowners get rid of slash

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and brush piles so that they do not become an additional hazard. Begin by identifying where defensible space is most needed within the planning unit. Priority neighborhoods in this Unit are those adjacent to forested wildland particularly where there is a predominance of older pre-WUI building code construction. Work with local fire departments to identify initial priorities for targeted outreach.

- **Roadside Clearance:** Manage roadside vegetation in order to improve and maintain access for emergency vehicles and ensure safe evacuation. Consider working with the California Conservation Corps or County Public Works Roads Division. Many roads in the Unit were identified at community workshops as needing vegetation treatment. The highest priority should be those with the largest populations, highest fuel loads, and most remote locations. Coordinate with local fire officials to identify target roads.
- **Landscape Fuels Reduction:** Construct *shaded fuelbreaks* as buffers between residential areas and wildlands to slow the progress of wildfires. This allows firefighters a higher probability of successfully protecting communities from wildfire damage. These buffers may also protect the wildlands from the spread of fires originating within communities. The following areas are recommended for priority treatment in this plan:
 - Create a buffer between the forested area east of McKinleyville and the interface zones.
 - Regularly clear fuels in empty lots in Fairhaven