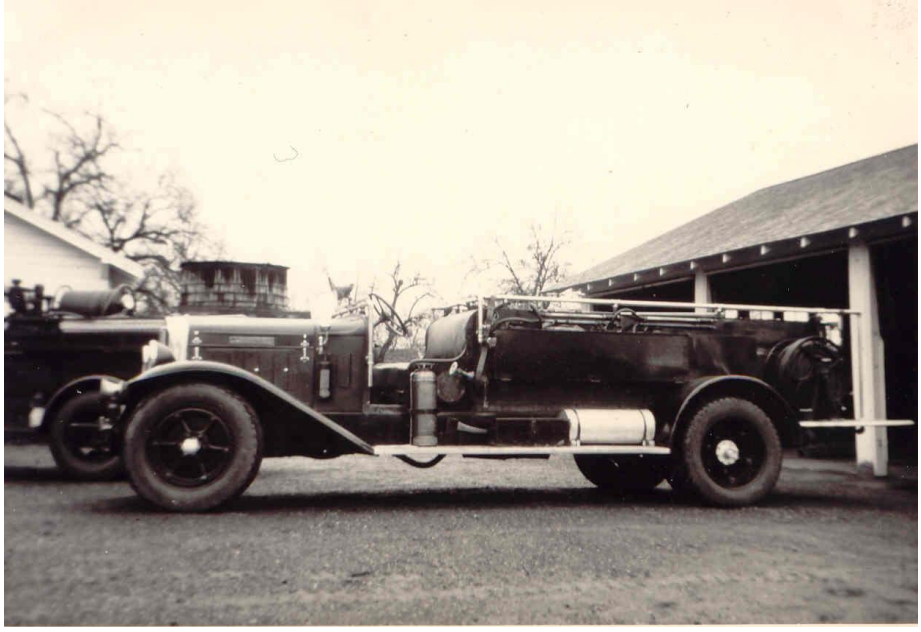
Unit Strategic Fire Plan
Mendocino Unit



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UNIT STRATEGIC FIRE PLAN AMENDMENTS

Date	Section Updated	Page Numbers Updated	Description of Update	Updated By
4/25/13	Table of Contents	iii	Updated TOC	Zimmermaker
5/21/13	Section III A	13-14	Updated Values language	Zimmermaker
5/21/13	Section V	36	Camp program	Zimmermaker
4/24/13	Appendix A	37	Status of pre-fire projects	Zimmermaker
4/24/13	Appendix B	41	Update of Brooktrails thinning project	Zimmermaker
4/24/13	Appendix B	42	Update of Pieta VMP	Zimmermaker
4/25/13	Appendix F	48	Ignition Management Plan	Zimmermaker
4/24/13	Exhibits	60	Updated large fire history map	Zimmermaker
3/30/14	Appendix A	37	Status of pre-fire projects	Zimmermaker
3/30/14	Appendix B	42	Update of Mill Creek VMP	Zimmermaker
3/30/14	Appendix B	44	Update of Shamrock VMP & Battalion 5 VMPs	Zimmermaker
3/30/14	Appendix B	45	Addition of Folded Hills VMP	Zimmermaker
3/30/14	Appendix F	48	Ignition Management Plan	Zimmermaker
3/30/14	Exhibits	60	Updated large fire history map	Zimmermaker
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SIGNATURE PAGE

Unit Strategic Fire Plan developed for Mendocino 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.

Christopher P. Rowney 01/04/16

Unit Chief **Date**
Christopher P. Rowney

Brandon Gunn 01/04/16

Pre-Fire Engineer **Date**
Brandon Gunn

EXECUTIVE SUMMARY

The California Department of Forestry and Fire Protection's Mendocino Unit consists of 2,361,560 acres. CAL FIRE provides direct protection for 2,244,450 acres, 28,145 of which are in southern Trinity County. With the exception of the four incorporated cities of Ukiah, Fort Bragg, Willits, Point Arena, and small areas of Local Responsibility Area (LRA) lands within Mendocino County, CAL FIRE maintains statutory responsibility for all wildland fires. Of the total county population, approximately 67% live on State Responsibility Area (SRA) lands. Population growth will impact SRA lands because of the build-out character of LRA lands.

The Unit's Administrative Headquarters is located at Howard Forest, a complex of buildings on Highway 101 south of Willits. The complex is home to Resource Management, a Logistics Service Center, Training Center, two automotive fleet maintenance shops, and a breathing apparatus maintenance facility. It also houses the Emergency Command Center, which, in addition to CAL FIRE dispatch, provides fire, rescue, and medical dispatching services on a contractual basis for most of the County's local agencies and ambulance services. The Unit's Prevention Bureau includes a Pre-Fire Engineer, fire investigation personnel, Peace Officers, and a Fire Prevention Specialist, who also serves as Public Information Officer. The Battalion 2 fire station and Howard Forest Helitack Base at this location support various Howard Forest functions.

The assumption used in developing this Pre-Fire Management Unit Plan is that a proposed pre-fire project will reduce costs and losses during periods of severe fire weather, which is when most of California's wildfire costs and losses occur. Once a pre-fire management project is accomplished, a large fire burning in that specific high-risk/high-value area more likely to be contained at a smaller size, burn with lower temperatures and severity, incur significantly reduced suppression costs, and result in substantially lower levels of losses to the environment and human infrastructure.

Each area of the Mendocino Unit, to a greater or lesser extent, will need to adapt to the ever-increasing population moving into and recreating in the wildland areas of the county. The increase in these activities will pose greater risks of fires and even greater expectations of all CAL FIRE response services. Through development, implementation, and ongoing reassessment of this Plan's priorities, the Mendocino Unit will be ready and steadfast in its ability to provide leadership in pre-fire management planning and in protecting the citizens of Mendocino County from destructive wildfires.

Christopher P. Rowney

Chief, Mendocino Unit

SECTION I: UNIT OVERVIEW

UNIT DESCRIPTION

Mendocino County is located in California's north coast region, bounded by the Pacific Ocean to the west, Sonoma County to the south, Lake County to the southeast and east, Glenn and Tehama Counties to the east and northeast, Trinity County to the north and east, and Humboldt County to the north. The borders with Glenn and Tehama Counties are completely within the Mendocino National Forest in the county's northeastern portion.

Within an area of 3,510 square miles, Mendocino County's elevation runs from sea level at the ocean to 6,954 feet atop Anthony Peak, near the Tehama County border. Inland from 129 miles of magnificent coastline, the environment is as varied as the terrain. World-class vineyards thrive in the southern valleys, and stands of redwood and Douglas-fir trees tower down from the Pacific Coast Range. Numerous mountain peaks over 6,000 feet grace the northeastern portion of the county and bear snow caps until early summer. Oak woodlands on rolling hills are scattered throughout the county.

The county is characterized by steep slopes, with the main ridges oriented north-northwest to south-southeast. Rivers and streams are abundant, some flowing year round and others drying up in the summer. The mighty Eel River drains to the north and the Russian River to the south. Rivers west of the first divide inland from the coast, just west of the Highway 101 corridor, drain basically east to west, to the ocean. These include, from south to north, the Gualala River North Fork, plus the Garcia, Navarro, Albion, Big, Noyo, and Ten Mile Rivers.

The county's mountains and hills are interspersed with nine distinct valleys:

- Potter Valley in the east-central portion
- Round Valley to the northeast, with Covelo in its center
- Leggett Valley in the north, with the communities of Leggett and Piercy
- Long Valley south of Leggett, with Laytonville at its center
- Little Lake Valley in the county's center, surrounding the City of Willits
- Redwood Valley, just north of the Ukiah Valley
- Ukiah Valley in the south-central area, with the City of Ukiah at its center
- Anderson Valley in the central-western portion, including the towns of Yorkville, Boonville, Philo, and Navarro
- Sanel Valley in the south, with the community of Hopland

The population of Mendocino County is currently estimated at approximately 88,000, with an overall density of approximately 25 persons per square mile. The majority of residents live in and around the valleys along Highway 101, which winds through the county from south-southeast to the north-northwest for 106 miles. Other population centers include the dozen or so communities along Highway 1, which travels the coast from the county's south end until it turns inland about 30 miles north of Fort Bragg and joins Highway 101 at Leggett. These towns are, from south to north, Gualala, Anchor Bay, Point Arena, Manchester, Irish Beach, Elk, Albion, Little River, Mendocino, Caspar, Fort Bragg, Cleone, Westport, and Rockport.

The county includes only four incorporated cities: Ukiah, Willits, Fort Bragg, and Point Arena. The rest of the county's local governments are special districts of various kinds, including community service districts, fire districts, water districts, and others established to provide specific services.

Wildland subdivisions and continuous areas of Wildland Urban Interface (WUI) are predominant around the population centers, and these are likely to increase in size and number. Recent and upcoming improvements on Highway 101 make Mendocino County more and more attractive to persons desiring a rural lifestyle while commuting to work in Santa Rosa and even the San Francisco Bay Area.

One of the county's largest employers is agriculture, especially considering the trickle-down effect on other businesses dependent on agriculture. Commercial fishing is important to the coastal communities, especially Fort Bragg. Cottage industries, tourism, and recreation, along with the timber industry, round out the commercial character of the county. Light and heavy industry is in place, but inroads have been slow due to space, transportation, and environmental concerns. Governmental and nonprofit organizations are also large employers. Ukiah, the county seat, offers hundreds of jobs relative to government and public services, contains the county's largest concentration of medical and legal services, and hosts an ever-increasing number of large retail stores, motels and hotels, and restaurants.

Land use in Mendocino County includes agriculture (predominantly wine grapes and pears), timber production (Douglas-fir, coast redwood, ponderosa pine, sugar pine, and hardwoods), livestock production, and recreation. Cultivation of marijuana, either illegally or now legally (due to the compassionate use proposition (Prop 215)) for medical purposes, is prevalent throughout the county and contributes to the local economy. It at times presents a hindrance to fire safety efforts, due to the growers' desires to conceal their locations.

Mendocino County enjoys a Mediterranean climate, with dry summers during which typically no rain falls from early June to late October. The weather can vary greatly on the same day in different parts of the county. An average summer day may find the coastal areas at 60 degrees and inland temperatures at 90 to 105 degrees Fahrenheit. The warmer the Sacramento Valley becomes, the deeper fog intrudes from the ocean up the coastal drainages, and the windier the inland valleys become. Diverse microclimates benefit from having four seasons and 40 to 100 inches of annual rainfall, depending on the location, elevation, and weather patterns. The declared fire season in Mendocino County typically lasts from early June to mid or late October.

Vegetative fuel types in the county consist of grass, oak woodlands, brush, mixed chaparral, timber, and to a lesser extent, cut-over slash. Few areas of Mendocino County have not been harvested for timber in the past. Brush is usually composed of chamise on the south and west facing slopes and mixed chaparral on the north and east facing slopes. Mendocino County has seen very few large wildfires in the past several decades, resulting in a massive build-up of wildland fuels ready to burn.

The overall goal of this plan is to reduce the total costs and losses from a wildland fire through focused pre-fire management prescriptions and increase initial attack fire success.

UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

WILDFIRE SUPPRESSION RESOURCES

The Unit is geographically divided into six battalions. Suppression resources during fire season include approximately 125 career personnel and approximately another 120 seasonal personnel, on duty around the clock, staffing 10 fire stations, 16 engines, 4 bulldozers, and other equipment. A typical engine company consists of one Captain or Fire Apparatus Engineer and two or three firefighters. In addition, ten 15-man California Department of Corrections and Rehabilitation crews, housed at Chamberlain Creek and Parlin Fork Conservation Camps in Jackson Demonstration State Forest, provide hand line construction, mop-up, post-fire patrols, and assist with fire line suppression repair.

The Helitack Base located at Howard Forest is the home of Copter 101, a Bell UH-1H "Super Huey" which serves multiple purposes, primary initial attack on wildfires. Copter 101 carries a pilot, two captains, 5-6 firefighters, and a 324-gallon collapsible Bambi bucket. Full deployment of the helicopter involves dropping off one captain and the firefighters at the fire scene, attaching the bucket for dipping from the nearest accessible water supply, applying water to the fire.

The Unit is home to the Ukiah Air Attack Base which provides 7-day coverage during the daylight hours of fire season. Tankers 90 and 91 are Grumman S2T turboprop air tankers, each with a capacity of 1,200 gallons of fire retardant. Air Attack 110, the Unit's North American Rockwell turboprop OV-10 Bronco command plane, carries a pilot and the Air Tactical Group Supervisor who is responsible for air space coordination and aerial fire suppression activities from an orbit above the fire. The base, located inland in the hot and dry Ukiah Valley, has the advantage of rarely being impacted by fog, unlike its neighboring bases in Rohnerville and Santa Rosa, which are quite subject to coastal weather influences.

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 a needed boost. Aircraft also provide "eyes in the sky" for those on the ground, noting spot fires and giving other direction from their vantage point. Additional eyes are provided by the Mendocino County Cooperative Aerial Fire Patrol during fire season. Since 1950, the COOP Air Patrol has supplied a small aircraft to fly over the county to look for undetected fires by spotting smokes. CAL FIRE works very closely with the Patrol and provides direction to its pilot.

CAL FIRE dispatch levels during fire season are affected primarily by weather conditions. During a period of high dispatch, any fire in, or threatening, wildland vegetation causes immediate dispatch of two Battalion Chiefs, the command aircraft, both air tankers, one helicopter, five engines, two dozers, and two hand crews. Local Fire Department resources respond according to their locations, frequently assisting each other across district boundaries.

LOCAL FIRE DEPARTMENTS:

Mendocino County owes very much to its Local Fire agencies, many of which are staffed completely by volunteers and whose personnel are often the first to arrive at wildland fires and other emergencies. Most of these agencies are in Fire Protection Districts (FPDs) or Community Services Districts (CSDs) which are governed by elected boards of directors and have authority to levy taxes to support their work.

The Local Departments Map (located within the Exhibits Section), shows the locations and boundaries of these districts. Areas adjacent to a district but not included in it are referred to as the agency's "sphere of influence." Although they pay no taxes or fees, people in these areas still receive services, because the county's emergency responders never refuse to help someone in need. However, such situations can become very frustrating to cash-strapped departments and can be a source of irritation to those who pay their share for emergency services. Most departments supplement their tax base income with at least one major fundraiser a year – usually barbeques with live music, which are well-supported, extremely popular social events.

Fires in wildlands, structures, vehicles, dumpsters, and similar situations account for only 10% to 20% of the calls to which local agencies respond. Medical aid calls are by far the majority – an average of 80% for most departments – followed by traffic accidents and other rescue situations. Consequently, county firefighters undergo training in medical response, extricating patients from vehicles, responding to hazardous materials ("haz mat") incidents, and a variety of other emergency skills – thus the common term "Fire-Rescue." A high percentage of volunteers are First Responders or Emergency Medical Technicians (EMTs), both of which require significant training. Fire departments on the coast are often called to assist in cliff rescues and other water-related emergencies and have equipment and volunteers to meet that need.

Firefighter training or "drill" in most of the county's departments involves one night a week plus additional trainings on weekends. Firefighters often train with other departments, especially on training burns, in which abandoned buildings or wildland fields are burned for training purposes. Some firefighters travel out of county to obtain training and certification in specialized fields. In addition, trainings are brought into the county.

Mendocino 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, and CALSTAR or REACH emergency transport helicopters all work as one team.

A description of each of Mendocino County's Local Fire Agencies follows, listed in alphabetical order. Data and comments were provided primarily by each Departments respective Chief. 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.

ALBION-LITTLE RIVER FIRE DEPARTMENT is a nonprofit corporation operating in conjunction with the Albion-Little River Fire Protection District. The district, which has no paid staff, includes 44 square miles on the central coast and protects 3000 permanent residents and typically another 3000 visitors annually. They respond to approximately 200 calls a year. The District's ISO Insurance ratings are 8 and 7, and its personnel work diligently to maintain them.

Response to wildfires is extremely aggressive -- and must be -- because the closest CAL FIRE resource is outside the district, at the Woodlands Station. The department is proud of their record of keeping wildfires small pending the arrival of other resources, and greatly needs funding and equipment to continue providing this response. Areas of concern regarding wildfire and other safety issues include Paul Dimmick State Park, the Navarro Headlands, and The Woods, a retirement community bordering Van Damme State Park. The department may be contacted at (707) 937-0888.

ANDERSON VALLEY FIRE DEPARTMENT is part of a Community Services District. The District covers 200 square miles and 4000 residents, and responds to about 300 calls per year. Many responses are outside the district and unreimbursed. ISO ratings are 5 in downtown Boonville and 8 in most of the rest of the district.

Wildland Urban Interface areas (WUIs) of special concern include Rancho Navarro and Holmes, Sky, Yorkville, and Nash Ranches. The department may be reached at (707) 895-2020.

BROOKTRAILS FIRE DEPARTMENT is part of the Brooktrails Township Community Services District and protects improvements in the Brooktrails Township, Sylvandale, and Spring Creek subdivisions. The entire 7,773 acre forested development contains approximately 1,600 dwellings, and an estimated 6000 residents. The Fire Chief, a Battalion Chief, and a part-time office assistant are the only paid personnel. Insurance Service Office (ISO) ratings are 5 within the district and 9 outside; the rating of 5 is due to the abundance of water and an excellent system of fire hydrants.

One of the department's valued members is Ashes the Arson Dog, who is one of only 100 dogs in the United States certified by the Canine Academy Training Center to the level that evidence from his work is admissible in court. The department may be reached at (707) 459-4441 or firedept@btcsd.org.

COMPTCHE VOLUNTEER FIRE DEPARTMENT is a small tax district of 50 square miles and 600 residents located fourteen miles inland of the town of Mendocino. An additional 100 residents in the sphere of influence receive round-the-clock services free of charge. Equipment includes four engines, two water tenders, one rescue, and one utility vehicle at one station. The District's ISO rating is an 8.

Comptche faces two situations common to most departments in the county's rural areas. 1) Most volunteers work in towns outside the district, causing a need for more volunteers available during the week. 2) Increasing regulations and costs are a burden on the department and make the job of volunteer firefighters a difficult one. But they continue to serve their community. The department may be contacted at (707) 937-0728 or comptchefire@pacific.net.

COVELO FIRE PROTECTION DISTRICT, serves 50 square miles and 3200 residents in the Round Valley area, near the Mendocino National Forest. An ambulance service is part of the district, whose medical response area extends from the Dos Rios on Highway 162, to the Tehama County line, to the Trinity County line, and to the top of Forest Highway 7 in the Mendocino National Forest. More than 600 Round Valley residents are CALSTAR/REACH subscribers. The nonprofit CALSTAR and REACH provide critical service to this and other remote areas from which ground transport would take much more time to transport persons in critical need of hospital care. The District's ISO rating is 9 for businesses and 8 for residential areas. The department may be reached at (707) 983-6719 or covelofire@pacific.net.

ELK VOLUNTEER FIRE DEPARTMENT is located on the coast near the intersection of Highway 1 and the Philo-Greenwood Road. Many volunteers work in towns outside the district, so the need is great for more persons available during the week. The ambulance successfully bills only about 5 transports a year, and reimbursement for providing mutual aid is rare. The District includes two state parks and much difficult terrain. The department recently successfully retained their ISO ratings of 7 in the town of Elk and 9 in the outlying areas. The department may be contacted at may be reached at (707) 877-3558 or elkfire@mcn.org.

FORT BRAGG FIRE DEPARTMENT operates under a Joint Powers Agreement between the City of Fort Bragg and the surrounding Fire District. The department serves 75 square miles and approximately 15,000 residents. State parks and beaches in the response area are occasionally the site of cliff rescues. Several areas surrounding the city border on heavy timberlands. ISO ratings are 3 in the City, 4 in the district (areas within 5 miles of a station), and 8 to 10 in the rural areas outside of 5 miles. The department may be contacted at (707) 961-2831 or fbfd8300@yahoo.com.

HOPLAND FIRE PROTECTION DISTRICT serves 3000 residents across 110 square miles. Personnel respond from two locations: the main station located at the southwest edge of Hopland on Feliz Creek Road and the North Station located several miles north of Hopland on Highway 101, just south of Retech. ISO ratings are 7 within the community of Hopland itself and 8 in the rural areas. Areas of special concern regarding wildfires are McNab Ranch, the Hopland Indian Rancheria and Russian River Estates in the wildland urban-interface. The department's major needs are additional funding and more volunteers available during daytime hours. The department may be contacted at (707) 744-1222 or chief@hoplandfire.org. Additional information about the department may be found at their website www.hoplandfire.org.

LEGGETT VALLEY FIRE PROTECTION DISTRICT is located in the county's north-northwestern corner, where Highway 101 and Highway 1 converge. Lack of funding is a major concern. The county contributes $18,000 a year, but the district's tax base is very small. The area's ISO rating is 9. The department may be reached at leggettfire@gmail.com.

LITTLE LAKE FIRE PROTECTION DISTRICT is located in the center of the County, serves both the City of Willits and the surrounding areas, and is funded by property taxes, a special fire tax, and fundraisers. The District encompasses 380 square miles and over 10,000 residents. Personnel respond to many vehicle accidents outside the district, especially on Highways 101 and 20, which intersect in Willits and see heavy tourist traffic. Assistance to emergency calls in the area just south of Willits is also supplied by the Ridgewood Ranch Volunteers.

The District's ISO rating is 4 inside the City of Willits and in outlying areas with hydrants, and a Rural 8 in outlying areas within 5 miles of the stations. Within the boundaries of the District are BLM lands, two Indian Rancherias, a large wildlife habitat at the north end of the valley, and three subdivisions of special concern: Pine Mountain Estates, the Ridgewood Subdivision, and the String Creek Subdivision. Due to the District's high fire risk, there is a strong need for planning requirements more stringent than those currently used by the County Planning and Building Department or imposed by California Public Resources Code section 4290. The department may be reached at (707) 459-6271 or willitsfire@sbcglobal.net.

LONG VALLEY FIRE PROTECTION DISTRICT is locally known as the Laytonville Fire Department. The District includes 250 square miles and 3000 residents, with an additional 1000 in the extended sphere of influence. Areas of special concern to fire personnel are the Nature Conservancy's Wilderness Lodge and the subdivisions of Ten Mile Creek, Woodman Canyon, Jack of Hearts Creek, and Cherry Creek. The department serves the large Bell Springs area without reimbursement. ISO ratings are 5 in Laytonville proper, 9 in areas beyond five miles from the station, and 10 outside the district. The department may be contacted at (707) 984-6055 or laytfire@mcn.org.

MENDOCINO VOLUNTER FIRE DEPARTMENT covers both an historic coastal business district and numerous homes in WUI subdivisions. Public lands administered by State Parks and Caltrans are located inside the district boundaries, and these to contain high hazard fuels. ISO ratings are 9 for commercial properties and 8 for residential. The lower ratings are due to the lack of a public water system and hydrants in Mendocino; however, two large tenders carry water to fires. The department may be contacted at (707) 937-0131 or mvfd@mcn.org.

PIERCY FIRE PROTECTION DISTRICT, located just south of the Humboldt County Line in the county's far northwestern corner, the district encompasses only 8 square miles but serves the traffic on Highway 101, at least 200 residents beyond its boundaries, and Richardson Grove State Park without reimbursement. Locations of special wildfire concern are BLM and the Department of Fish and Game's (DFG) Red Mountain area to the southeast and the Redwood Forest Foundation Incorporation's (REFI) property consisting of 50,000 acres of forestlands.

POTTER VALLEY FIRE DEPARTMENT is a nonprofit corporation providing fire protection under an agreement with the Potter Valley Community Services District. The department serves 3500-4500 people spread over 275 square miles, including the portion of Mendocino National Forest within Mendocino County. Very remote areas accessed only by unpaved roads, including but certainly not limited to Sanhedrin Mountain, Hull Mountain, and Lake Pillsbury, also receive its services. Mutual aid is provided to the Upper Lake area in Lake County to the east when requested. The district has no fire hydrants, but the water tender and many agricultural ponds throughout the valley floor give the area an ISO rating of 8.

REDWOOD COAST FIRE PROTECTION DISTRICT serves approximately 170 square miles on and near the coast. The ISO rating is 5 in Point Arena and Irish Beach where there are hydrants and 9 in outlying areas. Of special fire concern are the area's state beaches, parks and all the district's ridges, which have not seen fire in 30 to 40 years and are "primed to burn." The department may be contacted at (707) 882-1833 or rcfpd@hughes.net.

REDWOOD VALLEY-CALPELLA FIRE PROTECTION DISTRICT serves 82 square miles and 7500 residents. The district includes several Wildland Urban Interface areas of concern, including Black Bart, Tomki, Cave Creek and the eastern half of Greenfield Ranch. The heavily-fueled wildland area at the north end of Lake Mendocino is another one of special concern to the district. The department may be contacted at (707) 485-8121 or rvcfd@comcast.net.

SOUTH COAST FIRE PROTECTION DISTRICT is located at the far southwest corner of the county and includes approximately 25 square miles. Its sphere of influence extends 14 miles out Fish Rock Road to the east. The district's equipment is based at stations in Gualala, Anchor Bay, Iversen Ridge, and Ocean Ridge. The lack of defensible space around homes is a major concern, as homes and structures continue to expand into the forested environment. The department may be contacted at (707) 884-4700.

UKIAH FIRE DEPARTMENT operates as a department of the City of Ukiah. Its response area is the 4.5 square miles and 15,500 residents within the Ukiah city limits. Ukiah is the largest government, business, and services center for the county, thousands of additional persons may be in Ukiah during weekday office or shopping hours. The department has by far the largest paid staff in the county of approximately 17 full-time career staff. The Ukiah Fire district boasts an ISO rating of 3. Areas of special concern are Low Gap Park on the city's northwestern boundary and the new homes in the highly-flammable hills to the west of the valley. The department may be contacted at (707) 463-6274 or firedept@cityofukiah.com.

UKIAH VALLEY FIRE DISTRICT responds to emergencies in 80 square miles outside the Ukiah city boundaries, including the valley floor and the surrounding hills which hold hundreds of homes scattered among heavy vegetative fuels. The district has two locations: a main station at the south end of town plus another on Talmage Road. The Talmage Volunteer Fire Station was acquired for the purpose of placing emergency apparatus and equipment on the East side of the Russian River that can be staffed during floods, earthquakes and high fire danger events.

Areas of special wildfire concern in the district are the U.S. Army Corps of Engineers' Lake Mendocino recreational area, and BLM's Cow Mountain Recreation Area, both of which may see numerous fires each summer. Additionally of concern are the populated Wildland Urban Interface areas of Oak Knoll Road and Fircrest Drive, and Robinson Creek along the valley's western hills; and Redemeyer Road, Deerwood, El Dorado Estates, Vichy Springs, Vichy Hills, Regina Heights, the City of 10,000 Buddha's, and Talmage in the eastern hills. A portion of Greenfield Ranch, and Orr Springs Road also receive service from the District. All these areas have significant ingress/egress problems. Further, the entire area *east* of the Russian River from Lake Mendocino south to Hopland is served by departments based *west* of the river, which could result in a cutoff of services during a major flood or earthquake. The department may be contacted at (707) 462-7921 or uvfd@mcn.org.

WESTPORT VOLUNTEER FIRE DEPARTMENT is the only one in the county with no authority to levy taxes to support its work. The Department serves a sphere of influence stretching from the Ten Mile River in the south to the Sinkyone Wilderness Area in the north. Of special concern are the Westport Beach RV Campground, Westport Union Landing State Park, and the Sinkyone Wilderness Area. Many homes are scattered on the fire-prone hills outside of town, and a subdivision north of town is growing rapidly. The department may be contacted at (707) 964-4646 or wvfd@hughes.net

WHALE GULCH VOLUNTEER FIRE COMPANY is located in the far northwestern corner of Mendocino County, west of Piercy. Due to the locations of roads in that area, Whale Gulch volunteers are dispatched from Humboldt County and work in conjunction with Humboldt County fire departments.

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:

Plan Development Team:

Organization	Title
Bureau of Land Management (BLM)	Fire Mitigation and Education Specialist
Brooktrails Greenbelt Committee	Board Member
Redwood Empire	Landowner Representative
Coastal Forest Lands	Landowner Representative
California State Parks	Senior Environment Scientist, Mendocino District
Pieta Ranch	Landowner Representative
Shamrock Ranch	Landowner Representative
Mendocino Fire Safe Council	Executive Director
Lonardi Ranch	Landowner Representative
Usal Redwood Forest	Landowner Representative
Lombart Ridge	Landowner Representative
Ponderosa Ranch	Landowner Representative
Carley Ranch	Landowner Representative
County of Mendocino	General Services Director/Risk Manager
Albion-Little River Fire	Department Chief
Anderson Valley Fire	Department Chief
Brooktrails Fire	Department Chief
Comptche Fire	Department Chief
Covelo Fire	Department Chief
Elk Fire	Department Chief
Fort Bragg Fire	Department Chief
Hopland Fire	Department Chief
Laytonville-Long Valley Fire	Department Chief

Leggett Fire	Department Chief
Mendocino Fire	Department Chief
Piercy Fire	Department Chief
Potter Valley Fire	Department Chief
Redwood Coast-Point Arena Fire	Department Chief
Redwood Valley-Calpella Fire	Department Chief
South Coast-Gualala Fire	Department Chief
Ukiah City Fire	Department Chief
Ukiah Valley Fire	Department Chief
Westport Fire	Department Chief
Whale Gulch Fire	Department Chief
Willits-Little Lake Fire	Department Chief

SECTION III: VALUES

A: VALUES

Mendocino Unit has a wide range of both natural and man-made assets at risk to wildfires. Fires threaten the natural environment as well as commercial and residential property. It is difficult to prioritize or rank these assets, but citizen and firefighter safety, homes, infrastructure including water and power supply, rivers and watersheds, air quality, soil, wildlife and associated habitat, recreation areas including tourist attractions, scenic beauty, historical buildings, cultural unique areas, timber, and rangeland all rank high in this Unit. The Unit is dedicated to protecting these assets from the devastating effects of wildfires and other disasters

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.

Over the past decade, marijuana has become a lucrative asset to many in Mendocino County. The plant is still federally illegal but has drawn large numbers of people from all over the world to Mendocino County. This population growth has primarily been in the Wildland Urban Interface. Not only does the increased rural population present dangers, but many of the "hi-tech" growing operations are conducted indoors, increasing the fire danger to structures throughout the county. Both indoor and outdoor growing operations present safety concerns to firefighters and a tactical challenge to fire suppression efforts.

Environmentally, marijuana comes with substantial social costs due to the need to cultivate covertly, rather than openly. Grow operations in state parks, national forest, and private landholdings, are a significant issue that infringes upon public safety, in addition to creating environmental concerns. In state and national parks and private holdings, growers clear native vegetation, use illegal pesticides and chemicals, leave garbage behind at their illicit operations, divert precious water from streams and often kill bears, deer, and other large and small animals that threaten their operation. Diesel spills associated with use of generators to provide light to grow operations often leak in to precious water supplies. These growing operations pollute local ecosystems on an industrial scale most of which require the parks, national forests, or private entities to pay for the cleanup. The secrecy around the illegal product means diesel spills go unreported, spikes in electricity overlooked, wildlife are slaughtered and gallons of toxic pesticides wash into rivers and creeks. Without tax revenue from marijuana, state agencies struggle to find funds for cleanup and prevention. Meanwhile, these public and private areas become dangerous places for residents, tourists, and public safety personnel due to the militant defence of grow operations worth millions of dollars.

For example, during the summer of 2011, a two-week operation to purge the Mendocino National Forest (MNF) of illicit pot gardens uprooted 460,000 pot plants and led to more than 100 arrests. Additionally, approximately 1,500 pounds of processed marijuana, 27 guns and 11 vehicles were seized. The MNF is a 900,000-acre forest spanning six counties including

Mendocino County. Law enforcement officers raided more than 50 gardens teeming with trash, irrigation pipes and chemicals that damage forestland and waterways. After the raids were conducted the California National Guard troops, Forest Service workers and volunteers removed 46,000 pounds of trash, 120 propane tanks, 116,000 feet of pipe, 13 manmade dams, 57 pounds of pesticide and tons of fertilizer from the 50-plus raided grow sites in the Mendocino National Forest.

During raids similar to the ones conducted in the summer of 2011, law enforcement operations to eradicate illegal marijuana grows periodically end in violence. This violence has resulted in multiple law enforcement shootings, including several in which deaths occurred.

Much of marijuana's environmental impact stems from the enormous amount of light needed to grow marijuana. Grower plants plant marijuana indoors so that they can thrive year round and remain somewhat hidden from law enforcement. Some indoor growers power their "grow lights" with electricity from the grid. But those in more rural locations use large diesel generators for power. The diesel is often stored in shoddy or homemade containers and not suited for diesel fuel storage, which become huge risks for fires and toxic spills. In typical outdoor grows utilizing generators, extension cords often traverse through the vegetation from the generator to the growing structure. Extension cords not properly rated for exposure to the nature's elements become stressed leading to an increase chance of failure potentially resulting in a wildland fire, especially as the weather turns warmer and the vegetation becomes drier.

On-grid grows carry another set of problems. In a recent report conducted by Humboldt State University, it was estimated that Humboldt County marijuana growers use 90 million kilowatt hours per year, enough to power 13,000 typical homes. The extra electricity pumps an estimated 20,000 metric tons of carbon dioxide into the atmosphere each year, and that's just in one county. There is also the risk of fire since indoor cultivation can require substantial modifications to electrical systems to power grow lights and fans, particularly in whole-structure conversions. These modifications are rarely performed to code and can involve overloaded circuits, modified circuit panels, exposed wiring, extension cords, powerful grow lights, fans and exhaust systems. These modifications result in skyrocketing energy usage and serious increases for house fires. Fire doesn't just pose a risk to the homes themselves, but also to neighbouring structures and the wildland. In addition to the increased fire risk, fire fighting and law enforcement safety can also be put in jeopardy when electrical wiring deviates from the norm.

Water consumption is also an issue when it comes to the environmental impacts of marijuana growth. Each marijuana plant can use between 3 and 5 gallons of water per day to grow to fruition. As the size and number of illegal grows increases, the stress to the water resources within drought prone California also increases. Not only does this pose a risk to environmental values and resources, but it can also create for logistical problems during fire suppression efforts.

B: COMMUNITIES

CALIFORNIA FIRE ALLIANCE LIST OF "COMMUNITIES AT RISK" IN THE MENDOCINO UNIT

Community	Federal Threat	Hazard Level
Albion		
Anchor Bay		3
Boonville		3
Brooktrails		3
Calpella	Yes	3
Camp Rest	Yes	
Caspar		3
Cleone		3
Comptche		3
Covelo	Yes	3
Coyote Valley	Yes	
Cummings	Yes	3
Dos Rios	Yes	3
El Roble		3
Elk		3
Fort Bragg		3
Gualala		3
Hopland	Yes	3
Inglenook	Yes	3
Laytonville	Yes	3
Leggett	Yes	3
Little River		3
Longvale		3
Manchester	Yes	3
Manchester Rancheria	Yes	
Mendocino		2
Navarro		3
Northspur		3
Philo		3
Piercy		
Point Arena	Yes	3
Pomo	Yes	
Potter Valley	Yes	3
Redwood Valley	Yes	3
Rogina Heights		3
Sylvendale		
Talmage	Yes	3
The Forks	Yes	3
Ukiah	Yes	3
Vichy Springs	Yes	
Westport		3
Willits	Yes	3
Whale Gulch		

1-Moderate, 2-High, 3-Very High

SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES

A: FIRE PREVENTION

The Wildland Urban Interface presents major concerns for fire prevention. Many homes are located in hazardous locations either in ignorance of, or in disregard for, fire prevention practices. Strict enforcement of California Public Resources Codes 4290 and 4291 will be necessary to correct the errors of past residential and commercial developments. Fire loss reductions must be gained through better fire safe planning, with participation by all political bodies and stakeholders.

The Fire Prevention Program of the CAL FIRE Mendocino Unit, including the Fire Prevention Bureau, Vegetation Management Program, and Pre-Fire Engineering, attempts to address the actual problems encountered and to plan for anticipated changes.

Unit prevention efforts include fair exhibits, burn and 4290 permit procedures, fire patrols, news media releases, public service announcements and outreach, school programs, structure and dooryard premises inspections, and membership in the Mendocino County Fire Safe Council. Fire prevention programs are coordinated to the greatest extent possible with Local Fire Departments.

Each area of the Mendocino Unit, to a greater or lesser extent, will need to adapt to the ever-increasing population moving into and recreating in the wildland areas of the County, posing greater risks of fires and even greater expectations for all CAL FIRE response services. Through development, implementation, and ongoing reassessment of this Plan's priorities, the Mendocino Unit will be ready and steadfast in its ability to provide leadership in pre-fire management planning and in protecting the citizens of Mendocino County from destructive wildfires.

HISTORY OF LARGE FIRES

The "Exhibits Section" of this fire plan contains a map of most of the large fires in the Mendocino Unit since 1922. This information can aid in understanding the potential for a large fire at any particular location and also help in determining areas where pre-fire management plans can be put to the best use. One thing this fire history makes clear is that, although the County has been spared large fires in the recent past, this Unit can and may sustain large, devastating wildfires. *Indeed, the lack of large fires for many years points to the likelihood of one or more happening in the near future.* To prepare and lower the risks now will benefit all stakeholders concerned.

IGNITIONS AND INITIAL ATTACK SUCCESSES

Historically, the largest single known ignition cause in the Mendocino Unit has been the use of equipment, followed by escape debris burning. Most ignitions are associated with roads and areas of population density. Identifying ignition causes is an ongoing challenge, and results in many fires being undetermined or having several potential reasons for a fire's start. An example is determining if roadside ignitions were accidental due to cigarette butts negligently tossed from vehicles or were acts of arson. The need for accurate data to perform good analyses is crucial and the Unit personnel are committed to meeting this challenge. To accomplish this, Unit

personnel are continuously training and attending classes to heighten their abilities to investigate fire origin and causes. CAL FIRE Unit suppression forces, working side-by-side with Local Fire Departments, have been successful in meeting the CAL FIRE goal of containing 95% of all wildfires at 10 acres or less. The coordinated effort of ground and air suppression resources has proven a winning combination for many years, and CAL FIRE along with Local Fire Personnel will work hard to maintain their good record and superb mutual aid relationships.

ENGINEERING & STRUCTURE IGNITABILITY

In the early 1980's, the California legislature adopted "Fire Safe" regulations in response to devastating fires on California's wildlands. California, because of its unique combination of vegetation, topography, climate, and population, has one of the most severe wildfire problems in the world. Rugged terrain and highly flammable vegetation make the foothills and mountains of California especially unsafe for residential development unless adequate fire safety measures are taken. A fire hazard severity classification system based on fire weather, fuel loading, and slope has been developed as a basis for identifying fire hazard in the State Responsibility Areas (SRA) where CAL FIRE has the primary responsibility for wildfire protection. To help aid in successful protection CAL FIRE plays an active role in the development of Fire Safe regulations. These regulations provide direction and set standards for construction of adequate ingress and egress routes, water systems, land use planning and zoning to help guide development within the SRA.

The intent of the Fire Safe program is to minimize the loss of lives, structures, and resources due to uncontrolled wildfires. The Fire Safe program places some of the responsibility of fire protection on the homeowner and/or builder/developer. The responsibility is the concept of defensible space planning and incorporating basic fire protection measures into the home or development as it is built. Each home, subdivision, and development constructed in the SRA should have adequate emergency equipment access, building, street, and address identification, and a reasonable water supply for suppression needs built into their designs. Residents and planners within the SRA should understand the importance of planning for fire protection, the need for ongoing and proper clearance of flammable vegetation around structure (PRC 4291), and the benefits of greenbelts, fuel breaks, and controlled burns in and around structures and developments.

Currently, proper addressing of structures in the SRA is the single biggest hurdle to overcome in the Fire Safe Program. Mendocino Unit personnel continue to educate the public on the vital importance of address signage in order to facilitate locating a fire and to avoid delays in response.

Public Resources Code (PRC) 4290 and Title 14 Code of California Regulations

"These regulations have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction and development in SRA. These regulations became effective September 1, 1991. The future design and construction of structures, subdivisions and developments in SRA shall provide for basic emergency access and perimeter wildfire protection measures. These measures provide for emergency access; signing and building numbering; private water supply reserves for emergency fire use; and vegetation modification." *The intent statements that follow are a summary and are provided for information only. Specific requirements should be obtained from the local planning and building departments.*

The implementation of these regulations occurs through the local government building permit and subdivision map approval process. Local government is still the approving authority for development. These regulations are triggered by the application for a building permit for purposes other than limited remodels. These regulations do not supersede existing local regulations that are equal to or more stringent than the state regulations. CAL FIRE has been given the role of wildland fire protection expert and is provided the opportunity to review and comment on all proposed construction and development within the SRA. CAL FIRE also performs final onsite inspections to determine if owners have met the intent of the fire safe regulations. The county is granted the authority to make the final ruling. Locally developed rules are more responsive to the local constituency and local environmental conditions. They can be finely tuned to local wildfire suppression strategies and needs. The proposed local rules must provide for the same practical effect as the overall state regulation package. Each protection measure and activity cannot be judged alone, but must be compared to the overall protection provided by the total regulation package.

Public Resources Code (PRC) 4291

Property owners in mountainous areas, forest-covered lands or any land that is covered with flammable material must create at minimum a 100-foot defensible space (or to the property line) around their homes and other structures, as mandated by California PRC 4291.

The state legislature enacted PRC 4291to improve fire safety and to help prevent catastrophic fires. Under the law, property owners or those who control a property must establish a:

-30-foot clean zone (or to the property line).
-70-foot reduced fuel zone (or to the property line)

This does not mean the property must be clear-cut to bare soil, it involves thinning and breaking up the continuity of ladder fuels and large areas filled with contiguous shrubs that can readily transmit fire.

Title 19 Code of California Regulations

This important title includes the regulations from the Office of the State Fire Marshall, the Office of Emergency Services and the Seismic Safety Commission, information includes but is not limited to:

- General Fire and Public Safety Standards
- Fire Alarm Systems and Devices
- Fire Extinguishers and Automatic Fire Extinguishing Systems
- Fireworks and Explosives

- Transportation of Flammable Liquids
- Oil Refinery and Chemical Plant Safety Preparedness Program
- Emergencies and Major Disasters Programs and Procedures
- Hazardous Material Release Prevention, Reporting, Emergency Response

Title 24 California Code of Regulations

The California Building Standards Code, Title 24, which incorporates the California Fire Code, is adopted every three years by order of the California Legislature with supplements published in intervening years. Title 24 mandates specific requirements for new building construction placing strong emphasis on proper address signage, apparatus access, water requirements, and defensible space.

Building inspections

The California Building Commission adopted the Wildland Urban Interface (WUI) codes in late 2005 (Building Standards and Materials for Building Code Chapter 7A). The majority of the new requirements took effect in 2008. These codes included provisions for ignition resistant construction standards in the wildland urban interface. The building standards and materials codes are enforced by the California Building Standards Commission and, in Mendocino County, the Mendocino Building Department. The fire hazard severity zones are used by building officials to determine appropriate construction materials for new buildings in the wildland urban interface. The zones can also be used by property owners to comply with natural hazards disclosure requirements at time of property sale.

The Wildland Urban Interface presents major concerns for fire prevention. Many homes are located in hazardous locations either in ignorance of, or in disregard for, fire prevention practices. Strict enforcement of California Public Resources Codes 4290 and 4291 is necessary to correct the errors of past residential and commercial developments. Fire loss reductions must be gained through better fire safe planning, with participation by all political bodies and stakeholders.

MEU Pre-Plans

- MEU lightning plan
    - On file in MEU Emergency Command Center
- El Dorado Estates/Deerwood Estates Pre-Plan
    - On file within Battalion 3
- Brooktrails Evacuation Pre-Plan
    - See http://www.btcsd.org/about_us/fire_dept/index.php

INFORMATION AND EDUCATION

CAL FIRE's MEU Fire Safety Education Programs are conveyed through school programs, fair exhibits, posters, flyers, road signs, and thousands of other printed materials, radio and television spots, community meetings, one-on-one contacts with wildland homeowners, 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 Mendocino County Fair. While Smokey, Sparky, and Pluggie are used primarily for teaching young children, the MEU prevention staff also provides other informational and educational, materials geared specifically to teacher and educators.

The objective of the Volunteers In Prevention (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, parades, and staffing displays. 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.

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 MEU’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 prefire fuels treatment, forest health, erosion control, and fisheries issues.

SECTION V: PRE- FIRE MANAGEMENT TACTICS

DIVISION / BATTALION / PROGRAM PLANS

CAL FIRE BATTALION 1: COVELO

CAL FIRE's Mendocino Unit Battalion 1 is located in the northeast corner of Mendocino County. Within the Battalion is the town of Covelo, centered in Round Valley. The Round Valley floor is predominately Local Responsibility Area (LRA) and fire protection is the responsibility of the Covelo Fire Protection District (CFPD), although CAL FIRE responds to all calls in the District through an automatic mutual aid agreement.

The economy is mainly supported by cattle ranchers, small timber harvest projects, and a great deal of "medical" marijuana. The climate is Mediterranean in type, and vegetation is oak woodlands changing to conifer timberlands in the higher elevations.

CAL FIRE Covelo station, the Covelo Fire Protection District, and the U.S.D.A Forest Service (USFS) have joined forces for several public education activities at local schools and community events. CAL FIRE also works with the Round Valley Indian Tribe's Department of Natural Resources on vegetative fuel reduction in the SRA. CAL FIRE engine and dozer crews from Covelo have constructed a fuel break on the western ridge above the Round Valley Indian Housing tract, and CAL FIRE crews continue to maintain it. CAL FIRE has also taught several Incident Command Classes to the Round Valley Indian Tribe (RVIT) crews to assist them to qualify for fire line duty.

The USFS, CAL FIRE, CFPD, and the Fire Safe Council have determined that the entire Covelo battalion is an at-risk WUI area, with several specific areas having greater hazards. To address the fire problem in the Covelo Battalion without looking at the LRA fire causes would not produce a true evaluation. More than 70 percent of the fires in the Battalion occur within one square mile on the Round Valley Indian Housing tract within the LRA. Arson is the leading cause of fire in the Battalion. The County Sheriff's Office and CAL FIRE work cooperatively to investigate and incarcerate arsonists. Local, state, and federal fire cooperators as well as the Sheriff's Office continue to educate in the schools and community in hopes of reducing arson and accidentally caused fires.

The "Fire Defense Plan" prepared for the RVIT by CAL FIRE in May 1992 is intended to be an integral part of land management planning on the Indian Tribe lands. It identifies several fuel breaks and VIP projects that can mitigate hazards and risks impacting the Battalion and the Covelo community. With the increasing likelihood of wildfires on the west side of the valley, it is imperative that a maintained fuel break exist on the ridge west of the Round Valley Indian Housing Tract. As was noted above, CAL FIRE constructed and continues to maintain a fuel break there, known as the Little Valley fuel break. This break is an extension of one completed by the RVIT crews and provides direct protection to the 100 homes below it. Continuing northwest from Little Valley, another fuel break, known by the name "Pink," was developed in the plan. This break will minimize the risk of uncontrolled fires becoming large and damaging on both the west side of Round Valley and the east side of Poonkinney Ridge.

CAL FIRE BATTALION 2: WILLITS

State Highway 101 bisects CAL FIRE's Mendocino Unit Battalion 2, with predominately redwood and Douglas-fir forest to the west and mixed pine forest, brush, and grassland to the east. Highway 20 goes west from Willits to Fort Bragg for approximately 13 miles within the Battalion. The eastern border of the Battalion is the Mendocino National Forest's Covelo and Upper Lake Districts.

One CAL FIRE station, Howard Forest, co-located with the Mendocino Unit Headquarters, provides the initial ground attack fire protection for Battalion 2. Howard Forest Helitack Base is located at this facility and is administered by the Battalion Chief assigned to Howard Forest. One forest fire lookout facility, Two Rock, closed in 1994 and has been returned to private ownership.

Unit Headquarters facilities include the Unit's Administrative Headquarters, Training Center, Resource Management and Fire Prevention Bureau offices, Logistics Service Center, Automotive Fleet Maintenance shops, breathing apparatus maintenance facility, CAL FIRE's Emergency Command Center, and Howard Park, which is open to the public.

The Brooktrails Township is an unincorporated community located immediately northwest of the City of Willits and its subdivisions are some of the densest wildland/urban interface developments in Mendocino County. The limited access, steep slopes, and roads and dwellings interspersed with undeveloped, overgrown parcels surrounded by a natural greenbelt environment, offer the potential for expensive and large losses to wildland fire. The unincorporated community is subject to Public Resources Code 4290 requirements for new development. This steep and wooded area was noted as being the first community in the United States to blend a four square mile redwood and mixed growth forest Conservation Park with a fully improved residential subdivision. The conservation park is now called the Brooktrails Redwood Park and is locally referred to as the "Greenbelt." The park covers 2,300 acres that border a large portion of the lots in the subdivision. The Brooktrails Township is comprised of multiple subdivisions. Three main areas, Brooktrails, Sylvandale, and Spring Creek, are the most heavily populated.

In the event of a large fire in or threatening the Brooktrails subdivisions, the residents and responding agencies could face many problems. Residents evacuating down steep and narrow roads could impede responding fire apparatus, causing road blockage and long response times for fire personnel. Evacuation concerns are compounded by the fact that the narrow, winding Sherwood Road is the only paved major access road and escape route from Brooktrails, Sylvandale, and Spring Creek.

The Little Lake Valley is basically grassy oak woodlands that transition into brush towards the east, then to timber at the higher elevations. There are many structures intermixed in the area and especially in the Pine Mountain Subdivision. It has similar features outlined in the Brooktrails scenario, steep winding roads that provide adequate access during normal conditions but would be hard pressed to accommodate residents evacuating and fire resources entering the area, especially the transport/dozer units responding.

The Battalion overlays Willits, the only incorporated city, several unincorporated communities of various sizes, two high schools, and five grade schools. Miles of overhead power lines, a continuing source of vegetation fire starts, accompany ongoing building in the wildland.

Area logging is decreasing due to the economy, environmental concerns and changes in ownership/management goals and strategies. Current harvest plans are mixed between small and large acreage. With fewer logging operations the cumulative fire hazard from logging slash buildup increases only slightly annually in comparison to the buildup created during past boom logging eras. Additionally, the threat of fire starts in the remote backcountry from logging operations is reduced. However, a dramatic increase clandestine marijuana production does increase the fire potential in the remote areas.

The saving grace for the area inland of the California north coastal strip is the seasonal onshore marine push which usually keeps overnight relative humidity high during normal patterns. Occasionally interior high pressure does develop in Mendocino County and over the Willits area and creates critical burning conditions. When interior high pressure conditions develop, producing hot, dry north/northeast offshore winds, there is abundant potential for severe fires in the Willits area. These critical weather patterns typically develop four to five times each fire season. Each pattern usually builds and dissipates within several days.

Fire is widely recognized as a natural part of the California environment. Ecologically, studies have demonstrated wildlife's dependence on, and rapid recovery from, vegetation fires without funds being expended for regeneration. Much of the Willits Battalion would benefit from prescribed burning. Prescribed fires are far less costly than an uncontrolled fire burning through a developed community that will be costly to rebuild. The efficient burning of wildland tracts would provide an effective reduction of fuel loading in high, very high, and extreme fire hazard severity zones.

MEU Battalion 2 has several active Fire Safe Councils; the Pine Mountain FSC, the Sylvandale FSC, and Brooktrails FSC have been active. There are several more beginning to operate. These councils operate under the umbrella of the Mendocino County Fire safe Council.

There have been several grant projects in the Battalion 2, the two major projects have been the Brooktrails Shaded Fuel Break and the Pine Mountain Brush Chipping Project. These operations were managed by the Mendocino Fire Safe Council and CAL FIRE.

CAL FIRE BATTALION 3: UKIAH

Battalion 3 is a very diverse portion of Mendocino County. It encompasses a wide variety of vegetative fuel types consisting primarily of oak woodlands, brush and mixed conifer stands. The Ukiah Valley, in Battalion 3, contains the densest population centers in Mendocino County, including the City of Ukiah and surrounding communities. A significant portion of the Battalion 3 population lives in the rural communities, considered in the urban-interface zone, outside of formal service districts.

Two state highways, Highway 101 traveling north and south and Highway 20 east and west, intersect in the center of the Battalion. The Battalion borders Sonoma County to the south and Lake County to the east. It extends west almost to the community of Comptche, and north past the community of Redwood Valley.

Fire protection for the SRA in Battalion 3 is provided by two Schedule B stations. Covering the southern half of the battalion is Hopland Station, located on Highway 101 approximately two miles north of Hopland. Ukiah Station located at the intersection of North State Street and Hensley Creek Road covers the northern half the battalion.

CAL FIRE provides cooperative emergency services through a variety of aid agreements to the majority of fire department or district in Battalion 3. Local and federal governments provide fire and medical services within Battalion 3: Ukiah City Fire Department, Ukiah Valley Fire District, Hopland Volunteer Fire Department, Potter Valley Volunteer Fire Department, Redwood Valley/Calpella Fire District, and the U.S.D.A. Forest Service.

Battalion 3 works cooperatively with other public service agencies, to include California Highway Patrol, Mendocino County Sheriff's Office, Ukiah Police Department, Ukiah Ambulance Service, Redwood Empire Hazardous Incident Team (REHIT), Tribal police agencies, CalTrans, Bureau of Land Management, and U.S. Army Corps of Engineers.

Several popular recreation and tourist locations within Battalion 3 attract visitors to the Ukiah valley. These include Lake Mendocino, Cow Mountain Recreation Area, Montgomery Woods State Park, the Russian River, Eel River, numerous wineries, and the Mendocino National Forest. CAL FIRE provides direct protection to the U.S. Army Corps of Engineers' Lake Mendocino Recreation Area and BLM's Cow Mountain and Red Mountain Recreation Areas.

Battalion 3 places very strong emphasis on fire prevention education and activities. The full scope of prevention activities in Battalion 3 includes; participation in school programs emphasizing home and fire safety, actively working with the Local Fire Safe Councils, public education and safety programs, and defensible space compliance inspections.

CAL FIRE BATTALION 4: LAYTONVILLE

CAL FIRE's Mendocino Unit Battalion 4 encompasses the northwest portion of Mendocino County. The Battalion has two major highway corridors: State Highway 1 runs through the northwest corner of the Battalion, where it intersects U.S. Highway 101; and Highway 101 runs the entire length of the Battalion, a distance of 42 miles.

CAL FIRE operates two fire stations within the Battalion, at Laytonville and Leggett. Year-round fire protection in the Battalion is provided by four volunteer departments: Long Valley (Laytonville), Leggett Valley, Piercy, and Whale Gulch. The Whale Gulch Fire Department is located within Mendocino County but is dispatched by the CAL FIRE Humboldt-Del Norte Unit because the road to its location is in Humboldt County.

The Battalion includes eight communities of various sizes. Several private camps are occupied primarily during the summer months. The State Parks System operates two campground facilities, one of which is classified as a wilderness park, plus three other day use areas. The Nature Conservancy has a large holding known as the Coast Range Preserve in the Branscomb area. There are several BLM holdings in the Battalion, most of which require modified suppression action plans.

The western portion of the battalion consists of some large timber company holdings that encompass approximately 75,000 acres. With the reduction of active logging and the decline of broadcast burning, the fuel loading has increased in the area due to the natural forest succession. Roads on the timber company lands have been abandoned and/or decommissioned which can lead to access difficulties. Although logging is decreasing, the fire threat relative to logging remains, due to the buildup of logging slash and the lack of access to the slash-covered areas due to road closures. In 2008 there were approximately 22 lightning caused fires in Battalion 4, the road closures on logging company properties created access issues for fire suppression resources.

Causes of the fires within Battalion 4 range from accidental equipment use to arson. Fires caused by debris burning are a significant problem in Battalion 4. An increased effort by Battalion personnel to inform the public of debris burning regulations will be used to reduce these fires. Fires caused by equipment use are also a problem. Battalion personnel conduct public education on this subject, but such fires will probably continue due to the large amount of outdoor equipment use in the Battalion. Fires caused by the railroad have ceased because the railroad is not operating due to winter storm damage several years ago. If the railroad is again put in service, a fire prevention and inspection program will need to be implemented. An additional concern in the battalion is the increased number of marijuana growing operations which are accounting for a large number of the fires in the battalion.

The future outlook for Battalion 4 is for increased tourist traffic and more rural subdivisions. As these subdivisions expand, they bring with them the increased population in the rural areas creating an increase in wildland, structure, vehicle and debris fires, requiring greater public awareness of fire hazards.

The larger WUI areas within the Battalion include Bear Pen subdivision, Cooks Valley, Pepperwood Springs subdivision, Ebert Lane, Camp Saint Michael, Bell Springs Road, Cherry Creek subdivision, Twin Pines Ranch, Black Oak Ranch, Spy Rock Road area, Wilderness Lodge, Ten Mile Creek, Fox Rock Road, and Mulligan Lane.

Currently each Local Fire Department and CAL FIRE station's personnel conduct separate and joint fire prevention education programs at local schools, road association meetings, and community events. During these education programs, strong emphasis will now be placed on the identified target areas. Funding is needed for local and state fire departments to provide up-to-date educational materials to the public.

In cooperation with the Mendocino Fire Safe Council, several WUI areas have identified the need for fire road access clearance and fuel reduction/shaded fuel breaks. In each of these locations, overgrown brush and young saplings cause a safety hazard for both fire crews trying to enter the area and residents trying to leave in a wildfire emergency. For each evacuation route listed here, projects need to be instituted to create shaded fuel breaks extending 50 feet on both sides of the roads, by removing understory brush and trimming up trees to remove ladder fuels.

- Spy Rock Road (including Registered Guest Road, Iron Peak Road, and Blue Rock Road) is inhabited by approximately 2,000 people living in various types of homes.
- Ten Mile Creek has approximately 200 residents.
- Bear Pen subdivision contains 18 homes.
- Ebert Lane is a narrow road accessing 11 homes; its vegetation includes not only brush and saplings but also timber.
- Pepperwood Springs subdivision has approximately 20 homes.
- Cherry Creek subdivision, which currently contains about 30 homes, is becoming a very popular area for new construction.
- Mulligan Lane contains areas of brush that need to be removed.
- Bell Springs Road, a major artery, has many heavily overgrown areas.

The lack of home addresses and road signage is a huge problem throughout Battalion 4. This is due in part to the vast amount of marijuana cultivation by persons who wish their addresses to be unknown. During public education programs, the benefits of proper addressing and road signage for both fire and medical emergencies will be strongly emphasized. Battalion personnel conducted an extensive PRC 4291 inspection campaign to try to gain compliance and acceptance to fire safe planning.

Two sets of fire prevention signs remind the general public of their fire prevention obligation and burning regulations. Each time a burn permit is issued, a fire prevention message is presented. Battalion personnel will continue Public Resources Code section 4291 and 4492 inspections of structures and power lines in each community.

CAL FIRE BATTALION 5: BOONVILLE

Battalion 5 is the 10th largest Battalion statewide, according to 1964 Fire Plan data. Two major highways within the Battalion bring tourist traffic from the Bay Area to the north coast: State Highway 128 forms the northern boundary of the Battalion, and State Highway 1 defines the western boundary. Vegetation within the Battalion varies from dense redwood/Douglas-fir forests to grassy oak woodlands. The Battalion includes one city, Point Arena, and nine communities of various sizes: Gualala, Anchor Bay, Irish Beach, Manchester, Elk, Yorkville, Boonville, Philo, and Navarro.

Battalion 5 fire protection for the Battalion is provided by two Stations: Boonville and Point Arena. Additionally, four local government departments -- South Coast Fire Protection District, Redwood Coast Fire Department, Anderson Valley Fire Department, and Elk Volunteer Fire Department -- provide structure protection for their communities, as well as mutual aid to CAL FIRE for wildland fire protection. Redwood Coast Fire Department provides protection for the City of Point Arena and the communities of Manchester and Irish Beach.

The Battalion has one lookout, Cold Springs, which was closed in 1994 but has been intermittently reopened during periods of high fire danger and lightning storms. Cold Springs Lookout is listed in the National Historic Lookout Registry and has been identified in CAL FIRE's Management Plan for Historic Preservation.

The outlook is for increased tourist traffic and rural housing in single increments and small subdivisions. As the minor subdivisions expand, an increasing fire problem will exist in both the prevention and suppression of fires. Logging, which formerly provided the area's major economic resource, has been decreasing. However, future fire control problems remain a concern, as areas that are logged have an increase in logging slash and possibly a lack of access due to road closures. Areas where logging is not occurring may have a higher density of live and/or dead vegetation as well as an increase in poor or limited access. The Battalion's overall fire hazard potential will likely increase due to increases in tourism, traffic, off-road recreation, camping, and rural subdivision development in the Wildland Urban Interface. Vineyard conversions are still occurring, primarily within the oak woodlands. These conversions create greenbelts (fire fuelbreaks) on the valley floor, along the lower slopes surrounding the valley, and now reaching the upper ridges.

Battalion 5 fire prevention activities include:

- Display and information booth at the Mendocino County Fair and Apple Show
- Firefighters as Role Models (FARM), utilizing trained canine with 4th grade class.
- Participate in the Mendocino County Fair parade
- Participate in school programs with Smokey Bear emphasizing fire and home safety
- Fire Prevention and Safety at the Boy Scouts of America camp in Navarro
- LE-100 inspections of residences and inspections of power lines
- Roadside Fire Prevention signs
- Burn permits issued in person with awareness and safety training given to permittees
- Joint educational outreach efforts with Fire Safe Council

CAL FIRE BATTALION 6: FORT BRAGG

Battalion 6 has two major highways which bring tourist traffic to the north coast. State Highway 1 spans the entire west section of the battalion along the coast and intersects with State Highway 20, then continues north and intersects with US Highway 101 at Leggett. Highway 20 connects Highway 1 to Highway 101 and links the cities of Fort Bragg and Willits.

Geographically, the battalion boundaries are as follows: starting at the northwest corner from the Pacific Ocean near the town of Rockport, it runs south along the coast to the Navarro River at Highway 1 and Highway 128. It then runs east along the river and Highway 128 about 10 miles to Flynn Creek Road, then northeast to State Highway 20, then north to Sherwood Peak. It follows Sherwood Ridge about six miles continuing northwest, following mostly along ridge lines to the Pacific Ocean. It finally intersects at a point just south of the town of Rockport, a distance of about 25 miles, forming the northeastern boundary.

Battalion 6 includes two CAL FIRE Stations: the Fort Bragg Station (Jackson Demonstration State Forest (JDSF) and Battalion Headquarters) and the Woodlands Station east of the town of Mendocino. Mendocino Coast Hospital provides ground ambulance service, and CALSTAR (Ukiah) and REACH (Lakeport and Santa Rosa) provide helicopter emergency medical services (EMS). The U.S. Coast Guard provides EMS and water rescue from Noyo Harbor in Fort Bragg and can provide additional helicopter support to local agencies apparatus from Eureka.

Included in the battalion is JDSF, purchased in 1947 from the Caspar Lumber Company and the largest State Forest. JDSF is a public use area excluding motorized vehicles and includes campsites and day use areas. The forest is a popular area for hiking, biking, hunting, horseback riding, swimming, and picnicking, and is visited by over 40,000 people annually.

The California State Parks and Recreation Department's Mendocino District is headquartered within the battalion at Russian Gulch State Park. Seven campground facilities and numerous state beaches and recreation areas are in the battalion. This includes the Mendocino Woodlands Campground which is contracted to private management with occupancies of up to 500 per day.

The future outlook for the Battalion is for increased tourist traffic and more residents in additional rural homes and subdivisions. Logging continues to decline with more timber harvest plans on smaller acres. Projected fire hazards and at-risk assets will continue to grow due to the changing demographics of the area. As rural development continues and subdivisions expand, an increasing fire problem will exist in both preventing and suppressing fires. The points below identify some issues that will increase the complexity of the future fire environment.

Response times outside developed communities can be quite extended, and resources are limited. The topography of the battalion, in conjunction with the winding, slow, and limited road system, is a contributing factor to response times.

Developed water resources are sparse with limited availability and accessibility in outlying areas. The increased population in rural areas will have an impact on, and strain the already limited resources in the area. This will potentially result in increased fire starts as well as medical aid and rescue response requests.

Increased public land use including off-road recreation and camping will result in additional potential for fire as well as medical aids. Property addressing and access continue to be marginal

and inconsistent throughout Mendocino County, resulting in increased dispatch and response times. Population growth will increase equipment use and debris burns, increasing the potential for fire starts and control burn escapes. Lack of awareness and education regarding fire safe planning by persons moving from city to rural environments regarding fire safe planning manifests itself through poor preparation and ultimately increased risks.

Battalion personnel continue to participate and interact with the local schools to promote fire prevention and education program. This focuses on youth education and prevention as well as providing a conduit to parents for prevention information and fire safe planning. The program has been successful to date and has been well received by the community.

Battalion personnel regularly participate in community events including parades, fairs, and barbeques utilizing Smokey Bear, fire apparatus, and booths to distribute prevention and education materials including fire safe pamphlets. The events also provide opportunities for personal public "one on one" contact for adults and youth alike relating to prevention, education, career, and general CAL FIRE information.

Fire Safe inspections continue in the various communities with LE–100 inspections of residences and power lines. The annual issuance of Burn Permits including LE-63 (campfire), LE-5 (dooryard), and LE-7 (project burn) are used as opportunities to increase public awareness and conduct training in the proper and safe use of fire.

The battalion continues to participate in public outreach meetings sponsored by the Fire Safe Council, to assist in education, and to identify public concerns regarding prevention or future community projects. CAL FIRE Battalion 6 is committed to working cooperatively with the Mendocino County Fire Safe Council, communities, and local government fire jurisdictions to assist in addressing specific concerns, by technical assistance or facilitation through administrative services.

The battalion co-sponsors, with timber stakeholders, the annual timber "industry meeting" to update and exchange contact information, identify available resources, and identify logging operations or major projects occurring within timber holdings.

CAL FIRE TRAINING BATTALION

Mission Statements

The Mendocino Unit Training Battalion responsibility is to provide on-going training, education and certification to fire service personnel. All training is focused on providing and maintaining the highest quality emergency service at both fire and medical responses to the citizens of California. Instructional programs target operational efficiency with emphasis on safe operating procedures for our personnel in all aspects of fire and emergency operations.

The first priority of the Mendocino Training Staff is to provide for the overall safety of Unit permanent personnel and seasonal employees through instructional programs that target operational efficiency with emphasis on safe operating procedures in all aspects of fire and emergency operations. The Training Battalion's responsibility is to also facilitate and to ensure coordination for the unit-wide training plan, match training courses with approved personnel training requests, maintain a central location for updated training records for all employees.

The Battalion staff comprises of one Battalion Chief and two field Captains that work in training in during non-peak staffing. The staff continually strives to provide creative, cost effective, innovative training, and always providing the highest commitment to safety. The state-funded training operations, which are divided into 16 separate program areas, are a seven-day a week operation, and listed below are:

- Administrative and Office staff
- Battalion Chiefs
- Company Officers
- Firefighters
- Training
- Emergency Command Center
- Howard Forest Helitack
- Fire Prevention
- Automotive Fleet Maintenance
- Pre-fire Engineering
- Joint Apprenticeship Program
- Vegetation Management
- Emergency Medical Services
- Hazardous Materials Responses
- Fire Safe Counsels
- Joint-Agency Operations

FIRE PREVENTION BUREAU

In addition to the Pre-Fire Management Strategies listed in Section IV, MEU's Fire Prevention Bureau staffs active law enforcement personnel to enforce state fire and forest laws.

CAL FIRE Law Enforcement officers are trained and certified in accordance with the California Commission on Peace Officer Standards and Training (POST). MEU's 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 extinguisher investigations, as well as disposal of explosives. The Mendocino Unit's investigators have a very successful conviction rate.

HOWARD FOREST EMERGENCY COMMAND CENTER

Fire and Emergency Medical Services (EMS) dispatch services are provided to those Local Fire Service Agencies and Ambulance providers of Mendocino County who are signatory to the Operational Memorandum of Understanding (MOU) of November 1994. Coastal Valley Emergency Medical Services has designated the ECC as Mendocino County's air ambulance coordination center. The CAL FIRE Howard Forest ECC is the secondary Public Safety Answering Point (PSAP) for Mendocino County. The CAL FIRE Expanded Dispatch is the OES Fire Rescue Coordination Center for Mendocino County.

CAL FIRE provides Emergency Medical Dispatching (EMD) for medical dispatching. EMD provides for a caller to respond to a standardized questioning format to help determine the type of resources required to appropriately assist the caller. EMD also directs the dispatcher to provide pre-arrival instructions to assist the patient once the emergency response has been dispatched.

Generally, all emergency calls will be dispatched within sixty (60) seconds of the call. This time frame is a general target; it is recognized that verification of location information and directions to the location of the emergency, as well as completion of the EMD process will sometimes require more than the 60-second time frame. Priority is placed on clear and reliable dispatch information for responding resources.

All emergency, non-emergency and administrative calls for service are logged into the Altaris Computer Aided Dispatch program (CAD). All key entries are automatically time stamped by the CAD program for accuracy. All entries that require a field response of any type are logged as incidents and administrative functions (such as Fire Department announcements) are logged in as events and do not generate an incident number.

All CAD data is available on a web based program that is accessible by a password protected program available to any agency or cooperator who does business with the dispatch center. The program used to retrieve this data is Crystal reports, an industry standard program for data retrieval. All users of this service will be restricted to access records that originate in the Mendocino Unit. This program has pre-built reports that the user can access. Any new reports must be requested through the Dispatch Center Manager with specifics of the information requested.

Staffing

CAL FIRE provides a wide awake dispatch center 24 hours per day, seven days a week. Staffing levels for the Dispatch Center are a minimum of 1 fully qualified Fire Captain and 1 fully qualified Communications Operator. During Fire Season, when the CAL FIRE fixed wing aircraft are on Contract (normally, 6/15 through 10/15), the Dispatch Center is staffed with a minimum of 1 qualified Fire Captain and 2 qualified Communications Operator during the day. The ECC Manager is a CAL FIRE Battalion Chief. This person is responsible for all ECC operations and personnel and coordination with Mendocino County Dispatch contract. He/She is the primary contact for the Coastal Valley EMS coordinator for any changes in EMS dispatch policy or procedures.

Facilities

The CAL FIRE MEU ECC infrastructure consists of two buildings that house the Dispatch Center and Expanded Dispatch along with all of the radio and telephone equipment. These two buildings together allow handling all of the normal daily activities and, if necessary, open an expanded dispatch to handle larger incidents. A 100 KW generator is also on site to automatically provide emergency power if necessary.

The Dispatch Center is capable providing all dispatching services on multiple frequencies. Fire and EMS are being dispatched at the same time using the Mendocino County Dispatching frequencies. CAL FIRE has Altaris Computer Aided Dispatch program (CAD) in a laptop and CAL FIRE can use another location's phone service along with a Mobile radio for a short duration. If this is not possible CAL FIRE has the ability to use a mobile location with Cell phone service. CAL FIRE has access to a Mobile Communications Center for a backup Emergency Command Center, if needed for a long duration event, which is usually available within four hours.

Local Agencies Dispatched Pursuant to this Contract

- Albion Fire
- Brooktrails Fire
- Covelo Fire and Ambulance
- Fort Bragg Fire
- Laytonville Fire and Ambulance
- Little Lake Fire Protection District
- Piercy Fire
- Redwood Coast Fire
- Ridgewood Ranch Fire
- Ukiah Valley Fire
- Anderson Valley Fire
- Comptche Fire
- Elk Fire and Ambulance
- Hopland Fire
- Leggett Valley Fire
- Mendocino Fire
- Potter Valley Fire
- Redwood Valley Fire
- South Coast Fire
- Westport Fire

Additionally, the following agencies are dispatched by Howard Forest:

- Anderson Valley Ambulance
- Fort Bragg Ambulance
- Ukiah Ambulance
- Redwood Empire Hazardous Materials Response Team (REHIT).

JACKSON DEMONSTRATION STATE FOREST

Jackson Demonstration State Forest (JDSF) is an approximately 48,652 acre redwood/Douglas-fir forest which straddles Highway 20 between Fort Bragg and Willits. The City of Fort Bragg, where the JDSF headquarters facility is located, is 2 miles north of the western property boundary. The town of Mendocino is located 2 miles west of the southwest corner of JDSF. The town of Willits and the community of Brooktrails are located approximately 7 miles to the east. The western edge of JDSF is an urban interface.

JDSF is managed by the CAL FIRE for the purpose of demonstrating sustainable forest management, as directed by statute and Board of Forestry policy, which includes production of forest products and protection of values related to recreation, watershed, wildlife, range and forage, fisheries, and aesthetic values. JDSF is open to the public for recreation including but not limited to: camping, hunting, bicycling, hiking, and horseback riding.

Conservation camp crews are routinely working on JDSF projects. In addition to the fire station and conservation crew camps, there are three residences, a historic school house, and a barracks/learning center located along Highway 20 on JDSF.

JDSF has a Mediterranean climate, characterized by a pattern of low-intensity rainfall in the winter and cool, dry summers. Fog is a dominant climatic feature, generally occurring frequently during the summer months, and less frequently during the rest of the year. Air temperature is strongly influenced by the extent of the coastal fog belt, which extends inland up to 20 miles or more during summer nights, generally burning off back towards the coast by afternoon.

In general, the landscape is characterized by moderate to high relief. Slopes are less steep in the western watersheds within the Forest, and are steeper to the east in the watersheds nearer the crest of the Mendocino Coast Range. Elevations range from less than 100 feet within stream valleys along the western edge of JDSF, to a maximum of 2,092 feet in the southeast corner.

The dominant vegetation is redwood/Douglas-fir, which covers over half of the Forest. Other vegetation types are hardwood, pygmy forest, closed-cone (Bishop) pine/cypress, and alder. Grassland/bare ground and brush vegetation types together make up less than 1 percent of JDSF.

JDSF experiences periodic lightning caused fires. The primary risk of fire starts comes from the urban interface on the west and human caused fires resulting from public use of the Forest including Highway 20 traffic. Other potential ignition sources include logging and a 60KV PG&E transmission line roughly paralleling Highway 20 from Willits to Fort Bragg.

The conservation camp crews conduct road brushing on JDSF roads to maintain administrative, public, and emergency access throughout the forest. The projects include vegetation removal to reduce fuel loading adjacent to high use and strategically located roads and around the structures mentioned above.

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. When 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 to comply with CEQA by preparing a thorough environmental review. This review is conducted by a Resource Management representative in the Forester classification assigned as the Unit Environmental Coordinator.

Review conducted by the Environmental Coordinator ensures that the statutory responsibilities of MEU are addressed in the project planning phase. Examples of CAL FIRE projects in MEU include building & structure construction, repairs, replacement, acquisition, maintenance & fire hazard clearance, fuel reduction projects such as shaded fuel breaks, prescribed burns & timber felling for the purpose of firefighter training.

The unit level review may include but is not necessarily limited to:

- Prepare a project description for project size/extent, magnitude, treatment type, equipment use, & impact potential.
- Review the environmental setting and identify sensitive areas such as wetlands, watercourses, riparian zones, old growth wildlife trees, public use & aesthetics.
- Conduct database searches of the California Natural Diversity Database (CNDDB), Archaeological Information Centers, unit & statewide fire plans, applicable Timber Harvest Plans (THPs) and VMPs.
- Contact & review project with CAL FIRE specialists who may include an archaeologist, hydrologist, geologist, soil specialist, and/or forest pathologist as necessary.
- Inspect project site (to include appropriate surveys).
- Discuss project proposals with landowners, neighbors, Native Americans, & private/agency professionals familiar with the site, resource or treatment.

Once the review is completed, the necessary documents are filed with Sacramento Environmental Protection staff. The minimum unit review includes a CNDDB run, archaeological review with a CAL FIRE archaeologist, and on-site evaluation of landscape-level impacts. For projects that fall into a CEQA exempt category, a Notice of Exemption (NOE) and Environmental Review Report Form (ERRF) are submitted for review, approval and filing at the State Clearing house for a 35-day notice period.

For projects that do not fall into a CEQA exempt category, a Negative Declaration or Mitigated Negative Declaration and Notice of Completion are submitted if there are no significant impacts or if potential impacts are mitigated to a level of less than significant. An initial study/environmental checklist is added to the review process. These projects are submitted for review & filing at the State Clearinghouse for a 30-day comment period. Following the end of the comment period, public comment is reviewed and appropriate additional mitigation measures may be incorporated into the project. A Notice of Determination is filed with the State Clearinghouse along with appropriate fees.

Public Resources Code 4290 & 4291

Forest Practice 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.

Fire Suppression Repair (FSR)

CAL FIRE has authority to conduct fire suppression repairs during emergency incidents on State Responsibility Areas (SRA) under the Public Resources Code (PRC) Sections 4675 & 4676. Repair work may be necessary in locations where fire suppression damage has occurred. Fire suppression damage includes impacts to resources and property caused by fire fighting efforts, including but not limited to potential erosion from dozer & hand-constructed lines, road opening and watercourse crossings. The primary objective of fire suppression repair is to mitigate fire suppression-caused damage to as close to pre-fire conditions as is reasonably possible. This is done by minimizing sediment delivery to watercourses, mitigating slope conditions to pre-fire drainage patterns, removing fire suppression-related debris, restoring berms, barriers, repairing gates & fence lines removed for fire control access, & implementing appropriate mitigation measures (in consultation with a CAL FIRE archaeologist) to protect cultural and/or historic resource sites.

MEU personnel, including Forestry Assistant & Forester classifications, serve as Fire Suppression Repair Technical Specialists (RESP) assigned to wildfire incidents. They assess FSR needs through field identification, mapping & site description, developing a task list that includes equipment needs & equipment time commitments keyed to a map. FSR needs are reported to the Plans Section for inclusion in the Incident Action Plan. For complex repairs, the RESP will request assistance from cooperators, including property owners & timberland company representatives. For additional input, they may also consult with environmental specialists, such as the California Geological Survey (CGS) engineering geologists.

Emergency Watershed Protection (EWP)

EWP is a cost-share system for the rehabilitation of burned-over land performed in cooperation with the Natural Resources Conservation Service (NRCS). It differs from FSR in that mitigation is designed/applied to treatment of significant wildfire impacts such as areas burned with high intensity fire causing destruction of most organic ground cover or those areas along watercourses and major canyons where flooding can be anticipated. For implementation of a EWP plan, personnel may be tasked to develop an interdisciplinary team with expertise in soil stability, erosion & wildlife to analyze the burned area. The team's analysis will include fire location, acreage burned, topography, vegetative cover, watercourse description(s), erosion hazard and/or the, presence of rare, threatened or endangered species. Mitigation measures prepared will specify appropriate treatment areas & methodology. A copy of the report & findings will be supplied to Region & Sacramento Headquarters.

California Geological Survey Participation in Post-Fire Assessment

At the request and with the funding from emergency response agencies (CAL FIRE and CALEMA), the California Geological Survey (CGS) can perform site-specific post-fire assessment of geologic conditions and slope stability that may affect public safety and high-value features (for example homes, roads, public buildings, transmission lines). CGS can also provide support as directed to post-fire watershed rehabilitation where geologic expertise is needed.

Wildfires adversely impact slope stability by removing the mechanical support of hillslope materials provided by vegetation and increase the potential for runoff by removing vegetation that would otherwise intercept rainfall. Structures down slope of burned watersheds may be in positions affected by significant in-channel floods, hyperconcentrated floods, debris torrents, and debris flows initiated by rain events following wildfires.

The California Geological Survey inspections can be used to assist in identifying high-value sites within and down slope from burn areas that may be at risk from post-fire debris flows and other geologic hazards. Sites determined to have a potential risk to lives or property are ranked as high, moderate, or low, and possible mitigation measures are identified where appropriate. The resultant information is tabulated, keyed to a base map, and provided to Federal, State, and local emergency response agencies to be used to develop post-fire emergency response plans.

CAL FIRE Archaeology

Archaeological sites in Mendocino County include prehistoric Indian village sites, petroglyphs, midden deposits, human burial grounds, hunting blinds, and bedrock milling sites. Historic sites include buildings and structures of historical significance as well as wagon roads, trails and cemeteries. CAL FIRE archaeologists are assigned to fires primarily when Incident Command Teams are assigned, but also on smaller fires on, or adjacent to, tribal lands, on fires where archaeological sites may be impacted, or when the Unit requires archaeological expertise in dealing with cultural resource issues. They identify and mitigate the protection of fragile, non-renewable archaeological, historical, and other types of cultural resources whenever feasible.

Having an archaeologist assigned to a fire enables CAL FIRE to get site information disseminated to those in the Plans Section and out on the lines in order to protect sites. This may include providing detailed site information to fire protection personnel or flagging areas on the ground for equipment exclusion. In this manner, site protection measures may be incorporated into the incident action plan without hindering or delaying emergency response operations.

MENDOCINO UNIT CAMP PROGRAM

Both Chamberlain Creek and Parlin Fork Conservation Camps are located along Highway 20 between Fort Bragg and Willits in Mendocino County. The Camps are operated by the CAL FIRE and the California Department of Corrections and Rehabilitation. Each camp maintains six (6) fire crews that are capable of responding to a variety of “all-risk” emergencies; ranging from wildland fires, floods, rescues and other natural and man-caused disasters. In addition to responding to emergencies, the fire crews work on grade projects which include many fuel reduction projects for Fire Safe Councils, municipalities, schools, county government, state government agencies and federal government agencies. Acres treated vary by project and stakeholder needs and desires. As recognized by the fire plan, inmate labor for fuel reduction projects provides good training for fire-fighting crews and defensible space around valuable assets and infrastructure at a reasonable cost to the taxpayer.

APPENDIX A: PRE- FIRE PROJECTS

Batt Planning area	Project Number	Project Name	Status	Estimated Completion Year	Project Type	Net Acres
1		Blue Slide	O		Burn	
1		Lunardi	P		Burn	
1		Poonkinney Road	P		Shaded	
1	RX North-086 MEU	Carley	P		Burn	
1		Chicken/Pigeon Ridge	P		Shaded	
1		Hams Pass	P		Shaded	
1		Bauer Subdivision	P		Shaded	
2		Brooktrails	A		Shaded	
2	RX North-087 MEU	Baxter Ranch	P		Burn	
2		Shafer Ranch	P		Shaded	
		Pine Mountain	P		Multiple	
3	RX North-080 MEU	Pieta	M		Burn	
3	RX North-083 MEU	Pine Mountain	P		Burn	
3	RX North-081 MEU	Mill Creek	A		Burn	
3		Westside VMP	P		Shaded	
3		Sulphur Creek	P		Shaded	
3		Burke Hill	P		Shaded	
3		Black Bart	P		Shaded	
3		Robinson Creek	P		Shaded	
3		North Cow	P		Burn	
3		Black Bart	P		Shaded	
3		Robinson Creek	P		Shaded	
4	RX North-082 MEU	Sinkyone	P		Burn	
4		Cahto	P		Shaded	
4	RX North-082 MEU	Shamrock	A		Burn	
4		Usal Redwood Forest	P		Shaded	
4		White Rock	A		Burn	
4		Bell Spring Community	P		Shaded	
4		Laytonville and Leggett	P		Shaded	
5		Lambert Ridge	P		Shaded	
5	RX North-083 MEU	Venturi	P		Burn	
5		Folded Hills	P		Burn	
5		Navarro Watershed	P		Shaded	
6		Gorse	O		Removal	
6		State Parks Hazard Trees	O		Removal	
6		SOD	O		Removal	
6		Albion Fire District	P		Multiple	

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

APPENDIX B: UNIT GOALS AND OBJECTIVES

The overall goal of the Mendocino Fire Plan is to reduce total costs and losses from wildland fires within the Unit by protecting assets at risk through focused pre-fire management prescriptions and increased initial attack success. To make the Unit fire plan a success, several key objectives to achieve should be strived for during implementation of the plan, including;

- Collection and analysis of data from a variety of resources to evaluate potential projects and determine the levels of benefits provided to the communities and environment within the Unit.
- Development of strong local relationships with stakeholders to develop and maintain a more natural fire resilient landscape. These relationships will be key in establishing community buy-in to the responsibilities of living in the wildlands.
- Public Education on why fire prevention techniques and requirement measures are so important in developing safer homes and communities.
- Fiscal policy strength to focus and monitor the wildland fire protection system in fiscal terms. This will include all public and private expenditures and economic losses.

Before and during implementation of any pre-fire management activity, stakeholders' input is sought in order to:

- Acquaint stakeholders with the process
- Bring their expertise and knowledge to bear on assets-at-risk
- Review the levels of service in these locations
- Identify areas where the stakeholders consider levels of risk unacceptable
- Indentify other beneficial results of various fuel management activities

APPENDIX C: FUEL TREATMENT DESCRIPTIONS

Mendocino Unit is divided into 6 battalions. Each battalion is administered by a Battalion Chief. Each Battalion Chief was asked to identify assets that would be at risk during a large scale Incident due to the following factors:

- Fuel loading
- Topography
- Weather
- Structural Ignitability
- Emergency Response
- Access
- Signage
- Water Supply

The identified assets were then grouped geographically into target areas. These target areas were then prioritized. The final product is a detailed map and list of areas that will be used to focus fire prevention activities and fuel treatments.

Fuel Treatment Methods

Through experience CAL FIRE has determined that three treatment methods stand out as being the most effective, environmentally friendly.

Chipping - Areas in each Battalion are identified that have high vulnerability to catastrophic wildland fire loss. Home owners are united and educated through the establishment of a Fire Safe Councils and MEU's active Fire Prevention Program. Home owners are required to clear flammable brush and ladder fuels to meet the PRC 4291 requirement.

Prescribed Burning - Areas in each Battalion are identified that would have the most benefit of using controlled fires to create anchor points and a natural barrier of a larger event. Prescribed burning can also provided many benefits to the local wildlife and environment.

Shaded and Non-Shaded Fuel Break - We are using natural barriers and topography to determine areas in the County that can serve as a primary or secondary fire control line. These line use roads, rivers and topography to compartmentalize the target areas of each Battalion. MEU primarily uses mechanical operations to accomplish these fuel breaks.

BATTALION 1 TARGET AREAS (IN NO PARTICULAR ORDER)

1) Blue Slide	2) Lonardi
3) Poonkinney	4) Carley
5) Chicken/Pigeon Ridge	6) Hams Pass
7) Bauer Subdivision	

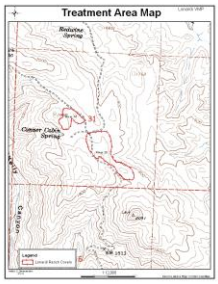
BLUE SLIDE

CAL FIRE with the cooperation of a local landowner is in the planning stages to utilize this place of land for training in heavy equipment use. The training will take place near the where Mina Road and Hulls Valley Road split. The intent is to provide training to the operators of heavy equipment while also installing control lines for future potential control burns. The purpose of the controls burns would be to re-introduce fire into the natural environment.

POONKINNEY

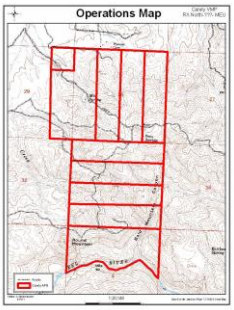
In the planning stages of a VMP burn in the Poonkinny ridge area. In cooperation with the land owner. The primary goal of this prescribed burn is to reintroduce fire as a natural element of the ecosystem. A second goal is to improve wildlife habitat by inducing new shoots from sprouting species to increase forage production, with islands of unburned fuel left within burn units to provide shelter for small mammals. A third goal is to reduce overall fuel loading to decrease the chance of catastrophic wildfires in the future.

LUNARDI



Located in the near Kelly Canyon Creek outside of Covelo is a potential training burn to provide CAL FIRE staff valuable fire line training with live fire. The training would also double as grassland burn to remove older dead grasses and allow for new vigorous growth.

CARLEY



The prescribed burning conducted under this VMP project will be done to meet a specific objective and conducted under specific climatic conditions to ensure control and minimize air quality and biological impacts. These conditions will mimic air, soil, and vegetation moisture, and other conditions under which natural wildfires occur so as to maximize the positive effects of fire on vegetation. The primary goal of this prescribed burn is to reintroduce fire as a natural element of the ecosystem. A second goal is to improve wildlife habitat by inducing new shoots from sprouting species to increase forage production, with islands of unburned fuel left within burn units to provide shelter for small mammals. A third goal is to reduce overall fuel loading to decrease the chance of catastrophic wildfires in the future.

CHICKEN RIDGE AND PIGEON RIDGE

CAL FIRE with the cooperation of local landowners is in the planning stages of a fire hazard reduction project in the Chicken/Pigeon Ridge area, which is accessed off Hill Road in Covelo. Mill Creek is at the bottom of a steep canyon with Chicken Ridge and Pigeon Ridge roads are on either side. Both have only one way in and one way out with locked gates at the bottom. In the past 10 years both roads have seen an increase in residences and year round occupation. This will be accomplished by creating a shaded fuel break and fuel reduction areas. The fuel break will include vegetation thinning, understory reduction and removal of the ladder fuels. The area consists of steep terrain covered in a mix of grasslands, conifer and mature brush.

HAMS PASS

CAL FIRE with the cooperation of local landowners and Forest Service is in the preparation stages of a project in the SRA and FRA. This is a fire hazard reduction project along the Highway 162 spanning from Forest Service route 24N2 to the Eel River bridge. This will be accomplished by creating a shaded fuel break. The shaded fuel break will include vegetation thinning, understory reduction and removal of the ladder fuels. The area consists of steep terrain covered in a mix of grasslands, conifer and mature brush.

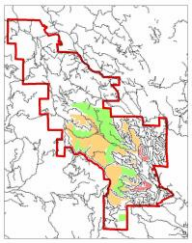
BAUER SUBDIVISION

CAL FIRE, in cooperation with the local landowners, is in the planning stages of a fire hazard reduction project in the Bauer Subdivision, which is accessed off Forest Highway 7. This area is has one way in and one way out. The fire hazard reduction will be accomplished by creating a shaded fuel break and fuel reduction areas. The fuel break will include vegetation thinning, understory reduction and removal of the ladder fuels. The area consists of steep terrain covered in a mix of grasslands, conifer and mature brush.

BATTALION 2 TARGET AREAS (IN NO PARTICULAR ORDER)

1) Brooktrails	2) Baxter Ranch
3) Shafer Rach	4) Pine Mountain

BROOKTRAILS



The Brooktrails Township Community Services District is a general law, multi-purpose community services special district formed in 1975. Brooktrails maintains a unique Golf Course filled with exquisite tall redwood trees, a 2,300-acre Greenbelt with an extensive hiking trail system, the Par Course, and the Ohl Grove Redwood Park. The District is currently thinning various projects to reduce fire risks and increase forest succession.

BAXTER RANCH

Located near Dos Rios, near the Eel River, the proposed VMP will be done to meet a specific objective and conducted under specific climatic conditions to ensure control and minimize air quality and biological impacts. These conditions will mimic air, soil, and vegetation moisture, and other conditions under which natural wildfires occur so as to maximize the positive effects of fire on vegetation. The primary goal of this prescribed burn is to reintroduce fire as a natural element of the ecosystem. A second goal is to improve wildlife habitat by inducing new shoots from sprouting species to increase forage production, with islands of unburned fuel left within burn units to provide shelter for small mammals. A third goal is to reduce overall fuel loading to decrease the chance of catastrophic wildfires in the future.

SHAFER RANCH

The Mendocino County Fire Safe Council is in the planning stages of a fire reduction project in the area of Shaffer Ranch Road. This will be accomplished by creating shaded fuel breaks and fuel reduction areas.

PINE MOUNTAIN

The Mendocino County Fire Safe Council is in the planning stages of a fire reduction projects in the area of Pine Mountain, which is located on the eastside of the Willits Valley. This will be accomplished by creating shaded fuel breaks and fuel reduction areas.

BATTALION 3 TARGET AREAS (IN NO PARTICULAR ORDER)

1) Pieta	2) Mill Creek
3) Pine Mountain	4) West Side VMP
5) Sulphur Creek	6) Burke Hill
7) North Cow	8) Black Bart
9) Robinson Creek	

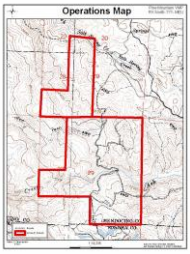
PIETA

The prescribed burning conducted under this VMP project has been done to meet specific objectives and conducted under specific climatic conditions to ensure control and minimize air quality and biological impacts. The burning in this project has been completed. This VMP project is in the maintenance phase.

MILL CREEK

The primary objectives of this VMP burn will be to reduce fuel loading and improve wildlife habitat on chamise and mixed-chaparral slopes. A helitorch and hand drip-torches will be used to create fuel breaks along ridge tops as well as mosaic burns on south and west-facing slopes. Several units of this VMP have been successfully burned

PINE MOUNTAIN



The prescribed burning conducted under this VMP project will be done to meet a specific objective and conducted under specific climatic conditions to ensure control and minimize air quality and biological impacts. These conditions will mimic air, soil, and vegetation moisture, and other conditions under which natural wildfires occur so as to maximize the positive effects of fire on vegetation. The primary goal of this prescribed burn is to reintroduce fire as a natural element of the ecosystem. A second goal is to improve wildlife habitat by inducing new shoots from sprouting species to increase forage production, with islands of unburned fuel left within burn units to provide shelter for small mammals. The Mendocino Fire Safe Council will also be working to develop a Community Wildfire Protection Plan. Fuel mitigation via shaded fuel breaks and fuel reduction will also be performed. A third goal is to reduce overall fuel loading to decrease the chance of catastrophic wildfires in the future.

WEST SIDE VMP

This is a cooperative project with the private land holders, local government and fire agencies. This project will consist of fuel hazard reduction along the west boundary of the City of Ukiah in the form of shaded fuel break from Low Gap Road to Highway 253. This will be done by creating a shaded fuel break that will include vegetation thinning, understory reduction and removal of the ladder fuels. The area consists of steep terrain covered in a mix of conifer and mature brush. This project would reduce the threat of fire spread to structures in the interface and create defensible space. Additionally, this project will include improvement to existing fire breaks and improve access to fire control resources. This VMP will include fuel modification and possibly prescribed fire.

SULPHUR CREEK

This fire hazard reduction project is hazard fuel reduction along Sulphur Creek in the community of Vichy Springs east of Ukiah. It will remove the dead and dying debris adjacent to structures. This project is in cooperation with the local home owners association.

BURKE HILL

This is a fire hazard reduction project along the Highway 101 from Nelson Ranch Road to Burke Hill Road. The fire hazard reduction be accomplished by creating a shaded fuel break. The shaded fuel break will include vegetation thinning, understory reduction and removal of the ladder fuels. The area consists of steep terrain covered in a mix of grasslands, conifer and mature brush.

NORTH COW

The VMP will use prescribed fire on private and public lands east of the Ukiah valley. The goals of the project are hazard reduction and range improvement. Treatment would reduce the rapid expansion of an uncontrolled fire burning east towards the urban interface areas on the east side of the Ukiah valley and to prevent a fire that starts in the eastern hills and burns uncontrolled to the east towards Lake County and the community of Blue Lakes. Range improvement goal is to remove undesired woody vegetation and increase forage production for domestic stock and wildlife. The project area is predominantly chaparral brush with a mix of oak woodlands and patches of conifer forests. The area is part of the Russian River drainage and consists of steep terrain typical of the coastal range. A majority of the lands are west and southwestern aspects with a north aspect along Highway 20 on the north side. Access is limited to unmaintained, seasonal roads which make fire extinguishment difficult. The project will be a cooperative effort working in conjunction with the private landowners and US Bureau of Land Management. The prescribed burns will be in concert with a focused inspection and public education program in the effected urban-interface communities.

BLACK BART

The Mendocino County Fire Safe Council is in the planning stages of a fire reduction project in the area of Black Bart Trail. This will be accomplished by creating shaded fuel breaks, and fuel reduction areas. The Council is also in the planning process to mitigate damage from the recent Black Fire.

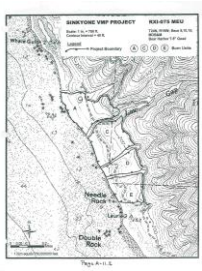
ROBINSON CREEK

The Mendocino County Fire Safe Council is in the planning stages of a fire reduction project in the area of Robinson Creek. This area is prone to vegetation fires. This will be accomplished by creating shaded fuel breaks, creating fuel reduction areas, and installing water tanks for fire suppression activities.

BATTALION 4 TARGET AREAS (IN NO PARTICULAR ORDER)

1) Sinkyone 3) Cahto Thinning 5) Usal Redwood Forest 7) Laytonville and Leggett	2) Shamrock 4) White Rock 6) Bell Springs Road Community

SINKYONE



Joint project of CAL FIRE and the California Department of Parks and Recreation, located at the Sinkyone Wilderness State Park, in the far northwest corner of the Battalion. The primary objective is to return fire as a natural element in a marine terrace ecosystem. Benefits will include the control of exotic plant species, reduction of fuel loading, increased forage for Roosevelt Elk herd, and maintenance of native grassland plant species. In October 2010 the first of 3 consecutive burns took place with great success. A lack of VMP funding has postponed the project in the past, but the Department of Parks & Recreation still plans on moving forward to complete the project in the future.

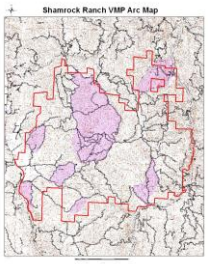
CAHTO

Tree-thinning project immediately surrounding the tribal residences. The primary objective is to make a more productive forest through thinning, and a secondary benefit is the reduction of forest fire fuels, providing additional defensible space. More funding is needed to complete this project.

USAL REDWOOD FOREST

Located in the Usal Redwood Forest is an aggressive shaded fuel break with a planned understory burn. This project is funded by federal grants and the work is completed by private contractors. A shaded fuel break is a forest management strategy used for mitigating the threat of wildfire in areas where natural fire regimes have been suppressed, leading to a dangerous buildup of combustible vegetation. Constructing a shaded fuel break is the process of selectively thinning and removing more flammable understory vegetation while leaving the majority of larger, more fire tolerant tree species in place.

SHAMROCK



The prescribed burning conducted under this VMP project will be done to meet a specific objective and conducted under specific climatic conditions to ensure control and minimize air quality and biological impacts. These conditions will mimic air, soil, and vegetation moisture, and other conditions under which natural wildfires occur so as to maximize the positive effects of fire on vegetation. The primary goal of this prescribed burn is to reintroduce fire as a natural element of the ecosystem. A second goal is to improve wildlife habitat by inducing new shoots from sprouting species to increase forage production, with islands of unburned fuel left within burn units to provide shelter for small mammals. A third goal is to reduce overall fuel loading to decrease the chance of catastrophic wildfires in the future. Several units of this VMP have been successfully burned

WHITE ROCK

The prescribed burning conducted under this VMP project will be done to meet a specific objective and conducted under specific climatic conditions to ensure control and minimize air quality and biological impacts. These conditions will mimic air, soil, and vegetation moisture, and other conditions under which natural wildfires occur so as to maximize the positive effects of fire on vegetation. The primary goal of this prescribed burn is to reintroduce fire as a natural element of the ecosystem. A second goal is to improve wildlife habitat by inducing new shoots from sprouting species to increase forage production, with islands of unburned fuel left within burn units to provide shelter for small mammals. A third goal is to reduce overall fuel loading to decrease the chance of catastrophic wildfires in the future.

BELL SPRINGS ROAD COMMUNITY

The Mendocino County Fire Safe Council is in the planning stages of a fire reduction project on Bell Springs Road. We estimate that there are about 200 habitable structures in the project area of 65,000 acres. Bell Springs Road is a WUI area that needs fire roads, shaded fuel breaks, fuel reduction areas, installing water tanks for fire suppression activities, and the creation of a Community Wildfire Protection Plan. The area consists of steep terrain covered with in a mix of grasslands, conifer, and mature brush.

LAYTONVILLE AND LEGGETT

The Mendocino County Fire Safe Council is in the planning stages of a fire reduction project in the areas of Laytonville and Leggett. This will be accomplished by creating shaded fuel breaks, and fuel reduction areas, developing a Community Wildfire Protection Plan to reduce the impacts of wildfire to habitable structures in the SRA. The project boundaries are the south end of Long Valley and north to Leggett, west on Branscomb Road and east to 2.5 miles up Dos Rios Road. The main focus will be the fuels reduction to protect an estimated 1200 homes within the treatment area.

BATTALION 5 TARGET AREAS (IN NO PARTICULAR ORDER)

1)	Lambert Ridge	2)	Venturi
3)	Folded Hills	4)	Navarro Watershed

LAMBERT RIDGE

CAL FIRE in cooperation with a local landowner is looking into a possible fuel break along Lambert Ridge. A shaded fuel break is a forest management strategy used for mitigating the threat of wildfire in areas where natural fire regimes have been suppressed, leading to a dangerous buildup of combustible vegetation. Constructing a shaded fuel break is the process of selectively thinning and removing more flammable understory vegetation while leaving the majority of larger, more fire tolerant tree species in place.

VENTURI & FOLDED HILLS

The prescribed burning conducted under these VMP projects will be done to meet specific objectives and conducted under specific climatic conditions to ensure control and minimize air quality and biological impacts. These conditions will mimic air, soil, and vegetation moisture, and other conditions under which natural wildfires occur so as to maximize the positive effects of fire on vegetation. The primary goal of these prescribed burns is to reintroduce fire as a natural element of the ecosystem. A second goal is to improve wildlife habitat by inducing new shoots from sprouting species to increase forage production, with islands of unburned fuel left within burn units to provide shelter for small mammals. A third goal is to reduce overall fuel loading to decrease the chance of catastrophic wildfires in the future.

NAVARRO WATERSHED

The Mendocino County Resource Conservation District, Natural Resource Conservation Service, Andersen Valley Fire District, CAL FIRE, Mendocino Fire Safe Council and Mendocino Redwood Company are in the planning stages to reduce fuel loading and establish shaded fuel breaks in and around the subdivisions within the Navarro Watershed. This area is a Wildland-Urban Interface and the proposed project aims to reduce fire danger and greenhouse gas emissions. Treatments will focus on vegetation treatments and forest stand improvements.

BATTALION 6 TARGET AREAS (IN NO PARTICULAR ORDER)

1) Gorse	3) State Park Hazard Trees
2) SOD Removal	4) Albion Fire District

GORSE

Gorse (*ulex europaeus*) removal/reduction in the Caspar area along Highway 1. This was a previously identified 3-year project for the eradication of this extremely invasive shrub that poses a significant access hazard and a serious fire danger due to its density and fuel loading. It is also a threat to the biodiversity of wildland areas. Removal is a difficult challenge due to Gorse's sharp thorns which can easily pierce gloves.

SOD REMOVAL

This is a potential on-going project may continue as more hazard trees are identified and the SOD spores migrate to different areas. Outbreaks are evaluated and monitored back local landowners and CAL FIRE personnel.

STATE PARKS HAZARD TREE REMOVAL

Cooperatively working with DPR to remove hazard trees in multiple State Parks and Public Use areas. Some of the tree removal has been to eliminate non-native species such as Eucalyptus. A small portion in MacKerricker was devoted to treatment for Sudden Oak Death Syndrome.

ALBION FIRE DISTRICT

The Albion Fire District is in the planning stages of a multiple project within their district. Planning is currently underway to improve ingress/egress, improve address signage, development of emergency water supplies, multiple fire reduction projects and development of possibly with the Mendocino Fire Safe Council, of a Community Wildfire Protection Plan.

APPENDIX D: LOCAL FIRE SAFE COUNCILS

The Mendocino County Fire Safe Council encourages road associations, homeowner groups, subdivisions, towns, and any housing clusters to create their own local Fire Safe Councils. These groups need not have a formal or legal structure; they need only the desire to make themselves fire safe and to educate and encourage their neighbors to do the same. The MCFSC is available to – and does -- assist local Councils in these ways:

- Leading or participating in local educational events
- Providing educational materials for local distribution
- Connecting local Councils with Fire Safe service providers and vendors, other Councils, and anyone else who can assist their efforts
- Seeking grant funding for vegetation reduction or address signage projects
- Providing financial services such as holding trust funds or administering grant monies
- Generally assisting with administrative, business, financial, and legal functions, leaving local groups free to do on-the-ground projects and education

Local Fire Safe Councils already functioning or currently being organized include:

- Brooktrails, Sylvandale & Spring Creek Fire Safe Councils (BS&SCFSC)
- Deerwood
- Rancho Navarro Safety Committee
- Island Cove Estates
- Ridgewood Park
- McNab Ranch Fire Safe Council
- Black Bart Trail
- Upper Parducci Road
- Pine Mountain Fire Safe Council (PMFSC)
- Greenfield Ranch
- Robinson Creek Fire Safe Council
- Oak Knoll Road
- Shafer Ranch Road
- Willowbrook/Sherwood Forest Hills
- Caspar

Other local Fire Safe Councils are being formed, and their names and work will be included in future versions of this Plan. The MCFSC and fire personnel in Mendocino County are very grateful to these dedicated groups who are performing an enormous amount of work toward making their Wildland-Urban Interface communities more “fire safe.”

APPENDIX E: COMMUNITY WILDLAND PROTECTION PLAN

Please see:

http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf66.pdf

The CWPP was implemented in 2005. In 2010, the MCFSC in cooperation with local fire departments looked into updating the Mendocino County CWPP. The MCFSC and local fire departments are in the process of updating the CWPP.

APPENDIX F: IGNITION MANAGEMENT PLAN

2015 Fire Season Ignition Statistics

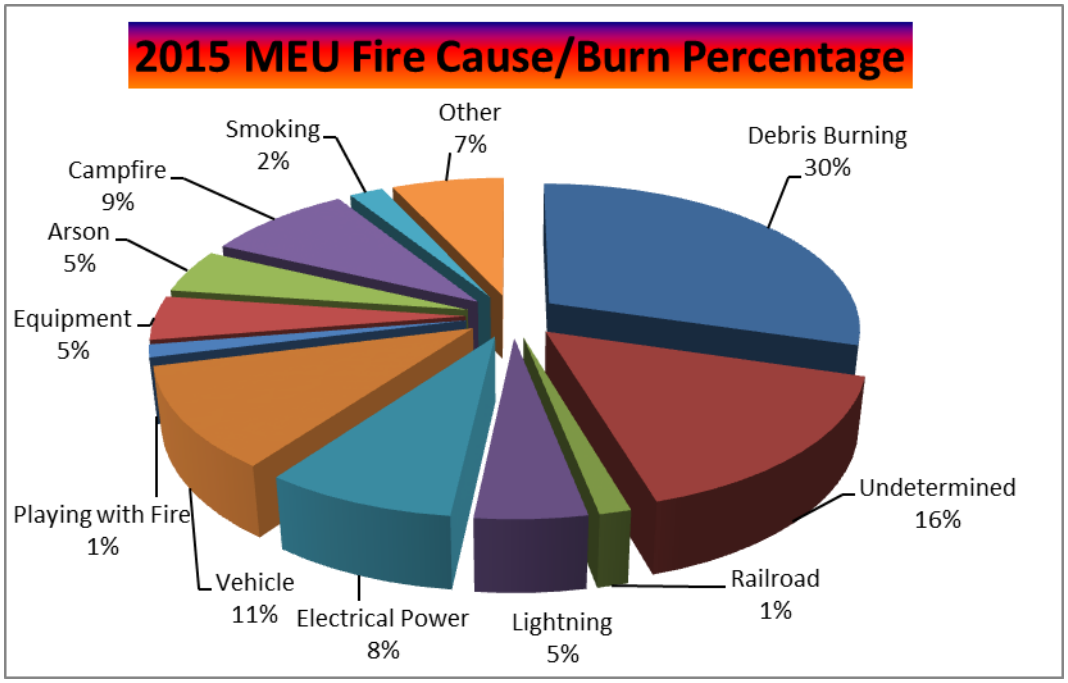
Wildland fire ignition statistics were tracked for the entire year of 2015. In 2015, MEU responded to 145 wildland fires within its Direct Protection Area (DPA) for the year. These fires burned approximately 271 acres. This is a decrease from 2014, in which 152 wildland fires were responded to by MEU resources. The fire largest fires within the Unit for 2015 were:

1) The Club Fire at 120 acres caused by debris burning.
2) The Mountain Fire at 31 acres caused by a vehicle fire.
3) The Orr Fire at 21 acres cause undetermined.
4) The Gate 2-3 Fire at 15 acres caused by lightning.
5) The Cahto 4-2 Fire at 15 acres caused by lightning.

The following fire cause classes were responsible for the majority of the vegetation fires within the Unit in 2015:

1) Debris Burning (43 fires for 30% of the total)
2) Undetermined (23 fires for 16% of the total)
3) Vehicle (16 fires for 11% of the total)
4) Camp Fire (13 fires for 9% of the total)
5) Electrical Power (12 fires for 8% of the total)

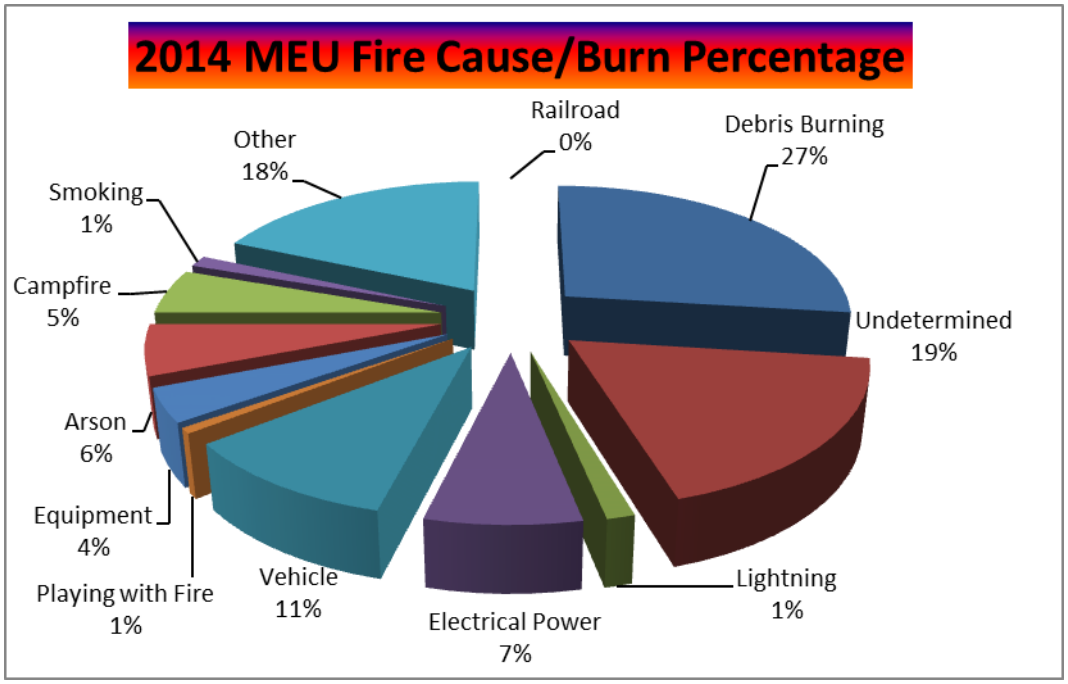
These five fire cause classes accounted for 107 of the 145 (74%) wildland fires that occurred in 2015. These were followed by; Other (10 fires-7%), Lightning (7 fires- 5%), Equipment (7 fires-5%), Arson (7 fires-5%), Smoking (3 fires-2%), Railroad (2 fires-1%), and Playing with fire (2 fires-1%).



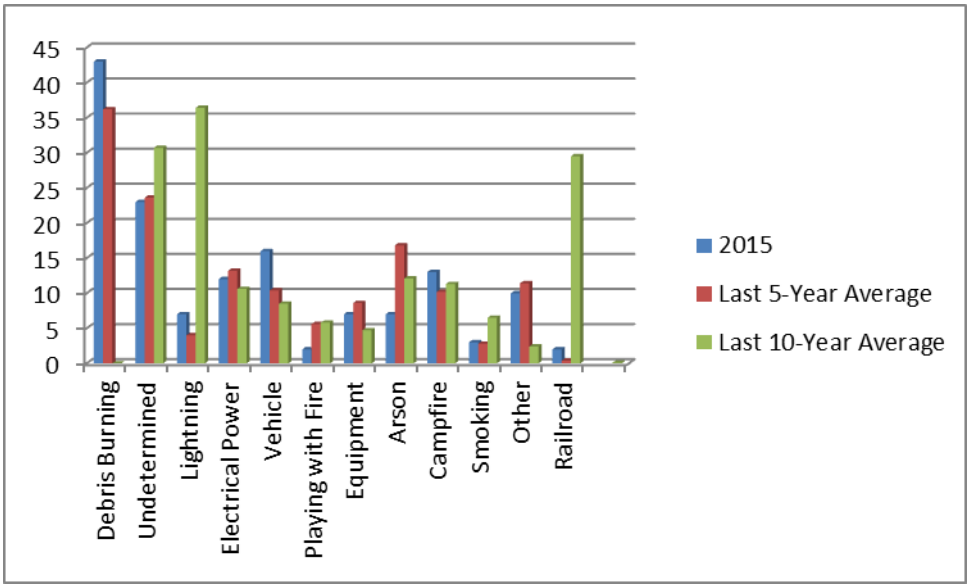
The following fire cause classes were responsible for the majority of the vegetation fires within the Unit in 2014:

1) Debris Burning (41 fires for 27% of the total)
2) Undetermined (28 fires for 18% of the total)
3) Other/Miscellaneous (28 fires for 18% of the total)
4) Vehicle (16 fires for 11% of the total)
5) Electrical Power (11 fires for 7% of the total)

These five fire cause classes accounted for 124 of the 152 (81%) wildland fires that occurred in 2014. These were followed by; Arson (9 fires-6%), Campfire (8 fires- 5%), Equipment (6 fires-4%), Lightning (2 fires-1%), Playing with fire (1 fires-1%), and Smoking (2 fires-1%).



In 2015, five categories increased over the 5 year average. These cause classes were Debris Burning, Vehicle, Playing With Fire, Smoking, and Railroad. In 2015 four categories increased over the 10 year average, Vehicle, Playing With Fire, Smoking, and Railroad.



1) **Debris Burning** accounted for 43 fires or 30% of the total fires in the Unit. Debris Burning resulted in 132 acres being burned. This cause class increased by a count of 7 fires from the 5 year average. The drought is stressing many species of trees and brush in the Unit, resulting in property owners needing to clear and potentially burn additional vegetation. Burning conditions are becoming hotter and drier earlier in the year catching home owners off guard; this has led to several escaped debris burns. The increase is likely due to the meteorological drought, availability of receptive fuel beds caused by the drought, more dead material, and longer fire seasons.

2) **Undetermined** accounted for 23 fires or 16% of the total ignitions in the Unit. Undetermined caused fires resulted in 31 acres being burned. This cause class decreased by a count of 1 fire from the 5 year average. Continuing education and training in origin and cause investigations such as FI 110 and FI 210 for Unit personnel would assist in determining fire causes which may lead to further fire prevention, education, and/or enforcement if trends are identified by solid origin and cause determination.

3) **Vehicles** accounted for 16 fires or 11% of the total ignitions in the Unit. Vehicle caused fires resulted in 43 acres being burned. This cause class increased by a count of 6 fires from the 5 year average. The majority of these fires occurred along the major traffic corridors of Highway 101, 20, 253, 128, 162, and 175. The drought has caused fine dead fuels on our highways and roads to reach critical levels both earlier and later in the year. Catalytic Converter failure, maintenance issues, or dragging of materials remain to be the leading cause of fires caused by vehicles.

4) **Illegal campfires and campfire escapes** accounted for 13 fires or 9% of the total ignitions in the Unit. Campfire caused fires resulted in 1 acre being burned. This cause class increased by a count of 3 fires from the 5 year average. The increase in campfire caused fires can be tied closely to the severe drought conditions, a longer recreational period and the transient population associated with the marijuana population within the Unit. Education is necessary to help prevent these fires so that the Unit's resources are not spent responding to these calls.

5) **Electrical power** accounted for 12 fires or 8% of the total ignitions in the Unit. Electrical power caused fires resulted in 8 acres. This cause class decreased by a count of 1 fire from the 5 year average. Electrical fires started as a result of illegal or legal marijuana growing operations have been on the rise within the Unit over the past decade. Due to the secretive nature of these operations and the individuals that conduct them, prevention of these types of fires is difficult. The Unit's prevention staff has taken an active role in seeking cost recovery from individuals who, as a result of illegal or negligent circumstance, allow for a fire to be started by electrical equipment used in the production or manufacture of marijuana. The majority of the remaining fires started by electrical power are caused by trees, branches or birds into the power lines. This decrease in electrical fires can be attributed to strong public education programs and the prevention bureau taking a more active role in seeking cost recovery.

6) **Equipment** accounted for 7 fires or 5% of the total ignitions in the Unit. Equipment caused fires resulted in 6 acres being burned. This cause class decreased by a count of 2 fires from the 5 year average. Historically, this classification has been one of the top causes of wildfire starts in the Unit, however, through continuing displays and education programs fires caused by this cause class continue to decline. One of the main causes for these fires is from mowers. Mowers can start a fire when blades strike rocks and/or friction belts ignite the chaff collected around the belt. Ironically, most of the mower caused fires occurred as a result of residents trying to clear their property for fire safety during the hottest portions of the day.

7) **Lightning** accounted for 7 fires or 5% of the total ignitions in the Unit. Lightning caused fires resulted in over 35 acres burned. Not much can be done to prevent or alter this category.

8) **Arson** accounted for 7 fires or 5% of the total ignitions in the Unit. Arson caused fires resulted in 11 acres burned. This cause class decreased by a count of 10 fires from the 5 year average. Since 2011, the Unit's Prevention staff have arrested and successfully prosecuted four serial arsonists in addition to several "one-time" arsonists. The decrease in Arson activity could be a result of the Prevention staffs success in apprehending arsonists within the Unit. Continued cooperation between all fire and law enforcement agencies hand in hand with strong public education is the key to reducing this ongoing problem.

9) **Smoking** accounted for 3 fires or 2% of the total ignitions in the Unit. Smoking caused fires resulted in 1 acre burned. This cause class stayed consistent with the 5 year average. The majority of these fires were carelessly discarded cigarettes along the roadways of Mendocino County.

10) **Playing with Fire** accounted for 2 fires or 1% of the total ignitions in the Unit. Playing with Fire resulted in 1 acre burned. This cause class increased 4 from the 5-year average. The unit still needs to continue the Juvenile Fire Setter (JFS) programs. With the declined of these programs, it is likely the Unit will continue to see fires caused by juveniles playing with fire.

Summary

Over the last year the MEU Fire Prevention Bureau has had a complete turn-over of staffing. With the new staff in place, the Bureau will continue to actively provide training, primarily in the field, to field personnel to further educate and promote thorough and complete fire origin and cause investigations. As the investigations continue to improve and become more accurate, the Prevention staff will have more reliable data to help pinpoint trends and areas sensitive to wildland fires. As these trends and sensitive areas are identified, the staff will diligently work to minimize or prevent these fire starts through education, engineering, and/or enforcement.

APPENDICES G-Z

Reserved for future use, if needed.

EXHIBITS: MAPS

Figure A: Unit Map/SRA Map

Figure B: DPA Map

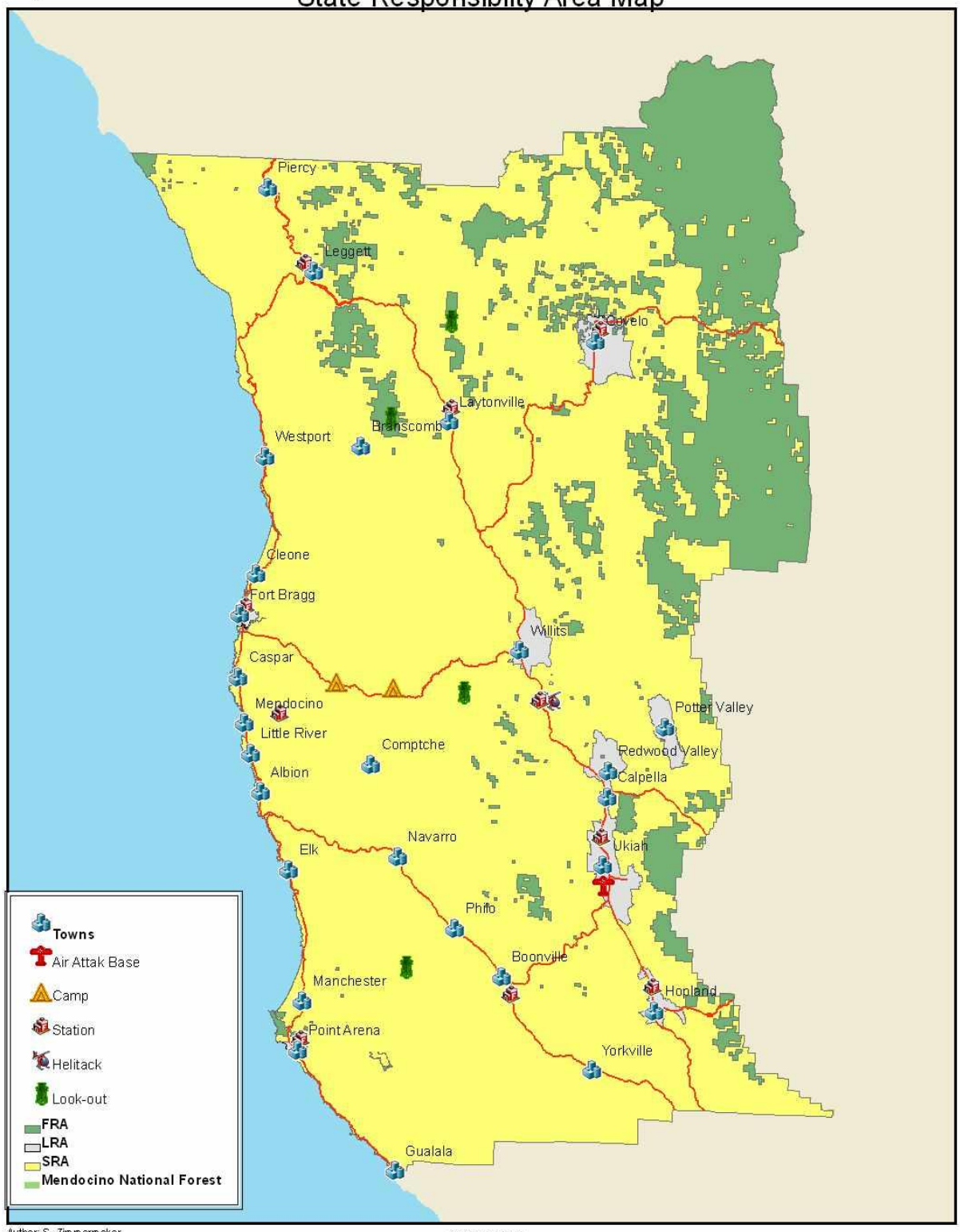
Figure C: Battalion Map

Figure D: Local Departments Map

Figure E: Fire History Map

CAL FIRE Mendocino Unit

State Responsiblity Area Map



Author: S. Zimmermaker
4/11/12

1:700,000

CAL FIRE Mendocino Unit

Direct Protection Areas

Author: S. Zimmermaker
4/11/12

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CAL FIRE Mendocino Unit

Battalion Map

Author: S. Zimmermaker
4/11/12

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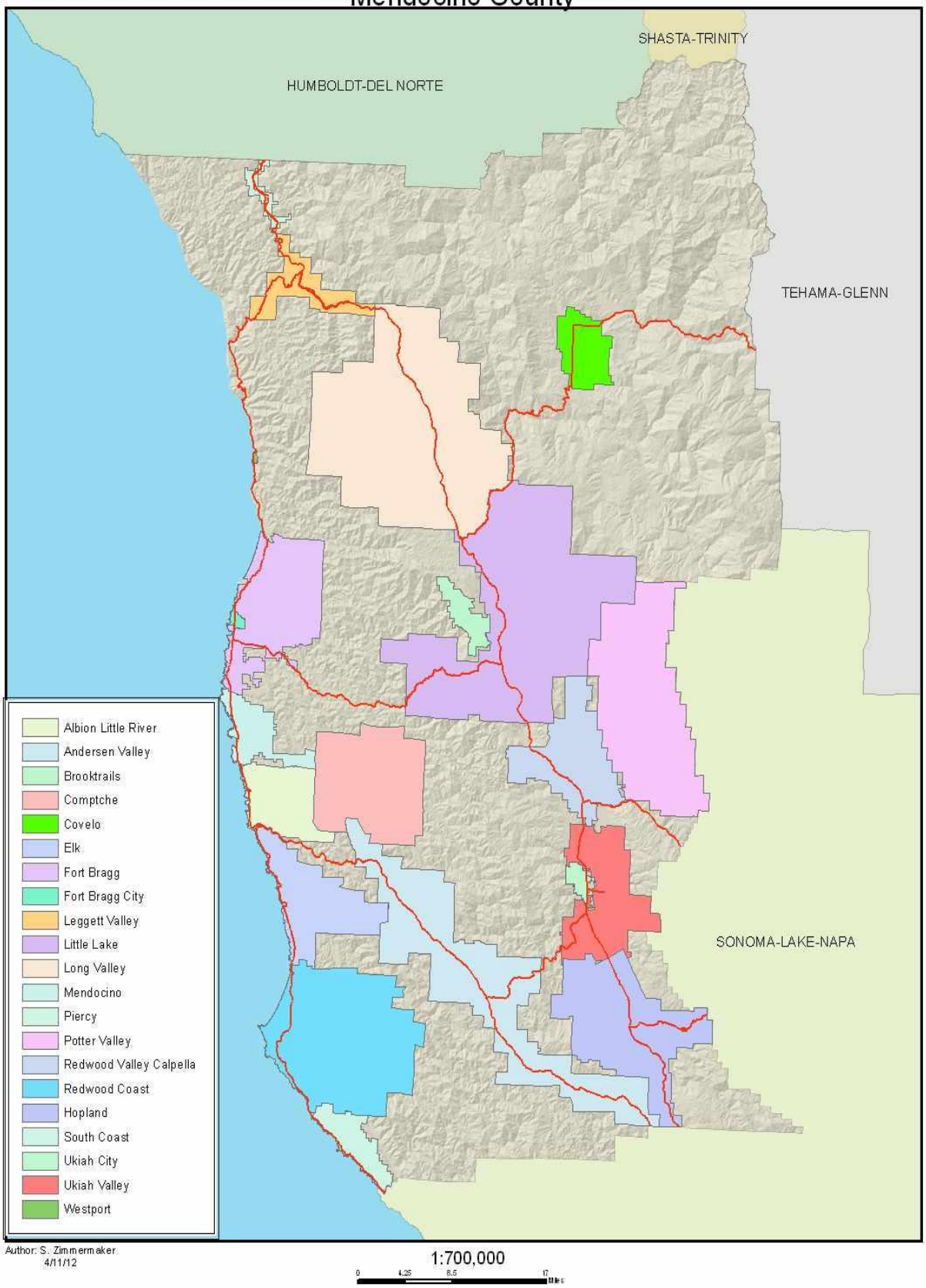
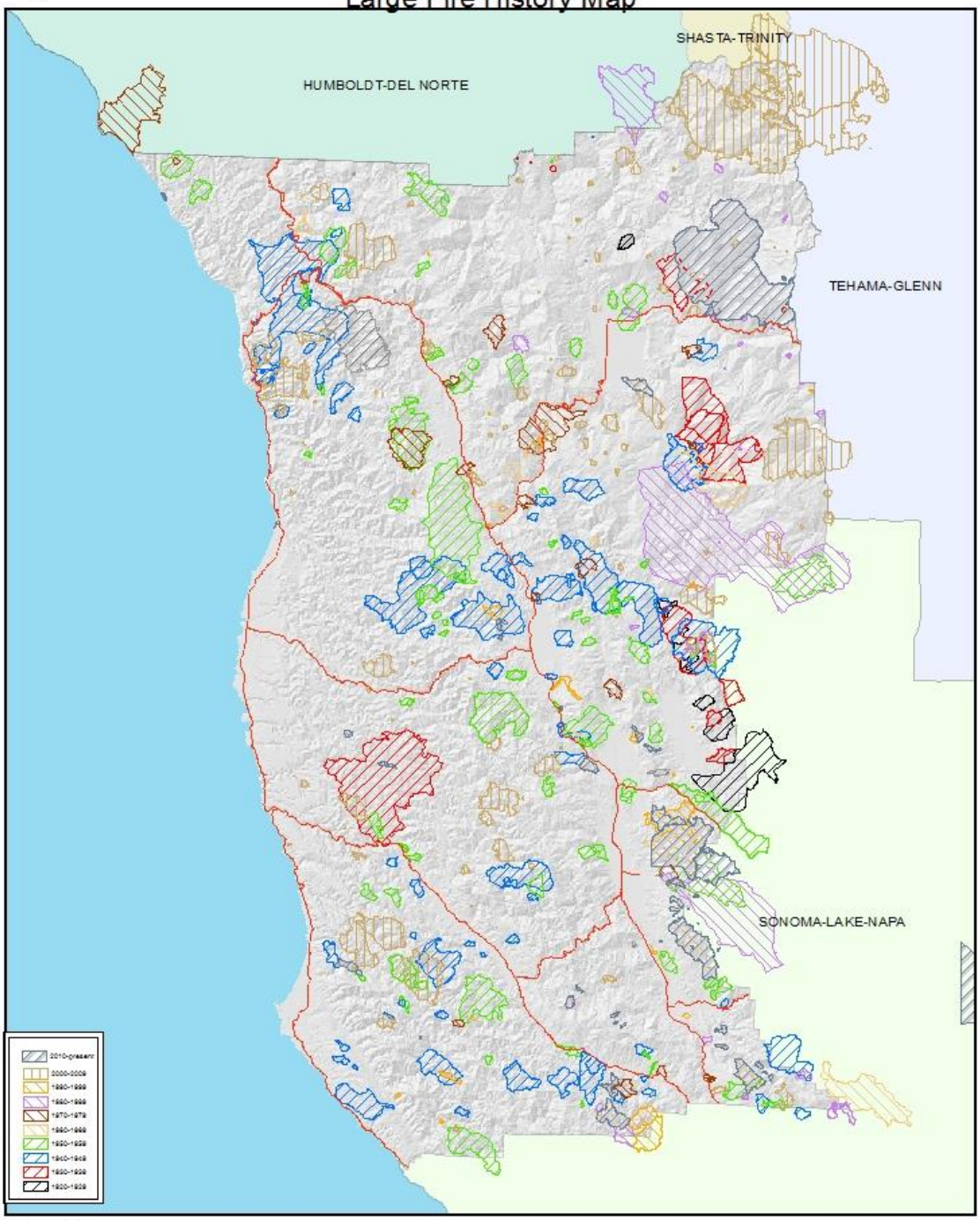
Local Fire Departments

Mendocino County



CAL FIRE Mendocino Unit

Large Fire History Map



Author: B.Gunn
04/08/15

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Due to reporting criteria and past mapping abilities, all fires may not be present.

SUPPLEMENT: 2015

Reserved for future use, if needed.