

# ***Unit Strategic Fire Plan Humboldt Del Norte***



CAL FIRE Helitack Aviation Program In Action Supporting Ground Crews During Fire Suppression Operations



# Table of Contents

<i>Table of Contents</i> .....	<i>ii</i>
<i>SIGNATURE PAGE</i> .....	<i>1</i>
<i>EXECUTIVE SUMMARY</i> .....	<i>2</i>
<i>SECTION I: UNIT OVERVIEW</i> .....	<i>3</i>
<i>UNIT DESCRIPTION</i> .....	<i>3</i>
<i>UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES</i> .....	<i>7</i>
<i>SECTION II: COLLABORATION</i> .....	<i>10</i>
<i>COMMUNITY / AGENCIES / FIRE SAFE COUNCILS</i> .....	<i>10</i>
<i>SECTION III: VALUES</i> .....	<i>12</i>
<i>A: VALUES</i> .....	<i>12</i>
<i>B: COMMUNITIES</i> .....	<i>12</i>
<i>SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES</i> .....	<i>15</i>
<i>A: FIRE PREVENTION</i> .....	<i>15</i>
<i>ENGINEERING &amp; STRUCTURE IGNITABILITY</i> .....	<i>15</i>
<i>INFORMATION AND EDUCATION</i> .....	<i>16</i>
<i>B. VEGETATION MANAGEMENT</i> .....	<i>18</i>
<i>SECTION V: PRE- FIRE MANAGEMENT TACTICS</i> .....	<i>19</i>
<i>DIVISION / BATTALION / PROGRAM PLANS</i> .....	<i>19</i>
<i>APPENDIX A: PRE- FIRE PROJECTS</i> .....	<i>22</i>
<i>APPENDIX B: UNIT GOALS AND OBJECTIVES</i> .....	<i>27</i>
<i>APPENDIX C: COMMUNITY WILDFIRE PROTECTION PLANS:</i> .....	<i>30</i>
<i>APPENDIX D: ANNUAL FIRE SEASON REPORT</i> .....	<i>34</i>
<i>APPENDIX E: SRA / DPA TABLE</i> .....	<i>36</i>
<i>EXHIBITS: MAPS</i> .....	<i>37</i>
<i>SUPPLEMENT: 2012</i> .....	<i>46</i>

## SIGNATURE PAGE

### Unit Strategic Fire Plan developed for **Humboldt – Del Norte Unit:**

This Plan:

- Was collaboratively developed. Interested parties, Federal, State, City, and County agencies within the Unit have been consulted and are listed in the plan.
- Identifies and prioritizes pre fire and post fire management strategies and tactics meant to reduce the loss of values at risk within the Unit.
- Is intended for use as a planning and assessment tool only. It is the responsibility of those implementing the projects to ensure that all environmental compliance and permitting processes are met as necessary.

***s/ Michael Howe*** \_\_\_\_\_

Unit Chief

Mike Howe

***6-11-12*** \_\_\_\_\_

Date

***s/ Mark Rodgers*** \_\_\_\_\_

Pre-Fire Engineer

Mark Rodgers FC,

***6-11-12*** \_\_\_\_\_

Date

\_\_\_\_\_  
President, Humboldt County Fire Chief's Association Date

\_\_\_\_\_  
Chair, Humboldt County Board of Supervisors

\_\_\_\_\_  
Date

## **EXECUTIVE SUMMARY**

The California Department of Forestry and Fire Protection (CALFIRE) Humboldt-Del Norte Unit (HUU) is located along the California coastline and includes Humboldt, Del Norte, and portions of Trinity counties. The Unit extends north to south approximately 180 miles and inland approximately 50 miles. This encompasses 1,928,267 acres of state responsibility lands and 1,927,410 of direct protection area. Approximately 70% of these lands are zoned for timber production and another 10% are recreation areas. Watersheds within the Unit include the Smith, Klamath, Mad, Trinity, Van Duzen, Mattole and Eel Rivers. Humboldt and Del Norte counties are home to not only the world's tallest living trees, but also the largest remaining stands of old growth coast redwood. Many of these stands are protected in parks and recreational areas. The livelihood of these counties is dependent on the resources the land itself has to offer both in the form of timber production and recreation.

A significant portion of HUU is held by federal cooperators. The Six Rivers, Rogue - Siskiyou, and Klamath National Forests, Redwood National Park, scattered Bureau of Land Management, combine with tribal trust areas for 1,300,000 acres of federal lands. The Bureau of Indian Affairs supports twelve tribal agencies, and the Hoopa tribe provides fire protection on its' reservation.

The HUU Strategic Fire Plan is developed by the Planning Battalion through a collaborative process that includes CALFIRE field battalions, fire prevention and administration staff, county and local Fire Safe Councils, and cooperating agencies. The Unit Chief provides direction on how the Unit endeavors to meet the key goals of the Strategic Fire Plan for California. The field and administrative battalions provide localized and program plans towards meeting those objectives. Implementation is directed by the field battalion chiefs and camp chiefs for daily operations.

### **COLLABORATION**

This plan is a compilation of efforts from various groups and agencies from throughout the Unit to address the mitigation of the hazardous fuel loading within the Unit and around the communities at risk within it. The plan addresses the priorities put forth by the Unit based on the key issues gathered from cooperators: 1) assets at risk, 2) level of service, 3) fuels, 4) fire weather, and 5) fire history.

### **PRIORITIZED FUEL REDUCTION**

This plan identifies and prioritizes areas of hazardous fuel reduction treatments and recommends the type and methods of treatments that will be used by the Humboldt-Del Norte Unit to protect one or more of the Communities at Risk and their essential infrastructure within the Unit boundaries. This includes some efforts of local cooperators and their accomplishments.

### **TREATMENT OF STRUCTURAL IGNITABILITY**

This plan recommends measures that homeowners and communities can take to reduce the ignitability of structures throughout the Unit. Information drawn from a variety of sources were included in this plan to help educate the public as to what they can do to help mitigate potential problems associated with living in the Wildland Urban Interface. (WUI)

## **SECTION I: UNIT OVERVIEW**

### **UNIT DESCRIPTION**

#### **Location**

The CAL FIRE Humboldt - Del Norte Unit is the most northern unit along the California coastline. The Unit extends north to south approximately 180 miles and inland approximately 50 miles. This encompasses 1,928,267 acres of state responsibility lands and 1,927,410 of direct protection area. The Unit includes Redwood National Park, United States Forest Service (USFS) Six Rivers National Forest and the Bureau of Land Management's Headwaters Forest and Kings Range, eleven State Parks, and 20 county parks and beaches. There are also twelve tribal agencies residing within the unit including the Hoopa, which provides wildland fire protection on their reservation. The Yurok, Wiyot, Karuk and Tolowa are some of the other tribes that have lands, for which CALFIRE provides wildland fire protection under contract with the Bureau of Indian Affairs.

#### **Vegetation and Fuels**

The Fire Plan analysis of fuels has been completed for the Humboldt Del Norte Unit. While an actual rating for the fuels is available, some general statements can be made based on local knowledge of the fuels. The Unit is predominately mixed conifer forest (NFDRS Fuel model G) or Fire Behavior Fuel Model 10. This vegetation type consists of coast redwood, Douglas-fir, spruce with intermingled hardwoods including madrone and tanoak. A key component within this fuel type is the large amount of down and dead woody fuel. This vegetation type occurs in three zones. The coastal strip consists of coast redwood, Douglas-fir and spruce. This is a closed canopy forest with a thick, lush understory of brush. The biomass in this fuel type is equal to or greater than a rainforest. In fact it is not uncommon to have a true redwood forest referred to as a rainforest. The second zone occurs inland where the Douglas-fir dominates and resides with hardwoods. This results in a more open canopy with a sparser understory. The third zone occurs in the most southeastern portions of the unit, where the fuel is that of a typical Oak Woodland. The understory is open and consists of grass and brush (chaparral).

#### **Sudden Oak Death (SOD)**

The pathogen *Phytophthora ramorum* was first identified in Humboldt County in the late 1990s near Redway, and causes the condition commonly known as Sudden Oak Death (SOD). SOD causes 100% mortality in tanoak and has the potential to seriously impact fuel loading and fire behavior in affected stands. It has spread in southern Humboldt and is focused in the South Fork Eel River watershed north to Weott. Other sites are found near Eel Rock and in the Redwood Creek watershed north of Highway 299. CAL FIRE has worked with UC Cooperative Extension, private landowners, and State Parks to identify potential treatments for this pathogen. The areas of *P. ramorum* infection

continue to spread. The SOD areas produce higher fuel loads and affected trees are prone to rapid failure during fires. No SOD has yet been found in either Trinity or Del Norte counties.

The following set of photographs depicts a cross section of the vegetation types within the Humboldt-Del Norte Unit.



### **Fire Hazard Severity Zones**

As a component of the implementation of new WUI building code standards, CALFIRE undertook a major effort to reclassify the Fire Hazard Severity Zones (FHSZ) statewide for SRA and LRA lands. The new FHSZ areas are classified primarily as High and Very High FHSZs. Some areas of Moderate FHSZ are located near the coast. For LRA, the local entities have accepted CALFIRE's classification of those areas. There are no LRA zones in the Unit that are classified as Very High FHSZ. Federally owned and managed lands were not formally classified.

## **Topography and Weather**

The Humboldt Del Norte Unit is a coastal region with varying topography, but for the most part is mountainous. Elevations range from sea level to 4100 feet. Slopes range from moderate to very steep with 80-90% not being uncommon.

The Fire Plan analysis of the frequency of severe fire weather has been developed. The business plan that addresses the validation process was completed this last year.

The HUU current weather station being used as a severity station for the Unit (Eel River RAWS) because of its location provides an accurate depiction of the area. We have used this RAWS as our severity station for the past several years in our Unit Weather Plan.

The unit has used various options, in the past such as the use of Fire Family Plus to tabulate existing weather data from our weather stations set in National Fire Danger Rating Zones, as addressed in the Unit Weather plan.

Using local knowledge and research work done at Humboldt State University we can define when and under what conditions severe fire weather occurs. The unit is also fortunate to have a good database (dating back to 1974) of weather observations from the Eel River manual weather observation station.

Three major synoptic weather systems are associated with large fires in the Humboldt Del Norte Unit. They are the Pacific High (post-frontal), the Great Basin High and the Subtropical High Aloft pattern. These patterns can be expected to occur 50-55 days in the summer months, with the greatest number of days occurring in July, August or September.

The National Weather Service provides all daily fire weather forecasting for HUU from their Eureka office. All fire weather forecasts are available at the Eureka office main web page: <http://www.wrh.noaa.gov/Eureka>, We also provide an annual Unit Fire Weather Operating Plan that directs Unit fire business, fire danger thresholds, and weather related operating procedures.

## **Fire History**

In order to fully understand the goal of the fire management plan, it is important to recognize the area's fire history. Fire has long been a part of Humboldt and Del Norte counties. During the pre-settlement period (before 1875) the Native American people commonly used fires as tools to manipulate their environment. They used fire for a variety of reasons. It helped drive out rodents and insects, kept the forest understory open, which made for easier travel and hunting. Additionally it enhanced the forbs and grasses used in basket weaving. During the settlement period (1875-1897) European settlers used fire for maintenance and enlarging the pasturelands and as a land clearing method. Major land activities during the post settlement period (1898-1940) were

livestock grazing, farming, debarking of the tanoak for tannin production and logging of Douglas-fir and coast redwood. Logging was clearly a dominant activity during this time period. Hundreds of small mills existed up and down the coastline; often the mills would have their own railroad for the transportation of the logs as well. In this time of unrefined mechanized equipment, the logging operations were simplified as much as possible. Logged areas were burned to assist with the removal of the logs and reduce the logging debris left behind. These fires were left to burn with no real control efforts. The same can be said for the area ranchers who commonly set fire to their land in order to maintain the grazing.

Many studies have been conducted on the fire frequency of the Coast Redwood. Accordingly there are varying thoughts on the fire frequency. There is also a notable difference between the northern portions of the Unit versus the southern area. Estimates for the redwoods in the northern portion of the Unit suggest a 50 to 100-year fire cycle. While in the southern portion of the unit the fire frequency is estimated to be 12 to 50 years. Reviews of area newspapers and various studies at Humboldt State University indicate that there was indeed a significant fire history from the late 1800's through early 1950's. Notable are 24 "fire seasons" between 1880 and 1952. During this time period the fire interval was 3.3 years. Some of these fires included entire towns being burned, such as the 1908 fire that destroyed the community of Luffenholz. People were left homeless, local mills and railroad tracks all perished from these large severe fires. The Civilian Conservation Corps began work in the Humboldt – Del Norte area in the mid 1930s, developing an improved local firefighting infrastructure. After 1945, the severity and number of fires began to decline significantly. The State Forest Practice Act changed the manner in which lands were managed, which led to the curtailing and changing of logging activities. Secondly, World War II had taken the work force overseas; with the return of the soldiers came an active fire suppression program.

## UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

The Humboldt – Del Norte Unit is composed of eleven fire stations, three camps, one air attack base, and one helitack base. CDF HUU maintains 14 frontline engines, with two engines in reserve, two dozers, 15 inmate crews, one helicopter, one air attack, and one air tanker for fire suppression efforts. There are approximately 100 permanent fire suppression personnel, 12 resource management personnel, and 6 clerical personnel to staff these efforts. Additionally the Unit hires approximately 90 limited term and seasonal personnel to supplement permanent staff during the fire season.

All Unit aircraft provide rapid initial attack and are especially valuable in the county's remote areas where steep terrain and narrow, winding roads greatly increase ground response times. In such situations, aircraft are often at scene and applying water or retardant before engines and dozers arrive, cooling the fire and giving ground resources the ability to achieve initial attack success. Aircraft also provide "eyes in the sky" for those on the ground, noting spot fires and giving other direction from their vantage point.

The Fortuna inter-agency command center dispatches fire, law enforcement, and EMS calls for the Six Rivers National Forest, the Humboldt – Del Norte Unit, as well as for 34 volunteer fire departments, Arcata Fire Department, Redwood National Park, and the Bureau of Land Management's Kings Range National Conservation Area.

HUU has the potential for large catastrophic fires; especially in its' southern and eastern regions. With the area becoming more and more popular as an area of scenic beauty, relative low land cost, etc., the risk will continue to grow, especially for those who reside in remote areas of the Unit.

The Unit has most of its fire protection adjacent to its population centers, leaving large areas of the Unit with long response times. Cal Fire's 2010 Strategic Fire Plan vision is to strive for:

*"A natural environment that is more resilient and man-made assets which are more resistant to the occurrence and effects of wildland fire through local, state, federal and private partnerships"*

Board of Forestry and Fire Protection designates in the California Fire Plan that CAL FIRE will strive to contain 95% of all unwanted fire at 10 acres or less. This is consistent with CAL FIRE's Fire Protection Objective as stated in the Fire Operations Handbook, policy 7001.2.

***Humboldt County has an extraordinarily strong and effective mutual aid system,*** among all agencies and for all types of emergency response. Local fire departments are quick to assist each other and CAL FIRE, and vice versa, most often within the Mutual Aid Zones, but beyond those as needed. On wildfires, CAL FIRE and local

firefighters, paid and volunteer, work side by side as equals, all in yellow Nomex fire resistant clothing and barely distinguishable from each other in appearance and skill. On medical aid calls, local fire departments, local ambulance services, CAL FIRE, US COAST GUARD and CALSTAR or REACH emergency transport helicopters all work as one team.

A list of Humboldt County's local fire agencies follows. Insurance Service Office (ISO) ratings are assigned to localities by the insurance industry according to their fire suppression capabilities, available water supply, and other factors, with a rating of 1 indicating the best possible situation. Homeowners' fire insurance costs are calculated in part according to these ratings.

## Local Fire Agencies in HUU

### Local Fire Organizations Providing Service in the Humboldt-Del Norte Unit Humboldt County Agencies

#### City Fire Dept.

Eureka      Trinidad

#### Fire Protection Dist.

Arcata	Blue Lake	Ferndale	Fortuna	Garberville
Humboldt Fire Dist.#1		Kneeland	Loleta	Myers Flat
Petrolia		Redway	Rio Dell	Samoa Peninsula
Scotia		Shelter Cove	Telegraph Ridge	Whitethorn
Willow Creek				

#### Volunteer Fire Dept.

Bridgeville	Briceland	Fruitland Ridge	Honeydew	Orleans
Palo Verde	Prosper Ridge	Redcrest	Salmon Creek	Sprowl Creek
Westhaven	Whale Gulch			

#### Community Services Dist.

Carlotta	Fieldbrook	Miranda	Phillipsville
Orick	Ruth lake	Scotia	Weott

#### Other Special Dist. or Agencies.

County Service Area #4, Hoopa & Yurok Fire Dept., Shelter Cove Resort Improvement Dist

### Del Norte County Agencies

#### City Fire Dept.

Crescent City

#### Fire Protection Dist.

Crescent      Fork Dick      Smith River

#### Volunteer Fire Dept.

Gasquet      Klamath

### Trinity County Agencies

#### Volunteer Fire Dept.

Kettenpom      Salyer (CSD)      Burnt Ranch      Hawkins Bar  
S. Trinity

**SECTION II: COLLABORATION**

**COMMUNITY / AGENCIES / FIRE SAFE COUNCILS**

Representatives involved in the development of the Unit Strategic Fire Plan are included in the following table. Their organization and title are indicated below: The demographics of the area lends itself to many stakeholder groups with a wide array of needs. Generally speaking the stakeholders are represented by government entities, private land stewards (both large and small), rural and urbanized homeowners and other special interest groups. Among the government entities include State Parks, Humboldt and Del Norte County Parks, Bureau of Land Management, Six Rivers National Forest, Redwood National Park, Bureau of Indian Affairs, Hoopa Valley Reservation, Department of Fish and Game, North Coast Unified Air Quality Management District, Shelter Cove Resort Improvement District, the City of Arcata, Weott Consolidated Sanitary District, and Humboldt Fire District #1. Large timber companies include Green Diamond Timber, Humboldt Redwood Company, and Sierra Pacific Industries. There are many smaller landowner who use their land for logging, ranching, agriculture, and living in a rural lifestyle. Tribal councils of the Karuk, Yurok, Hoopa other local Native American organizations have a deep connection to the land. The Mattole Restoration Council (MRC), Redwood Community Action Agency (RCAA) and the Institute of Sustainable Forest (ISF) are very active groups within the community that are aggressively pursuing fuels reduction issues and community safe plans. Many of these groups are active in Fire Safe Councils throughout the area.

Agencies and organizations that provide fire protection services, ten local Fire Safe Councils (FSCs) are active in Humboldt County and involved with public fire safe education and fire prevention programs in their communities. There are ten FSCs are: Humboldt County , Del Norte County , Trinity County, Southern Humboldt, Fruitland Ridge, Lower Mattole, Orleans / Somes Bar, Van Duzen Watershed

**Plan Development Team:**

Organization	Representative
Humboldt County FSC	Cybelle Immitt (Specialist Planner)
Del Norte County FSC	Dan Leavitt (President)
Trinity County FSC	Pat Frost (President)
Southern Humboldt FSC	Bill Eastwood (President)
Fruitland Ridge FSC	Deborah Lake (President)

Lower Mattole FSC	Josh Free (President)
Orleans / Somes Bar FSC	Will Harling(President)
Van Duzen Watershed FSC	Jean-Louis Carmona (Director)
Willow Creek FSC	Barbra Darst (President)
Humboldt Redwood State Parks	Lathrop Leonard (Park Ecologist)
Six Rivers National Forest	Robert Rivelle (Fire Prevention Officer)
UC Cooperative Extension	Yana Valachovic (County Director Forest advisor)
Humboldt County Planning	Jerry Von Dohlen (GIS Specialist)
Six Rivers National Forest	Amy Ziegler (Fire Planner GIS Specialist)
Green Diamond Resources	John Plantin (Timberland Manager)
Bureau of Land Management	Tim Jones (Fuels Officer)
Mattole Restoration Council	Seth Zukerman (Manager)
Bridgeville Community Center	Lynne Reardon (Executive Administrator)
Six Rivers USFS Mad River District	Nancy Curran (Fuels Planner)
Karuk Tribe Dept of Natural Resources	Bill Trip (Eco-Cultural Restoration Specialist)
Smith River National Recreational Area	Shelia Balent (Fuels Planner)
Southern Humboldt Fire Chiefs Assoc.	Michael Lake (President)
Northern Humboldt Fire Chiefs Assoc.	John Mc Farland (President)

### SECTION III: VALUES

#### A: VALUES

Population dynamics in California has resulted in rapid development in the outlying fringe of metropolitan areas and in rural areas with attractive recreational and aesthetic amenities, especially forests. This demographic change is increasing the size of the wildland-urban interface (WUI), defined as the area where structures and other human development meet or intermingle with undeveloped wildland. The WUI is where wildfire poses the biggest risk to human lives and structures. The expansion of the WUI in recent decades has significant implications for wildfire management and impact. The WUI creates an environment in which fire can move readily between structures and vegetation fuels. Its expansion has increased the likelihood that wildfires will threaten structures and people.

WUI is composed of both intermix and interface communities. Intermix communities are places where housing and vegetation intermingle. In intermix, wildland vegetation is continuous, more than 50 percent vegetation, in areas with more than 1 house per 40 acres. Interface communities are areas with housing in the vicinity of contiguous vegetation. Interface areas have more than 1 house per 40 acres, have less than 50 percent vegetation, and are within 1.5 miles of an area that is more than 75 percent vegetated.

The California Fire Alliance (2001) defined “vicinity” as all areas within 1.5 miles of wildland vegetation, roughly the distance that firebrands can be carried from a wildland fire to the roof of a house. It captures the idea that even those homes not sited within the forest are at risk of being burned in wildland fire.

With the use of the above definitions as a foundation, the communities in and around these WUI areas become “Communities at Risk”. The following section provides a list of the Communities at Risk within the boundaries of the Humboldt-Del Norte Unit.

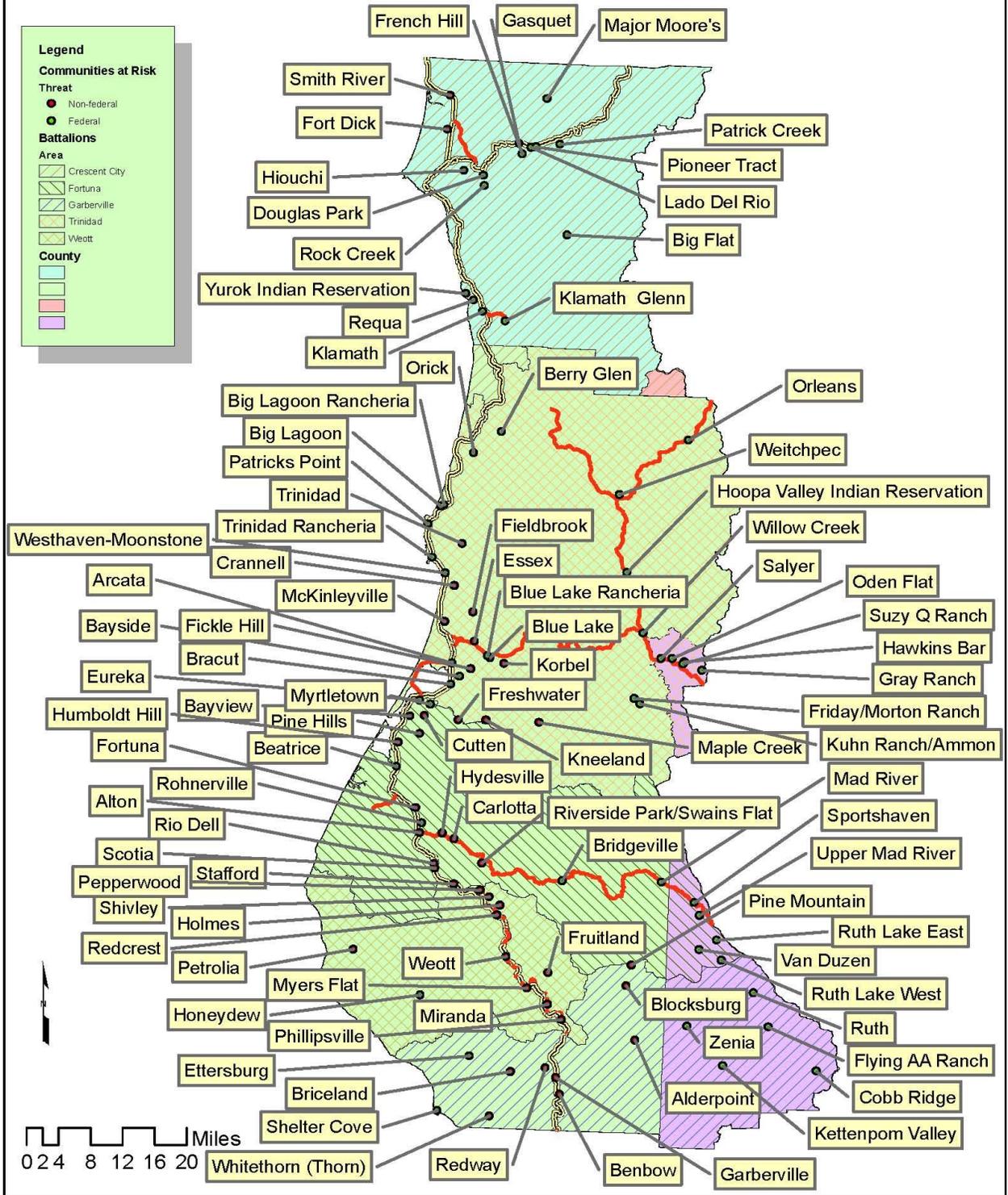
#### B: COMMUNITIES

The Humboldt – Del Norte Unit has many communities that are at risk from wildfire. The federal register includes most, but not all the potentially threatened areas. These communities are as noted on the following table:

Community	Federal Register	Threat	Bayview	No	
Alderpoint	No		Beatrice	No	Federal
Alton	No		Benbow	No	
Arcata	No	Federal	Berry Glen	Yes	Federal
Bayside	No	Federal	Big Flat	Yes	Federal

Big Lagoon	Yes	Federal	Myrtle town	No	Federal
Big Lagoon	Yes	Federal	Oden Flat	Yes	Federal
Rancheria			Orick	Yes	Federal
Blocksburg	No		Orleans	Yes	Federal
Blue Lake	Yes	Federal	Patrick Creek	Yes	Federal
Blue Lake	Yes	Federal	Patricks Point	No	Federal
Rancheria			Pepperwood	No	
Bracut	No	Federal	Petrolia	Yes	
Briceland	No		Phillipsville	No	
Bridgeville	Yes	Federal	Pine Hills	Yes	
Carlotta	No		Pine Mountain	No	
Cobb Ridge	Yes	Federal	Pioneer Tract	Yes	Federal
Crannell	No		Redcrest	No	
Cutten	No		Redway	No	
Douglas Park	Yes	Federal	Requa	No	Federal
Essex	No		Rio Dell	No	
Ettersburg	Yes	Federal	Riverside	No	
Eureka	No	Federal	Park/Swains		
Fickle Hill	Yes		Flat		
Fieldbrook	No		Rock Creek	Yes	Federal
Flying AA	Yes	Federal	Rohnerville	No	Federal
Ranch			Ruth	Yes	Federal
Fort Dick	No		Ruth Lake East	Yes	Federal
Fortuna	No		Ruth Lake West	Yes	Federal
French Hill	Yes	Federal	Salyer	Yes	Federal
Freshwater	No		Scotia	No	
Friday/Morton	No	Federal	Shelter Cove	Yes	Federal
Ranch			Shivley	No	
Fruitland	No		Smith River	No	
Garberville	No		Sportshaven	Yes	Federal
Gasquet	Yes	Federal	Stafford	No	
Gray Ranch	Yes	Federal	Suzy Q Ranch	Yes	Federal
Hawkins Bar	Yes	Federal	Trinidad	Yes	
Hiouchi	Yes	Federal	Trinidad	Yes	Federal
Holmes	No		Rancheria		
Honeydew	Yes	Federal	Upper Mad	Yes	Federal
Hoopa Valley	Yes	Federal	River		
Indian			Van Duzen	Yes	Federal
Reservation			Weitchpec	Yes	Federal
Humboldt Hill	No		Weott	No	
Hydesville	No		Westhaven-	Yes	Federal
Kettenpom	Yes	Federal	Moonstone		
Valley			Whitethorn	Yes	
Klamath	Yes	Federal	(Thorn)		
Klamath Glenn	No	Federal	Willow Creek	Yes	Federal
Kneeland	No		Yurok Indian	No	Federal
Korbel	Yes		Reservation		
Kuhn	Yes	Federal	Zenia	Yes	Federal
Ranch/Ammon					
Lado Del Rio	Yes	Federal			
Mad River	Yes	Federal			
Major Moore's	Yes	Federal			
Maple Creek	No				
McKinleyville	No				
Miranda	No				
Myers Flat	No				

# 2012 Communities at Risk by County and Battalion



## **SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES**

### **A: FIRE PREVENTION**

Unit prevention efforts include fair exhibits, community fire safe day exhibitions, burn and 4290 permit procedures, fire patrols, news media releases, public service announcements, structure and dooryard premise inspections, and an active board member on the Humboldt County Fire Safe Council. Fire prevention programs are coordinated to the greatest extent possible with fire safe councils and local fire departments.

### **ENGINEERING & STRUCTURE IGNITABILITY**

This plan recommends measures that homeowners and communities can take to reduce the ignitability of structures throughout the Unit. Information drawn from a variety of sources were included in this plan to help educate the public as to what they can do to help mitigate potential problems associated with living in the Wildland Urban Interface. (WUI)

The Humboldt-Del Norte Unit contains many communities that are threatened with potential loss of life and property due to wildfires. These and many other communities in California are subject to threats from wildfire, yet thousands of homes continue to be constructed every year that are not safe for fire prone areas.

Following several destructive wildfires that have occurred in California, various statues and regulations have been enacted to combat the ever-increasing threats to lives and property due to wildfire. Laws have been enacted to govern fire safety in regards to vegetation management, land use and more. Fire Safe Building standards were enacted, effective Jan. 1, 2009. These standards apply in all State Responsibility Areas in the Unit. They require fire resistive roofing, windows, and siding. Eaves and soffits must be enclosed and the external vents must be engineered to limit the intrusion of embers. Additional standards requiring residential sprinklers on all new construction became effective on Jan. 1, 2011.

These measures are intended to reduce the spread of fire to and from structures, helping to save lives, minimize property loss, and protect the environment.

Other measures have been in effect for many years. Public Resources Code (PRC) 4290 (and its' equivalent local ordinances) provide standards for roads, emergency water supply, vegetation treatment setbacks, and addressing signage. In Humboldt County, these standards are embodied in the county's Fire Safe Ordinance 1951. PRC 4291 provides standards for vegetative clearance – requiring a 30-foot lean and 100-foot green zone.

CALFIRE provides numerous brochures and guides on minimum defensible space standards.

## **INFORMATION AND EDUCATION**

CAL FIRE's HUU Fire Safety Education Programs come in the form of school programs, fair exhibits, roadside public fire information signs, posters, flyers, Smokey bear fire danger roadside signs, and thousands of other printed materials, radio and television spots, community meetings, one-on-one contacts with wildland homeowners under the LE 100 inspections, and in recent years, the internet. This information and education is provided to people of all ages.

Smokey Bear, Sparky the Fire Dog, and Pluggie the fire hydrant are utilized at numerous events throughout the County with the goals of teaching fire safety at home and in the forest. Smokey, Sparky, and Pluggie are used in both the classroom setting and at public events, such as the Humboldt County Fair. While Smokey, and Sparky are used primarily for teaching young individuals, the HUU prevention staff also provided other informational and educational, materials to teachers and Fire safe councils geared specifically to educators.

### **Public Resources Code 4290 & 4291**

Fire Fighter personnel, working under the direction of the Fire Prevention Bureau, conduct compliance monitoring inspections of defensible space clearance requirements around buildings & structures on SRA lands. Concurrent with Fire Prevention inspections, Forest Practice personnel also conduct compliance inspections of projects which are exempt from Timber Harvesting Plan preparation, if applicable. Examples of such projects include fire hazard exemptions and/or less than three-acre timberland conversions which involve fuel treatment.

### **Volunteers in Prevention**

The objective of the VIP Program is to involve and utilize citizens along with public service groups in non-salaried positions to reduce human-caused fires. VIPs educate thousands of children and their parents about fire prevention by participating in fairs, displays, and parades each year. Volunteers are trained to make preliminary wildland homeowner property inspections for fire safety as required by Public Resources Code 4291, and to discuss with homeowners ways to make their homes fire safe. These one-on-one contacts are an increasingly important education tool as the population in California's wildlands continues to grow. VIPs are trained to assist CAL FIRE's efforts during wildland fires and other emergencies by providing information to the media and public.

### **HUU Pre-Plans**

- Multi Incident Coordination Area (MICA)

## INTRODUCTION

Fortuna Emergency Command Center referred to as the ECC within this document identifies the CAL FIRE multi-agency dispatch and command center located in Fortuna, California. The impact upon this communication center with multiple simultaneous incidents is critical. This plan was developed to handle the multiple incidents that can occur within a very short time frame, for example: there have been as many as 75 lightning caused fires occur in one day on within HUU's jurisdictional boundaries. HUU has also experienced several major fires burning simultaneously. This plan has been developed to manage our resources in a safe efficient manner when the Central Dispatch System cannot handle the complexity of the situation.

## PLAN DEVELOPMENT

This plan is developed to standardize the procedures used by HUU during a Multiple Incident occurrence.

The plan is designed to handle multiple incidents as a result of lightning or other large scale events. It does not include fire operational procedures, for example: a lightning fire that develops beyond initial attack will be removed from the lightning plan procedures and treated as a separate incident (assuming that sufficient resources and personnel are available to manage the fire properly).

## ACTIVATION OF THE PLAN

Activation may occur when one or more of the following conditions exist, keeping in mind there could be outside influences or local conditions that will call for plan activation. The ECC will notify all field units by a radio broadcast of activation of Multiple Incident Plan when:

1. Widespread incidents i.e. lightning, earthquake, flood, terrorism, tsunami, etc.
2. Significant lightning forecasted for HUU Direct Protection Areas (DPA).
3. Down strikes occur on HUU DPA.

The MICA may be viewed on CAL FIRE webmail @ *Public Folders/Northern region/Humboldt Del Norte/HUU ECC* under the subject MICA.

Additionally, each Unit Battalion maintains a MICA kit. Each kit includes but is not limited to a copy of the MICA Plan, Maps and other items important to the successful implementation of the plan. Other battalion specific Pre Plans are maintained at the battalion level for first in response.

- Mutual Threat Zones

CAL FIRE has three Mutual Threat Zone areas identified in the Unit. Two are along the LRA/SRA boundaries with the City of Trinidad, and the City of Arcata. The memorandum-of-understanding on these two areas allows for automatic response by either the local entity or CAL FIRE to an incident within 1.0 miles of the LRA/SRA boundary. Costs for those responses may be billed to the responsible agency on an assistance-by-hire basis. These MOUs have greatly reduced the cost to these local agencies, which formerly had Local Wildland Agreements with CAL FIRE. These Mutual Threat Zone MOUs are reviewed annually by the participants. The third zone is along the Oregon / California border.

## **B. VEGETATION MANAGEMENT**

The Vegetation Management Program (VMP) is a cost-sharing program utilizing prescribed fire, and mechanical means, for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. The use of prescribed fire mimics natural processes, restores fire to its historic role in wildland ecosystems, and provides significant fire hazard reduction benefits that enhance public and firefighter safety.

VMP allows private landowners to enter into a contract with CAL FIRE to use prescribed fire to accomplish a combination of fire protection and resource management goals. The projects which fit within HUU's priority areas (e.g., those identified through the Fire Plan) and are considered to be of most value to the unit are those that will be completed.

CAL FIRE administers several state and federal forestry assistance programs with the goal of reducing wildland fuel loads and improving the health and productivity of private forest lands. California's Forest Improvement Program (CFIP) and other federal programs that CAL FIRE administers, offer cost-share opportunities to assist individual landowners with land management planning, conservation practices to enhance wildlife habitat, and practices to enhance the productivity of the land. The Department also delivers the Forest Stewardship Program which combines funds from state and federal sources to assist communities with multiple-ownership watershed and community issues related to pre-fire fuels treatment, forest health, erosion control, and fisheries issues.

## **C. PRE FIRE PLANNING**

### *Environmental Review*

The California Environmental Quality Act (CEQA) requires public agencies to consider actions on projects that may directly or indirectly result in a physical change in the environment. CAL FIRE provides resource management and fire safe comments on proposed discretionary projects routed through the county/city planning process and from the State Clearinghouse. Where projects cannot meet fire safe standards, CAL FIRE provides expert analysis on proposed project alternatives. For discretionary projects where CAL FIRE funds, approves, permits, facilitates or carries out a project as lead agency, it is obligated to ensure that the appropriate steps are taken in complying

with CEQA by preparing an environmental review. The Planning Battalion manages the Unit's environmental review program.

### *Fire Safe Council / Firewise Support*

The Planning Battalion provides staff support for local and county-wide Fire Safe Councils within the Unit. They attend meetings, develop materials, and fill an expert role on fire safe practices. The Unit has provided chipper support and other in-kind match value to local councils seeking grant funding. CAL FIRE, in the role of the State Forester, reviews and is a signatory to local Community Wildfire Protection Plans.

### *Fuels Treatment and Grant Management*

Fuels treatment projects conducted by CAL FIRE staff are monitored by the Planning Battalion. The three conservation camps manage their own projects and sponsors. However, projects involving Sudden Oak Death and grants to CAL FIRE are administered by the Planning Battalion to ensure consistent reporting. CAL FIRE also reviews grant applications for local fire departments, fire safe councils, and Firewise communities.

### *Geographic Information Systems Support / Mapping*

Map development using GIS is provided by the Planning Battalion. This includes incident support, response maps, jurisdictional information, demographic analysis, and numerous other mapping products can be provided. Unit level CAL FIRE digital data sets are developed and maintained in the pre-fire shop.

## **SECTION V: PRE- FIRE MANAGEMENT TACTICS**

### **DIVISION / BATTALION / PROGRAM PLANS**



CAL FIRE's Humboldt-Del Norte Unit is divided into five field battalions; prevention, planning, aviation, emergency command center, and training administrative battalions. Each field battalion works closely with the planning battalion to assure fuel reduction projects and other projects within the battalion are coordinated. Each field battalion is involved in VMP projects and decisions that are located within their areas. Field battalions may also participate in local fire safe council activities and CWPP development in conjunction with the pre-fire planning battalion.

The prevention battalion through comprehensive engineering and law enforcement programs strives to prevent fires. Reduction of loss from wildland fire each year is the goal of extensive planning by CAL FIRE, communities, coordination with non-profit groups and interagency cooperation. The HUU prevention officers are busy year round investigating fire causes, interviewing witnesses, issuing citations and setting up surveillance operations. Additionally, law enforcement staff provides assistance when requested by local fire and law enforcement agencies in arson, bomb, fireworks, and fire investigations.

The training battalion coordinates a wide range of firefighter and support staff training from the local courses, to nominations for national courses. Maintaining and developing a skilled, professional workforce that meets required training standards is a major goal of the training battalion. This improves service to the public while ensuring a focus on firefighter and public safety. The Unit endeavors to have staff qualified or in training to fill Incident Command System positions at all levels, from local to national Type 1 incidents. The training battalion plays a vital role in developing the hands-on skills, the career foundational skills, and the management skills necessary to provide for those that provide for the public's safety.

## **Desired Future Conditions**

Each battalion has areas where wildland fire could threaten important assets to the communities. Our goal is to increase public awareness of these conditions in hopes of spurring stakeholder interest to taking a more active role in improving defensible space. For many areas we hope to reduce the fire hazard through fuel reduction and increase public and firefighter safety, by helping improve the means of ingress / egress.

Additionally we hope to improve or maintain the many ecosystems that surround us in order to maintain the quality of life for the residents of Humboldt, Del Norte, and Trinity counties. This would include cultural burning to help maintain the Native American culture.

## **Area Accomplishments**

The County and HUU Cal Fire staff has been successful in the CWPP update process. Cal Fire staff along with the Humboldt County Planning Department staff work together in the development and approval of the County's Master Fire Protection Plan (MFPP). The MFPP is a major part of the overall operating plan for the county. The Humboldt County Master Fire Protection Plan serves as the Community Wildfire Protection Plan

(CWPP) for Humboldt County, California and was approved. CWPPs were created through the Healthy Forests Restoration Act (HFRA). As defined by the HFRA, the requirements for a CWPP are a collaborative process, prioritization of fuel reduction projects, and treatment of structural ignitability.

## **CAL FIRE Chipper Program**

Humboldt Del Norte Unit augments funding for all 10 fire safe councils through grant support review and matching funds through staff time, chipper use, fire crews, engines and dozers. These resources are channeled mostly through letters of commitment in the grant application process and range from \$9,000 – \$60,000 depending on the type of grant application.

## **Prescribed Fire Program**

Prescribed fire can be an effective tool for fuels reduction, in addition to providing other positive results in managing the landscape. These projects may be small in scale, from landowner conducted individual burns through our LE-5 and LE-7 permit process, to large burns conducted by CAL FIRE under the Vegetation Management Program. Managed timberlands realize fuel reduction when piles are burned or a treatment unit is broadcast burned. CAL FIRE is also an active cooperater with other public agencies such as State Parks – providing equipment, crews, and other resources to assist with their burns. Training burns are also conducted, which may produce a fuels reduction side benefit.

Treating areas under CAL FIRE’s VMP brings the liability for the burn on the State, under a cost-share contract. These projects are often “targets of opportunity” since it takes a landowner willing to enter an agreement with the State, a project that realizes adequate public benefit, and is feasible to conduct without significant impact to the environment or communities. A list of projects that are current, under development, and recently conducted and may be renewed are included in Appendix C. The goal is to have at least one VMP project in each of the five field battalions. Burn windows are usually limited to September and October, so approved projects may not be completed within the 3-year contract period.

Private landowners, local fire agencies, and fire safe councils also conduct burn operations. From May 1<sup>st</sup> until the end of the declared fire season, a CAL FIRE permit is required for burning. Outside of that period, burns may be conducted without a CAL FIRE permit, so our knowledge of those projects is often limited. The North Coast Unified Air Quality Management District requires a smoke management project permit at all times during the year. CAL FIRE coordinates with the AQMD for small pile “dooryard” permits – consolidated into a single document issued by the AQMD. Larger burns are not coordinated between the agencies unless CAL FIRE is conducting the burn.

Burning programs are also conducted on public lands by our federal cooperators. Redwood National Park has an active program that often uses CAL FIRE resources.

The BLM burns are usually coordinated with CAL FIRE since most BLM areas are within the State's Direct Protection Area by agreement. The US Forest Service – Six Rivers National Forest also has an active fuels treatment program. CAL FIRE assistance on these projects is rarely requested.

### **Sudden Oak Death Areas**

Scattered throughout the Unit are areas of Sudden Oak Death infestation. These areas become priorities for fuel treatment to check expansion of the disease, and reduce fuels buildup. Research conducted by UC Cooperative Extension, in cooperation with CAL FIRE and other private landowners, has examined fuel loading and predicted fire behavior in SOD affected stands. These areas produce greater fire control challenges due to higher rates of spread, greater flame lengths, and greater potential for failure of standing trees. Where SOD is expanding in newly found locations, the primary strategy is isolating the infection site with a 300 foot buffer – removing standing tanoak and California bay. This can check the advance of *Phytophthora ramorum*, the pathogen that causes SOD. Other infected areas can become a priority for fuels treatment along roads and near communities, as SOD appears to produce 100 percent mortality in tanoak.

### **APPENDIX A: PRE- FIRE PROJECTS**

Below is a partial Table of fuel reduction projects that have been identified. These projects have been identified through local community meetings along with Fire Safe Council members, state, local, and federal fire agencies. The project information has been mapped and made available in the Humboldt County Master Fire Protection Plan as well as local area CWPP's. This data is available online at the links shown below in appendix G of Master Fire Protection Plan

[http://co.humboldt.ca.us/planning/fire\\_safe\\_council/local\\_fsc/orleans/cwpp-osb\\_fsc\\_draft\\_12\\_1\\_09\\_forreview.pdf](http://co.humboldt.ca.us/planning/fire_safe_council/local_fsc/orleans/cwpp-osb_fsc_draft_12_1_09_forreview.pdf)

[http://co.humboldt.ca.us/planning/fire\\_safe\\_council/fsc\\_default.asp](http://co.humboldt.ca.us/planning/fire_safe_council/fsc_default.asp)

**Table G-2 Orleans Community-Identified Risks and Hazards**

Map ID #	Feature Description	Feature Subtype
ORL36	Central Orleans	ignition hazard
ORL22	GO Road	ignition hazard
ORL23	Hwy 169	ignition hazard
ORL78	Hwy 169	ignition hazard
ORL21	Hwy 96	ignition hazard
ORL24	Hyw 169 Memaw Creek to Yurok Fire Station	ignition hazard
ORL27	Hyw 169, lower Cappell	ignition hazard
ORL26	Lower Nantucket Road	ignition hazard
ORL72	McKinnon Hill Road (slash)	ignition hazard
ORL29	Mouth Of Camp Creek	ignition hazard
ORL33	Perch Creek/Red Cap Road Area	ignition hazard
ORL34	Sandy Bar	ignition hazard
ORL32	South Orleans	ignition hazard
ORL31	Thunder Mtn/ Madrone Lane	ignition hazard
ORL35	Upper Prairie Lake Road	ignition hazard
ORL28	limited access to 4wd roads (Wautec area)	impedance

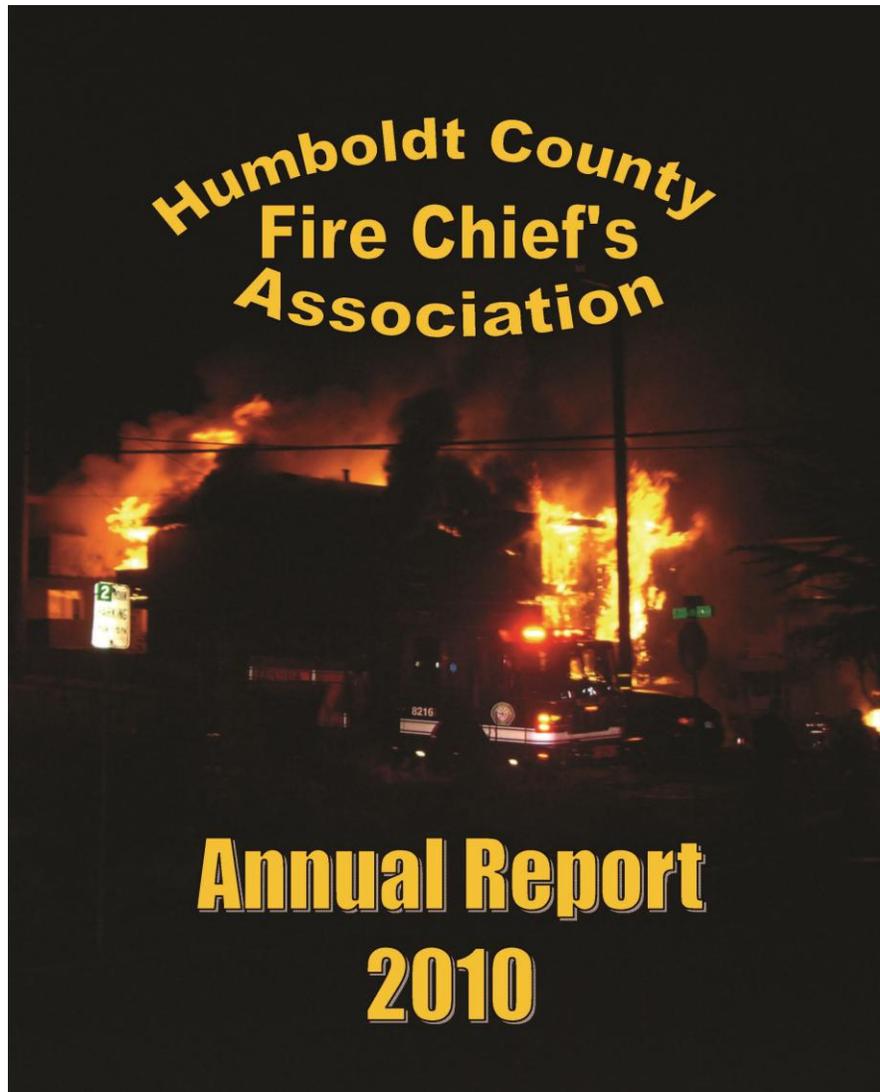
**Table G-3 Orleans Community-Identified Projects**

Map ID #	Project Priority	Project Description	Completed Project?	Project Category
ORL66	1	Mouth Of Camp Creek including Gold Dredge Road (and other areas that were previously burned)		Other Fuel Rx
Non map feature	2	Owl Mine Road Fuel Break		Fuel Break
Non map feature	3	Orleans Mt. Repeater (install)		Communication
Non map feature	4	Map and Maintain tanker fill sites (private lands)		Water
Non map feature	5	Perch Creek Watershed private and public land (municipal water source) protect watershed resources		Other Fuel Rx, Water
Non map feature	6	Redcap Road fuel break on public and private land		Fuel Break
ORL68		Bacon Flat Road Shaded Fuelbreak		Fuel Break
No Map Data		BLM fuels reduction grant <i>Community Fire Risk Reduction Project</i> (19.98 acres treated)	Completed	Other Fuel Rx
No Map Data		BLM fuels reduction grant <i>Orleans Valley Wildfire Risk Reduction Project</i> (22.15 acres treated)	Completed	Other Fuel Rx
No Map Data		BLM grant fuel reduction project <i>Fire Safe Planning and Implementation Grant</i> (19.72 acres treated)	Completed	Other Fuel Rx
No Map		BLM grant fuels reduction <i>Orleans Community</i>	Completed	Other Fuel Rx

G-3

**Table showing identified proposed projects for the Orleans - Somes Bar area of eastern Humboldt**

Additionally, HUU staff has been working in conjunction with the Humboldt County Fire Chiefs Association, the Humboldt County Planning Department as well as local fire departments to provide a level of service component to the Humboldt County Planning Department website. The report shown below is one of the outcomes of this effort.



## Prescribed Burn Projects

The following projects are conducted by CAL FIRE, or in part with CAL FIRE assistance.

VMP Project Name	Location	Comments
Hacketsville	Rio Dell – Bat 3	Active to 2013
Sweet	Petrolia – Bat 2	Active to 2013
Big Bend	Maple Creek – Bat 4	Renew to 2014
England	Blue Lake – Bat 4	New in 2011
Metz	Whitethorn – Bat 1	New in 2011
Teasley	Dinsmore – Bat 3	New in 2011
Perimeter	Bull Creek – Bat 2	State Park, BLM, Private New in 2011
Prosper Ridge	Prosper Ridge –Bat 2	New in 2012

Non-VMP Projects	Location	Comments
Fox Camp	Humboldt Redwoods SP	Active - ongoing
Look – Luke Prairies	Humboldt Redwoods SP	Due for burn
Needle Rock	Sinkyone Wilderness SP	New
Boyes Prairie	Prairie Creek SP	Ongoing
Redwood National Park	Various	Annual participation
Grasshopper Prairies	Humboldt Redwoods SP	Active - ongoing
Jones Beach	Sinkyone Wilderness SP	Active - ongoing
Cookson Ranch SOD	Redwood Valley	SOD Fuels Reduction with UC Coop Extension

These projects are anticipated to be active in the next three years. Other areas have had past treatment and may be considered for future activity. Many other projects occur with CAL FIRE assistance – through the conservation camp program providing crews to sponsoring agencies. CAL TRANS, BLM, City of Arcata, and State Parks are examples where additional fuels reduction activity is conducted.

Batt Planning area	Project Number	Project Name	Status	Estimated Completion Year	Project Type	Net Acres
4	2010T3-1	Willow Creek Fire Safe Day & Youth Ecology Fair	C	2012	Public Education	
4	2010T3-2	Living with Fire in the Lower Trinity	C	2011	Public Education	
3	2010T3-3	Firewise Bridgeville	C	2012	Firewise Certification	
1&2	2010T3-4	The Southern Humboldt Fire Safe Council Community Wildfire Protection Plan	C	2012	CWPP	
4	2010T3-5	Orleans CWPP and Firewise Community Project	C	2012	CWPP	
2	2010T3-6	Lower Mattole Fire Plan update	C	2012	CWPP	
2	2010T3-7	Firewise Certification for Petrolia and Honeydew	C	2012	Firewise Certification	
2	2012-1	Lost Flat Ranch Shaded Fuel Break HFT Biomass Utilization	P	2013-14	Fuel Modification	300
4	2012-2	Redwood Valley Sudden Oak Death	O	2012	Disease Fuel Reduction	375
4	2012-3	Sunny Brae Shaded Fuel Break HFT Fuel Modification	P	2013	Fuel Modification	18
2	2012-4	Cathy Road Shaded Fuel Break HFT Fuel Modification	O	2013	Fuel Modification	18
1,2,3,4	2012-5	Humboldt County CWPP Update	O	2013	Fire Safe Council	
1,2,3,4	2012-6	HUU- Fire Danger Operating Plan	C	2012	HUU Planning	

**Status Guide:** A = Active, P = Planning, C = Completed, O = Ongoing, M = Maintenance.

## **APPENDIX B: UNIT GOALS AND OBJECTIVES**

HUU pre fire planning goals are to augment the level of Fire Wise Communities throughout Humboldt - Del Norte Unit. During the past 12 months alone we have successfully brought together three new Fire Wise Community certifications and are currently working on several; other certifications at this time. This collaborative effort has been accomplished through the hard work and collaboration of local Fire Safe Councils.

Members of the community have been able to realize the benefits of their Firewise involvement in several ways. First and foremost has been the greater awareness of wildfire issues and prevention made possible through an ongoing educational campaign. When it comes to protecting communities from wildfire, there are many players who have a stake in making sure that people, homes, property and the surrounding land are kept safe. When these parties can come together and act collectively, the results can be astounding and inspiring. There is no thing – and nothing – that can stand in their way.

As stated by Keith Worley, a forester, arborist and land development consultant “Basically, we’re no different than people who live in flood, earthquake or hurricane zones where these natural hazards pose a threat to homes. Becoming Firewise also was about protecting the environment around us.”



### **About Firewise**

The national Firewise Communities program is a multi-agency effort designed to reach beyond the fire service by involving homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire - before a fire starts.

**VISION:** Wildland fires can occur in areas of residential development without the occurrence of disastrous loss.

**MISSION:** To promote community-wide responsibility in the use of technology, policy and practices that minimize the loss of life and property to wildland fire independent of

fire fighting efforts.

The Firewise Communities approach emphasizes community responsibility for planning in the design of a safe community as well as effective emergency response, and individual responsibility for safer home construction and design, landscaping, and maintenance.

The national Firewise Communities program is intended to serve as a resource for agencies, tribes, organizations, fire departments, and communities across the U.S. who are working toward a common goal: reduce loss of lives, property, and resources to wildland fire by building and maintaining communities in a way that is compatible with our natural surroundings.

## **Member Agencies**

The Firewise Communities program is part of the National Wildland/Urban Interface Fire Program, which is directed by the National Wildfire Coordinating Group's (NWCG) Wildland/Urban Interface Working Team (WUIWT), a consortium of wildland fire organizations and federal agencies responsible for wildland fire management in the United States. The WUIWT includes:

- USDA Forest Service
- USDI Bureau of Indian Affairs
- USDI Bureau of Land Management
- USDI Fish & Wildlife Service
- USDI National Park Service
- Federal Emergency Management Agency
- US Fire Administration
- International Association of Fire Chiefs
- National Association of State Fire Marshals
- National Emergency Management Association
- National Fire Protection Association
- State forestry organizations

Vegetation management planning through prescribed burns is also a high priority and goal of the Humboldt-Norte Unit. Many VMP projects have been successfully executed in recent years with many projects under current review. These projects provide many benefits including but not limited to unit personnel training, range and forage improvement as well as habitat maintenance for both flora and fauna.

The Vegetation Management Program is a cost share program that allows public and private landowners to participate in wildland fuel reduction projects. The primary tool used is prescribed fire, although in more recent years CDF has used the program for mechanical treatments of vegetation as well.



The Humboldt-Del Norte Unit also strives to support and promote programs and projects that focus efforts on the below vision and central goals of the California Strategic Fire Plan. This support is a manifest of the above mentioned goals as well as supporting local fire safe councils in an effort to obtain grant funding for projects that meet the objectives of the California Strategic Fire Plan.

#### California Strategic Fire Plan

##### ***Vision***

*A natural environment that is more resilient and man-made assets which are more resistant to the occurrence and effects of wildland fire through local, state, federal and private partnerships.*

The central goals that are critical to reducing and preventing the impacts of fire revolve around both suppression efforts and fire prevention efforts. Major components are:

- Improved availability and use of information on hazard and risk assessment
- Land use planning: including general plans, new development, and existing developments
- Shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans (CWPP)
- Establishing fire resistance in assets at risk, such as homes and neighborhoods
- Shared vision among multiple fire protection jurisdictions and agencies
- Levels of fire suppression and related services
- Post fire recovery

## **APPENDIX C: COMMUNITY WILDFIRE PROTECTION PLANS:**

### **Humboldt County**

The Humboldt County Wild Fire Protection Plan (CWPP) focus is on improving the countywide fuels reduction and fire safe planning strategy through a coordinated update and refinement of the Humboldt County CWPP and local CWPPs

#### **The mission of the Humboldt County Fire Safe Council (FSC) is to:**

Serve as a forum for the implementation of the measures outlined in the Master Fire Protection Plan (MFPP), share fire-safety information, assess fire risk, promote community fire-safe planning and coordination, link fire-prevention programs, and support the fire service and local fire safe councils.

The Humboldt County Board of Supervisors formed the ad-hoc advisory FSC in 2002 to guide the development of a countywide Fire Plan and assist with its implementation. With the guidance of the FSC, the County of Humboldt prepared the "Humboldt County Master Fire Protection Plan", the County's equivalent to a Community Wildfire Protection Plan .

The fire plan was completed and approved by the Board of Supervisors in 2006 and is intended to be used as a framework for fire coordination, prevention, and protection throughout the county. The Community Development Services Department managed the Fire Plan preparation with assistance from local consultants, Planwest Partners and ForEverGreen Forestry. The FSC is now in the process of guiding a two year plan-update process with the goal of presenting an updated plan to the Board of Supervisors in August of 2012.

The Council also serves as a forum for community organizations and representatives to share fire-safety information, assess fire risk, set fire protection priorities, and develop policies for integration into the County General Plan.

Two other areas of Humboldt County have completed Community Wildland Protection Plans: 1) Lower Mattole Fire Plan for the Lower Mattole Fire Safe Council and 2) Upper Mattole Fire Plan for the Southern Humboldt Fire Safe Council. Both plans were funded with monies from USFS Community Development grants. HUU staff were involved in an advisory role in each of these plans.

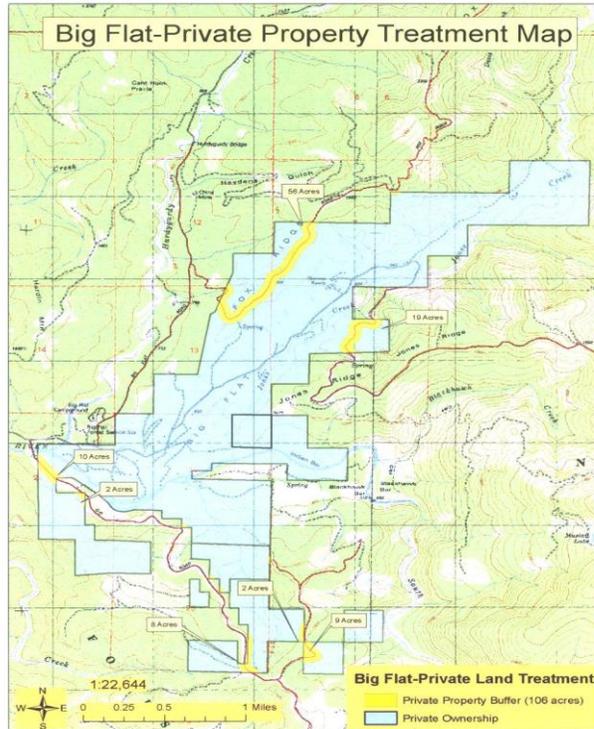
More recently, the Willow Creek Fire Safe Council has obtained a Community Wildfire Protection Plan CWPP for the Willow Creek Area. This effort was supported by HUU staff in an advisory role in coordination with the Willow Creek FSC, Willow Creek Fire and the USFS.

[http://co.humboldt.ca.us/planning/fire\\_safe\\_council/fsc\\_mfpp\\_cwpp.htm](http://co.humboldt.ca.us/planning/fire_safe_council/fsc_mfpp_cwpp.htm)

### **Del Norte County**

The Del Norte County Fire Safe Council in cooperation with the Del Norte County Board

of Supervisors has an approved Community Wildfire Protection Plan. HUU staff has been involved in an advisory role during this process.



The above Map shows one of the Current projects that is fund by a USDA WUI grant in Del Norte County Fire Safe Council area.

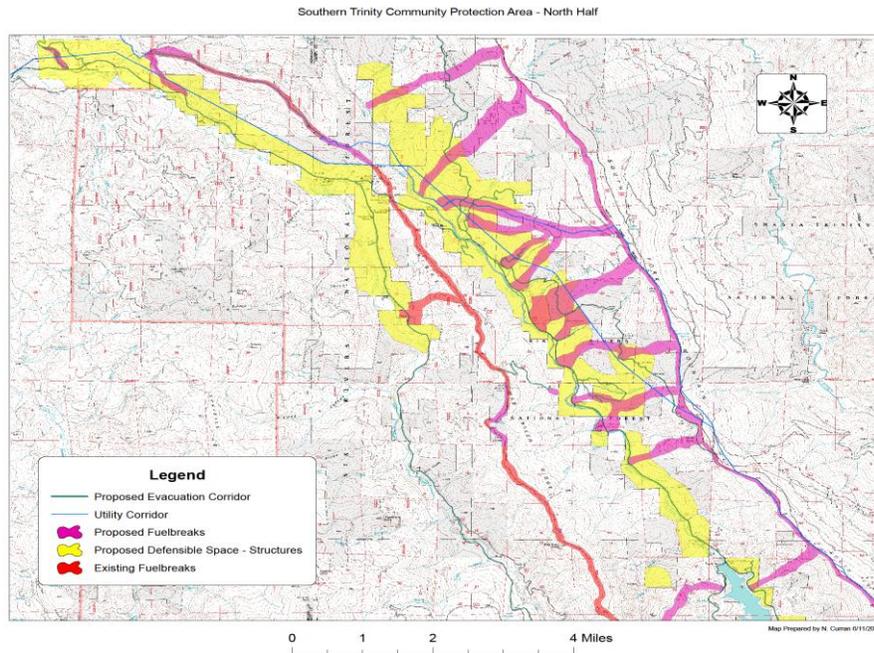
To view the Del Norte County approved CWPP see the link below.

[http://slvgis.info/Del\\_Norte\\_CWPP/DNFPD\\_CWPP\\_Final\\_4\\_10\\_2009.pdf](http://slvgis.info/Del_Norte_CWPP/DNFPD_CWPP_Final_4_10_2009.pdf)

### **Trinity County**

The Trinity County Fire Safe Council has been holding monthly meetings addressing the Various projects, and plan processes that they are involved in. Currently Trinity County is in the process of being reviewed and updating the CWPP.HUU staff have attended regularly in an advisory role. The link below will allow review of the Trinity County CWPP approved in 2005.

[http://www.tcrd.net/pdf/TC\\_Wildfire\\_Protection\\_Plan.pdf](http://www.tcrd.net/pdf/TC_Wildfire_Protection_Plan.pdf)




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*The above map is a landscape level plan proposal in the southern trinity county area. Again in concert with the California Strategic Fire Plan and in cooperation with community and agency input landscape level planning can be achieved. Fire hazards can be reduced with a shared vision among communities and agencies. To view the California Strategic Fire Plan click in the link below*

<http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf668.pdf>

## **Willow Creek**

The "Community Wildfire Protection Plan for the Greater Willow Creek Area" was accomplished by the Council, funded by a grant from the USDA Forest Service through the California Fire Safe Council Grants Clearinghouse.

Willow Creek is the first community in Humboldt County to be recognized by the national Firewise organization as a Firewise Community. The Willow Creek Fire Safe Council board of directors serves as the Firewise Communities board for Willow Creek.

## MISSION STATEMENT

*The mission of the Willow Creek Fire Safe Council is to reduce wildfire risk and increase survivability by implementing fuels reduction projects and encouraging residents of the Willow Creek area to make their homes, neighborhoods and communities fire safe.*

## OBJECTIVES

- \* Increase community awareness and understanding of both the benefits and threats of wildland fire
- \* Educate residents on ways to protect their lives and property from loss to catastrophic wildland fire
- \* Generate individual and community action to reduce wildfire hazards and plan for emergency response
- \* Reduce wildfire hazards by removing flammable vegetation around homes and evacuation routes
- \* Enhance communication between the public and federal, state, county and local agencies to identify and prioritize hazard reduction projects and co-ordinate community planning
- \* Develop and monitor a Community Wildfire Protection Plan for the Willow Creek area to address hazard mitigation, community preparedness, structure protection and wildfire response
- \* Engage the youth of our communities in fire prevention by providing activities and educational opportunities related to fire safety and protecting natural resources

To view the Willow Creek Community Fire protection Plan click in the link below:

[http://co.humboldt.ca.us/planning/fire\\_safe\\_council/pdf\\_files/willowcreekcwpp/willowcreekcwpp-final-body.pdf](http://co.humboldt.ca.us/planning/fire_safe_council/pdf_files/willowcreekcwpp/willowcreekcwpp-final-body.pdf)

## ***APPENDIX D: ANNUAL FIRE SEASON REPORT***

The largest fire on record for this year (2011) was the Spanish Fire (10CAHUU004485) which started on September 6<sup>th</sup>, 2010 the fire cause was equipment. The fire consumed 462 acres of woodland and timber before it was controlled on September 17<sup>th</sup>, 2010.

The Unit responded to a total of 202 fires in 2011, including wildland, structure, and vehicle fire incidents. That was down from to 2009, when HUU responded to 256 fires.

A total of two (2) fires out of the 95 wildland fire responses in the Unit were over 10 acres,(2 % of total ) or 98 % of all unwanted fires were contained at 10 acres or less in 2011. Initial attack success was at 98% for the staffed period. The 2011 fire season was an initial attack success and met the standards of Fire Protection Handbook section 7001.2.

## Fire Season Data 2006 - 2011

Fire suppression activities have a major influence on fire size and initial attack success. The 2005 to 2010 fire season information is summarized below.

<p><b>2006</b> Initial Attack Success / Ignitions – 105 / 108 Large Fires: 3 Wildland engines staffed – 6/12-11/15 Peak staffing – 6/26 – 10/9 Aircraft: Copter Air Attack 6/28-10/18 Tanker 7/12 – 10/18 Burning suspended – 7/1 to 11/6 Comments -</p>
<p><b>2007</b> Initial Attack Success / Ignitions – 122 / 126 Large Fires: 4 Wildland engines staffed – 5/26 - 12/17 Peak staffing – 6/13 – 10/21 Aircraft: Copter Air Attack 7/16-10/17 Tanker 8/22-10/17 Burning suspended – 7/1 to 10/8 Comments -</p>
<p><b>2008</b> Initial Attack Success / Ignitions – 146 / 154 Large Fires: 8 total including Colony Fire 140 Acres Wildland engines staffed – 5/22 – 11/09 Peak staffing – 6/14 – 11/3 Aircraft: Copter Air Attack 6/19-10/27 Tanker 7/11 – 10/16 Burning suspended – 6/23 to 10/4 Comments – 4/0 staffing. Lightning series across north CA. 60+ fires reported in HUU.</p>
<p><b>2009</b> Initial Attack Success / Ignitions – 111 / 124 Large Fires: 13 total including Wilson 280 Acres Wildland engines staffed – 6/1- 10/30 Peak staffing – 7/2 -10/09 Aircraft: Copter Air Attack 6/15-10/16 Tanker 6/30-10/16 Burning suspended – 8/1 -10/16 Comments – 4/0 staffing</p>
<p><b>2010</b> Initial Attack Success / Ignitions –110/1 Large Fires: Buckeye, 205 ac. Wildland engines staffed –5/31 to 11/1 Peak staffing – 6/28 to 9/19 Aircraft: Copter Air Attack 6/15- Tanker 6/15-10/15 Burning suspended – 7/26-9/27 Comments – 4/0 staffing through 9/19.</p>
<p><b>2011</b> Initial Attack Success / Ignitions –93/2 Large Fires: Spanish, 498 ac, Yager 60 ac. Wildland engines staffed –6/13 to 10/24 Peak staffing – 7/4 to 10/15 Aircraft: Copter Air Attack 7/1-10/15 - Tanker 7/1-10/15 Burning suspended – 7/27-10/20 Comments – 4/0 staffing through 10/15.</p>

***Initial attack success, ignition, and fire size data was derived from the FRAP ignitions.dbf database. This database reflects an estimated 70% of reported ignitions in the Unit. It is based upon data extracted from the CAIRS (2008 to present) and EARS (pre-2008) fire reporting systems, as well as the Computer Aided Dispatch (CAD) system for location data. Staffing dates were derived from station logs.***

**APPENDIX E: SRA / DPA TABLE**

California Department of Forestry & Fire Protection

**Humboldt – Del Norte Unit**

Derived from the DPA11\_2 and SRA10\_2 data layers

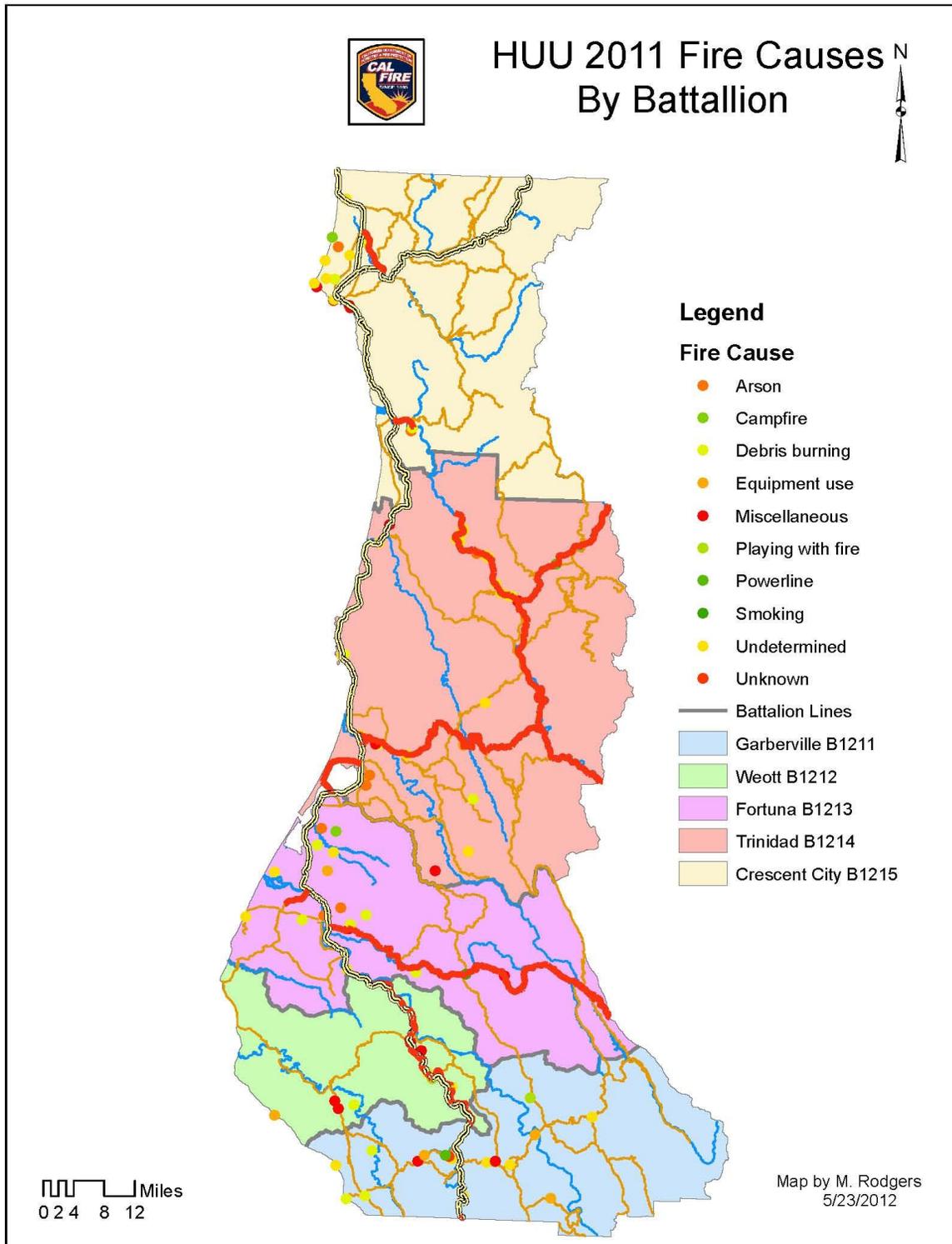
<u>Agency</u> <u>Acreage Difference</u>	<u>Wildland Responsibility</u>  <u>Total Acres</u>	<u>Direct Protection</u>  <u>Total Acres</u>	
CDF	1,783,733	1,927,651	143,918
Hoopla (HIA)	90,836	90,836	
BIA	9,491	0	
LRA	85,768	86,476	708 (FRA)
BLM	88,411	0	
Redwood NPS	82,670	82,670	
Six Rivers NF	926,302	1,059,465	133,163
Other NF (SIF, MNF, SHF)	34,483	40,622	6,139
Other (USFWS, DOD)	2,296	2,079	
<b>Totals</b>	<b>3,289,799</b>	<b>3,290,704</b>	<b>902*</b>

\* The SRA and DPA data sets have minor differences in total acres for the HUU Unit.

<b>DPA Breakdown:</b>	<b>CDF</b>	<b>Six Rivers NF</b>
CDF:	1,783,223	133,162
BIA:	9,321	
BLM:	80,809	
Six Rivers NF:	<u>133,373</u>	<u>925,006</u>
	<b>2,006,726</b>	<b>1,058,615</b>

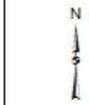
# EXHIBITS: MAPS

Figure A: Unit Maps





# HUU Fire Response by Battalion



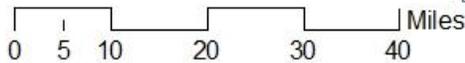
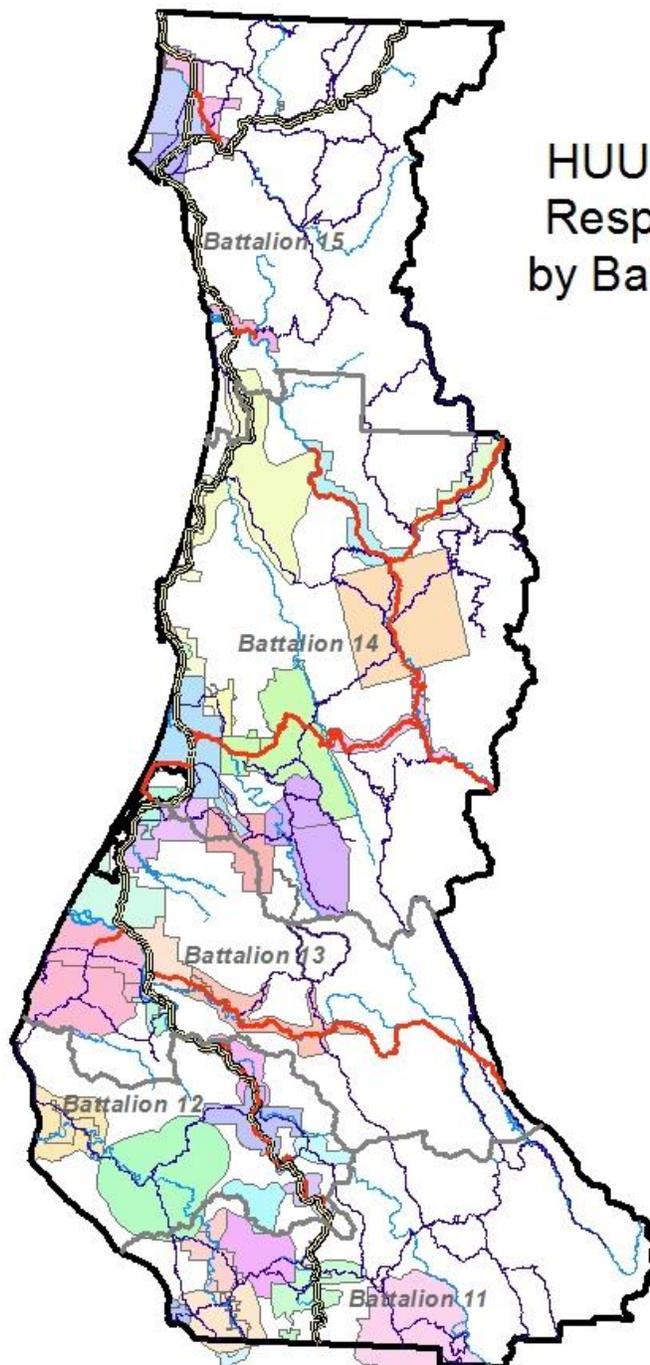
### Legend

— Battalion Lines

Fire Response

#### AGENCY

- Arcata Fire Protection District
- Blue Lake Fire Protection District
- Brizland Volunteer Fire Department
- Carleton CSD
- City of Eureka
- County Service Area #4 District
- Crescent City Fire Department
- Crescent Fire Protection District
- Ferndale Fire Protection District
- Fieldbrook CSD
- Fort Dick Fire Protection District
- Fortuna Fire Protection District
- Frutland Volunteer Fire Company
- Garberville Fire Protection District
- Gasquet Fire Protection District
- Honeydew Volunteer Fire Department
- Hoops Valley Tribe
- Humboldt #1 Fire Protection District
- Klamath Fire Protection District
- Kneeland Fire Protection District
- Krikel Volunteer Fire Brigade
- Lolla Fire Protection District
- Maple Creek Volunteer Fire Company
- Miranda Volunteer Fire Department
- Myers Flat Fire Protection District
- Orick Community Services District
- Orleans Volunteer Fire Department
- Palo Verde Volunteer Fire Department
- Petrolia Fire Protection District
- Phillipsville Volunteer Fire Department
- Prosper Ridge Volunteer Fire Department
- Redcrest Volunteer Fire Department
- Redway Fire Protection District
- Rio Dell Fire Protection District
- Salmon Creek Volunteer Fire Department
- Searsville Peninsula Fire Protection District
- Scotia Volunteer Fire Department
- Shelter Cove Volunteer Fire Department
- Smith River Fire Protection District
- Brownell Creek Volunteer Fire Department
- Telegraph Ridge Fire Protection District
- Trinidad Volunteer Fire Department
- West Volunteer Fire Department
- Westhaven Volunteer Fire Department
- Whale Gulch Volunteer Fire Company
- Whitethorn Volunteer Fire Department
- Willow Creek Fire Protection District
- Willow Creek Volunteer Fire Dept
- Yurok Volunteer Fire Department



Map by M. Rodgers  
5/23/2012

# Humboldt County

## Fire Planning Units

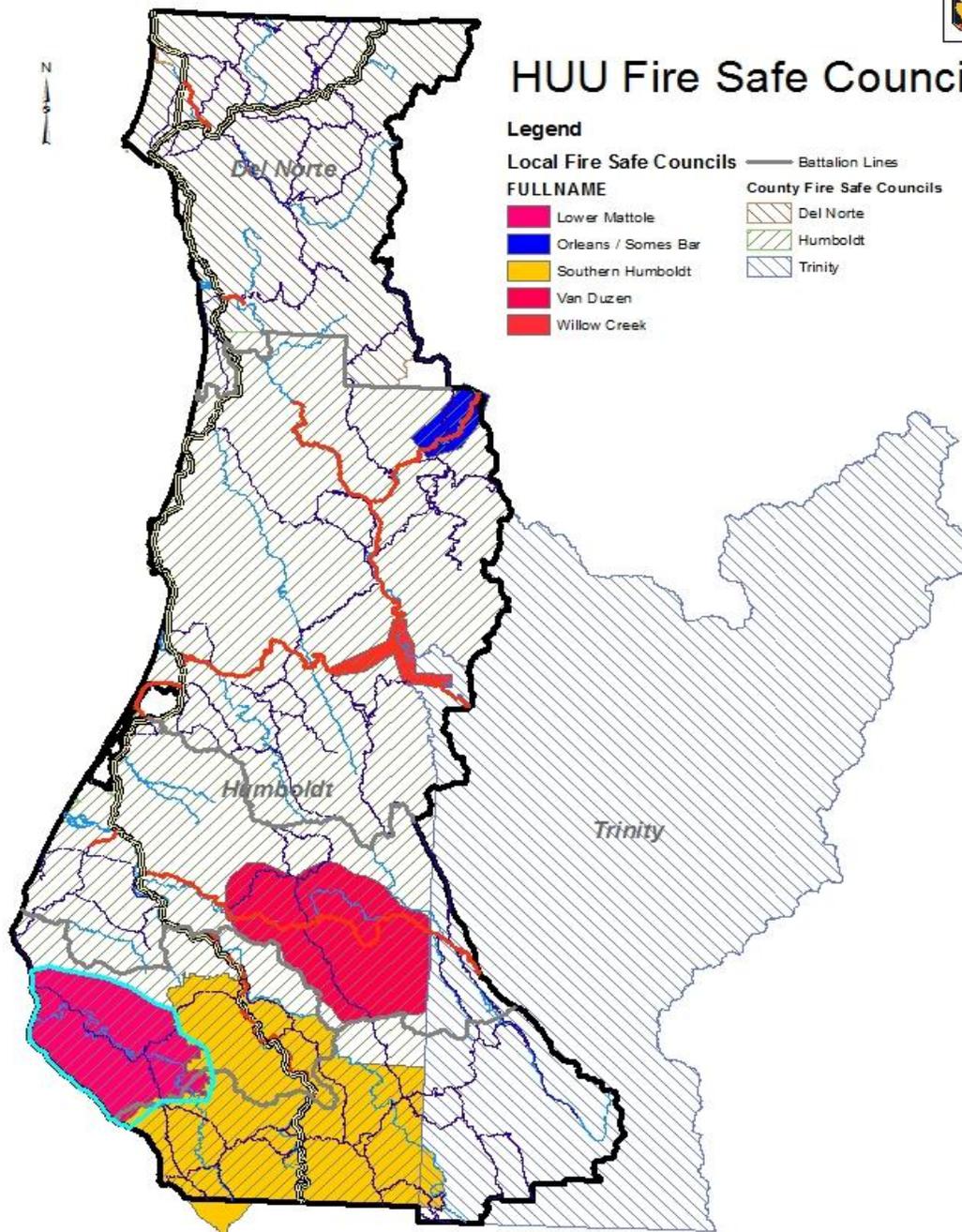




# HUU Fire Safe Councils

## Legend

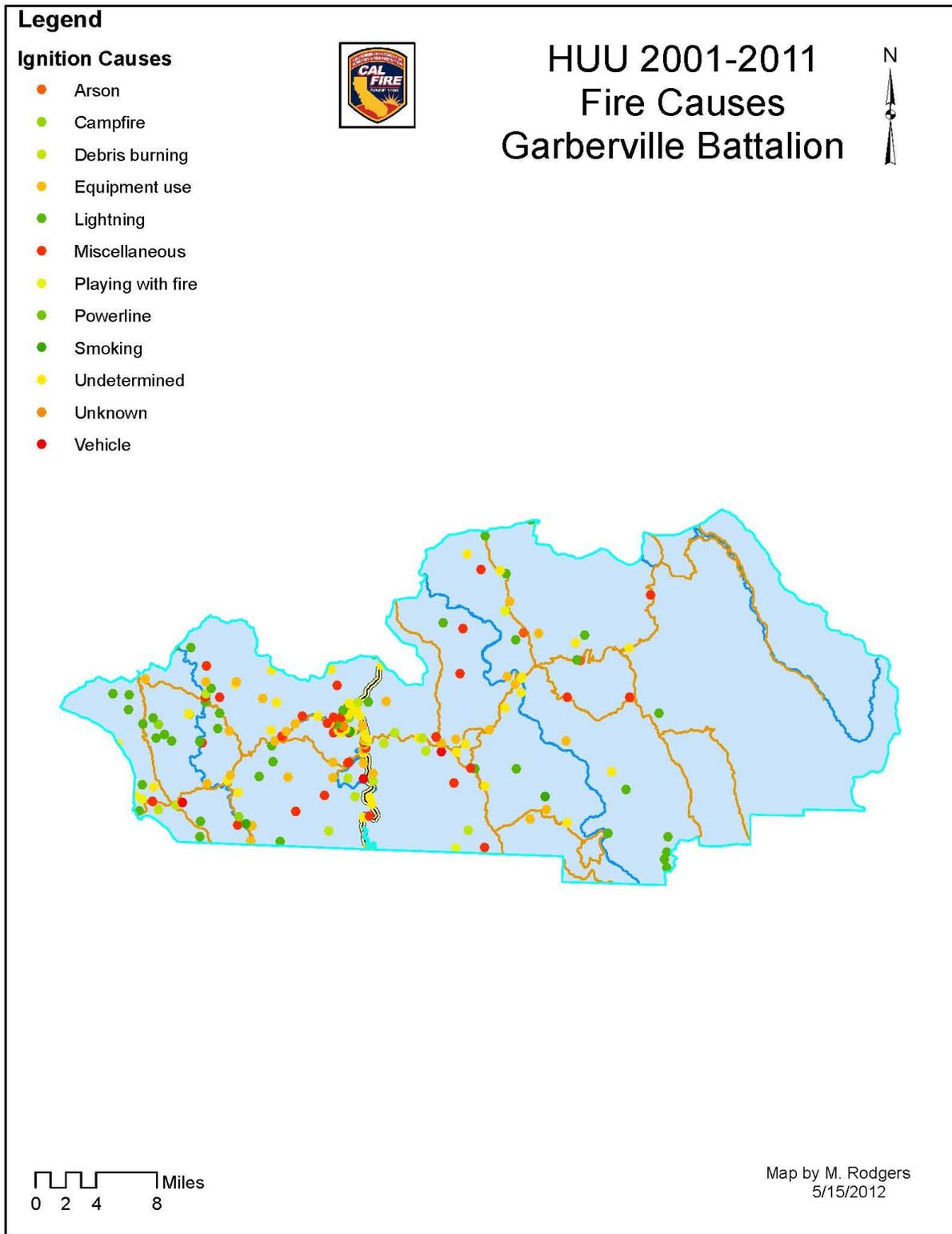
- |                                 |                                  |
|---------------------------------|----------------------------------|
| <b>Local Fire Safe Councils</b> | — Battalion Lines                |
| <b>FULLNAME</b>                 | <b>County Fire Safe Councils</b> |
| Lower Mattole                   | Del Norte                        |
| Orleans / Somes Bar             | Humboldt                         |
| Southern Humboldt               | Trinity                          |
| Van Duzen                       |                                  |
| Willow Creek                    |                                  |



0 5 10 20 30 40 Miles

Map by M. Rodgers  
5/30/2012

Figure B: Battalion Maps



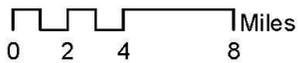
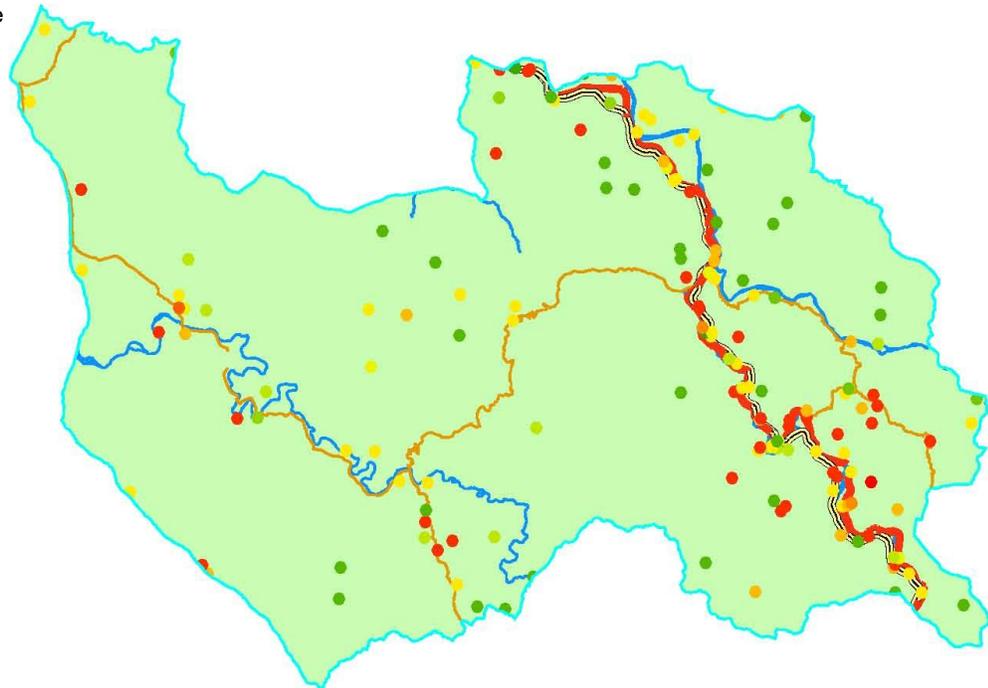
**Legend**

**Ignition Causes**

- Arson
- Campfire
- Debris burning
- Equipment use
- Lightning
- Miscellaneous
- Playing with fire
- Powerline
- Smoking
- Undetermined
- Unknown
- Vehicle



# HUU 2001-2011 Fire Causes Weott Battalion



Map by M. Rodgers  
5/15/2012

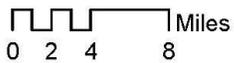
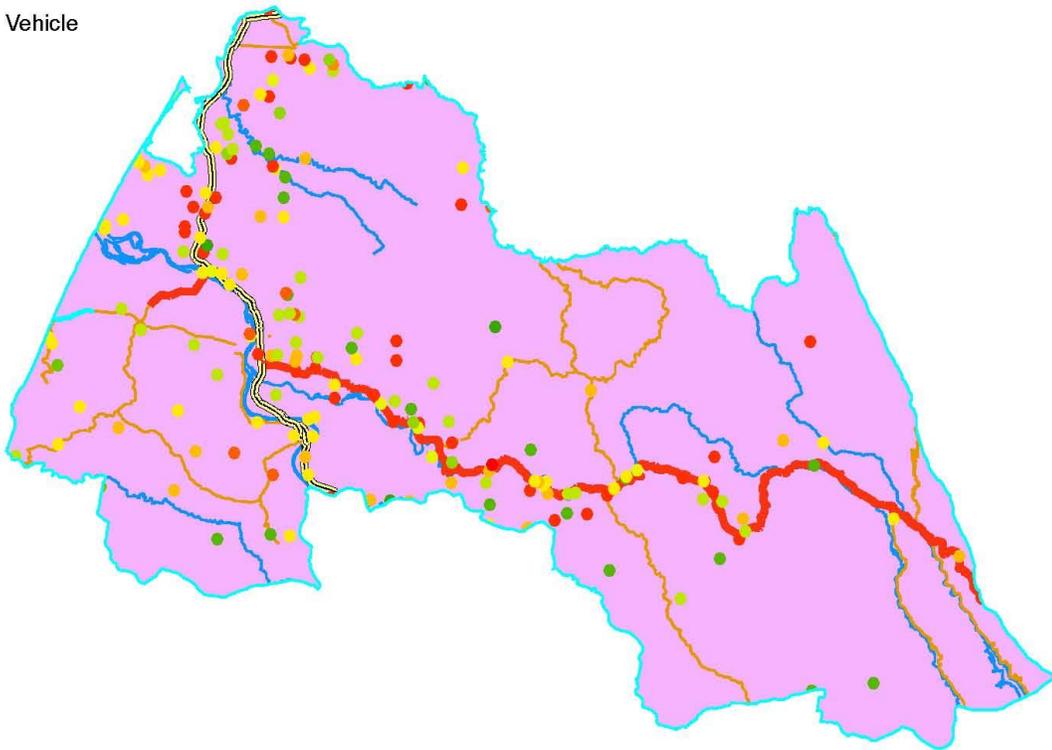
**Legend**

**Ignition Causes**

- Arson
- Campfire
- Debris burning
- Equipment use
- Lightning
- Miscellaneous
- Playing with fire
- Powerline
- Smoking
- Undetermined
- Unknown
- Vehicle



# HUU 2001-2011 Fire Causes Fortuna Battalion



Map by M. Rodgers  
5/15/2012

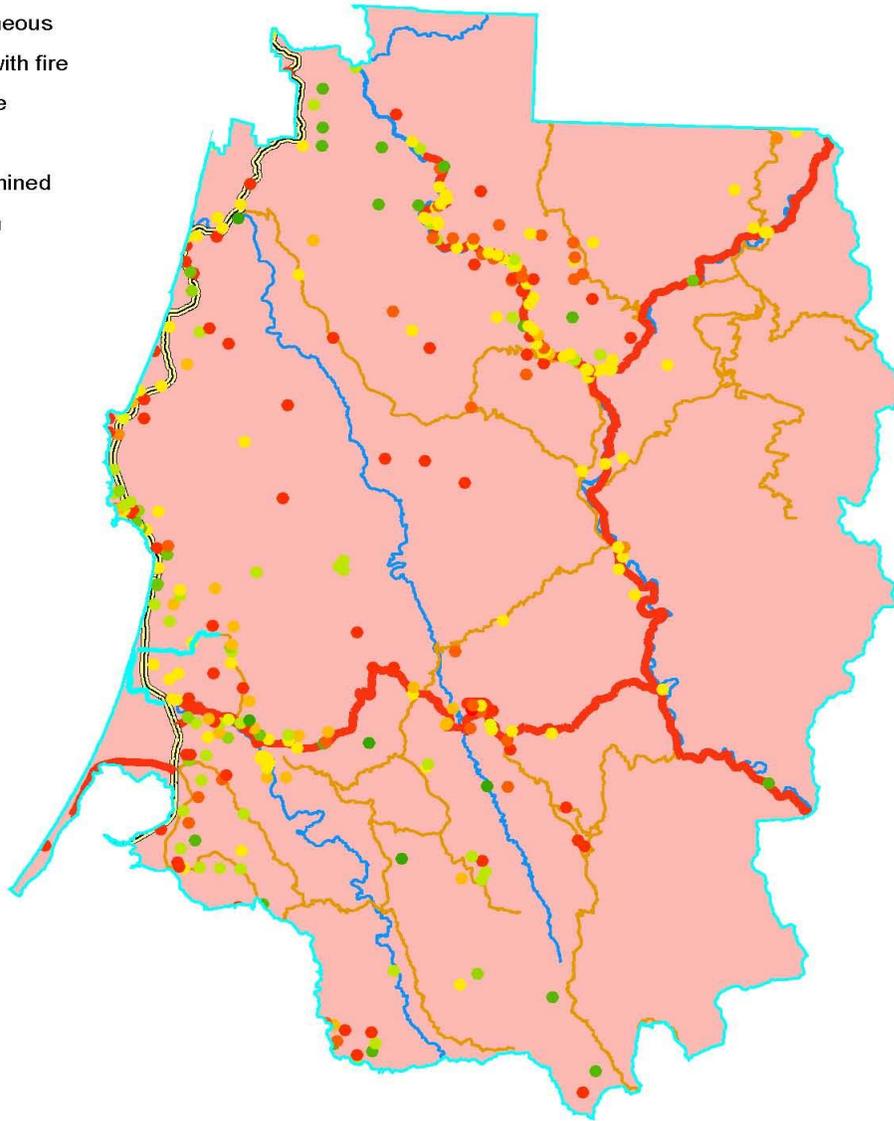
**Legend**

**Ignition Causes**

- Arson
- Campfire
- Debris burning
- Equipment use
- Lightning
- Miscellaneous
- Playing with fire
- Powerline
- Smoking
- Undetermined
- Unknown
- Vehicle



# HUU 2001-2011 Fire Causes Trinidad Battalion



0 2 4 8 Miles

Map by M. Rodgers  
5/15/2012

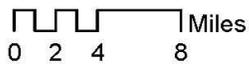
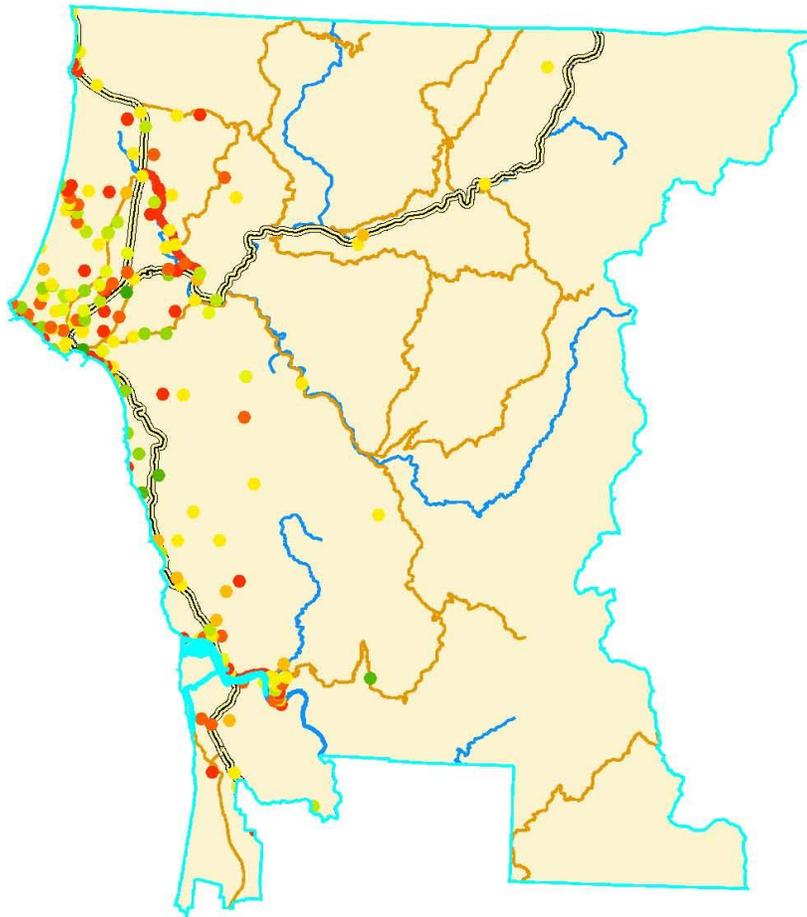
**Legend**

**Ignition Causes**

- Arson
- Campfire
- Debris burning
- Equipment use
- Lightning
- Miscellaneous
- Playing with fire
- Powerline
- Smoking
- Undetermined
- Unknown
- Vehicle



# HUU 2001-2011 Fire Causes Crescent City Battalion



Map by M. Rodgers  
5/15/2012

## **SUPPLEMENT: 2012**

### **Annual Report of Unit Accomplishments**

Humboldt Del Norte Unit accomplished many fuel reduction projects mostly through supporting Fire Safe Councils. In addition to this work the Unit in collaboration with Humboldt County Natural Resources Planning Division and local Fire Safe Councils and other collaborators secured grant funding for a multitude of projects including but not limited to: fuels reduction, public outreach and public education, National Firewise Community Certification, Presentations to the Humboldt County Board of Supervisors, County Wide CWPP public meetings for CWPP updates, developing local CWPPs for local Fire Safe Councils. Below is a list from one of the Fire safe Councils and some of the accomplishments.

#### **WILLOW CREEK FIRE**

##### **SAFE COUNCIL**

P.O. Box 224

Willow Creek, CA 95573

(707) 499-0767

#### **PROJECTS COMPLETED**

##### **1. USFS GRANT THROUGH CAL FIRE SAFE COUNCIL'S GRANT CLEARINGHOUSE:**

42 acres Fuel Reduction Shaded Fuel Breaks: East side of Bigfoot Subdivision (7 acres); Hodgson Hill area (8 acres); Kimtu Park & neighborhood area (10 acres); Lower Brannon Mt. Rd/Hwy 96 (17 acres).

Completion of the Willow Creek Greater Area Community Wildfire Protection Plan

##### **2. SHERIFF WORK ALTERNATIVE PROJECT:**

Fuel Reduction Shaded Fuel Breaks:

- a.) 2.5 acres south side of Hwy 299 behind downtown businesses.
- b.) 2 acres Hwy 96/ Trinity Valley School property
- c.) 5 acres Patterson Rd. (Walton Property)
- d.) 3 acres Kimtu Park area/Scotch Broom
- e.) 1.5 acres north side of Hwy 299 (Willow Rd to Hwy 299) downtown businesses.
- f.) 1.5 acres Friday Ridge Rd (disable individuals driveway for emergency exiting)

##### **3. P.G. & E Grant/Neighborhood Cleanup and Chipper Days/Chipper donated by CAL FIRE**

Funds used for insurance required by Cal Fire, fuel and minor upkeep of the chipper.

4. Humboldt Co. Area Foundations/Humboldt 5 Grant

Funded 2012 Fire Safe Day and Youth Ecology Fair along with local sponsors

5. Trinity Trust Grants

Funded SkyCrest Lake Youth Fish Derby and Firewise Day 2008, 2009, 2010, 2011 & 2012 along with sponsors.

6. Firewise Grants/Humboldt Co.-Funds from Cal. Fire Safe Councils Grant Clearinghouse

a.) Willow Creek Fire Safe Day and Youth Ecology Fair 2010 & 2011

b.) Living with Fire in the Lower Trinity publication

c.) Blue Dot Program

d.) FLASH Program 2010 & 2012

7. Misc. Project by the Willow Creek Fire Safe Council

a.) Youth Education in partnership with the Willow Creek Volunteer Fire Dept. Working within local schools.

b.) Cal Trans Adopt a Highway Program. Clean one mile of Hwy 96 of trash to assist with fire hazard.

c.) Christmas Tree Disposal pickup and deliver for recycling at a local business.

## **Fire-adapted Landscapes and Safe Homes Grant Number 10USFS-ES507**

During the grant period, hazardous vegetation on slightly over 311 acres of land was treated to reduce the wildfire risk for homesteads and access routes. One hundred and Fourteen (114) landowners completed work on their property through this program. The resulting slash from these projects was mostly pile burned but, particularly in the Willow Creek area, much of it

was taken to a biomass facility. Some landowners used the resulting wood to make poles

or firewood for their personal use. Over 41 cords of wood were documented for landowner personal use but we believe many more were generated and went unreported. Eight local field technicians were trained and gained experience in assessing wildfire hazards, making fuels reduction treatment recommendations, and conducting inspections to make sure fuels reduction work was completed correctly. These technicians conducted 267 site visits, over 114 of which included a home risk assessment. Landowners, who did not sign up for the program or dropped out, received benefits from the initial site visit and home risk assessment.

Eight local field technicians were trained and gained experience in assessing wildfire hazards, making fuels reduction treatment recommendations, and conducting inspections

to make sure fuels reduction work was completed correctly. These technicians conducted 267 site visits, over 114 of which included a home risk assessment. Landowners, who did not sign up for the program or dropped out, received benefits from the initial site visit and home risk assessment.

The Unit and the Department CAL FIRE also received high praise and national honor when Agriculture Deputy Secretary Kathleen Merrigan presented USDA's prestigious Two Chiefs' Partnership Award to representatives of the Redwood Valley Collaborative (RVC) for their work in reducing the threat of Sudden Oak Death (SOD) disease in the Redwood Valley of California



**Pictured from left to right: Mark Rodgers, Julie Lydick, Pete Angwin, Dave Rizzo, Yana Valachovic, Phil Cannon, Kathleen Merrigan, Ed Burton, Stephen Smith, Jack Marshall, Chris Nota, Russ Henly. Deputy Secretary of Agriculture Merrigan presents the Two Chiefs Award to Valachovic on behalf of the team.**

The Two Chiefs' Partnership Award is a national award that is presented annually to recognize people and teams that work collaboratively to support conservation and forest stewardship. Award winners are selected by the Chiefs of the USDA Forest Service (USFS) and Natural Resources Conservation Service (NRCS).