

# *Unit Strategic Fire Plan Nevada-Yuba-Placer Unit*





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## SIGNATURES

### Unit Strategic Fire Plan developed for Nevada Yuba Placer 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.

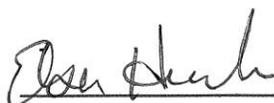


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## EXECUTIVE SUMMARY

### Executive Summary

The Nevada-Yuba-Placer Unit (NEU) Fire Management Plan is a product of the implementation of the State Fire Plan. The State Fire Plan provides an analysis procedure utilizing, in part, computer based geographical information data that is validated by experienced fire managers to assess fire fuel hazards and risks in order to design and implement mitigating activities. The NEU Fire Management Plan provides background information, fuels and fire data, proposed projects, and individual Battalion reports outlining mitigating activities commonly carried out each year. The NEU Fire Management Plan is our local road map to create and maintain defensible landscapes in order to protect those assets vital to the state.

NEU is one of 21 administrative Units within the California Department of Forestry and Fire Protection. NEU faces many challenges, not the least of which is two of its counties, Placer and Nevada, are two of the fastest growing counties within the state. Many of the people moving to these mid Sierra Nevada rural counties are coming from urban areas such as the San Francisco Bay, Los Angeles, and Sacramento. This leads to the urbanization of fire adapted vegetation types and ecosystems.

A big challenge facing NEU is one of education. Most of the new residents and many of the existing ones realize what building houses in the middle of fire adapted ecosystems means. The fire adapted forest types where most of the population exists within NEU are Mixed Conifer, Ponderosa/Shrub, Montane Chaparral, and California Oak Woodlands. Research shows that prior to European settlement, fire return intervals ranged from 2 to 8 years in California Oak Woodlands and 5 to 16 years in the remaining forest types. This equated to low intensity fires at frequent intervals. As of 1900 to 1920, wildfires have been suppressed in these vegetation types. As a result, over the last 80 - 100 years vegetative fuels have increased significantly in tons per acre. Unnaturally high fuel loads have resulted. But, most of the public does not realize this, nor do they understand what this means in terms of fire intensity and their safety. They have come to believe what they see now is “natural.”

Wildfires in these unnatural fuel load conditions are very intense and more difficult to suppress. Overlay the mix of homes and personal property in these areas and suppression is even more difficult. The task at hand is to educate the citizens within these areas as to the dangers of living in these fuels and to induce the public into taking an active role in becoming an informed and appropriate land steward and taking it upon themselves to manage the fuels around their structures. Creating “defensible space” around these structures is the single best thing a resident can accomplish to protect their property. Secondary to the effort of creating the defensible space around their homes is a landowner’s responsibility to apply his or her stewardship responsibility across their entire ownership. The overall effect of each property owner properly managing wildland fuels results in a landscape level fuel reduction and a commensurate reduction in fire intensity. Once this is achieved, the goal of reducing costs and losses to human lives, property and natural resources will be reached.

### Priorities and Goals

The State Board of Forestry and the California Department of Forestry and Fire Protection have drafted a comprehensive update of the Fire Plan for wildland fire protection in California. NEU has reviewed the 2010 Strategic Fire Plan (State) goals in order to develop and incorporate those goals into the Unit Fire Management Plan. The NEU priorities provide the foundation upon which our local goals and objects are built. The NEU priorities and Goals are as follows:

Priorities:

1. To Reduce the Risks to Citizens and emergency responders from Wildland Fire.
2. Develop a “land stewardship” ethic in the residents of the Unit

Goals:

1. Demonstrate methods that individuals and the community can use to properly manage their lands to improve forest health, and reduce the ignitability of structures in the Wildland Urban Interface.
2. Raise citizen and stakeholder awareness of fire risks and enlist their help and participation in risk reduction.
3. Assist local government in developing standards, policies, and plans, which will result in local, and landscape level fuel modifications.
4. Implement local and landscape level projects and programs that decrease fire risk and increase the potential for success on initial attack.

Current Pre-fire Management and Development

Since the implementation of the State Fire Plan in 1996 and its evolution into the current NEU Fire Management Plan, interest by stakeholders has resulted in broad support for community wildfire safety. These groups in cooperation with Cal Fire have taken the lead in promoting fire safe activities. Through these groups and our own personnel, we have initiated and completed a number of fuel reduction projects throughout the Unit. It is likely that one of these projects will help reduce the overall government costs and citizen losses resulting from a costly and damaging fire. We continuously encounter new obstacles in the project implementation stage: agency spending procedures, grant requirements, environmental documentation, etc... However, through the continued effort of our staff and the other stakeholders, fuel reduction and education projects will continue.

## UNIT DESCRIPTION

The Nevada-Yuba-Placer Unit (NEU) is located in mid-California, along the east side of the state. The Administrative Unit boundary encompasses all of Nevada, Yuba, Placer, Sierra, and Sutter counties and extends from the Sacramento Valley floor over the crest of the Sierra Nevada to the Nevada state line. The total acreage in the Unit is 2,911,086. Of the total acres, approximately 65% is forested land. The balance of acres are divided nearly equally between grass and brush.

Cal Fire has direct responsibility for fire protection within portions of Nevada, Yuba, and Placer counties. Total state responsibility area (SRA) acreage within the unit is approximately 1,200,000 acres. Total direct protection area (DPA) is approximately 875,000 acres, leaving approximately 325,000 acres of state responsibility area serviced by the USFS through local operating agreements.

### Historical Influences

There are four major historical influences that continue to impact fire planning in NEU. These influences also reflect **NEU's Assets at Risk**, which are referenced in a separate portion of this plan. The first historical influence is the installation of the Transcontinental Railroad (TCRR) circa 1860-1890 which has created a checkerboard of land ownership. The ownership is composed of public and private land, being managed with different objectives, and receiving fire protection by different fire agencies. The second influence is the installation of major hydroelectric infrastructure (HYDRO) circa 1912 to 1966, which has created an extensive ignition source and exposure problem in the Unit. There are three major hydroelectric systems in place, each owned by a different agency in partnership with Pacific Gas and Electric Company (PG&E). The system provides electricity to over 500,000 homes and businesses in Northern California, and includes a power grid that transects multiple large river drainages. Installation of Interstate 80 (I-80) circa 1950-1960, is the third influence and has provided quick easy access for residents, recreation and commercial traffic. The Interstate has also allowed significant emigration from urban centers to rural communities from 1950-present which has resulted in a rapidly expanding Wildland Urban Interface (WUI) condition. The interstate is not only an ignition source but is also a major route requiring protection in the event of a wildland fire. The fourth and final influence on fire control and fuels management is a shift from agricultural land management to residential / open space. Historically, livestock were grazed over large ownerships throughout the spring, resulting in a reduction of ground fuels. Grazers often used controlled fire as a means to cycle nutrients and eliminate unfavorable forage. Controlled fire also consumed ladder fuels thereby decreasing the intensity and impact from an uncontrolled fire. In the lower elevations, irrigation was used to extend the growing season and provided areas that were less susceptible to burning. Over time, these agricultural uses have changed to a residential and open space use, where homes are built amongst or adjacent to a wildland fire environment. Vegetative fuels require costly mechanical treatment, rather than relying on grazing animals to consume the vegetation. The focus on open spaces has also placed outdoor users deeper into the wildland where ignition can result in a wildland fire.

Each of these influences helped create the current fire problem in the NEU Unit. These influential factors are also clearly linked to **NEU's Assets at Risk**. Life and property, watershed, open space / recreation, power generation and distribution infrastructure, railroad and highway infrastructure, timber and agricultural values with their related wildlife benefits, and quality of life and ecosystem values that all residents of the Unit benefit from including clean air, clean water

and a safe healthy environment in which to live. Each of the programs implemented by the Unit will act to mitigate the threat from wildfire to these resource values at risk.

### Transcontinental Railroad (TCRR) Circa 1860-1890

To incentivize the installation of the TCRR the federal government passed the Pacific Railroad Act of 1862. The Act authorized the Government to grant a 400 foot right of way and ten square miles of land for each mile of track built. The lands were granted not in a 10 mile wide swath, rather in a checkerboard pattern. The intent of the land grant was to allow the railroad to sell the lands to finance the building of the railroad infrastructure. By creating a checkerboard pattern with an equal mix of federal and private lands, the federal lands became more valuable as the private lands were sold off. In modern times, the alternating square mile checkerboard of private and federal lands is a physical and visual remnant of the TCRR installation through NEU.

Over time, the private lands have changed hands and the highest best uses have evolved. Portions have been retained in large industrial timber or agricultural ownerships, other lands being split and developed to become the commercial centers and residential development that has allowed significant population growth. Due to zoning and development restrictions geared toward the retention of open space, and a Mediterranean climate with very fertile soils, the private lands are inherently managed toward a wildland fire environment. Even the smallest (1-5 acres) residential properties, typical of foothill development are left scattered amongst larger undeveloped parcels, often leaving significant wildland fire potential, and a true WUI condition.

The large federal ownerships continue to be managed under a multiple use regime. The three primary federal landholding agencies are the USFS (Tahoe N.F., Plumas N.F., and Eldorado N.F., Tahoe Management Unit), the Bureau of Land Management (BLM), and the Bureau of Reclamation (BOR). Other federal agencies hold lands as well, including the US Air Force (Beale AFB). Portions of SRA within the larger Federal DPA are provided fire protection through a local operating agreement which requires the acreage of SRA to be provided like protection compared to the SRA within the States DPA. Topographic and administrative constraints can lead to significant impacts to private lands where these SRA acres are adjoined by Federal lands.

Currently, Union Pacific Railroad owns and operates the rail system through NEU. Recent information from Union Pacific reveals that the current rail traffic will increase 3 times (45-50 trains per day) over the next year. This increase is due to grinding of tunnels which will allow double stack freight trains a quick route over the Sierra Nevada compared to alternate routes. The increase in rail traffic could cause an increase of ignitions along the rail right of way. UP is currently installing a fuelbreak along the rail to attempt to mitigate the threat from railroad caused fires.

### Hydroelectric Infrastructure (HYDRO) Circa 1912 to 1966

Hydroelectric power generation in NEU dates back to the Gold Rush. It was in 1864 when Lester A. Pelton patented his new and improved water wheel which converted pressurized water into mechanical power. This new innovation, which was devised and constructed in Yuba and Nevada Counties, fed the ever increasing demand for energy as communities grew and industry flourished. During the 1890's the first ever water patent specifically for the production of power was sought in Nevada County, effectively birthing Pacific Gas and Electric Company. By the late 1890's much of the water delivery system was converted from mining water delivery to delivery for agricultural uses. The early 1900-1966s were a time of major expansion of water storage, delivery, and power generation that remains today as critical infrastructure.

Nevada, Yuba and Placer counties are now major producers of water and hydroelectric power. Approximately 1,623,000 acre feet of water are stored in 21 reservoirs throughout the region. Of

that amount, 472,000 acre feet are delivered directly for domestic and agricultural uses annually. The total generative capacity of electricity in the region is 703 megawatts (MW) from 16 separate powerhouses, providing 3,014,000 megawatt hours (MWh) per year, a quantity of electricity sufficient to service 502,330 homes.

#### Placer County Water Agency (PCWA)

The Middle Fork American River Project (MFP) consists of two major storage reservoirs, five smaller regulating reservoirs and diversion pools, and five powerhouses that began operation in 1967. The MFP supplies water for homes, industry, and agriculture within western Placer County and clean renewable energy to the California electric grid.

The Project's major storage reservoirs, French Meadows and Hell Hole, have a combined capacity of 342,583 acre-feet (ac-ft). The Project has a generation capacity of approximately 224 MW and has produced an average of about 1,030,000 MWh per year. The Project includes recreation facilities near its storage reservoirs. In addition, its operations accommodate popular whitewater rafting opportunities in the Middle Fork American River below Oxbow Powerhouse.

Placer County Water Agency (PCWA) owns and operates the MFP. The MFP system is operated under a 50-year license (Project No. 2079), which was issued by the Federal Power Commission, predecessor of the current Federal Energy Regulatory Commission (FERC). The current license expires on March 1, 2013. PCWA is seeking the renewal of its license to continue operations of the MFP.

#### Nevada Irrigation District (NID)

Through the early 1900s, many of Nevada County's old reservoir and canal systems built during the California Gold Rush had become under-utilized and were falling into disrepair. Nevada County Community leaders were determined to acquire these invaluable assets, make improvements, and recreate them as the backbone of a new public water system. From 1917-1921, engineering studies were completed, new water rights were negotiated and a local campaign was mounted to build support for this dream of a new irrigation district. On August 15, 1921, NID was officially formed.

In 1962, NID voters supported a \$65 million bond issue to construct the Yuba-Bear River Power Project. The major project was completed from 1963-66. The district began producing power in 1966 with the completion of the \$65 million Yuba-Bear Power Project. The project included the Chicago Park and Dutch Flat powerhouses. It brought not only power generation capability, but new reservoirs and canal systems and, most importantly created an additional 145,000 acre-feet of water storage. The Rollins Reservoir powerhouse was added in 1980. NID's reservoir system provides a combined 280,380 acre-feet of water. The district has ten dams and seven power plants with a generation capacity of 82.2 MW and produces an average of 375,000 MWh of energy each year.

NID is now pursuing a renewed federal license for operation of the Yuba-Bear Project. The project is operated under an original 50-year federal license granted in 1963 and scheduled to expire in 2013.

#### Yuba County Water Agency (YCWA)

When bid in 1966, the \$180 million Yuba River Development Project was the largest single non federal, non state construction contract of its kind. Today, YCWA owns and operates 4 dams with a storage capacity of roughly 1 million acre-feet of water and associated powerhouses capable of generating approximately 397 MW of energy with an annual productive capacity of

1,609,000 MWh. Additionally, New Bullard's Bar Reservoir provides a multitude of recreational activities. YCWA delivers about 310,000 acre-feet of water to local irrigation districts annually.

### Installation of Interstate 80 (I-80) circa 1950-1960

The Lincoln Highway inspired the National Interstate and Defense Highways Act of 1956, which was championed by President Dwight D. Eisenhower, influenced by his experiences as a young soldier crossing the country in the 1919 Army Convoy on the Lincoln Highway. Construction of Interstate 80 was authorized by the Federal-Aid Highway Act of 1956 which was signed into law by President Eisenhower. I-80 is recognized as the Dwight D. Eisenhower Highway and a Blue Star Memorial Highway for its entire length. It was part of the Lincoln Highway from Sacramento to Reno (except in vicinity of Donner Summit). I-80 is also known as the Alan S. Hart Freeway from the Sacramento/Placer County line to the Nevada state line, and the Dutch Flat and Donner Lake Wagon Road from Emigrant Gap to Donner Lake (except in vicinity of Donner Summit).

Interstate 80 is the main travel route from Reno to San Francisco. At speeds of 70 mph, the travel time from Downtown Sacramento to the heart of NEU is under 1 hour, a distance that many consider acceptable for commuting. In turn, the significant population growth that has occurred since 1960 is due in large part to the Interstate. Established population centers such as Roseville, Rocklin, Loomis, Newcastle, Auburn, Colfax and Truckee are connected to the Central Valley by Interstate 80. Freight is of prime importance. It is said that closure of Interstate 80 has an economic impact equal to \$1 Million for each minute of closure. Although no statistics could be found to verify this claim, it is well understood that the economic impact of closure justifies one of the most expensive snow removal programs in the entire United States. Closure for any reason is seen as a situation to avoid if possible.

Interstate 80 drops from 7239 feet at Donner Summit to 531 feet at Loomis, an elevation change of 6,708 feet over 67 miles. This steep grade creates significant friction for commercial vehicles travelling downslope towards the Sacramento Valley. During the summer, when temperatures rise and fuels become dry, the potential of a wildfire from hot brakes or vehicles that catch fire due to friction increases. Alternatively, vehicles traveling up slope can overheat resulting in an ignition of roadside vegetation. NEU works diligently to prevent roadside ignitions from becoming major fires. This effort includes significant crew time with NEU Washington Ridge Crews working with federal grant funds, partnering with the Placer County RCD Chipping Program, removing ground and ladder fuels within 30' of the road edge from Auburn to Baxter, a distance of 29 miles.

### **Demographics**

Current Census 2010 data and growth projections are discussed in this section to describe the state of population growth in NEU. Other non-economic factors are described which have a potential to impact the location of population growth as development pressures and available lands push the population further up into the higher elevations of NEU. The summary will describe the methods that NEU will utilize with current programs to address this issue into the future.

Generally, population growth in the region has constantly increased since the 1960's, following a period of post-depression malaise. The proximity to the Sacramento metropolitan area and improvements to highway infrastructure, coupled with decreased costs for developable lands in Nevada, Yuba, and Placer Counties, dictates that growth will continue. In many instances, projections of growth have not met expectations, possibly due to the recent economic downturn,

but the population growth rates in the region remain noteworthy compared to other regions of the State.

### Nevada County

In 2010, the total population in Nevada County was reported to be 98,764 people (U.S. Census Bureau (2010)), a 7.3% increase over the previous decade. The population was composed primarily of permanent adult residents with 80% of the population over 18 years of age and an 80% home ownership rate. As of 2009, a total of 50,313 housing units were reported. With a land area of 612,870 acres, the population density averages 103 persons per square mile. Higher population densities correlate to the transportation corridors including Highway 49, Highway 174, Highway 20, as well as Highway 89 and Interstate 80 on the eastside of the County. Population density also correlates to the State Responsibility Areas within the County.

In 2006, Nevada County growth projections through 2020 ranged from 20.7% to 38%. Current census data do not bear this statistic with actual growth rates of 7.3% for the period 2000 to 2010. Assuming the range of potential growth through 2020, using the current average rate (7.3%) and the low projected rate (20.7%) from Nevada County sources, the 2020 population in Nevada County will range from 106,000 to 121,000 people. Growth policies within Nevada County are defined in the Nevada County 1995 General Plan as allowing, "...for a moderate growth in the County. A moderate annual growth rate...so that provisions of public services keep pace with new developments." Future long term projections place maximum available growth at a capacity not exceeding 210,000 persons, the maximum estimated "buildout" projection.

Due to the checkerboard matrix of land ownership in Nevada County, portions of SRA within NEU receive fire protection from the USFS.

### Yuba County

In 2010, the total population in Yuba County was reported to be 72,155 people (U.S. Census Bureau (2010)), a 19.8% increase over the previous decade. The population was composed primarily of permanent adult residents with 70% of the population over 18 years of age and a 60% home ownership rate. As of 2009, a total of 28,738 housing units were reported. With a land area of 403,641 acres, the population density averages 114 persons per square mile. Higher population densities correlate to city centers and transportation corridors including Highway 20, Highway 99, Highway 65, and Highway 70. Population density correlates with Local Responsibility Areas within the County; however growth continues to extend into the SRA in the eastern portions of the County.

In 2000, Yuba County growth projections through 2020 ranged from 10% to 23%. Current census data tends to agree with these projections with actual growth rates of 19.8% for the period 2000 to 2010. Assuming the range of potential growth through 2020, using the current average rate (19.8%) and the low projected rate (10%) from Yuba County sources, the 2020 population in Yuba County will range from 79,700 to 87,800 people. A unique characteristic of Yuba County that is noteworthy in terms of fire planning is the high percentage of SRA/LRA relative to FRA. The vast majority of land in Yuba County is privately owned. A portion of the County along the eastern border is currently SRA under protection by the USFS. As development pressures push development into the upper reaches of the watershed, more population will be located in the SRA areas of the County, including these SRA areas receiving fire protection from the Federal Government. Also noteworthy is the fact that Marysville City, the largest City in Yuba County receives fire protection services from Cal Fire by contract.

## Placer County

Placer County is the second fastest growing county in California with a population growth of 40.3 percent since 2000, second only to Riverside County which grew by 41.7%, a margin of just under 1.5%. In 2010, the total population in Placer County was reported to be 348,432 people (U.S. Census Bureau (2010)), a 40.3% increase over the previous decade. The population was composed primarily of permanent adult residents with 76% of the population over 18 years of age and a 74% home ownership rate. As of 2009, a total of 148,518 housing units were reported. With a land area of 898,787 acres, the population density averages 248 persons per square mile. Higher population densities correlate to the transportation corridors including Interstate 80, Highway 65, Highway 49, Highway 193, Highway 174, and Highway 89 and on the eastside of the County. Population density also correlates to the State and Local Responsibility Areas within the County.

Based on current economic forecasts, Placer County growth projections through 2020 are expected to be 23%. The 2010 census data shows an actual growth rate of 40.7% for the period 2000 to 2010. Assuming the range of potential growth through 2020, using the current average rate (40.3%) and the projected rate (23%) from Placer County sources, the 2020 population in Placer County will range from 437,000 to 517,000 people. Growth policies within Placer County are geared toward development while preserving open space for maintenance of resource values. Current proposals include instituting the Placer County Conservation Plan (PCCP), a plan that is intended to place 50,000 acres of developable lands in the foothill areas of the County into permanent conservation to ensure the preservation of agriculture, open space and wildlife habitat. As development continues into the future, added pressure will be placed on the upper elevations of Placer County to offset the acres removed from development through implementation of the PCCP. Zoning restrictions on forested lands in Placer County generally restrict development to parcel sizes from 2.3 acres to 80 acres, leaving a large wildland component despite the development. Current conditions in the County are indicative of development in the wildland where larger parcels and open space retention have created a true WUI condition. These practices are expected to continue into the future.

## Sierra County

Sierra County is a truly rural County. In 2010, the total population in Sierra County was reported to be 3,240 people (U.S. Census Bureau (2010)), an 8.9% decrease over the previous decade. The population was composed primarily of permanent adult residents with 82% of the population over 18 years of age and a 74% home ownership rate. As of 2009, a total of 2,295 housing units were reported. With a land area of 610,163 acres, the population density averages less than 4 persons per square mile. Population densities correlate nearly exclusively to the transportation corridors including Highway 49, and 89 and also the vast Sierra Valley which has long been a population and economic center with deep roots in agriculture. Population density also correlates to Local Responsibility Areas within the County. SRA acres are exclusively interspersed among Federal lands and are Federal DPA with some LRA around Downieville and in the Sierra Valley.

Based on current economic forecasts, Sierra County growth projections through 2020 are expected to decrease by up to -1%. The 2010 census data shows an actual population shrink rate of 8.9% for the period 2000 to 2010. Assuming the range of potential growth through 2020, using the current average rate (-8.9 %) and the projected rate (-1%) from State sources, the 2020 population in Sierra County will range from 2,952 to 3,208 people. Based on this decrease in growth and the current state of responsibility for fire protection, Sierra County is not expected to be a significant influence on NEU Fire Planning, however, citizens within the County have

expressed an interest in CAL FIRE assistance to develop and implement a CWPP for the County. NEU will continue to provide guidance and support to fulfill this need.

### Sutter County

Sutter County is a strong agricultural community and is very rural. In 2010, the total population in Sutter County was reported to be 94,737 people (U.S. Census Bureau (2010)), a 20% increase over the previous decade. The population was composed primarily of permanent adult residents with 72% of the population over 18 years of age and a 64% home ownership rate. As of 2009, a total of 33,480 housing units were reported. With a land area of 385,625 acres, the population density averages less than 157 persons per square mile. Population densities correlate nearly exclusively to the transportation corridors including Highway 20, Highway 70 and 99. Primary population centers include Yuba City, Live Oak, and Sutter; the agricultural areas of the County are easily accessed by an extensive transportation system and therefore the population is scattered throughout the County. Sutter County is comprised nearly entirely of privately owned land, however due to the lack of elements required to be classified as SRA, the entire County is LRA.

Based on current economic forecasts, Sutter County growth projections through 2020 are expected to increase by up to 50%. The 2010 census data shows an actual population growth rate of 20% for the period 2000 to 2010. Assuming the range of potential growth through 2020, using the current average rate (20%) and the projected rate (50%) from County sources, the 2020 population in Sutter County will range from 141,159 to 134,226 people. Based on the current state of responsibility for fire protection, Sutter County is not expected to be a significant influence on NEU Fire Planning. As population and development increases there is a potential that State resources may be requested to assist if a fire exceeds the capability of local resources.

### Demographic Summary

NEU's primary service area encompasses 2,992.6 square miles and includes Nevada, Yuba, and Placer Counties. Population will continue to increase over the next decade in this area. Population projections range from 622,700 up to 725,800 people by 2020, an increase of 17% to 28% over the 10 year period. SRA areas and LRA areas where NEU has responsibility for fire protection will experience this population growth. Development pressures, economics and political / zoning influences will push growth into SRA areas where development will be scattered within the wildland, creating more occurrences and increased density of Wildland Urban Interface.

Table 1:  
Current Population by County, Projection Estimates (Low and High), and Acreage

	Population			Acreage
	2010	2020 Low	2020 High	
Nevada	98,764	106,000	121,000	612,870
Yuba	72,155	79,700	87,800	403,641
Placer	348,432	437,000	517,000	898,787
	<b>519,351</b>	<b>622,700</b>	<b>725,800</b>	<b>1,915,298</b>
Sierra	3,240	2,952	3,208	610,163
Sutter	94,737	134,226	141,159	385,625
	<b>97,977</b>	<b>137,178</b>	<b>144,367</b>	<b>995,788</b>
<b>Total</b>	<b>617,328</b>	<b>759,878</b>	<b>870,167</b>	<b>2,911,086</b>

Data Source: (U.S. Census Bureau (2010))

The balance of NEU is comprised of 1,556 square miles and includes Sutter and Sierra Counties. Population in Sutter County will increase and Sierra County will decrease over the next decade. The influence of this population change is unknown and may yield little effect on NEU's ability to provide fire protection to its responsibility areas.

### **Physical Description of Environmental Conditions**

The physical variability of this portion of California is broad and is a function of geologic and meteorological factors. The elevation range extends from the floor of the Sacramento Valley (<500 ft) to the high points along the crest of the Sierra Nevada (>9000 ft). Topographic influences and aspect coupled with the elevation changes provide NEU with some of the most diverse landscapes in the State. The Mediterranean climate provides sufficient precipitation and growing season and the highly productive soils sustain significant plant growth. Annually, and over time, the total biomass production is significant.

The agricultural grassland of the Sacramento Valley and the oak woodlands of the foothills are dominated by grass fuels. The density of grassland fuel is largely dependant on the quantity and timing of annual rainfall. Grass fuels are an annually critical fire concern. Fires in these potentially dense, light flashy fuels commonly result in rapid rates of spread and normally consume a large number of acres.

The oak woodlands include a significant mixed brush component on east and south facing slopes. The oak woodlands at the lower elevations develop into montane hardwood-conifer. The primary dividing element is elevation change. Areas above 1200' elevation typically sustain forest cover; areas below typically sustain oak woodlands with brush and grass. Topographic influences and soil variations provide a mosaic where cover types are mixed and extend beyond the typical elevation dividing line. Locations above 3000' transition to sierra mixed conifer. Annual biomass production from these timber fuel types is impressive ranging from 40 to 50 ft<sup>3</sup>/ac/year. Much of this volume occurs in the form of light fuels, needles and bark. Fuel loading of available fuels is largely a function of winter storm and pest damage. Fuels reach critical moisture levels under normal weather conditions and any ignition can result in large, costly and damaging fires. Above 5500' elevation timber types transition to true fir and sub-alpine conifer where environmental factors generally limit biomass production. Juniper and sage brush types dominate the higher elevations and eastside rain-shadow lying east of the crest

### **Weather and Topography**

The topography within NEU changes drastically from the flat lands of the Sacramento Valley below the 500' elevation to the steep upper slopes of the Sierra Nevada above 7,000'. The landscape aspect trend is generally west facing but interior and lateral slopes are common in all direction. Flat lands of the valley give way to rolling hills that eventually become steep inner-gorge in mid to higher elevation watersheds.

Predominant weather patterns in NEU are characterized by hot dry summers and mild to cool winters. The precipitation in lower elevations is generally in the form of rain with accumulations approximating 17 to 20 inches annually. Higher elevations commonly receive annual snow accumulations of 10 to 20 feet. Predominate winds are southwest but commonly becomes north to northeast following weather systems.

Annually fire weather conditions become critical in late July through October. Red Flag warnings are common throughout the summer and largely attributed to low relative humidities and high north winds. An average summer day is 85-95 degrees, winds southwest 0-7 with RH of 20-25 percent. Under these common conditions the ignition potential and likelihood of a fire growing into a significant event is high.

## Fire History

Cal Fire strives to extinguish 95% of all wildland fires at 10 acres or less. For those few fires that exceed 10 acres, costs of suppression and value losses grow exponentially.

The Nevada-Yuba-Placer Unit's (Schedule B - State) resources are allocated throughout the 3-county area in a way that is expected to keep State Responsibility (SRA) wildland fires small, providing maximum protection for life, property, and the environment.

Fire history for the last decade (2000's) show that most "failures", that is fires that are greater than 10 acres, occur on brush and grass covered lands west of Highway 49 – and to a much lesser extent – in the Truckee and Tahoe basins. Factors that contribute to these failures include:

- Limited State & Local resources – long response times
- High incidence of arson and negligent acts
- Fires that burn for a longer period of time before being detected / reported.
- Fires in fuel types that support a more rapid rate of spread
- Multiple jurisdictions from different dispatching facilities (PSAP's)
- Longer aircraft flight times.

The fire-threat is significant along the 20-49-80 corridor, and there are many factors that contribute to a high success rate in containing wildfires:

- Quick detection – Many people, cell phones, lookout towers...
- Numerous State & Local fire suppression resources
- A single dispatch center (Grass Valley ECC) for most agencies
- Rapid response & turn-around times for air resources (tankers)

It must be reinforced, however, that a wildfire occurring on a severe fire weather day (hot, dry and windy) will spread with such speed and intensity, that even the most prompt response from emergency resources and most aggressive fire control tactics may be ineffective. There are many local examples of this type of fire – here are some recent ones:

Robbers Fire	2012	(Iowa Hill)	2,635 acres	1 structure
49 Fire	2009	(Auburn)	343 acres	64 structures
Gladding	2008	(Lincoln)	1,090 acres	4 structures
Williams	1999	(Dobbins)	5,837 acres	91 structures
Pendola	1997	(Dobbins)	11,725 acres	76 structures
Trauner	1994	(Rough & Ready)	536 acres	12 structures
Fawn	1992	(Ophir)	350 acres	13 structures
49er	1988	(Lake Wildwood)	36,343 acres	200 structures

Historic fire perimeter data for the Nevada-Yuba-Placer Unit can be downloaded from the following location:

<http://frap.cdf.ca.gov/data/frapgisdata/download.asp?rec=fire>

## **Priority Landscapes**

### **2010 California Forest and Rangeland Assessment**

Public Resource Code 4789 requires Cal Fire to periodically assess California's forest and rangeland resources. Cal Fire's Fire and Resource Assessment Program (FRAP) completes this assessment. The analysis is designed to identify key issues and define the status and trends effecting California forestlands and resources. The 2010 assessment identifies priority landscapes and associated forest and rangeland impacts. These priority landscapes are developed based on three primary themes and related subthemes. The three general themes of the recent assessment are:

- 1- Conserve working forest and range landscapes.
- 2- Protect forests and rangelands from harm.
- 3- Enhance public benefits from trees, forests and rangelands.

These themes are followed by eleven subthemes that provide more detail for a priority landscape rating. Strategies to help mitigate these issues are developed by the Unit in consideration of existing programs and projects. The 2010 assessment identifies the following priority landscapes in NEU:

#### **Population Growth and Development Impacts**

This priority landscape is identified due to high ecosystem value and the potential for those ecosystems to be impacted by development. Annual grasslands, Montane Hardwoods, Blue Oak Woodlands and Montane Hardwood-Conifer are some of the habitat types at risk identified under this priority landscape in NEU.

Strategies to offset impacts from growth and development include local planning, land acquisition, zoning policies and policies to promote in-filling of existing developed areas. Current proposals include the adoption of the Placer County Conservation Plan, a plan that will place 50 thousand acres of developable land below 1000' elevation into permanent conservation. Adoption of such plans does minimize impacts to these acres, but other acres in other portions of the Unit would presumably receive the pressure from development to replace the demand on the conserved acres.

#### **Sustainable Working Forests and Rangelands**

This priority landscape includes land with timber volume and forest biomass having economic values that are threatened by wildfire and forest pests. Rangeland productivity combined with wildfire threat develops the rangeland risk reduction priority landscape.

Within the boundaries of NEU, in those areas bearing commercial timber, estimates of current standing volume range from 2.4 to 3 Billion Board Feet, with a value from \$960 Million to \$1.2 Billion. Strategies to reduce identified threats and promote working forests and rangelands include Cal Fire's existing resource management programs designed to reduce fuels, protect water quality and promote landowner stewardship. In NEU, rangelands are considered in two forms. Grassland range is typically in the lower elevations and incorporates dry land and irrigated land grazing and includes cattle, sheep, goats, horses and other livestock. Open-range cattle grazing can be defined as cattle and goats relying upon wild forage as feed. Control of herd size will affect the quantity of forage consumed and thereby impacts the available fuel loading, also with potentially negative impacts to soil and water quality. Following fire, feed quality and quantity has a short term negative impact and long term positive impact. Nutrient

cycling and decrease of undesirable species is a positive benefit. Open range grazing increases as desirable forage germinates and grows with less competition from canopy cover. The ultimate goal is to maintain the viability of livestock grazing on all available cover types to provide biological fuel loading control and provide for economic stimulus from agriculture. Use of controlled fire will be utilized to achieve this goal.

### Wildfire Threats to Ecosystem Health and Community Safety

The priority landscape for preventing wildfire threats to maintain ecosystem health is based on unique ecosystems that have a high threat of damage that result from future fire. Managing these ecosystems requires understanding the natural fire regimes that once formed the ecological stability of the ecosystems and determining actions that best mimic or restore these natural processes.

The priority landscape for restoring wildfire impacted areas to maintain ecosystem health includes restoring fire damaged lands recently burned in wildfires, especially where entire ecosystems are damaged. Activities are designed to facilitate the restoration of key ecosystem functions and components.

The priority landscape for preventing wildfire threats for community safety combines areas of high wildfire threat with areas of human infrastructure. Areas of high risk are provided focus for planning and mitigation.

Strategies to reduce threats to ecosystem health and community safety involve collaborative planning due to the large number of individual landowners and post fire ecological rehabilitation tactics. Past efforts have included Burned Area Rehabilitation techniques, cooperative efforts with soil and conservation organizations, and forestry assistance to landowners with burned lands. Individual homeowner vegetation management can have a large impact to reducing threats within these landscapes. Public education specific to PRC 4291 compliance and treatment techniques, inspiring a landscape level fuel modification and land stewardship ethic, and public service forestry are mechanisms that will assist in protection of these priority landscapes.

### Forest Pests and Other Threats to Ecosystem Health and Community Safety

The priority landscape for restoring forest pest impacted areas to maintain ecosystem health identifies areas where restoration activities are going to have the greatest impact of forest pest impacted ecosystems. In NEU the Sierra Mixed Conifer, Eastside Pine, Red Fir and White Fir are the habitat types with the most priority acres. These forest types correspond to the highest timber value and best use as timber production.

The priority landscape for restoring forest pest impacted communities for public safety identifies tree mortality coincident with human infrastructure. Restoration activities and hazard tree removal are a necessity in these areas.

The priority landscape for preventing forest pest outbreaks to maintain ecosystem health identifies ecosystems most at risk from tree mortality potentially caused by future pest outbreaks.

The priority landscape for preventing forest pest outbreaks for community safety identifies communities most at risk for damage from future outbreaks. In NEU Truckee is one of the largest communities identified as a priority for forest pest prevention activities.

Strategies to reduce forest pest impacts and other threats to ecosystem health and community safety utilize a variety of forest management tools. These tools are available to land managers and public agencies and address forest pest damage to ecosystem health. These tools include

- 1) Education and outreach regarding impacts from forest pest killed trees,
- 2) Early detection and monitoring of forest conditions and pest activity,
- 3) Forestry assistance programs, grant funded programs geared toward pest management and privately funded forest management activities, and
- 4) State and federal forest policies and declared Zones of Infestation.

#### Water Quality and Quantity Protection and Enhancement

The priority landscape for water supply identifies areas where high value water supply coincides with high threat. These areas are then targeted for stewardship projects that protect and promote water supply. The annual snowpack in the Sierra Nevada is a major water supply to the state. Forested watersheds in NEU supporting this snowpack are high priority areas. All of the water that drains from the Unit is used in some form as irrigation, power generation, domestic supply, recreation, or wildlife habitat. This is among the highest of value resources targeted for protection.

The priority landscape for water quality involves high value water assets in watershed that support a broad range of beneficial uses and threats to water quality. Lake Tahoe is one of the highest priority watersheds in the region.

Strategies to protect water quality and quantity include programs designed to promote land stewardship and improve water use. Involvement in FERC relicensing, fire prevention, promotion of grant programs aimed at water quality protections and review of CEQA documents with Cal Fire objectives in mind are aimed at protecting these priority landscapes.

#### Urban Forestry for Energy Conservation and Air Quality

The priority landscape for urban forestry tree planting involves dense populations with considerable air pollution which also represent urban heat sinks. Tree planting in these areas can reduce energy consumption due to cooling and filter air pollutants.

The priority landscape for urban forestry maintenance identifies dense populations of people and trees, with many days over 90 degrees and poor air quality. Protecting the existing trees in these areas will provide a public benefit.

Strategies to protect urban forestry for energy conservation and air quality involve various program designed to create and maintain sustainable urban forests. Common urban forestry tools involve expansion/ reforestation, maintenance/management and public outreach and support.

#### Planning for and Reducing Wildfire Risks to Communities

The priority landscape for community wildfire planning identifies where wildfire threat coincided with human infrastructure such as houses, transmission lines and major roads. The priority landscape was summarized to identify priority communities. The analysis then examined which priority communities are currently covered by a Community Wildfire Protection Plan (CWPP).

Current strategies involve the recruitment of groups that desire to create new CWPP's and encouraging the updating of existing plans. Cooperation with Fire Safe Councils, Conservation Groups and agencies with wildfire prevention in mind will aid in protecting this priority landscape. The Unit is currently involved in development of two new CWPP's, Lincoln area and Truckee Area.

#### Emerging Markets for Forest and Rangeland Products and Services

The priority landscape for biomass energy-ecosystem health was developed based on existing and proposed biomass facilities and the potential for those facilities to support fuel reduction and restoration projects that will promote forest and ecosystem health.

Strategies for emerging markets for forest and rangeland products are largely geared toward biomass facilities and fuel reduction projects designed to improve ecosystem health. Strategies also involve carbon sequestration.

#### Plant, Wildlife, and Fish habitat Protection, Conservation and Enhancement

The priority landscape for wildfire threat to areas protected for habitat involves fire threat and the potential for impacts on protected habitat. Lands managed by public agencies dominate this priority landscape

Strategies to protect plants, wildlife and fish habitat include purchasing of land and conservation easements, development planning, zoning, habitat mitigation banking, habitat restoration, and policies, regulations and funding that support these efforts.

#### Green Infrastructure for Connecting People to the Natural Environment

The priority landscape for conserving green infrastructure (development threat) emphasizes green infrastructure that serves larger communities and faces significant development threat, to characterize the overall magnitude of the threat by county and bioregion. In NEU the significant threat is in the foothill areas.

The priority landscape for managing green infrastructure (wildfire/forest pest threat) identifies that emphasize green infrastructure that serves larger communities or has recreation value, and faces significant threat from wildfire or forest pests (insects and disease). Management tools include fuels reduction projects, prescribed fire and thinning.

Strategies for protecting green infrastructure for connecting people to the environment involve establishing reserves, developing conservation easements, community planning and fuels reduction/vegetation management projects.

#### Climate Change: Threats and Opportunities

The Priority Landscape for Threats from Wildfire, Insects and Disease and Development involves locations where high value forest carbon assets coincide with wildfire, insects and disease. The expected loss from wildfire, insects and disease is much more extensive than loss from development.

The priority landscape for threats to forest carbon from development involves locations where high value forest carbon assets coincide with high risks of development that threaten the

sustainability of carbon sequestration. In the Sierra Foothills oak woodlands are a primary threat of development.

Strategies to preserve and enhance forest carbon management involve policy development that increases carbon sequestration where possible, promote actions that reduce losses from wildfire, increase forest health and discourage or mitigate land use conversion from forest and watershed uses to other non compatible uses.

### **NEU Priorities and Goals**

The State Board of Forestry and the Cal Fire have drafted a comprehensive update of the State Fire Plan for wildland fire protection in California. NEU has reviewed the 2010 Strategic Fire Plan (State) goals in order to develop and incorporate those goals into the Unit Fire Management Plan. The NEU priorities provide the foundation upon which our local goals and objects are built. The NEU priorities and Goals are as follows:

#### Priorities:

1. To Reduce the Risks to Citizens and emergency responders from Wildland Fire.
2. Develop a “land stewardship” ethic in the residents of the Unit

#### Goals:

1. Demonstrate methods that individuals and the community can use to properly manage their lands to improve forest health, and reduce the ignitability of structures in the Wildland Urban Interface.
2. Raise citizen and stakeholder awareness of fire risks and enlist their help and participation in risk reduction.
3. Assist local government in developing standards, policies, and plans, which will result in local, and landscape level fuel modifications.
4. Implement local and landscape level projects and programs that decrease fire risk and increase the potential for success on initial attack.

## UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

### NEU Facilities

NEU Headquarters is located along Interstate 80 near Auburn. At peak season, the Unit staffs 26 fire stations, an air attack base, a conservation camp with 5 year-round hand crews, fire-prevention bureau, a pre-fire planning office with fully integrated GIS resource mapping capabilities, and 7 Registered Professional Foresters skilled in forest management and CEQA compliance. NEU also maintains three bulldozer / transport combinations, a road grader, front-loader and dump truck with numerous operators skilled in all aspects of equipment operations from bulldozer firefighting operations to road repair.

Facilities are spread from Marysville, in the valley grasslands of Yuba County, through the Gold Country of Placer and Nevada Counties, eastward to Truckee and the Tahoe Basin. The Unit also provides various levels of fire protection service through cooperative agreements with three counties and six fire districts.

Resources are dispatched and managed through the Grass Valley Emergency Command Center, which is co-located with the Grass Valley Air Attack Base. Peak season air resources include one fixed wing air attack and two air tankers.

Cal Fire NEU supports the use of four lookouts located on State lands in Nevada, Yuba, and Placer Counties and one lookout on contract with the USFS. The lookouts remain the backbone of Cal Fire's wildland fire detection system. Fixed lookouts are generally staffed in areas of high risk and high fire danger where reliable local reporting is not available.

The following is a list of NEU's facilities, equipment, and overhead personnel locations (listed by county):

#### Placer County

Auburn Headquarters:	3 – Battalion Chiefs (Training, Prevention, Admin) 1 – Fire Equipment Manager 1 - Heavy Equipment Mechanic (Schedule B) 1 – Heavy Equipment Mechanic (Placer County) 1 – Unit Service Center 3 - Foresters
Auburn (Station10)	2 – State Owned Fire Engines 1 - Battalion Chief 1 – Bulldozer / Transport 2 - Heavy Fire Equipment Operators
Foresthill (Station 11)	2 – State Owned Fire Engines
Dry Creek (Station 100)	1 – Type II Schedule A Engine 1 – Battalion Chief
Atwood (Station 180)	1 – Schedule A Type III Engine 2 – Type II Schedule A Engines 1 – Type I Schedule A Engine 1 – Schedule A Water Tender

Ophir (Station 182)	1 – Type II Schedule A Engine
Colfax (Station 30)	1 – State Owned Fire Engine 1 – Battalion Chief
Alta (Station 33)	2 – State Owned Fire Engines
Truckee (Station 50)	3 - State Owned Fire Engine 1 - Battalion Chief 1 - Forester
Carnelian Bay (Station 55)	2 – State Owned Fire Engine
Lincoln (Station 70)	1 – Type II Schedule A Engine
Sunset (Station 77)	1 – Type III Schedule A Engine 1 – Type II Schedule A Engine 1 – Type I Schedule A Engine 1 – Battalion Chief
Fowler (Station 73)	Placer County Volunteers 1 – Water Tender 1 – Type III Engine 1 – Type I Engine
Thermolands (Station 74)	Placer County Volunteers 1 – Type III Engine 1 – Type I Engine 1 – Water Tender
Paige (Station 75)	Placer County Volunteers 1 – Water Tender 1 – Type III Engine
Sheridan (Station 78)	Placer County Volunteers 1 – Water Tender

Nevada County

Grass Valley	1 - Interagency Emergency Command Center 1 - Air Attack Base 2 – Battalion Chiefs 2 – Type 3 Air Tankers 1 – Air Tactical Platform
Nevada City (Station 20)	1 – State Owned Fire Engines 1 – Battalion Chief 3 – Foresters (2 Area + Unit Forester) 1 – Bulldozer / Transport 2 – Heavy Fire Equipment Operators
Columbia Hill (Station 42)	2 – State Owned Fire Engines

Higgins Corner (Station 21)	2 – State Owned Fire Engines 1 – Type III Schedule A Engine 1 – Type II Schedule A Engine
Smartsville (Station 40)	2 – State owned fire engines 1 – Battalion Chief
Washington Ridge CC	5 – Inmate Crews 1 – Division Chief (Northern)

#### Yuba County

Marysville (Station 95)	1 – Battalion Chief
Dobbins (Station 60)	2 – State Owned Fire Engines 1 – Bulldozer / Transport 1 – Heavy Fire Equipment Operator
Loma Rica (Station 61)	1 – State Owned Fire Engine 1 – Battalion Chief

#### Washington Ridge Conservation Camp

Washington Ridge (WAR) is a cooperative program with the California Department of Corrections and Rehabilitation (CDCR). Through these cooperative efforts, Cal Fire NEU is able to house approximately 100 inmates that form 5 crews available to respond to all types of emergencies including wildfires, floods, search and rescue and earthquakes. When not responding to emergencies, the crews are busy with conservation and community service work projects for state, federal, and local government agencies. Hazardous vegetation abatement, forest management and controlled burning are regular activities WAR crews are engaged in.

#### Fire Weather

NEU maintains and monitors three NFDRS (National Fire Danger Rating System) RAWS stations. These include Lincoln, Secret Town and Reader Ranch. Data posts hourly to allow calculation of fire weather indices and determine staffing levels. Monthly fuel sampling at multiple locations throughout the Unit, coupled with weather observations provide for fire behavior analysis and preparation for increased fire activity.

## NEU Forest Fire Lookouts

### Mt Howell Lookout (Placer County)

Mount Howell is located two miles south of Colfax above Interstate 80 and along the Union Pacific Railroad. The lookout was initially constructed in 1930 and has been reconstructed several times. The Lookout is unstaffed unless significant fire weather is projected. Areas serviced by Mount Howell Lookout are visible from other lookouts in the Unit and numerous residents and travelers provide reports of fires in the area. The lookout provides for other communications and maintenance of the lookout is expected to continue. <http://www.mounthowelllookout.org/>



### Banner Mountain Lookout (Nevada County)

Banner Mountain Lookout is located four miles east of Nevada City near Scott's Flat Reservoir. The Lookout was built in 1926 and is located amongst an extensive community of mountain homes. The lookout is staffed annually through fire season by volunteer staff. The lookout site co-located with various other communication facilities.



### Wolf Mountain Lookout (Nevada County)

Wolf Mountain is a broad, flat north tending ridge located in Nevada County west of Wolf Creek. The lookout was built in 1981 and is staffed annually with volunteers during fire season. Ponderosa pine, digger pine, black oak and brush predominate. The site has radio and microwave facilities. <http://www.wolfmountainlookout.org/>



### Oregon Peak Lookout (Yuba County)

Oregon Peak Lookout is located two miles north east of Dobbins. The lookout was built in 1935 and was completely constructed with CCC labor. The lookout provides a panoramic view of the Sacramento Valley, points south towards the heart of NEU, and the Sierra Buttes in Sierra County. The lookout is staffed annually during fire season with volunteers.

### Martis Peak Lookout (Placer County)

Martis Peak Lookout is located 8 miles east of Truckee near the Nevada State Line. The lookout is staffed by Cal Fire through an agreement with the lookout owner, the USFS. The lookout was built in 1935 and is staffed annually during fire season.



## NEU Remote Automated Weather Stations (RAWS)

### **Secret Town RAWS (SRT) - Placer County**

<http://cdec.water.ca.gov/cgi-progs/queryF?SRT>

Historic data is available from May 1992 forward.

Location: Secret Town, CA

Latitude: 39°11'01" Longitude: 120°53'05"

Elevation: 2,826 ft

NWS ID: 041808



### **Reader Ranch RAWS (RDH) - Nevada County**

<http://cdec.water.ca.gov/cgi-progs/queryF?RDH>

Historic data is available from September 2002 forward.

Location: Reader Ranch, CA

Latitude: 39°18'13" Longitude: 121°07'02"

Elevation: 1,968 ft

NWS ID: 041809



### **Lincoln RAWS (LCN) - Placer County**

<http://cdec.water.ca.gov/cgi-progs/queryF?LCN>

Historic data is available from August 1991 forward.

Location: Lincoln, CA

Latitude: 38°52'57" Longitude: 121°16'06"

Elevation: 200 ft

NWS ID: 041907



The Unit also accesses data from Stampede (USFS-SPL) to represent East Side conditions:

Historic data is available from July 1991 forward.

<http://cdec.water.ca.gov/cgi-progs/queryF?SPL>

## **Local Agreements and Contracts**

### **Cooperative Fire Protection**

The Cal Fire Nevada-Yuba-Placer Unit provides various emergency services to local cities, counties and districts. These cooperative agreements range from full service fire protection services to dispatch only agreements.

In Nevada County, CAL FIRE dispatches for all local fire departments and districts in the county including Nevada County Consolidated Fire District, Grass Valley City Fire Department and Penn Valley Fire Protection District, as well as Sierra Nevada Ambulance. In the Lake of the Pines area, the [Higgins Fire Protection District](#) contracts with CAL FIRE to provide 24-hour year-round fire protection services (known as an [Amador Contract](#)). The County of Nevada also contracts with CAL FIRE for a Fire Captain to serve as the county's Fire Planner.

In Yuba County, CAL FIRE is contracted to provide year-round fire protection (known as an Amador Contract) to the communities of Loma Rica and Browns Valley. In the City of Marysville, CAL FIRE is contracted to run the [Marysville Fire Department](#), under a full fire protection agreement (known as [Schedule A](#)).

In Placer County, CAL FIRE has a full fire protection agreement (known as [Schedule A](#)) with the Placer County Fire Department. Placer County Fire has 5 stations staffed by CAL FIRE firefighters and another 5 stations staffed by volunteers. The areas served by the CAL FIRE / Placer County Fire Department include North Auburn, Ophir, Dutch Flat, unincorporated Lincoln, Dry Creek, Sheridan, and Camp Far West. In addition, CAL FIRE provides year-round fire protection ([Amador Contract](#)) to the communities of Auburn (Bowman), Colfax and Alta. CAL FIRE provides dispatch only services for several local fire departments and districts in Placer County including Auburn City Fire Department, Truckee Fire Protection District, North Tahoe Fire Protection District, as well as CalSTAR Air Ambulance in Auburn.

### **Automatic Aid Agreements**

No formal automatic aid Schedule B agreements are in place in NEU. However, there are unofficial agreements in place and formal agreements in place for Schedule A and Schedule C.

#### **Unofficial Agreements:**

CAL FIRE Station 40 to all Smartsville Fire calls (summer only)  
CAL FIRE Station 40 to Penn Valley incidents west of Melody Rd (summer only)  
CAL FIRE Station 42 to all North San Juan calls (summer only)  
CAL FIRE Station 60 to all Dobbins Fire calls (summer only)

SRA incidents will recommend the closes CAL FIRE or USGS engine(s). The Tahoe National Forest (TNF) and the Lake Tahoe Basin Management Unit (LTBMU) will recommend the closest NEU engine(s). For the TNF, NEU stations are included in the response run order in the USFS's WildCAD. For the LTBMU, recommendation is based on the dynamic dispatching / closest resource capability within Altaris CAD.

In order for NEU to meet the objective of keeping 95% of all wildland fires to 10 acres or less (as defined by Cal Fire), the application of closest resource concept is critical. This process allows the nearest fire suppression resource to respond to the scene of a wildland fire and begin suppression activities without focusing on responsibility areas or jurisdiction. The co-location of

the CAL FIRE ECC with the USFS dispatch, and local government dispatch responsibilities being a Grass Valley ECC function assists in the application of closest resource concept.

### **Schedule A Agreements**

CAL FIRE / Marysville Fire & Butte County Fire  
CAL FIRE / Marysville Fire & Loma Rica / Browns Valley CSD (CAL FIRE Station 61)  
CAL FIRE / Placer County Fire & Colfax City Fire  
CAL FIRE / Placer County Fire & Higgins Fire  
CAL FIRE / Placer County Fire & Pleasant Grove Fire  
CAL FIRE / Placer County Fire & Roseville Fire  
CAL FIRE / Placer County Fire & Sac Metro Fire  
CAL FIRE / Placer County Fire & Wheatland Fire Authority

Note: Placer County fire agencies have a Chief's agreement on file, agreeing that the closest resource will be dispatched to an emergency. As a result, CAL FIRE / Placer County Fire response plans look at all Placer County agencies as a closest resource to an incident. This is used in lieu of an auto aid agreement.

Example: A high dispatch vegetation fire in 77's response area may recommend an engine from Lincoln City, Roseville City and Rocklin City, whereas a structure fire in Station 182's area may recommend an engine and/or water tender from Newcastle, Penryn and Loomis. This is also seen in the North Auburn area, between Station 10/180 and Auburn City.

### **Schedule C Agreements**

Loma Rica / Browns Valley CSD (CAL FIRE Station 61) & Butte County Fire  
Loma Rica / Browns Valley CSD (CAL FIRE Station 61) & Smartsville Fire  
Higgins Fire (CAL FIRE Station 21) & Nevada County Consolidated Fire  
Higgins Fire (CAL FIRE Station 21) & Placer Hills Fire

### **2013/2014 Local Wildland Contracts - Placer County**

Rocklin Fire Contract – 700 acres  
Auburn Fire Contract – 900 acres  
Truckee Fire Contract – 7,763 acres

### **Mutual Threat Zones**

Mutual aid may also be provided to areas determined to be within a mutual threat zone, wherein any fire is judged to be a threat to agencies having a common boundary. Mutual threat zones will be delineated on maps maintained by both agencies. Mutual threat zones will exist primarily along SRA-LRA boundaries. Normally a negotiated automatic response is made into a mutual threat zone, thereby reducing duplication. NEU is currently developing a number of mutual threat zones within the unit.

## Dispatch Agreements

### **NEVADA COUNTY**

Grass Valley FD  
Nevada City FD  
North San Juan FPD  
Peardale Chicago Park FPD  
Rough and Ready FPD

Higgins FPD  
Nevada County Consolidated FD  
Ophir Hill FPD  
Penn Valley FPD  
Washington FD

### **YUBA COUNTY**

Camptonville FPD  
Foothill FPD  
Smartsville FPD

Dobbins-Oregon House FPD  
Loma Rica-Browns Valley FPD  
La Porte FD (Plumas County)

### **PLACER COUNTY**

Alta FPD  
Colfax City FD

Auburn City FD  
Placer County Fire

### **EASTSIDE**

Meeks Bay FD (El Dorado County)  
Northstar FD  
Truckee FPD

North Tahoe FD  
Squaw Valley FD

### **ADDITIONAL CONTRACTS / SERVICES**

Sierra Nevada Memorial Hospital Ambulance Service  
California Shock/Trauma Air Rescue (CALSTAR) - Auburn Base  
Sierra Sacramento Valley EMS Agency - Air Ambulance Coordination Center  
CAL EMA Region IV - Fire and Rescue Branch  
Emergency Medical Dispatch - Pre-arrival instructions for Yuba County agencies not dispatched by GVECC

**SECTION II: COLLABORATION**

**A: 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:

**TABLE 2 - Plan Development Team:**

<b>Organization</b>	<b>Representative (title)</b>
Cal Fire	Unit Forester
Cal Fire	Forest Practice Forester II
Cal Fire	VMP Coordinator
Cal Fire	Forest Practice Inspector
Cal Fire	Forestry Assistance Specialist
Auburn City Fire	Auburn City Fire Chief
Placer County OES	Principle Management Analyst
Placer Fire Alliance	Placer County Fire Mitigation Coordinator
Placer County RCD	Executive Director
Foresthill Fire Dept.	Foresthill Fire Chief
Placer Hills Fire District	Placer Hills Fire District Chief
Northstar Fire Dept.	Fire Chief / Fuels Specialist
North Tahoe FPD	Fuels Specialist
Truckee FPD	Fire Prevention Officer
FSCNC	Executive Director of Fire Safe Council of Nevada County
UC Davis	Sierra Foothill Research and Extension Center Director
Yuba County FSC	Yuba Watershed Protection & Fire Safe Council Facilitator

## Fire Safe Councils within the Unit

### **Placer County**

**Placer Fire Alliance** (<http://www.placerfirealliance.org/>)

Composed of:

- Foresthill Fire Safe Council
- Greater Auburn Area Fire Safe Council
- Placer Sierra Fire Safe Council
- Greater Lincoln Area Fire Safe Council

Placer County CWPP:

2013 Revision

<http://www.placerfirealliance.org/Documents/PlacerCountyCWPPweb.pdf>

Lake Tahoe CWPP:

Currently updated

<http://www.placerfirealliance.org/Documents/Lake%20Tahoe%20CWPP%202004.pdf>

Northstar Fire CWPP:

Currently updated.

Available by request for Northstar Fire Department

### **Nevada County**

Fire Safe Council of Nevada County (<http://www.areyoufiresafe.com/>)

CWPP is located at:

[http://www.areyoufiresafe.com/index.php/download\\_file/view/365/](http://www.areyoufiresafe.com/index.php/download_file/view/365/)

### **Yuba County**

Yuba County Fire Safe Council (<http://www.co.yuba.ca.us/firesafe/>)

Current Yuba County Hazard Mitigation plan used as CWPP.

### **Sierra County**

Sierra Fire Safe Council (<http://www.scfswc.com/>)

Sierra County Fire Safe Plan (2002)

[http://www.scfswc.com/media/PDFs/Sierra\\_County\\_2002\\_Community\\_Fire\\_Safe\\_Plan.pdf](http://www.scfswc.com/media/PDFs/Sierra_County_2002_Community_Fire_Safe_Plan.pdf)

**A: NEU's ASSETS AT RISK**

The Unit description contained in this Fire Management Plan provides the background for identifying **NEU's Assets at Risk**. The 2010 California Forest and Rangeland Assessment Priority Landscape discussion also reinforces the subthemes that associate with the assets at risk. Each of NEU's programs is geared to protect or enhance the assets. The following list provides a summary of **NEU's Assets at Risk**:

- Life Safety of Residents
- Fixed Property and Real Estate
- Watershed Values and Water Quality / Quantity
- Power Distribution Infrastructure
- Railroad and Highway Infrastructure
- Timber and Agricultural Values
- Wildlife and Ecosystem
- Clean Air

**B: NEU's COMMUNITIES AT RISK**

On January 4, 2001, for the purposes of the National Fire Plan, the Department of Interior (DOI) published in the *Federal Register* a "notice of Wildland Urban Interface (WUI) Communities within the Vicinity of Federal Lands That Are at High Risk from Wildfire."

After the 2000 fire season Cal Fire, working with the California Fire Alliance, developed a list and associated map of communities at risk from wildfire using 1990 Census and USGS Geographic Names Information System data to identify populated places, and Cal Fire's Fire and Resource Assessment Program (FRAP) [<http://frap.cdf.ca.gov/>] fuel hazard data.

Listed communities can be found at the following link

[http://www.cafirealliance.org/communities\\_at\\_risk/communities\\_at\\_risk\\_list](http://www.cafirealliance.org/communities_at_risk/communities_at_risk_list)

Cal Fire FRAP Communities at Risk Map submitted for National Fire Plan.

[http://frap.cdf.ca.gov/webdata/maps/statewide/comrisk\\_map.pdf](http://frap.cdf.ca.gov/webdata/maps/statewide/comrisk_map.pdf)

**Number of formally listed communities at Risk:**

Nevada County: 43  
Placer County: 38  
Sierra County: 17  
Sutter County: 12  
Yuba County: 2

## **C: FIREWISE COMMUNITIES**

The national Firewise Communities program is a multi-agency effort designed to reach beyond the fire service by involving homeowners, community leaders, planners, developers, and other in the effort to protect people, property, and natural resources from the risk of wildland fire – before a fire starts. Firewise Communities emphasize community responsibility for planning in the design of a safe community as well as effective emergency response, and individual responsibility for safer home construction and design, landscaping, and maintenance. More information can be found at <http://www.firewise.org/>

### Firewise Community Designation

#### **Placer County**

Alpine Meadows 2007  
Walden Woods, Granite Bay 2008  
Northstar 2010  
Monte Verde, Foresthill – (2013 – In Progress)

#### **Nevada County**

Lake Wildwood Association, Penn Valley 2007  
Lake of the Pines 2009  
Banner Mountain 2010  
Mountain Lake Estates, Nevada City 2010  
Greater Cement Hill Neighborhood, Nevada City 2012  
Greater Alta Sierra 2012

### A. Nevada-Yuba-Placer Unit Fire Prevention Program

NEU's fire prevention program accomplishes Unit fire management goals through implementation of four primary components. These components are law enforcement, engineering, information/education and volunteerism.

Law enforcement includes fire investigation and cause determination, enforcement of California's Forestry and Fire Laws and PRC 4291 inspections throughout the Unit.

Engineering occurs through local building department functions where Cal Fire personnel are assigned to assist in planning fire safe projects.

Information and education occurs through direct contact with the public, partnerships with local boards and councils, communication with professional organizations and employee involvement in the local community.

Volunteerism occurs through support of the Volunteers in Prevention (VIP) program, which uses local volunteers to staff fire lookouts, provide public information and represent CAL FIRE at public events, meet with residents, and correspond with the public with Cal Fire goals in mind. The balance of each of these components allows the prevention program to address statewide, regional and local fire issues.

Annually, NEU's Fire Prevention Bureau evaluates fire cause for all fires that occurred the previous year. The ignition information is made available to the Unit staff in order to assist Battalion staff in local fire prevention efforts and develop ignition management plans.

#### Engineering and Structure Ignitability

As rural development continues, parcel sizes within the WUI remain large enough to sustain a significant threat of wildfire. NEU contains a mosaic of land use types ranging from rural agriculture and forested parcels, WUI with small clusters of development, and dense development near commercial centers and along main thoroughfares. Commercial and residential structures are present throughout all of these land use types. Also prevalent is pervasive hazardous vegetation typical of the Mediterranean climate with fertile soils. Projections of population growth and a desirable standard of living in the Sierra Nevada foothills dictate that continuing development in NEU's WUI will persist.

Construction types, ignitability of materials and proper engineering are all critical when wildland fires encounter structures. State law establishes certain requirements for building in the WUI that effect structure placement and decrease structure ignitability. Local NEU staff, acting in the capacity of Fire Protection Planners (similar to a county Fire Marshall) are co-located with the county building and planning departments (for Placer and Nevada County). Within Yuba County, these duties are handled by the local Battalion Chief with assistance as needed from Nevada and Placer County fire protection planners.

These fire protection planners evaluate development and fire engineering for new construction, including single residential, commercial, and large scale development.

Strategies include:

- Assist planning to properly locate development with minimum exposure to wildfire.
- Evaluation of construction methods and materials that minimize the potential for structure ignition.
- Reduction of flammable vegetation around structures and along evacuation routes.
- Design appropriate access capacity, including roadway design, turnarounds, fire lanes.

**Daily tasks include:**

- All civil engineering development plans are reviewed for compliance with state fire code.
- Inspecting construction and development for all fire code enforcement issues.
- Inspection of all commercial, residential care homes and commercial change of occupancy locations.
- Implementation of Title 19 regulations, including fire sprinkler system maintenance, appropriate addressing, and water requirements on new construction.

Examples of inspection services offered and rates (from Placer County, 2013) are included as reference in Appendix E: Fire Planner Services Provided within NEU.

Currently development of pre-plans for commercial buildings are developed and maintained at the responding station. Annual fire code inspections for existing construction are also managed at the station level.

### Construction

Fire Hazard Severity Zone Mapping – During the years 2007 through 2008, CAL FIRE updated the existing Fire Hazard Severity Zone maps to coincide with the adoption of the new wildland-urban interface building standards. The updated maps incorporate improved wildland fire behavior science, data sets, and understanding of structure ignition mechanisms during conflagrations. These fire hazard severity zones are used by building officials to determine appropriate construction materials for new buildings in the WUI. The updated zones are also used by property owners to comply with natural hazards disclosure requirements at time of property sale. It is expected that the fire hazard severity zones will be used by local government to also update the safety element of general plans.

Fire Hazard Severity Zone Mapping directly relates to building construction standards. On September 20, 2005, the California Building Standards Commission approved the Office of the State Fire Marshall's emergency regulations amending the California Code of Regulations (CCR), Title 24, Part 2, known as the 2007 California Building Code (CBC). It states that any new construction or additions to structures located in a fire hazard severity zone within State Responsibility Areas (SRA), any Local Area Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Area designated by the enforcing agency for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.

Within the WUI, intrusion of burning embers into a structure is the primary cause of structure ignition during a wildland fire. Fire prevention planners enforce the strict requirements of the California Building Code Chapter 7A (Under Title 24). The objective of these 7A Standards is to provide a reasonable level of exterior wildfire exposure protection for buildings in the WUI. The 7A Standards are designed to minimize the number of burning embers that enter a building and ignite fires. One important component to 7A requirements is that a 4291 inspection must be passed before a building permit is finalized by the building department.

<http://osfm.fire.ca.gov/pdf/firemarshal/buildingcodechapter7a.pdf>

The Fire Hazard Severity Zone maps and new building standards for each county can be obtained from the Cal Fire website:

[http://www.fire.ca.gov/fire\\_prevention/fire\\_prevention\\_wildland.php](http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland.php).

### Defensible Space Inspection Program

Proper clearance and treatment of vegetative fuels enhances the protection of structures in the wildland. Public Resource Code 4291 (PRC 4291), establishes mandates for the clearance of vegetative fuels within 100' of all structures in the wildland. NEU defensible space inspectors visit over 5,000 residences each year to verify compliance with PRC 4291. Landowners are provided an inspection document showing whether their structure is in compliance. Non-compliant landowners are provided an opportunity to perform necessary fuel treatment prior to re-inspection. Second and third inspections are performed to determine the need for law enforcement action.

#### **General Guidelines for Creating Defensible Space:**

[http://www.fire.ca.gov/cdfbofdb/pdfs/4291finalguidelines2\\_23\\_06.pdf](http://www.fire.ca.gov/cdfbofdb/pdfs/4291finalguidelines2_23_06.pdf)

### Placer County Hazardous Vegetation Abatement Ordinance

CAL FIRE fire protection planners within Placer County are also inspectors for the recently adopted (2008) Placer County Hazardous Vegetation Abatement Ordinance (HVA). The HVA extends the enforceability of PRC 4291 beyond the property line creating a tool that can be applied specifically to unimproved parcels adjacent to improved properties. The ordinance exists only where an extra hazardous condition (as determined by the Fire Warden) exists.

More information on this ordinance is available at:

<http://www.placer.ca.gov/Departments/Fire/HVAO.aspx>

### Landscape Level Fuel Modification

A majority of landowners respond to the defensible space inspection program prior to LE action. Generally, a fire safe zone of 100' is familiar to the public and our efforts with the inspection program are continually educating the residents that are unaware. However, in order to accomplish a broader application of fuel treatments beyond the mandated 100' fire safe zone, NEU promotes a stewardship ethic for landowners with property that extends beyond the 100' zone. Landscape level fuel modifications are promoted through cooperative efforts with local government partners, Resource Conservation Districts, Fire Safe Councils, and through efforts of the NEU Resource Management staff providing assistance to landowners throughout the unit.

NEU will continue to assist local government in developing standards, policies, and plans, which will result in a stewardship ethic and landscape level fuel modification.

### Information and Education

The information and education programs in the Nevada-Yuba-Placer Unit focus on promoting fire and life safety messages in the communities we serve. We focus on providing information and education to people of all ages, in public forums and through the media, and displaying and distributing educational material.

Through NEU's Ignition Management Program, high target areas have been identified for specific outreach campaigns. These campaigns may include increased publicity through the media, social media, local channels, school programs, fairs and other public events.

#### **School Programs**

NEU personnel, primarily engine companies, participate in school programs throughout the year to provide fire prevention, life safety, and natural resource protection education. It is our goal to target schools that have been identified in areas with high PWF (Playing With Fire) incidents in the unit's Ignition Management Plan.

#### **Juvenile Firesetter Intervention Program**

Juveniles identified as playing with fire or intentionally starting a fire are referred to NEU's Juvenile Firesetter Intervention Program. The goal of the program is to reduce the number of fires started by juveniles within the communities we serve. The program is designed to assist parents and their children in understanding the dangers of playing with fire, how to prevent repeat incidents and other consequences of firesetting behavior.

#### **Fairs and Public Events**

Fairs continue to be an effective method of conveying fire prevention messages to the public. NEU personnel participate in the Nevada County Fair in Grass Valley and the Gold Country Fair in Auburn. We choose one fire prevention message to highlight each year (2010: responsible equipment use). We also encourage local agencies to participate in our booths in order to provide a broader means to promote fire safety.

#### **Fire Information Center**

The NEU Fire Information Center is activated for incidents that generate public interest. Volunteers in Prevention staff the phones and give incident information to local residents and the media. The volunteers are trained to provide safety messages and education when appropriate.

#### **Media Outreach**

NEU distributes many news releases and informational messages through the media each year. These messages range from responsible equipment, burn permits, current prescribed fire and training burns, changes in equipment use regulations, holiday safety, the opening of fire season and any other topic that may be relevant to the population served by CAL FIRE.

#### **Printed Materials**

Printed educational materials are available to the public at every facility and online. Defensible Space Inspectors also distribute these materials during inspections and emphasize their importance. We encourage staff to hand out pertinent materials when writing burn permits or simply answering questions.

## **B. Nevada-Yuba-Placer Unit Vegetation Management Program**

### **Fuels Management**

#### Vegetation Management Program

NEU's vegetation management program (VMP) and California Forestry Improvement Program / Proposition 40 (CFIP) program assist private landowners and non-federal agencies in addressing the common problems associated with hazardous flammable vegetation. The VMP goal is to reduce the chance of large, damaging wildfires by reducing fire hazards on wildlands in California. The intent is to encourage a range of natural resource benefits consistent with environmental protection requirements and landowner objectives. The three broad purposes of the VMP program include:

- Reduction of conflagration fires
- Optimization of soil and water productivity
- Protection and improvement of resource / ecosystem values.

Cal Fire's prescribed burns under the VMP are conducted for many reasons. Most burns have hazard-reduction as a major objective coordinated under the Unit Fire Plan. However, many burns have important secondary objectives that could include:

- Fuel Reduction
- Community Defensible Space
- Range Improvement
- Weed Management
- Wildlife Habitat Enhancement

VMP projects use various techniques to accomplish program goals:

- Broadcast Burning
- Mosaic Burning in Chaparral
- Pile & Burn using Hand Crews
- Chipping and Commercial Biomass

#### NEU Forest Practice

The primary role of the Forest Practice Program is to enforce California's Forestry and Fire Laws on privately-owned lands in California. These laws are found in the Public Resource Code and the California Forest Practice Rules. Additional rules enacted by the State Board of Forestry and Fire Protection are also enforced to protect these resources.

NEU Forest Practice Inspectors ensure that private landowners abide by these laws when harvesting trees. Although there are specific exemptions in some cases, compliance with the

Forest Practice Act and Board rules apply to all commercial harvesting operations for landowners of small parcels, to ranchers owning hundreds of acres, and large timber companies with thousands of acres.

The Timber Harvesting Plan (THP) is the environmental review documents submitted by landowners to CAL FIRE outlining what timber he or she wants to harvest, how it will be harvested, and the steps that will be taken to prevent damage to the environment. THPs are prepared by Registered Professional Foresters (RPFs) who are licensed to prepare these comprehensive, detailed plans. THPs can range from about 100 pages to more than 500 pages.

NEU Forest Practice Inspectors follow-up on approved THPs with site inspections and can shutdown operations, cite or fine Registered Professional Foresters, Licensed Timber Operators (LTOs), and landowners if illegal operations are found. Under this program, law enforcement and prevention work together to ensure environmental compliance.

### Forestry and Landowner Assistance

NEU Foresters administer 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 state and federal programs that NEU Foresters administer, 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 NEU CFIP program directs grant funds to prioritized fuel treatments and forestry improvement projects on the ground. The aim is to improve the economic and environmental value and watershed quality of private forestlands. The cost share program encourages landowner participation and requires land uses to remain consistent with the goals of the program following implementation.

### Other Forestry Duties and Unit Projects

NEU Foresters continue to provide Unit support on various levels including Fire Prevention, Pre-Fire Planning, GIS support, state facility maintenance and construction, hired equipment coordination, environmental regulation and County project review and California Environmental Quality Act compliance.

**TABLE 3: 2013 CFIP COST-SHARE CAP RATES**

PRACTICE	CFIP CAP RATE	90% COST-SHARE <sup>1</sup>	75% COST SHARE
<b>Management Plan</b> High (New)	\$5000 + \$3.00/acre 1 <sup>st</sup> 160 acres \$2.50/acre each additional acre to 1000	\$4500 + \$2.70/acre 1 <sup>st</sup> 160 acres \$2.25/acre each additional acre to 1000	\$3750+ \$2.25/acre 1 <sup>st</sup> 160 acres \$1.88/acre each additional acre to 1000
<i>Rates for plans larger than 1000 acres are negotiated w/Cal Fire forester</i>			
<b>Management Plan</b> Revised/Low (Mini)	\$1750 + \$1.40/acre	\$1575 + \$1.26/acre	\$1313 + \$1.05/acre
<b>RPF Supervision</b>	\$150/acre 1 <sup>st</sup> 5 acres \$40/acre each additional acre	\$135/acre 1 <sup>st</sup> 5 acres \$36/acre each additional acre	\$112.50/acre 1 <sup>st</sup> 5 acres \$30/acre each additional acre
<b>Site Prep</b>			
Light	\$220/acre	\$198/acre	\$165/acre
Moderate	\$300/acre	\$270/acre	\$225/acre
Heavy	\$400/acre	\$360/acre	\$300/acre
<b>Trees &amp; Planting</b>			
Average	\$160/acre	\$144/acre	\$120/acre
Moderate	\$200/acre	\$180/acre	\$150/acre
Difficult	\$240/acre	\$216/acre	\$180/acre
<b>Tree Shelters</b>	\$260/acre	\$234/acre	\$195/acre
<b>Pre-commercial Thinning<sup>2</sup></b>			
Light	\$200/acre	\$180/acre	\$150/acre
Moderate	\$300/acre	\$270/acre	\$225/acre
Heavy	\$400/acre	\$360/acre	\$300/acre
<b>Pruning<sup>2</sup></b>	\$125 for 50 trees/acre \$200 for 100 trees/acre \$275 for 150 trees/acre	\$112.50 for 50 trees/acre \$180 for 100 trees/acre \$247.50 for 150 trees/acre	\$93.75 for 50 trees/acre \$150 for 100 trees/acre \$206.25 for 150 trees/acre
<b>Release<sup>2</sup></b>			
Light	\$200/acre	\$180/acre	\$150/acre
Moderate	\$300/acre	\$270/acre	\$225/acre
Heavy	\$400/acre	\$360/acre	\$300/acre
<b>Follow-up/Slash Disposal</b>			
Light	\$200/acre	\$180/acre	\$150/acre
Moderate	\$350/acre	\$315/acre	\$262.50/acre
Heavy	\$600/acre	\$540/acre	\$450/acre
<b>Land Conservation /Wildlife/Fisheries Projects<sup>3</sup></b>	Cost based on problem. Use EQIP rates as a guide		

<sup>1</sup>The 90% rate will cover all projects on substantially damaged timberland by wildfire, insects, diseases, wind, floods, landslides or earthquakes

<sup>2</sup>Disposal of slash must meet minimum Fire Hazard Reduction Standards per Forest Practices Act.

<sup>3</sup> Maximum allowable costs do not appear for land conservation or habitat improvement. In these categories activity is variable and will depend on site condition, acreage, and/or type of project. However, costs will be evaluated based on rates used for SIP or EQIP.

**A: DIVISION / BATTALION / PROGRAM PLANS**

**NEVADA-YUBA-PLACER UNIT (NEU)  
IGNITION MANAGEMENT PLAN**

**FIRE PREVENTION**

NEU's fire prevention program accomplishes Unit fire management goals through implementation of four primary components. These fire prevention components are information/education, engineering, law enforcement, and volunteerism. Information and education occurs through direct contact with the public, partnerships with local boards and councils, communication with professional organizations and employee involvement in the local community. Engineering occurs through local building department functions where Cal Fire personnel are assigned to assist in developing fire safe projects and planning. Law enforcement includes enforcement of California's Forestry and Fire Laws in the industrial forestry arena to reduce fuel loading and prevent fires as well as the fire investigative arena once structure or wildland fires have occurred and the cause determination is necessary. Volunteerism occurs through support of the Volunteers in Prevention (VIP) program, which uses local volunteers to appear at public events, meet with residents, and correspond with the public with Cal Fire goals in mind. The balance of each of these components allows the prevention program to address statewide, regional and local fire issues.

NEU has found that the most effective method of spreading fire prevention information to educate the public is to make personal "one-on one" contact with the public. It is the Unit's view that the single most effective method to protect personal and real property from wildland fires is for each individual landowner or resident to meet the mandates of Public Resources Code 4291 (defensible space standards). NEU encourages the public to extend hazardous fuel reduction beyond the PRC 4291 mandated defensible zone into the adjacent "Defensible Landscape" zone (area beyond the required 100'). This is the area where landowners can apply stewardship ethic, improve forest health and add to the protection of the property.

**IGNITION MANAGEMENT**

In order to better address ignition management for the Unit, a more detailed analysis of the fires in each major cause classification was conducted.

**1) Control Burning (debris burning)** - The number one cause of escaped control burns was lack of clearance followed by wind, and old control burns re-igniting (coming back to life). Unattended control burns also contributed to the totals.

**2) Vehicles** - This category has been one of the leading causes of fires in the Unit for the past several years. The majority of these fires occurred along the major traffic corridors of Interstate 80, hwy 49 and hwy 20. Brake fires, catalytic converter failure and other maintenance issues remains to be the leading cause of fires caused by vehicles. With the current economic conditions there appears to be less maintenance done on vehicles.

**3) Electrical power** - Most electrical fires resulted from trees, branches or birds into the power lines. Bird Causes are on the increase.

**4) Equipment** - Historically, this classification has been one of the top causes of wildfire starts in the Unit. Through continuing displays and education programs (handouts and the 4291 Program), we hope to continue a downward trend. The main cause of equipment fires continues to be mower fires. These fires were due to mower blades striking rocks and friction belts igniting 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 but they were clearing during the hottest part of the day, usually between the hours of 10:00 AM and 6:00 PM.

**5) Miscellaneous causes** - This classification includes causes such as spontaneous combustion, fireplace ashes deposited in the wildland, barbequing, cooking fires, and fireworks.

**6) Playing with Fire** - Several juveniles were caught and went through either a Juvenile Fire Setter Class and others were sent to the Juvenile Justice System and sentenced to probation.

**7) Undetermined** - Continued hard work and dedication of the Unit's Fire Prevention Staff and the company officers who conduct thorough origin and cause investigations aid in the declining number in this cause class. Thorough origin and cause investigations also assist in determining fire patterns which may be reduced by public education and or enforcement.

**8) Arson** - The continued working relationships between all fire and law enforcement agencies is high priority for the Unit.

**9) Lightning** - Not much can be done to prevent or alter this category.

**10) Smoking** - The majority of these fires were carelessly discarded cigarettes along our roadways. However, several bark and planter box fires were directly attributed to smoking.

**11) Illegal campfires and campfire escapes** - Public education and campfire permit requirements help to keep the number of fires from the category low.

**12) Railroad** - The Unit has a major east/west rail line operated by Union Pacific railroad, yearly fire prevention meeting's along with work site inspection, work to reduce the fires started by the railroad.

# *Ignition Management Plan*

## *Battalion 10*

### **Battalion Description**

The Dry Creek Battalion covers an area of approximately 75,675 acres with a population of approximately 7000 residents. The Battalion is located almost entirely in the LRA but has significant wildland fire potential. Fuel types range from grassland typical of an oak savannah with denser drainages to a dense live oak component containing brush. The land is primarily flat with some rolling hills. The area is populated with rural residential properties varying in size from 5-100 acres with some larger ownerships remaining. Located amongst these rural residential parcels are pockets of densely populated subdivisions where parcel size and spacing between homes is more indicative of rural development. The make-up of development and fuel types creates a true WUI problem. The Battalion lies adjacent to multiple cities and population centers. Elements from these populated areas have caused some ignition problems related to burning abandoned vehicles, fireworks discharge, and carelessness.

Agency cooperators include South Placer Fire District, Dry Creek Fire Advisory Committee, Placer County Fire Alliance, Western Placer Municipal Advisory Committee, Roseville City Fire, Rocklin Fire, Sac Metro Fire Department, Dry Creek Fire Protection District.

### **Statistics**

Table 4: Responsibility Area and Direct Protection Area for Battalion 2310.

<b>Responsibility Area (acres)</b>	FRA 5,196	LRA 59,130	SRA 11,350
<b>Direct Protection Area (acres)</b>	Federal 0	Local 59,070	State 16,594

### **Battalion Fire History and Occurrence**

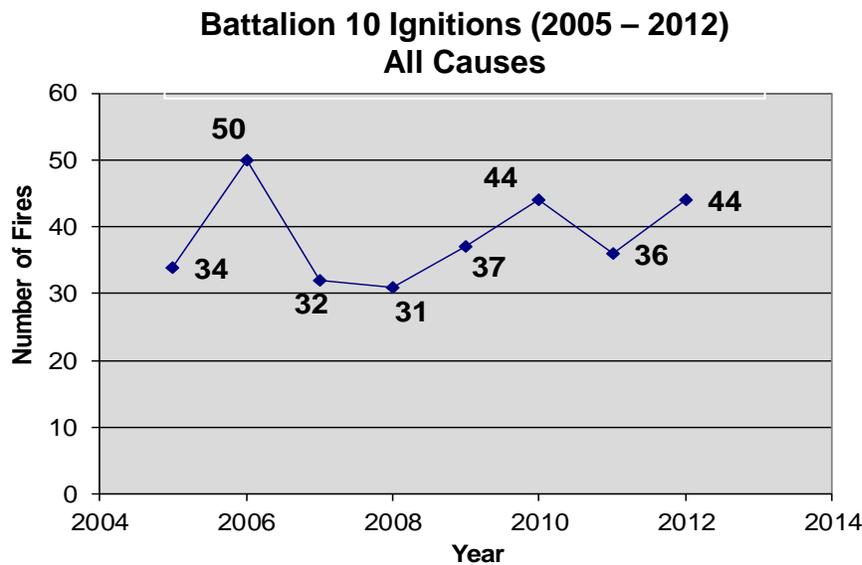
A vast majority (near 90%) of fires within the Battalion occur as roadside starts. These fires are classified as arson, equipment, vehicle, smoking, or are undetermined as to specific ignition source. A majority of these fires are contained at less than 20 acres. Large costly and damaging fires are not a regular occurrence in the Battalion, although structure damage does occur. In order to mitigate the hazard from roadside starts, a fence line disc program is managed by Battalion staff to provide a first line of defense.

Arson fires account for approximately 40% of the fires in the Battalion. Arson fires are the most difficult to reduce due to their nefarious nature. The Unit Prevention Bureau assists Battalion staff with cause determination if a trending fire problem is observed. The result is, over time, a reduction in arson fires due to arrest and conviction. In order to address the arson problem, the Battalion will continue a high profile prevention program.

Equipment caused fires account for 14% of fires in the Battalion. Much of the weed abatement occurring in the Battalion, including mowing and disking, involves the use of equipment. Also, construction and other land management activities often require the use of equipment. This

equipment use takes place in the wildland areas where vegetative fuels are available and susceptible to burning.

The statistics show that escaped debris burns account for 9% of wildfires in the Battalion. The residents realize that the fuel treatments near their residences must be done and often delay burning until the final weeks prior to burn bans being instituted. The result is a greater number of burn piles being burned later in the season, when control of the fires is more difficult due to weather and fuel conditions. Public education at the time of burn permit issuance is used to reduce the number of escapes.



## Mitigation Strategies

### 1. Public Education:

Public education continues to be a priority within Battalion 10 to reduce the number of fire starts. The action plan for public contact and education is as follows:

#### A. Burn Permit Administration

Approximately 9% of the total fire incidents in the battalion are identified as escape debris burns. This indicates there is a need to educate the public on proper debris burning techniques. One effect may be that residents are new to the community and are unaware of the proper methods and timing for debris burning.

LE-62s (Residential Burn Permit – Burn Pile) will be issued at CAL FIRE /Placer County Fire Station 100. The local pollution control district determines burn hours. Pre-inspections will be provided on a requested or as needed basis. A copy of the permit will be filed at Station 100. With each permit written, a Placer County Air Pollution Control District's Residential Open Burning informational sheet will be included.

LE-5 (California Inter-Agency Burning Permit) and LE-7 (Project Type Burning Permit) are issued on SRA lands after an inspection by an authorized employee of CAL FIRE.

These project burn permits are typically used to dispose of larger piles of material and typically require an inspection by CAL FIRE prior to authorization to burn.

## **B. Public Education Forums**

Battalion staff remains involved in numerous public education programs. Many programs are cooperative efforts with other fire agencies. The Placer County Fair is an example of agency cooperation that provides information and education to the public. This venue provides a receptive and captive audience.

Ongoing events throughout the year:

- Business Fire Safety programs / Fire Extinguisher Training
- School Programs
- Fire Prevention Signage
- Station 100 Message Board
- Placer County Fair
- Parades
- Community Barbeques and Pancake Breakfasts

## **C. Fire Prevention:**

News Releases - CAL FIRE will continue to utilize a local radio station, the local newspaper, as well as local Homeowner's Associations and Fire Safe Councils to educate the public on fire safe issues.

Equipment Use Information - In addition CAL FIRE will work with local equipment rental yards and dealers with prevention material and to ensure compliance with spark arrestor laws. The focus will be trying to mitigate the rising occurrence of equipment caused ignitions.

Fire Safe Programs - The Placer County Fire Planner will continue to provide building plan fire and life safety reviews for PRC 4290 and uniform fire code regulations.

## **D. PRC 4291 inspection:**

PRC 4291 inspections serve a dual purpose. One is as a vegetation management motivator. The other is as a public education tool. The Battalion 10 goal will be to target areas within the Battalion that have a significant wildland fire threat and inspect 100 homes using the PRC 4291 program, although all areas within the Battalion are LRA. Station 100 personnel will concentrate on the Central Ave., Vineyard Rd. PFE Rd. and Walerga Rd. South Brewer Road from West Sunset to Baseline. A five-year cycle through the significant wildland fire threat area will provide education and prevention information to the affected homeowners. Inspection of power lines will occur during the PRC 4291 inspections. Staff will advise the battalion chief of a violation, the battalion chief will coordinate an inspection by the Unit Prevention Bureau.

**2. Vegetation Management:** The vegetation management programs are directed at reducing the potential of a large fire and reducing the damage from a large fire.

### **A. Hazard Reduction Programs:**

Battalion personnel manage a fence line disc project to provide a first line defense if an ignition occurs and to prevent roadside ignitions. The program is a voluntary effort by residents with their own equipment to assist in protecting their properties. Battalion staff endeavors to educate residents on the value of disking along fence lines and encourage their participation.

**B. Doyle Ranch Fuels Reduction**

The Doyle Ranch Subdivision is located in Western Placer County south of Baseline Road and West of Walegra Road. The subdivision is bordered by wildland on three sides. The project area is approximately 15 acres and consists of mature oak trees of various species, standing dead snag trees and various saplings. The predominant carrier of fire within the area is grass, downed woody material ladder fuels.

Beyond the project area are wildlands consisting of grass and oak woodlands, bordered by major road systems that are associated with some of the highest rates of wildfire in the county. This project involves using controlled fire to reduce the downed woody fuels and reduce the ladder fuels.

**High Priority Target Areas**

- Areas near Baseline, Dyer, Watt and Palladay.
- Central Ave.
- Vineyard Rd.
- PFE Rd.
- Walerga Rd.
- South Brewer Road from West Sunset to Baseline
- Areas of medium to light density housing where backyards have little clearances

**Table 5 – Battalion 10 Fuel Modification Projects, Community Outreach and Educational Programs**

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Battalion Disc Line Project	O	Continuous	Fuel reduction, Weed abatement	varies
Doyle Ranch Fuels Reduction	P	TBD	Fuel reduction	15

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

**Success Stories**

4<sup>th</sup> of July flier - 2007 was the busiest year for fireworks violations. In 2008 the area was flooded with 4<sup>th</sup> of July “no fireworks” fliers. The 4<sup>th</sup> of July, 2008 resulted in no fireworks calls in the Battalion.

Disc Line program- Given 90% of Battalion 10 ignitions are along the roadside, parcels 5 acres + were sent letters requesting they disc an 8-10 ft band along the road. This program has dramatically decreased the number of ignitions.

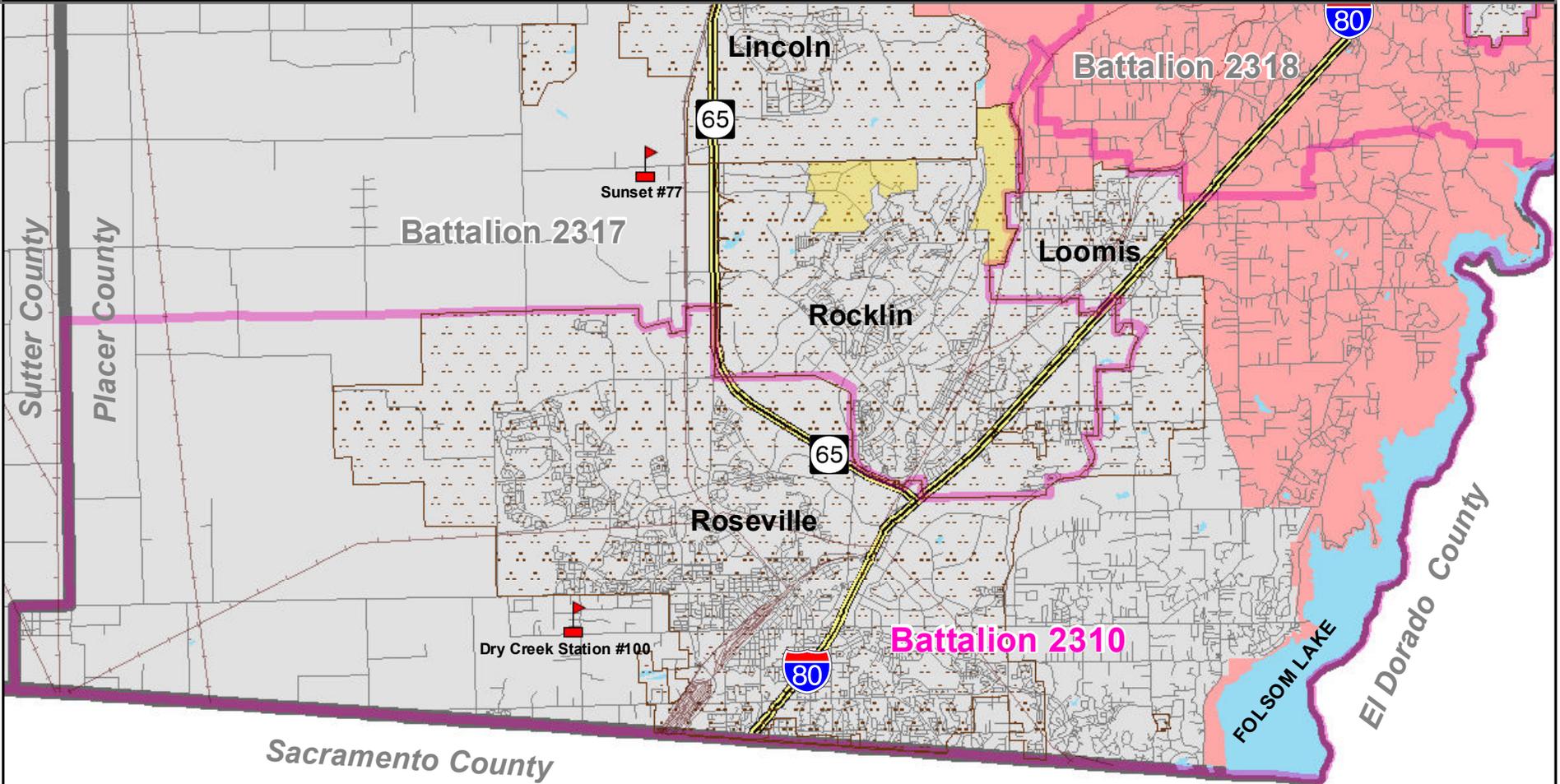
**Action Plan:**

- Continue promoting the disc program with more press releases and public education
- Work with public information to educate beekeepers from Sacramento County on safe practices.
- Continue to focus on prevention surveillance and reduce the number of arson events.
- Investigate discing around towers to reduce the number of bird strike caused fires along power lines.
- Continue to focus on compiling and developing structural / commercial pre-plans.
- Work to improve database of historical fire perimeters.



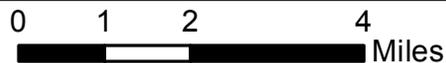
# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 10 - Administrative Boundaries



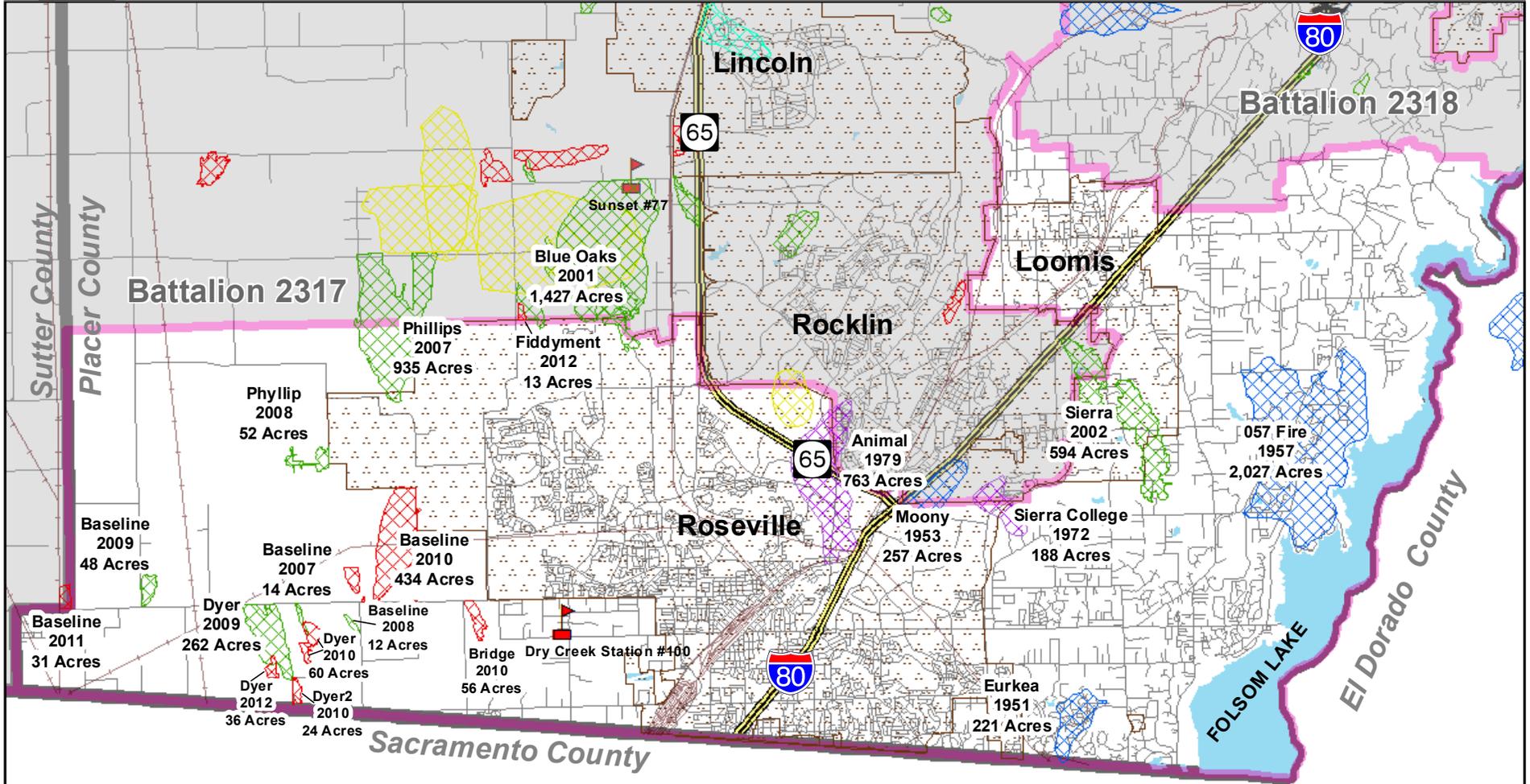
	Railroad		County	<b>DPA PROVIDER</b>	
	Incorporated Cities		Highways		CAL FIRE
	Battalion		County Roads		Local Wildland Contract
	Fire Station		Rivers		Local Government

1 in = 2 miles

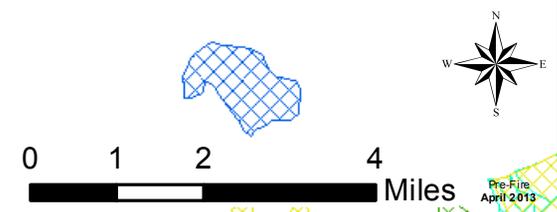


# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 10 - Fire History



	Railroad		County	<b>Fire History</b>	
	Incorporated Cities		Highways		1950 - 1959
	Battalion		County Roads		1960 - 1969
	Fire Station		Rivers		1970 - 1979
					1980 - 1989
					1990 - 1999
					2000 - 2009
					2010 - 2012



# *Ignition Management Plan*

## *Battalion 11*

### **Battalion Description**

The Foresthill and Auburn Battalion cover an area 345,581 acres in size within Placer County along Foresthill Divide Road and Interstate 80. The area is densely populated and interlaced with an extensive road system. The elevation ranges from 510 feet in the drainage of the American River Canyon to 3,800 feet around Foresthill. The North Fork American River and Middle Fork American River form two distinct drainage systems with steep inner gorges and often dense heavy fuels. The fuels within the Battalion vary as widely as the elevations, spanning an area that contains blue oak woodland where annual grasses and oaks are mixed with brush and landscape plantings to the prime timber bearing soils of the Foresthill Divide which are covered with large pine and fir timber typical of the Sierra Nevada mixed conifer zone. In between these fuel types is a range of chaparral, conifer / oak forest, and grass meadows, all containing light flashy fuels and mixed with residential development.

The population centers are Auburn and Foresthill, surrounded by a densely scattered urban interface where parcels range from a half to 20 acres in size, much of which is developed with commercial, residential, and heavy industrial infrastructure. This mix creates a true WUI problem where even the smallest fires with the most prompt emergency response can have a catastrophic result and result in burned structures.

Cooperators include Auburn Fire, Bureau of Reclamation, CA State Parks, Placer Hills Fire District, CAL TRANS, Foresthill Fire Department, Placer Fire Alliance, Placer County RCD, Placer County Land Trust, and USFS.

### **Statistics**

Table 6: Responsibility Area and Direct Protection Area for Battalion 2311

<b>Responsibility Area (acres)</b>	FRA 254,025	LRA 4,152		SRA 96,404
<b>Direct Protection Area (acres)</b>	Federal 292,547	Local Wildland Contract 893	Local 3,333	State 57,808

### **Battalion Fire History and Occurrence**

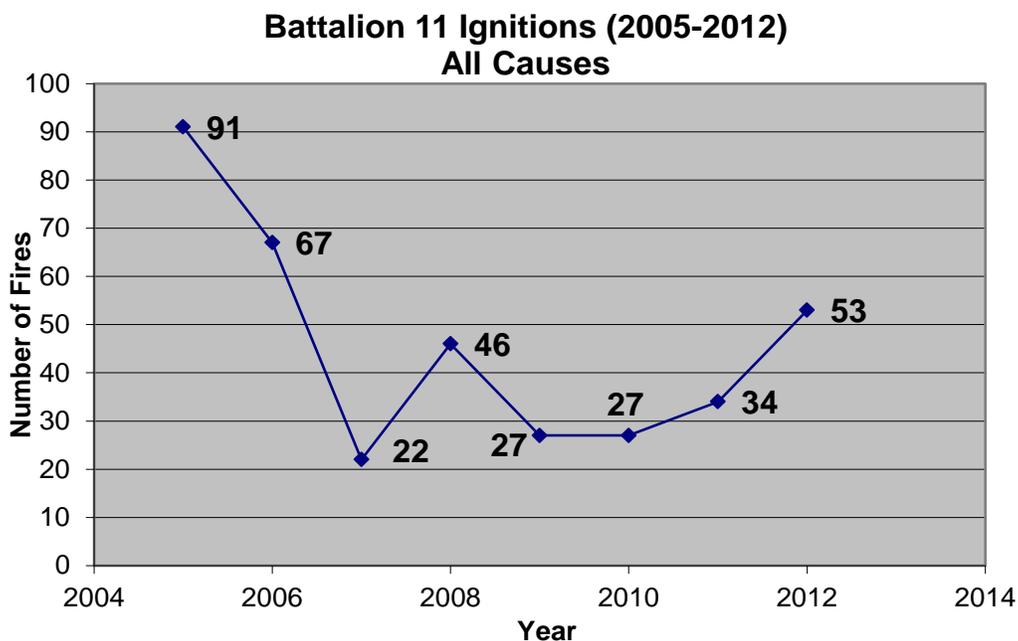
Historically, large fires are known to occur within and adjacent to the Battalion. Notable in terms of size are the Volcano Fire (1960 – 44,386 acres), Roadside #51 (1964 – 3,545 acres), Ralston Fire (2006 – 8,300 acres), and American River Complex (2008 - 19,580 acres). Each of these fires consumed significant SRA acreage within the Federal DPA. Other significant fires include the Auburn Fire (1961 – 672 acres) and Mammoth Fire (2009 - 643 acres).

Equipment and vehicle caused fires are combined in this discussion and rank as the highest cause (44%) of wildfire in the Battalion. Much of the fuel work which occurs in the Battalion involves the use of equipment. This equipment use takes place in the wildland areas where vegetative fuels are available and susceptible to burning. Portions of Interstate 80 within the Battalion lie in an area where commercial vehicle traffic often encounters problems as a result of the long downhill run off of Donner Summit. Conversely, overheating and friction can affect vehicles climbing grades within the Battalion causing vehicles to ignite. Exclusive of Interstate 80, many of the roads in the Battalion are rural roads with vegetation growing very close to the road edge, or on the road surface. The exposure of these fuels to hot exhaust, exhaust

discharge, or flame impingement from fires originating within the vehicle is a problem typical of the rural community.

Arson and undetermined fires are considered equally and account for 30% of the fires in the Battalion. These fires are intentionally set fire or fires which the ignition could not be determined due to various factors. These fires are the most difficult to reduce due to their nefarious nature and difficulty in assessing. The Unit's prevention program is charged with investigation and pursuit of arson as felonious activity. The Unit prevention also assists Battalion staff with cause determination if a fire problem persists with no apparent cause. The result is, over time, a reduction in arson fires and determination of cause on undetermined fires allowing fire prevention education to address the actual cause. The balance of the fires is split between various causes which are considered normal accidental fires.

Analysis of fire causes from 2005-2012 reveal that the fire occurrence is following normal seasonal patterns compared to the unit totals and that the primary cause has shifted between equipment use, vehicle use and debris burning over that time period. One possible explanation is that prior to 2006, Battalion 11 was reduced in acreage during the creation of Battalion 18 concurrent with the incorporation of Placer County Fire personnel into Cal Fire.



## Mitigation Strategies

### 1. Public Education:

Battalion 11 will work to reduce fire ignitions damage by actively participating in public education programs, fuel reduction programs, and homeowner education programs. These efforts will center in the communities of Auburn, Foresthill, Newcastle, and Christian Valley. The components are as follows:

## **A. Burn Permit Administration**

Only 11% of the total fire incidents in the battalion were identified as escape debris burns. Due to this success, there is always a need to educate the public on proper debris burning techniques. There is also a potential that new residents are unaware of the proper methods and timing for debris burning. Therefore, an effective program of issuing burn permits is critical to prevention of wildland fires.

LE-62s (Residential Burn Permit – Burn Pile) will be issued by authorized CAL FIRE personnel and cooperators. Headquarter staff, station staff, and VIP staff will administer dooryard burn permits to the public. Issuing points will be CAL FIRE Stations 10 and 11 and Placer County Fire Stations. The process will ensure that homeowners can easily acquire a permit. Burn hours will be determined by CAL FIRE outside the city limits and the individual cities within their boundaries. The emphasis will be placed on the terms of the permit, the responsibilities of the permit holder, and alternative methods of vegetation disposal.

LE-5 (California Inter-Agency Burning Permit) and LE-7 (Project Type Burning Permit) are issued on SRA lands after an inspection by an authorized employee of CAL FIRE or USFS. These project burn permits are typically used to dispose of larger piles of material.

## **B. Public Education Forums**

CAL FIRE staff is involved in numerous public education programs. The target audience is quite large and has proven to be receptive to various programs. Ongoing events throughout the year include:

- Meadow Vista Pioneer Day Parade
- Foresthill Fourth of July Parade
- Auburn Fourth of July Parade
- Auburn Air fest: Attend and assist fire prevention staff with static display during the Air Fest.
- Gold Country Fair: Construct and staff the fair booth display.
- Fire Prevention week open house: Conduct open house tours of the CAL FIRE / Placer County Fire Facility, Auburn Headquarters.
- Fireworks Patrols: With use of engines, paid staff, and VIP's conduct high visibility neighborhood patrols.
- Battalion wide fuel reduction and VMP's

## **C. PRC 4291 inspection:**

PRC 4291 inspections serve a dual purpose. One is as a vegetation management motivator. The other is as a public education tool. Inspections will occur in the general vicinity of Auburn and Newcastle as well as the Christian Valley area.

Correspondence with landowners will include information on reducing equipment use and debris fire ignitions.

**2. Vegetation Management:** The vegetation management programs are directed at reducing the potential of a large fire and reducing the damage from a large fire.

**A. Chipper Program / Residential Fuel Treatment**

The Battalion receives great benefit from working with the Placer County Chipping program. The program provides chipping services to landowners to abate hazardous vegetation with reduced costs to the landowner and fewer opportunities of an escaped control burn with the added benefit of reduced impacts to air quality. The Battalion encourages landowners to keep their properties free from flammable vegetation through support of the local Fire Safe and Resource Conservation District fuel reduction efforts.

**B. Installation and Maintenance of Roads and Fuel Breaks**

The Battalion will continue to support the acquisition of project funds and cooperators that will achieve the installation and maintenance of roads and fuel breaks within the Battalion. The following roads and fuel breaks are deemed critical to provide fire equipment access and reduce the potential of a large costly and damaging fire which may originate in the American River Canyon:

- 1) New Auburn Foresthill Road to Clipper Gap Fuel Break, North Fork American West Rim
- 2) New Drivers Flat to Long Point Fuel Break, North Fork American East Rim
- 3) Existing McKeon-Ponderosa Fuel Break Improvement and Maintenance
- 4) Existing Lower Lake Clementine Fuel Break, North Fork American, East Rim
- 5) Existing Auburn to Robie Point Fuel Break Maintenance, North Fork American, West Rim
- 6) Maintenance of Stagecoach Road below the City of Auburn
- 7) Maintenance of Lower Lake Clementine River Access Road

**C. VMP Projects**

The purpose of these projects is to eliminate the potential for a large and damaging wildfire by eliminating the fuel, with fire, in a controlled fashion. The current VMP schedule includes the Foresthill Bridge VMP which has traditionally been instituted under agreement with the US Bureau of Reclamation and Placer County for fire prevention purposes. The project involves burning of the site prior to July 4<sup>th</sup> each year to eliminate the risk of an intentionally set fire. In contrast, the current project involves the abatement of flammable vegetation below the Foresthill Bridge in preparation for a FEMA bridge retrofit project involving grinding and welding. The tertiary benefit of the project is the abatement of the flammable vegetation. The current Foresthill Bridge VMP project which supports the Foresthill Bridge Retrofit will be complete by summer of 2013.

## High Priority Target Areas

- Foresthill,
- Todd Valley
- Populated areas along canyon rim
- LRA areas during red flag warnings

**Table 7 – Battalion 11 Fuel Modification Projects, Community Outreach and Education Programs**

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Foresthill Bridge VMP	O	2013	Prescribed Fire	<b>67</b>
I-80 Highway Chipping	C	2013	Fuel Treatment	<b>70</b>
Placer County Chipper	O	N/A	Fuel Treatment	
Shockley Trails	M	2011	Shaded Fuel Break	
PG&E North Auburn VMP	P	2015	Prescribed Fire	<b>TBD</b>

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

## 2013 Action Plan

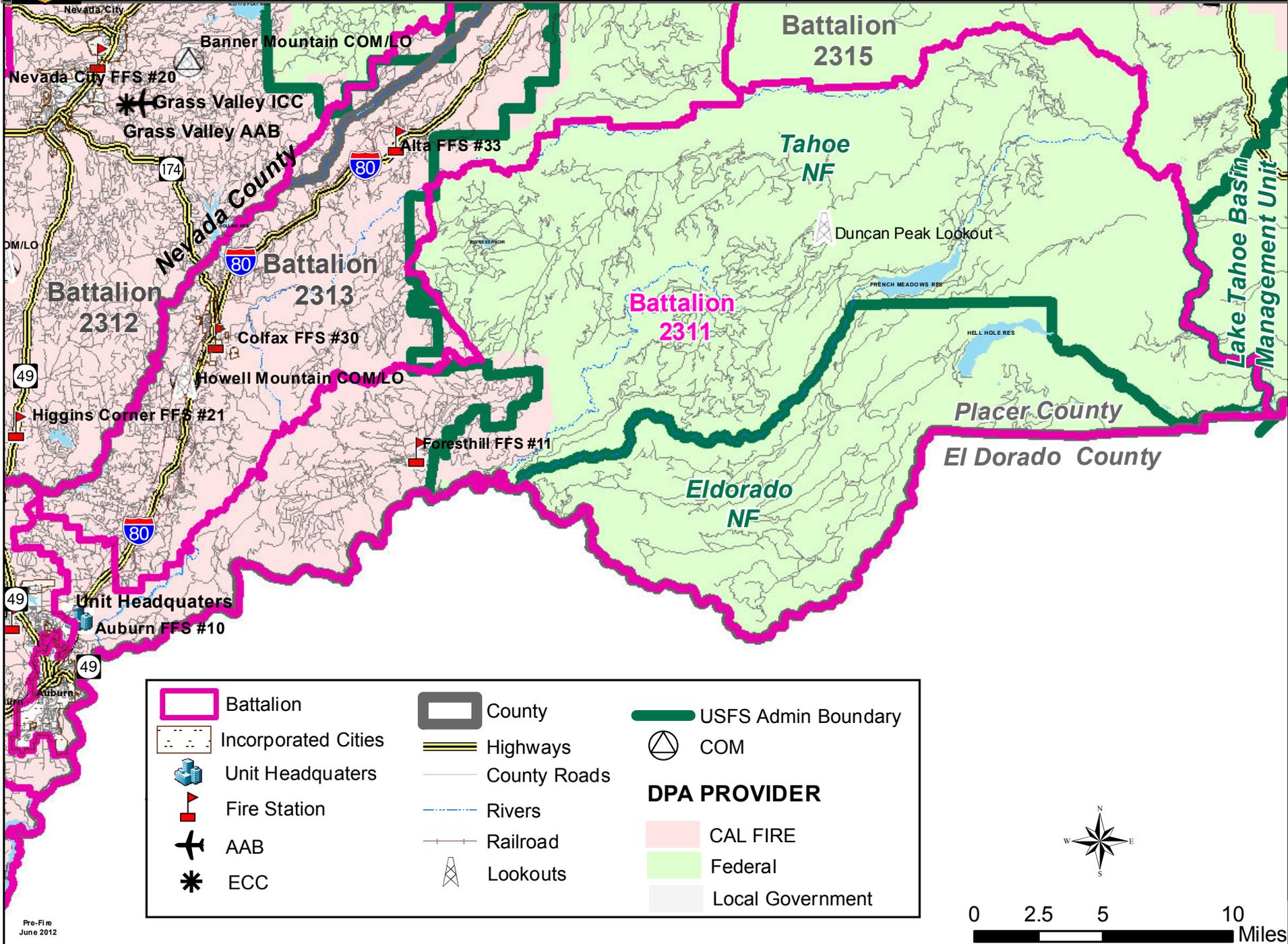
- The Battalion will continue to implement the public education forums identified in the plan.
- The Battalion will work with Caltrans to reduce ignitions while mowing.
- The Battalion will encourage and support vegetation management programs within the Unit, plus roadside chipping and community chipping programs provided by agency cooperators.
- The Battalion will continue to implement a defensible space enforcement program in conjunction with the Unit Prevention Bureau and encourage landowners to remove hazardous vegetation adjacent to their structures.
- The Battalion will continue to maintain an excellent working relationship with various community fire agencies, public service groups, and Fire Safe Councils. This will ensure a rapid and effective response in order to protect the members of the community the Battalion serves.
- The Battalion will be working with PG&E to implement a VMP project on their lands within Battalion 11. This will consist of fuel reduction prescribed fire and development of a shaded fuel break.
- The Battalion will continue to work with Staff from the Auburn State Recreation Area to inform the public on Fire Danger and to work with State Park Staff to maintain and improve the fire road system within their recreation area.

- The Battalion will work with Placer County and the Foresthill Hill Bridge Retrofitting Project Contractor to ensure that the VMP burn is accomplished and ignitions from the final project phase are reduced.



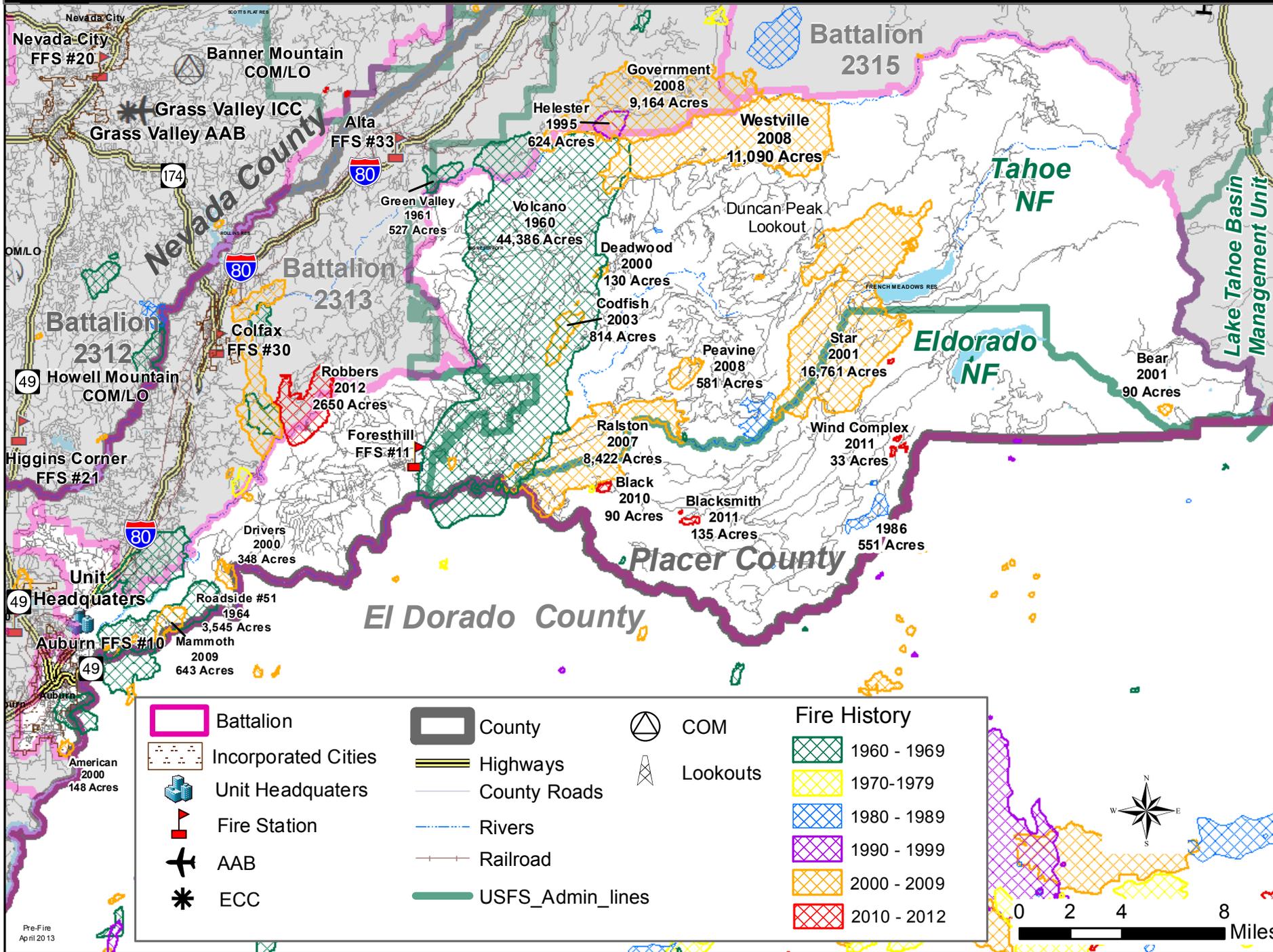
# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 11 - Administrative Boundaries



# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 11 - Fire History



# *Ignition Management Plan*

## *Battalion 12*

### **Battalion Description**

Battalion 12 covers approximately 209,657 acres of Nevada County. It is occupied by an estimated 71,000 people living in roughly 24,000 residential structures. Fuel types range from oak woodland to timber, and the topography ranges from rolling hills to mountains. The battalion has a significant wildland urban interface (WUI) problem.

Because of the significant urban interface problem, much of the fire prevention effort has been spent on reducing the potential for large damaging fires. This has been accomplished through the efforts of a seasonal fire prevention inspector who last year conducted PRC 4291 inspections on 2,772 residents within the battalion, along with a schedule 'A' Fire Protection Planner whose focus has been placed on land use review, concentrating on fuel modification, adequate access and egress and water storage for fire protection. Cal Fire is also involved with the Nevada County Fire Safe Council which oversees the Nevada County chipping program.

### **Statistics**

Table 8: Responsibility Area and Direct Protection Area for Battalion 2312

<b>Responsibility Area (acres)</b>	FRA 31,420	LRA 4,549	SRA 173,688
<b>Direct Protection Area (acres)</b>	Federal 37,945	Local 4,541	State 167,175

### **Battalion Fire History and Occurrence**

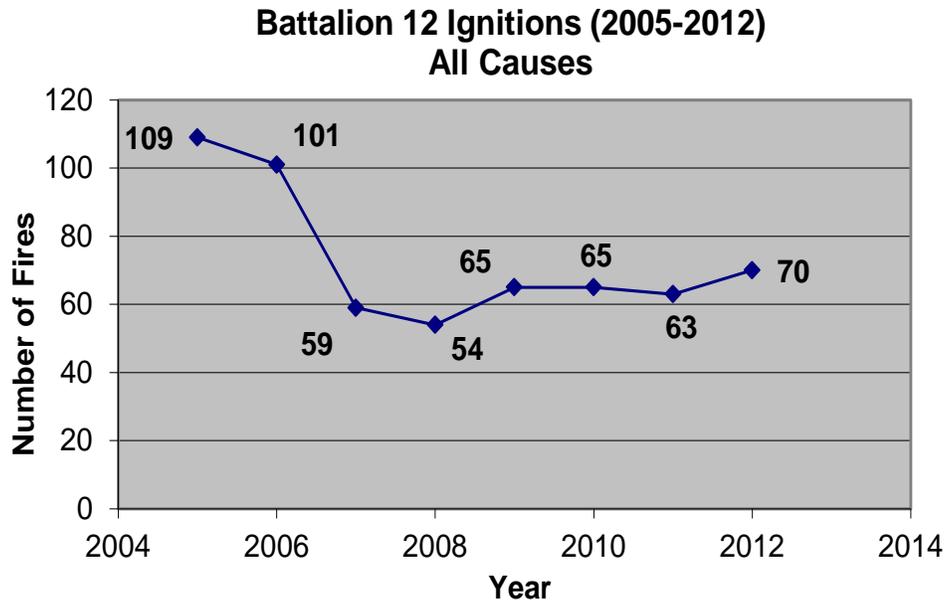
The statistics show that escaped debris burns are the primary cause (34%) of wildfire in the Battalion. The residents realize that the fuel treatments near their residences must be done and often delay burning until the final weeks prior to burn bans being instituted. The result is a greater number of burn piles being burned later in the season, when control of the fires is more difficult due to weather and fuel conditions. Public education at the time of burn permit issuance is used to reduce the number of escapes.

Equipment and vehicle caused fires are the second highest cause (27%) of wildfire in the Battalion. Much of the fuel work which occurs in the Battalion involves the use of equipment. Construction and land management activities often require the use of equipment. This equipment use takes place in the wildland areas where vegetative fuels are available and susceptible to burning. Many of the roads in the Battalion are rural roads with vegetation growing very close to the road edge, or on the road surface. The exposure of these fuels to hot exhaust, exhaust discharge, or flame impingement from fires originating within the vehicle is a problem typical of any rural community.

Arson and undetermined fires are considered equally and account for 17% of the fires in the Battalion. These fires are intentionally set fire or fires which the ignition could not be determined due to various factors. These fires are the most difficult to reduce due to their nefarious nature and difficulty in assessing. The Unit's prevention program is charged with investigation and

pursuit of arson as felonious activity. The Unit prevention also assists Battalion staff with cause determination if a fire problem persists with no apparent cause. The result is, over time, a reduction in arson fires and determination of cause on undetermined fires allowing fire prevention education to address the actual cause.

The balance of the fires is split between various causes which are considered normal accidental fires.



## Mitigation Strategies

### 1. Public Education:

Public education continues to be a priority within Battalion 12 to reduce the number of fire starts. The action plan for public contact and education is as follows:

#### A. Burn Permit Administration

Work with residents, especially those that are new to the community to understand the proper methods and timing for debris burning.

LE-62s (Residential Burn Permit – Burn Pile) will be issued by authorized CAL FIRE personnel and cooperators. Issuing points will be CAL FIRE Stations 20 and 21, Nevada County Consolidated FPD, Peardale/Chicago Park FPD Stations, Higgins FPD Stations and Ophir Hill FPD. Only those personnel trained and authorized by the CAL FIRE Battalion Chief will be allowed to issue a LE-62. The emphasis will be placed on the terms of the permit, the responsibilities of the permit holder, and alternative methods of vegetation disposal.

LE-5 (California Inter-Agency Burning Permit) and LE-7 (Project Type Burning Permit) are issued on SRA lands after an inspection by an authorized employee of CAL FIRE. These project burn permits are typically used to dispose of larger piles of material and typically require an inspection by CAL FIRE prior to authorization to burn.

## **B. Public Education Forums**

Battalion personnel remain involved in numerous public education programs. Many programs are cooperative efforts with other fire agencies. The Nevada County Fair is an example of agency cooperation that provides information and education to the public. This venue provides a receptive and captive audience.

Ongoing events throughout the year:

- Fire Safe Council & Community Groups
- School Programs
- Career Days (Bear River & Nevada Union High Schools)
- Home & Garden Shows
- Fire Safe Work Shops / Fire Prevention Week
- Lake Vera Camp Grounds
- Nevada County Air Fest
- Nevada County Fair
- Higgins FPD Open House

## **C. Fire Prevention/News Releases:**

CAL FIRE will continue to utilize a local radio station, the local news paper, as well as the Lake of the Pines & Alta Sierra monthly publications and the Nevada County Fire Safe Council's newsletter to educate the public on fire safe issues.

In addition CAL FIRE will work with local equipment rental yards and dealers with prevention material and to ensure compliance with spark arrestor laws. The focus will be trying to mitigate the rising occurrence of equipment caused ignitions.

A Schedule 'A' Fire Protection Planner works with developers and the Planning Department on land use and PRC 4290 issues, ensuring that adequate access/egress, fuel modification and other fire protection standards are met.

Use PRC 4291 inspections as a public education tool, making contact with local residents and discussing fire safe practices.

**2. Vegetation Management:** The vegetation management programs are directed at reducing the potential of a large fire and reducing the damage from a large fire.

### **A. PRC 4291 inspections:**

PRC 4291 inspections are completed annually by Nevada County seasonal fire prevention inspectors, CAL FIRE engine crews and Nevada County Consolidated F.P.D. personnel.

### **B. Hazard Reduction Programs:**

CAL FIRE has worked in past years with the Nevada Firesafe Council to support a residential chipping program.

## High Priority Target Areas

- Nevada City (high structure loss potential)
- Grass Valley (historical value, high population)
- Banner Mountain Community
- Cascade Shores.

**Table 9 – Battalion 12 Fuel Modification Projects, Community Outreach and Education Programs**

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Ponderosa Fuel Break	P		Shaded Fuel Break/ Community Protection	
Deer Creek Fuel Break	A	2013	Shaded Fuel Break / Community Protection	40
Wolf Mtn CAL FIRE Lookout	O	N/A	Active Fire Lookout	N/A
Banner Mtn CAL FIRE Lookout	O	N/A	Active Fire Lookout	N/A
Truckee / I80 Fuel break	C	2012	Shaded Fuel Break	
FSCNC Chipping	O	N/A	Fuel Reduction	

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

## Success Stories

### Fire Safe Council of Nevada County –

FSCNC earned the 2010 Firewise Leadership Award from the National Fire Protection Association for establishing five formal Firewise Communities in Nevada County.

### Nevada County Community Shaded Fuelbreak:

This project began in 2004 and was completed in July of 2011 with assistance from private landowners, CAL FIRE and the USDA NRCS cost share incentive programs. The Shaded Fuel Break project area was developed to add protection to the community of Cascade Shores, the Scotts Flat Lake area, and the cities of Grass Valley and Nevada City.

The Nevada County Community Shaded Fuel break was developed out of a need to have a strategic plan to help protect cities and communities in the event of a catastrophic fire and to protect the forests from fires in the urban-wildland interface. The project area encompassed approximately fifteen miles; was up to one quarter mile in width and consisted of mostly large, privately owned parcels. Several meetings were held with Cascade Shores Homeowners Association, Lightning Tree Road Association, Nevada Irrigation District and the US Forest Service to coordinate land treatments and develop cooperation in order to complete the fuel break project.

Cooperating agencies provided education, awareness and cost-share funding information for private landowners. This program was voluntary and had flexible prescriptions for a shaded fuel break while educating landowners to Best Management Practices (BMP's) on their land

including clearing brush, thinning and pruning. The project area had over 60 years of fuels accumulation and was in a high fire severity zone.

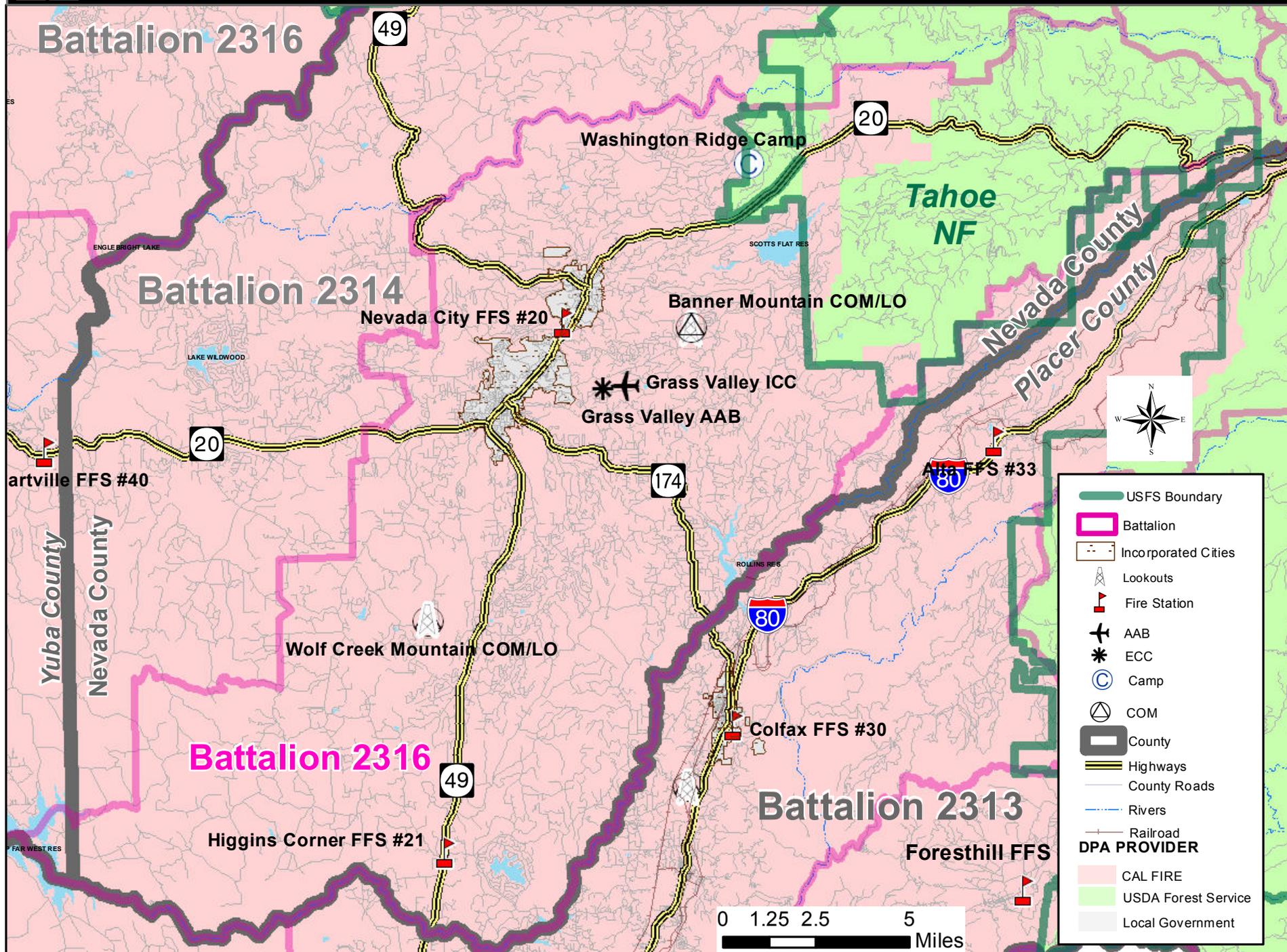
### **Action Plan**

- Debris Escapes – Battalion staff will work with local fire protection districts (Peardale, Chicago Park) and the FSCNC to provide educational materials on safe burning practices to local and visiting residents.
- Powerline Fires – Battalion staff will respond to citizen complaints regarding right of way clearance, coordinate LE-100 inspections and provide necessary tree review to PG&E when questions arise during powerline inspections.
- Equipment Fires - Battalion staff will work with the Unit PIO to locate equipment rental yards and equipment dealers and provide educational materials to the vendors and the public regarding fire safe equipment use. Battalion staff will also provide, upon request of the public, inspections of equipment to ensure fire safe operation. Unit PIO will provide radio interviews regarding safe use of equipment in the area.



# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 12 - Administrative Boundaries





# *Ignition Management Plan*

## *Battalion 13*

### **Battalion Description**

The Colfax and Alta Battalion cover an area 155,046 acres in size within Placer County along Interstate 80. The area is densely populated and interlaced with an extensive road system. The elevation ranges from 1600 feet in the drainage of the American River Canyon to 5300 feet around Emigrant Gap. The North Fork American River and Bear River form two distinct drainage systems with steep inner gorges and offers dense heavy fuels. The fuels within the Battalion vary as widely as the elevations, spanning an area that contains blue oak woodland where annual grasses and oaks are mixed with brush and landscape plantings to the prime timber bearing soils of the Sierra Nevada mixed conifer zone which are covered with large pine and fir timber. In between these fuel types is a range of chaparral, conifer / oak forest, and grass meadows, all containing light flashy fuels and mixed with residential development.

The population centers are Meadow Vista, Applegate, Weimar, Colfax and Alta/Dutch Flat which are surrounded by a scattered urban interface where parcels range from 2.5 to 20 acres in size, much of which contains residential and some light commercial development. This mix creates a true WUI problem where even the smallest fires with the most prompt emergency response could be catastrophic and result in burned structures. While the Colfax/Alta Battalion is not highly populated as compared to other portions of Placer County, the day to day traffic flow from the major East/West Freeway (Interstate 80) continues to be a fire problem. A majority of the ignitions in the Battalion originate from vehicles.

Cooperators include Placer Sierra Firesafe Council, Iowa Hill Firesafe Council, Auburn Firesafe Council, Foresthill Fire Department, Placer Hills Fire District, Colfax City Fire Department, Alta Fire Department, Iowa Hill Fire Company, Placer County Fire Department, Bureau of Land Management, and the United States Forest Service

### **Statistics**

Table 10: Responsibility Area and Direct Protection Area for Battalion 2313

<b>Responsibility Area (acres)</b>	FRA 57,707	LRA 900	SRA 96,439
<b>Direct Protection Area (acres)</b>	Federal 44,857	Local 912	State 109,278

### **Battalion Fire History and Occurrence**

Vehicle caused fires rank as the highest cause of wildfire in the Battalion. This statistic is a reflection of the numerous roads and highways bisecting the Battalion. This portion of Interstate 80 is an area where commercial vehicle traffic often encounters problems as a result of the long downhill run off of Donner Summit. During fire season, as temperatures and vehicle traffic increases on Interstate 80, vehicles with overheating brakes can become an ignition source for roadside vegetation. Conversely, overheating and friction can affect commercial or passenger vehicles climbing grades within the Battalion causing vehicles to ignite.

Exclusive of Interstate 80, many of the roads in the Battalion are rural roads with vegetation growing very close to the road edge, or on the road surface. The exposure of these fuels to hot exhaust, exhaust discharge, or flame impingement from fires originating within the vehicle becomes an ignition source for vegetation fires.

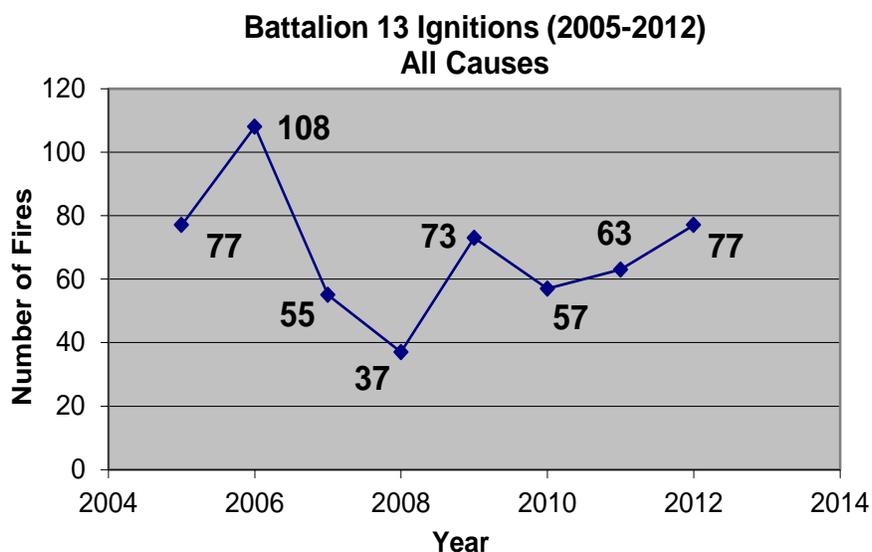
Debris escapes account for the next highest cause of vegetation fires within the Battalion. Generally, the residents in the vicinity realize that the fuel treatments near their residences must be done, but often delay burning until the final weeks prior to burn bans being instituted. The result is that burn piles are burned later in the season, when control of the fires is more difficult due to weather and fuel conditions. Public education at the time of burn permit issuance is used to reduce the number of escapes.

Equipment caused fires account for approximately 9% of ignitions in the Battalion, and held steady from the previous year. Much of the fuel work which occurs in the Battalion involves the use of equipment and construction or land management activities often require the use of equipment. This equipment use takes place in the wildland areas where vegetative fuels are available and susceptible to burning.

Fires with an undetermined cause also account for around 13% of the fires in the Battalion, which is a 3% increase over the previous year. These fires are those which the ignition could not be determined due to various factors. These fires are the most difficult to reduce due to their difficulty in assessing. The Unit's Prevention Bureau assists Battalion staff with cause determination if a fire problem persists with no apparent cause. The result is, over time, a reduction in undetermined fires allowing fire prevention education or enforcement to address the actual cause.

Arson fires account for 6% of the fires in the Battalion. These fires are intentionally set fires and difficult to reduce due to their nefarious nature, however there is a 5% decrease from the previous year. The Unit's Prevention Bureau is charged with investigation and pursuit of arson as felonious activity. Continued Law Enforcement in the Battalion will, over time, reduce arson fires.

The balance of the fires is split between various causes which are considered normal accidental fires.



## Mitigation Strategies

### 1. Public Education:

#### A. Burn Permit Administration

Debris escapes account for 20% of ignitions in the Battalion, which is an 8% increase over last year. This is a significant number considering the requirement to have a burn permit in place prior to burning and the fact that restrictions and information are available on the permit to prevent escape. In order to reduce this number of escapes leading to vegetation fires, education at the time of permit issuance is critical so that residents know to review the restrictions and ensure that they are in compliance before lighting the match. The dry winter of 2011/2012, with significant rains not returning until mid-march 2012; likely account for this increase in debris burn escapes due to the public underestimating fuel dryness.

LE-62s (Residential Burn Permit – Burn Pile) are issued by authorized Cal Fire personnel at the Alta and Colfax Stations. Annually, Battalion personnel issue approximately 800-1000 permits. All employees review compliance requirements with each permit request.

Battalion personnel will also be issuing permits for the City of Colfax. There will be open hours during the winter. Burn hours will be implemented around May 1 and total restriction will start around July 1 depending on weather. The burn ban will be lifted as per NEU policy in the fall at the end of declared fire season.

LE-5 (California Inter-Agency Burning Permit) and LE-7 (Project Type Burning Permit) are issued on SRA lands after an inspection by an authorized Cal Fire employee. These project burn permits are typically used to dispose of larger piles of material and typically require an inspection by agency personnel prior to authorization to burn.

All permittees are given material covering air pollution rules and information regarding the Placer County chipping program as an alternative to burning.

#### B. Public Education Forums

Battalion personnel participate in numerous public education programs. The area is a well-known recreational area with campgrounds at the American River, Bear River, Rollins Lake and numerous hiking trails attracting day users throughout the Battalion. The target audience is quite large and has proven to be receptive to various programs as follows:

Ongoing events throughout the year include:

- Recreational areas are frequently visited by Cal Fire personnel to provide fire safe information and material.
- The local elementary schools are targeted for Smokey Bear programs.
- Battalion Staff participate in Fourth of July parades at both Colfax & Dutch Flat.
- Battalion Staff work with cooperating fire protection agencies in fire prevention programs in both private and public education forums

- Battalion engine companies are up-dating pre-fire plans, expanding on WUI pre-plan guidelines and maps, and conducting business inspections through-out the year as fiscal limitations and staff time allows.
- The local Battalion Chief works closely with the local Fire Safe Councils on various issues.
- This year Caltrans has agreed to allow NEU Washington Ridge crews to implement their fuel modification program from the Auburn Battalion to the Baxter area along Interstate 80.
- The BC attends the Colfax City Council meetings to provide input relative to Colfax City VFD activities.
- The BC attends Lions Club meetings once a year to provide information on fire prevention in the local area.
- The BC attends the Alpine Meadows Community meeting to provide fire safe information and advice the landowners.
- The BC Attends both the Meadow Vista Municipal Advisory Council and the Weimar/Applegate/Colfax Municipal Advisory Council to the Placer County Board of Supervisors
- The BC works with Placer County Sheriffs Department on transients and the homeless population to reduce the risk of accidental fire starts in their camping area.
- The BC is working with the City of Colfax with their code enforcement within the City limits to reduce fuel loading on undeveloped parcels. This resulted in significant fuels reduction on over 50 acres within the City of Colfax eliminating the ability for transients to camp illegally resulting in ignition/fire starts. The number one cause of fires in the City of Colfax.

### **C. Fire Prevention**

NEU Fire Prevention planners are assigned to the Placer County Building Department. Planners review projects to ensure that PRC 4290 requirements are met or exceeded on all new construction. The BC participates in field inspections upon request and meets with landowners to provide input regarding necessary fire protection elements required for development in the WUI.

The BC is in direct contact with Union Pacific representatives on a bi-annual basis. During these meetings, the BC receives information regarding future track maintenance. In the summer of 2012, Union Pacific hired a contractor to install a fuel break through the Battalion within 30 feet either side of the track and has been completed. The fuel reduction project is intended to mitigate ignition potential as rail traffic is increased. Union Pacific also significantly reduced fuels on approximately 15 acres adjacent to and within the City of Colfax. Rail traffic is currently around 15 trains per day. The traffic is expected to reach 45-50 trains per day over the next 2 years.

### **D. PRC 4291 Inspections**

Since 2007 Battalion staff inspected the most critical WUI areas to evaluate PRC 4291 compliance. In that timeframe, the Battalion personnel have inspected approximately 90% of residences. Of those residences inspected, approximately 85% of inspections were non-compliant for the first inspection. The result of the inspections is short term compliance being achieved in the season inspected, but subsequent years following inspection have resulted in no change in the long term compliance. One possible solution is to provide second inspections and provide citations for those residences not achieving compliance. To date, no

citations have been provided within the Battalion for non-compliance with PRC 4291 requirements.

### High Priority Target Areas

- Colfax WUI
- Alta/Dutch Flat WUI
- Meadow Vista WUI
- Clipper Gap WUI
- Weimar WUI
- Applegate WUI
- American River Drainage – Wild and Scenic River Designation and Recreation and Tourist Destination

**Table 11 – Battalion 13 Fuel Modification Projects, Community Outreach and Education Programs**

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
I-80 Fuel Reduction Project	C	2013	Fuel Reduction	70
Mt. Howell Maintenance	A	Ongoing	CAL FIRE Lookout	42
Colfax Area Strategic Plan – WUI Pre-Plan	A	Ongoing	Pre-Fire Planning	
Iowa Hill Temporary Refuge Area	A	2013	Fuel Reduction/Public Education	20
Rooster Ridge Fuel Break	C	2011	Fuel Reduction	195
Kings Hill Fuel Break	C	2009	Fuel Reduction	200
Long Point Fuel Break	A	2012	Fuel Reduction	150
Roach Hill	C	2011	Fuel Reduction	100
Succor Flat	A	2012	Fuel Reduction	150
Race Track Ridge	P	2014	Fuel Reduction	200
Gillis Hill Fuel Break	A	Unknown	Fuel Reduction	
Meadow Vista Fuelbreak/ McElroy Road	A	2014	Fuel Reduction	
North Fork American River Pre-Attack Planning	A	Unknown	Fuel Breaks / Planning	

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

## Success Stories

### Edwards' Tree Farm / Ponderosa Fire

The Allen Edwards property is located above the North Fork of the American River, a canyon known in the area for experiencing a number of major fires in the past. The combination of fuels, weather and topography all but guaranteed that history would eventually repeat itself and the American River Canyon would once again be under siege by a wildfire.

*Colfax, CA – In August 2001, a fire roared across Placer County, eating up 2,780 acres of forest. Two days after it started, the fire swept into a canyon along the edge of 520 acres owned by Nancy and Allen Edwards.*

*The flames rushed up the Edwards' side of the canyon and devoured 125 acres of their trees. But Allen Edwards had removed underbrush and thinned trees to cut a shaded fuel break 400 feet wide along the top of the ridge. The fuel break slowed the fire while it sheltered some of the 984 California Department of Forestry firefighters called out to battle the blaze. They stopped the fire from barreling down the other side of the mountain and through the town of Colfax. The fire, started by a vehicle, cost \$4.5 million and injured 19 firefighters. Luckily, it destroyed no houses and took no lives. (Source: University of California)*

When Allen first began working his land he realized that he needed to consider the potential for a wildfire coming out of the canyon. One of his first efforts was to develop a fuelbreak along the ridgeline of his property to help reduce the likelihood of a fire spreading to the remainder of his parcels. Along the ridge top, his property was primarily a second growth mixed conifer woodland, typified by uneven aged Ponderosa Pines, Black Oak, and a heavy brush component. Allen took the time to thin the stands and prune all remaining stems up at least eight above the ground. By doing these two things he was able to have a significant effect on the fire's behavior within the fuelbreak. The work removed the ladder fuels and provided an open stand from which fire fighters could make a stand against the encroaching wildfire.

The canyon below the Edward's property was covered primarily by Manzanita, Ceanothus, and Scrub Oak. There were also pockets of oak and conifer stands in the drainages and scattered across the landscape. The brush was near critical levels based on live fuel moistures and due to its age had a very significant amount of dead material mixed in with the live. The standing fuels averaged between six and eight feet in height but could be found up to fourteen feet tall in places. The mixed oak and conifer stands typically had a significant brush understory. These stands were even more volatile than the rest of the landscape due to the presence of "needle drape" through-out the understory. This added layer of fine fuels resulted in an increase in torching which also increased the potential for spotting.

The North Fork of the American River flows almost due North - South below the Edward's property. Because of the topographic orientation, the fuels receive direct sunlight through the first half of the day. The humidity and fuel moisture are significantly reduced on this slope by mid-day and the fuel temperature is dramatically increased. Mid-September is typified by hot, dry weather and continuous canyon winds. The standard south-southwest winds combine with the daytime up-canyon winds to create very breezy conditions in the canyon and surrounding areas. Around mid-night the up canyon winds will give way to the colder air settling into the canyon causing strong down-canyon winds.

The topography of the American River Canyon has a very powerful effect on any fire that occurs within it. The slope ranges from ten to two hundred percent with most of it in the 45 - 75 % range. This slope greatly increased the fire's spread by allowing the pre-heating of the fuels and keeping the flaming front in contact with a constant supply of unburned fuel. It also hampered fire-fighting efforts by limiting the access to the fire's edge as there were very few roads in the area.

The Division Supervisor that was responsible for that portion of the fire, Ken Hughes, said, "The fuelbreak was integral in our operations along Gillis Ridge. It gave us a place to safely fire from where we would not put our crews in danger. We were able to extend the fuelbreak along the ridge and tie in with the river to fully contain the head of the fire. Without the work he, (Allen Edwards) had done prior to this fire there is a very good likelihood that the fire would have run up into the homes further to the west."

It cost Allen Edwards and the NRCS about \$4,500 total to treat about ten acres of land. That money proved to be a wise investment as the fuelbreak resulted in a fire perimeter that had very few homes and other structures within it. Without the fuelbreak it is very likely that the fire would have continued up into the south-eastern edge of the city of Colfax.

The Gillis Hill Fuelbreak did not stop the Ponderosa Fire on its own. What it did is provide a strategic location for ground resources to attack the fire without putting the firefighters in danger. The roads that Allen Edwards had built in the area and the fuel he removed from the understory, provided access that previously was not available in this remote area.

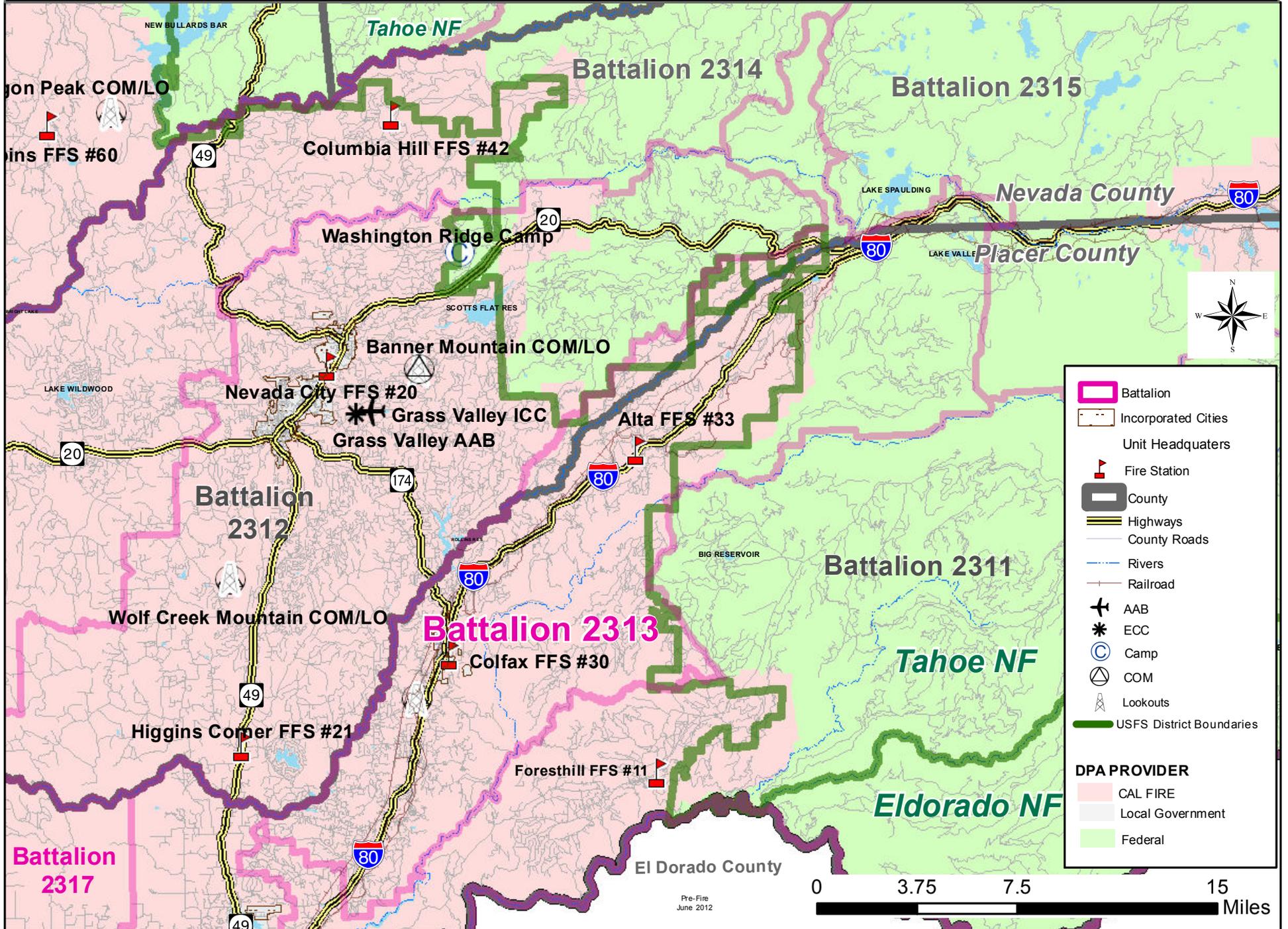
### **Action Plan**

- Public information at equipment rental locations (Hills Flat, Hansen Bros)
- Newspaper releases
- Signage
- Priority PRC 4291 inspection areas
- Focus on I-80 corridor
- Monitor North Fork and Bear River to determine impact of increased recreational use.
- Scotch Broom evasive species public education and mitigation



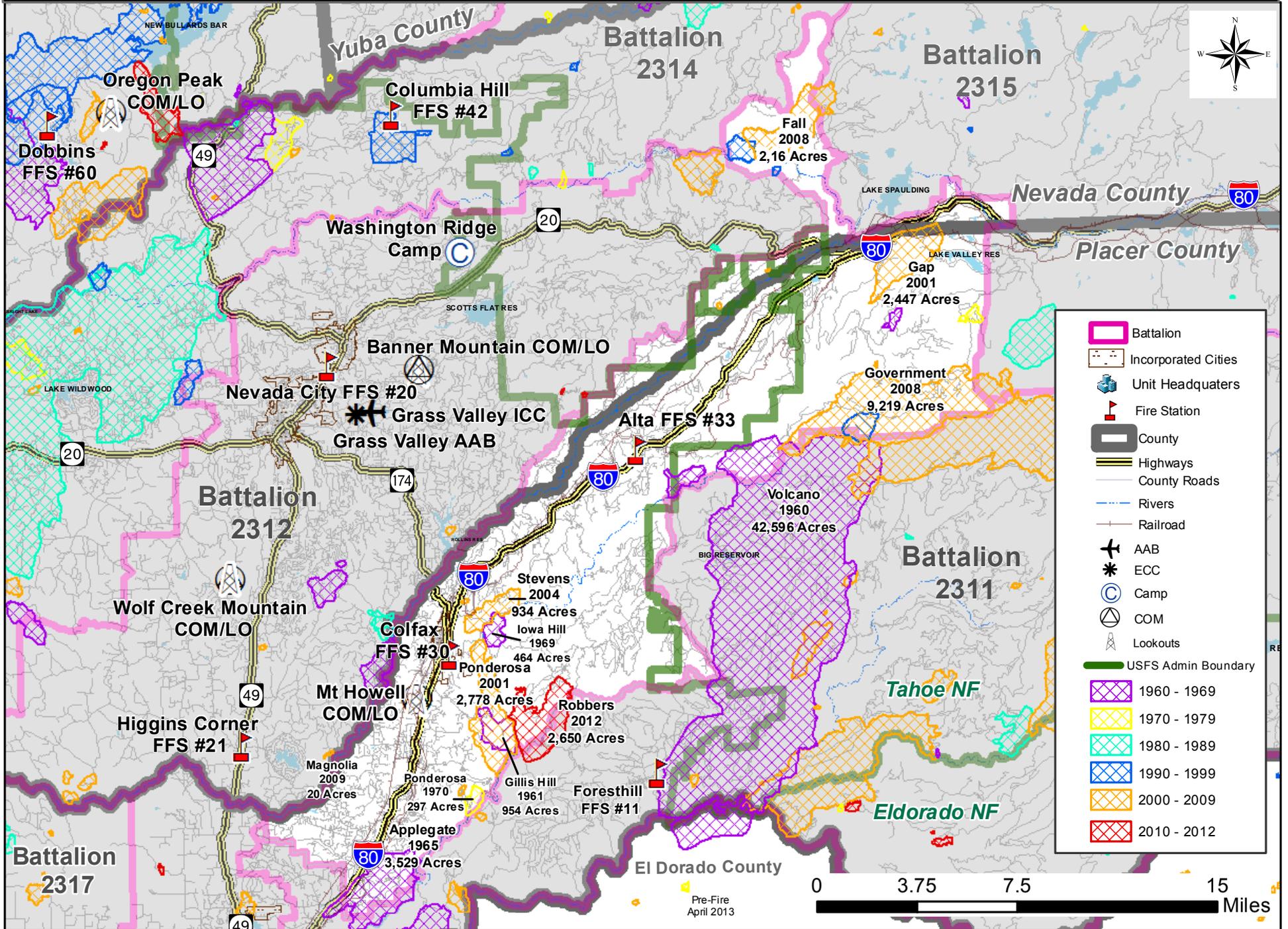
# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 13-Administrative Boundary



# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 13- Fire History



# *Ignition Management Plan*

## *Battalion 14*

### **Description of the Battalion**

At over 270,000 acres the Smartsville – Columbia Hill Battalion (B-14) is the largest in the Unit. It includes more than 160,000 acres of SRA and 15,000 acres of Federal land under State DPA. The main centers of population include Penn Valley, Rough & Ready, North San Juan, North Columbia, Smartsville, Beale Air Force Base, Linda and Wheatland. Most of these communities have been identified on the federal registry of Wildland Urban Interface Communities at Risk. The Battalion is made up of the Yuba River, Deer Creek, and Bear River Watersheds all of which have portions that have been identified as High Hazard Watersheds. From west to east the Battalion begins in the relatively flat lands of the Sacramento Valley and continues northeast to the mountainous terrain of the Tahoe National Forest (TNF). In between these boundaries one will find fuel types that represent at least twelve of the thirteen fuel models. From the valley floor to around 800' – 900' ft elevation is primarily the grass models. Beginning around 700', the oak-woodland begins to appear and it continues on up in elevation to about 1,400 ft. The brush models begin to appear around 800' and carry on up to over 3,000 ft in places. The timber models begin at approximately 1,600 ft, in places, and continue to the TNF boundary. Most of the Battalion is zoned for residential properties of five acres or more, agriculture, or timber production.

Along with the several fire agency cooperators, which include Penn Valley Fire Protection District, Smartsville Fire District, North San Juan Fire District, Rough & Ready Fire District, Wheatland Fire Authority, Linda Fire District, the Bureau of Land Management (BLM), the TNF, and Beale Air Force Base we have several non-fire agency cooperators that assist us with our fuel reduction and fire prevention efforts. These cooperators include but are not limited to: The University of California Research and Cooperative Extension Center who allows us to hold annual training burns at their facility. The California Department of Fish and Game (DFG), provides us with areas to conduct wildland training exercises and fuel reduction projects. The Army Corps of Engineers provides water shuttle services for rescues and fire responses across and around Englebright Reservoir. The California State Parks have worked with us in the past to conduct several large Vegetation Management Program (VMP) burns on their lands expanding our fuel reduction efforts in the Yuba River Drainage. Several large landowners who have also participated or are eager to take part in the VMP to continue to augment those same fuel reduction efforts.

### **Statistics**

Table 12: Responsibility Area and Direct Protection Area for Battalion 2314

<b>Responsibility Area (acres)</b>	FRA 84,241	LRA 74,900	SRA 197,999
<b>Direct Protection Area (acres)</b>	Federal 103,938	Local 74,969	State 178,233

## Discussion of fire occurrence within Battalion

Since 1970, there have been twenty-five fires in excess of 100 acres within the Battalion. The most notable of those are the 49er Fire, the Trauner Fire, and the Oak Tree Fire.

The Unit's most costly and damaging fire occurred entirely within the Smartsville – Columbia Hill Battalion. The 49er Fire began on Sunday, September 11<sup>th</sup>, 1988 near the intersection of Highway 49 and Birchville Rd. and was contained on Thursday September 15, 1988 about five miles south of Highway 20 in the Smartsville area. Over the course of five days the fire burned 33,500 acres and destroyed 148 homes, 358 other structures, 89 vehicles, and 17 boats. Suppression costs were estimated at 7.5 million dollars and the total dollar lost was estimated at 22.7 million dollars.

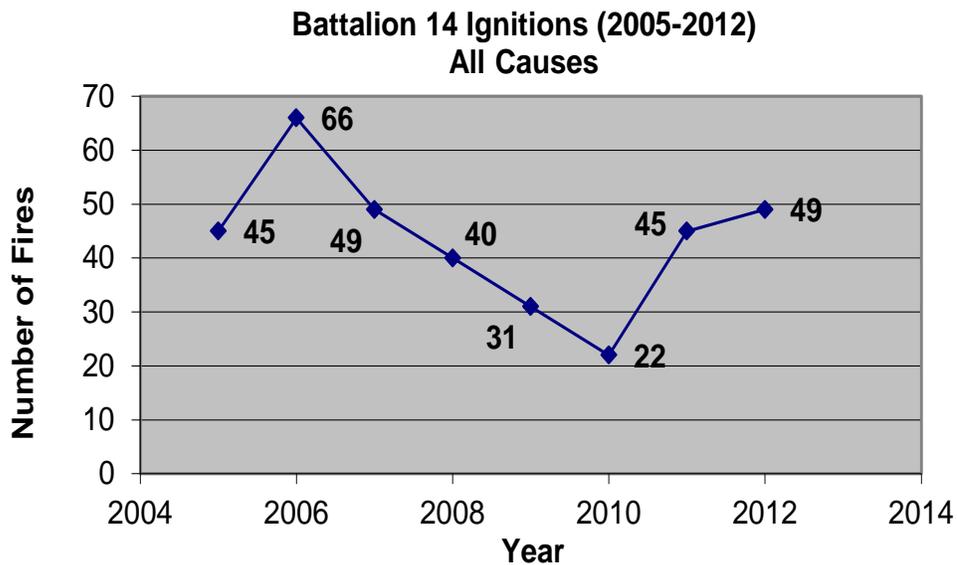
The Trauner Fire occurred in 1994. It burned 536 acres and destroyed several residences and historic structures within the community of Rough & Ready. The cause was determined to be poor maintenance of the vegetation growing around powerlines. As a result, 739 counts of negligence were filed against Pacific Gas & Electric (PG&E) by the Nevada County District Attorney's office and it resulted in one of the largest claims against the company on record. The outcome of the case is considered to be the motivating force behind PG&E's current fuel reduction program.

The Oak Tree Fire occurred in 1974 and was the result of an airtanker crash while fighting the Keystone Fire in the North San Juan area. Both fires burned almost 900 acres each.

There are areas in the Battalion that experience at least one fire annually.

- The Spenceville Wildlife Area Shooting Range on Waldo Rd burns every year. To reduce the threat of these fires becoming extended attack fires, a line is cut around the area each spring. The area behind the shooting range is broken into two units. The upper unit has several rock outcroppings and typically dries out before the lower unit. Even though the rocks are outside the designated shooting area, shooters with high powered rifles will regularly set targets on them. Eventually, this combination will lead to a rock strike resulting in a fire. By the time responders arrive the shooters will be gone. In the event the fire starts after the fuels have finished curing, responders will fire out the remainder of the unit that is burning. Any fires that start prior to the fuels being cured will be extinguished by the responders. Ignitions at the shooting range have several causes: rock strikes, use of metal targets, and the use of tracer rounds are the most common. All of these cause result from activities that are either illegal or not permitted and the DFG Wardens have been citing individuals found participating in any of those activities. All Battalion personnel are briefed on the plan regarding the shooting range and will evaluate the feasibility of firing it out upon arrival, extinguishing it, or watching as it burns within the pre-designated area(s) then make a decision on the best course of action.
- Beale AFB has had fires come off of the base eight of the last ten years. These fires generally originate from birds into powerlines, hazard reduction burns, or munitions work on the base. In an effort to reduce the threat of these fires burning onto SRA, each year Beale AFB puts a fuel break around the perimeter of the base. However, due to their environmental constraints they must leave breaks in the line wherever it crosses winter wetlands or vernal pools. These gaps can be several hundred feet in length and provide significant avenues for the fires to escape the base.

By preparing for these events, we are usually able to keep them in the initial attack phase.



### Mitigation Strategies

There are several roads in B-14 that were maintained for fire access since the early 1950s. With changes in personnel and land ownership, many of those have been neglected over the past ten to fifteen years. Due to years of neglect many of these roads have become nearly impassable for emergency vehicles. In several places changes in ownership have resulted in the new landowners being unaware of the agreements to the point that North Ponderosa Way now has a home built in the original road prism. Over the next several years, efforts will be made by B-14 personnel to identify the roads that will significantly improve the access into the back country within the battalion and work towards re-establishing as many of the original agreements as possible.

- 2013 work was initiated with the landowners along Ponderosa Way in Nevada County to re-establish access through Deer Creek Canyon along the old fire access road. Owners on the south side of the canyon have completed extensive work improving the road beyond our expectations. The owners on the North side are open to us clearing the road as long as we can restrict access to emergency vehicles only.
- 2012 road access into the back country between the UC Sierra Field Research and Extension Station and Collins Lake was identified as a priority in the Battalion. In 2013, a road was identified that connects the two locations. The road is all on Department of Fish & Wildlife (CDF&W) property and currently partially maintained by the Browns Valley Irrigation District (BVID). An informal agreement was made with their personnel allowing us access to the road. They advised they would maintain the surface if we would clear the vegetation that currently restricts access. Personnel from BVID have also agreed to install at least one hydrant for our use along their pipeline that parallels the road. Contact was made with the CDF&W and they advised they would complete all of the necessary environmental documentation allowing us to remove the vegetation along the roadway.
- 2012 dozer access into the areas between the Waldo Junction Bridge, Perimeter Rd and Camp Far West Reservoir are currently limited due to weight restrictions on the existing

bridges. Work is currently underway to allow the construction of two low water crossings to be installed. One in Nevada County below White Oak Rd and the second in Yuba County adjacent to the current Waldo Junction Bridge. The work on the Nevada County crossing will be completed by the Nevada County Road Department in their annual spring road cleanup projects. We are currently working with CDF&W to develop a plan allowing us to construct the one in Yuba County.

- 2011 – 2012 work continued on Scott Forbes Rd, the High Prairie Rd, and the Wood's Creek Truck Trail across the Selby Ranch and into the Richard's Ranch making the roads more accessible for emergency equipment.
- In 2010 work was completed to improve Spenceville Rd from Pitman Rd to the Double Diamond Ranch to allow access of emergency vehicles into the area. The goal for Spenceville Rd is to continue to work with the landowners and re-establish access from the maintained roads in the Double Diamond Ranch all the way to Pitman Rd. When the most recent work was completed on Spenceville Rd, work was also done to improve the road from Spenceville Rd to Beale Falls.
- Also in 2010, B-14 personnel were able to gain permission from the owners of the Selby Ranch to clear brush and small trees along Scott Forbes Rd and the Woods Creek Truck Trail. These roads had become overgrown to the point of completely restricting access of anything larger than a passenger vehicle. As these are the only roads to access the back country north of Englebright Reservoir, it was essential that work be done to allow emergency vehicles in.
- Additional roads to be included as fire access roads in the Battalion are: North Ponderosa Way from Rough & Ready Hwy to Bitney Springs Rd, South Ponderosa Way from Rough & Ready Hwy to Squirrel Creek Rd, Jackass Flats Rd from Tyler Foote Rd to Purdon Rd, Hoyt's Crossing Rd from Milhous Boys Ranch to the South Fork of the Yuba River, Murphy Rd from Purdon Rd to Milhous Ranch Rd., and Hatchet Creek Rd from McAndrews Rd to Spenceville Rd.
- Point Defiance/Rices Crossing Fire Access Roads along and adjacent to the South Yuba River State Park in the Bridgeport area will be graded at least every other year when weather and equipment availability permit.

Signs are posted along Hwy 20 to advise travelers that fireworks are not allowed in the rural areas of Nevada County. In cooperation with the Penn Valley Fire Department, at least one engine from the Smartsville Station will be sent to patrol the area during the fireworks display put on by the Lake Wildwood Homeowners Association. The Columbia Hill engines will be out in the rural areas during the week of July 4<sup>th</sup> to remind the residents of the rules regarding fireworks use in the area.

## **1. Fire Safe Programs**

Work with developers and the Planning Department to ensure that PRC 4290 requirements are met or exceeded on all new construction.

Work with the Fire Safe Councils in both Nevada and Yuba County to identify and implement Fire Safe projects in their areas.

## **2. Burn Permit Administration**

Cooperators consistent with past practice will issue LE-62's. Issuing points will be all CAL FIRE, the Penn Valley Fire District, Rough & Ready Fire District, and the North San Juan Fire District. The Penn Valley Fire Protection District will issue at Station #44 and at the administrative office for those areas within Penn Valley and Rough & Ready. The North San Juan Fire District will issue out of Station #3 on Tyler Foote Crossing Road. This process will ensure that homeowners can get a permit when the CAL FIRE station is not staffed. Burn hours will be determined by CAL FIRE outside the city limits and the individual cities within their boundaries. There will be open hours during the winter. Burn hours will be implemented around May 1 and total restriction will start around July 1 depending on weather. The Ban will be lifted as per CAL FIRE in the fall at the end of declared fire season.

An authorized employee of CAL FIRE or the USFS will issue LE-5 and Project permits on SRA.

## **3. Defensible Space**

Section 4291 of the Public Resources Code will be addressed on SRA. A County funded inspector will be used to cover door to door in all areas of SRA within Nevada County and station personnel will be used in Yuba County. Target areas for 2013 are Sicard Flat – Scott Forbes Rd areas.

The CAL FIRE stations and Battalion Chief will continue to support this activity with logistical support, inspections and citations, if needed.

## **4. Railroad / Power Companies**

Past spot inspections indicate no violations; however fire occurrence has become significant.

Powerline inspections will occur during the PRC 4291 inspections as inspectors look up and down while conducting their inspection, and where the lines are available. The Prevention Bureau Chief will be meeting with Powerline Representatives to discuss PRC 4292. Powerline caused fires, within the Battalion, relating to negligence are insignificant and do not warrant the resources to follow up.

## **5. Public Education**

CAL FIRE staff is involved in numerous public education programs. The area is a well-known recreation area. The target audience is quite large and has proven to be receptive to various programs as follows:

School Programs - An interagency effort targets all schools in Penn Valley, reaching grades K -12 in the spring.

Pioneer Day – CAL FIRE Personnel will set up a table to issue permits and FireSafe materials at the annual event in Smartsville.

Fourth of July Parade – CAL FIRE will have an engine and an antique engine in this year's parade.

Beale AFB Fire Prevention Week – CAL FIRE will provide an engine for the parade and static display for public education.

## 6. Ongoing events throughout the year

Lake Englebright Camp Ground - The Army Corp. of Engineers and CAL FIRE will construct fire lines around all shoreline campsites starting in May.

Malakoff State Park Camp Ground - A CAL FIRE engine will address campers during special events planned by the camp area.

Spenceville Rifle Range – A fuelbreak will be constructed around the rifle range during May, and the interior burnt.

Channel 44 - The local message station will run the defensible space tape throughout the summer and event specific messages on request.

## High Priority Target Areas

Sicard Flat – Scott Forbes Rd, Rough & Ready

**Table 13 – Battalion 14 Fuel Modification Projects, Community Outreach and Education**

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
UC Field Station VMP	O		Prescribed Fire	6,231
Bunker Hill VMP	P		Prescribed Fire	
Reader Ranch VMP	P		Prescribed Fire	
Yuba County Roads	A	Continuous	Fuel Treatments	
Spenceville VMP	P		Prescribed Fire	
Shady Creek Fuel Break	M		Fuel Treatments	
Columbia Hill Fuel Break	C		Fuel Treatments	
Selby Ranch	O		Roadside Clearing	

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

## Success Stories

The line put around the Spenceville Shooting Area has been successful in holding the fires to the control lines every year since it began. Each and every year we experience between one and four starts out there caused by target practice and every year the fires are kept within our pre-established control lines. Without the lines, many of those fires would have easily developed into an extended attack fire.

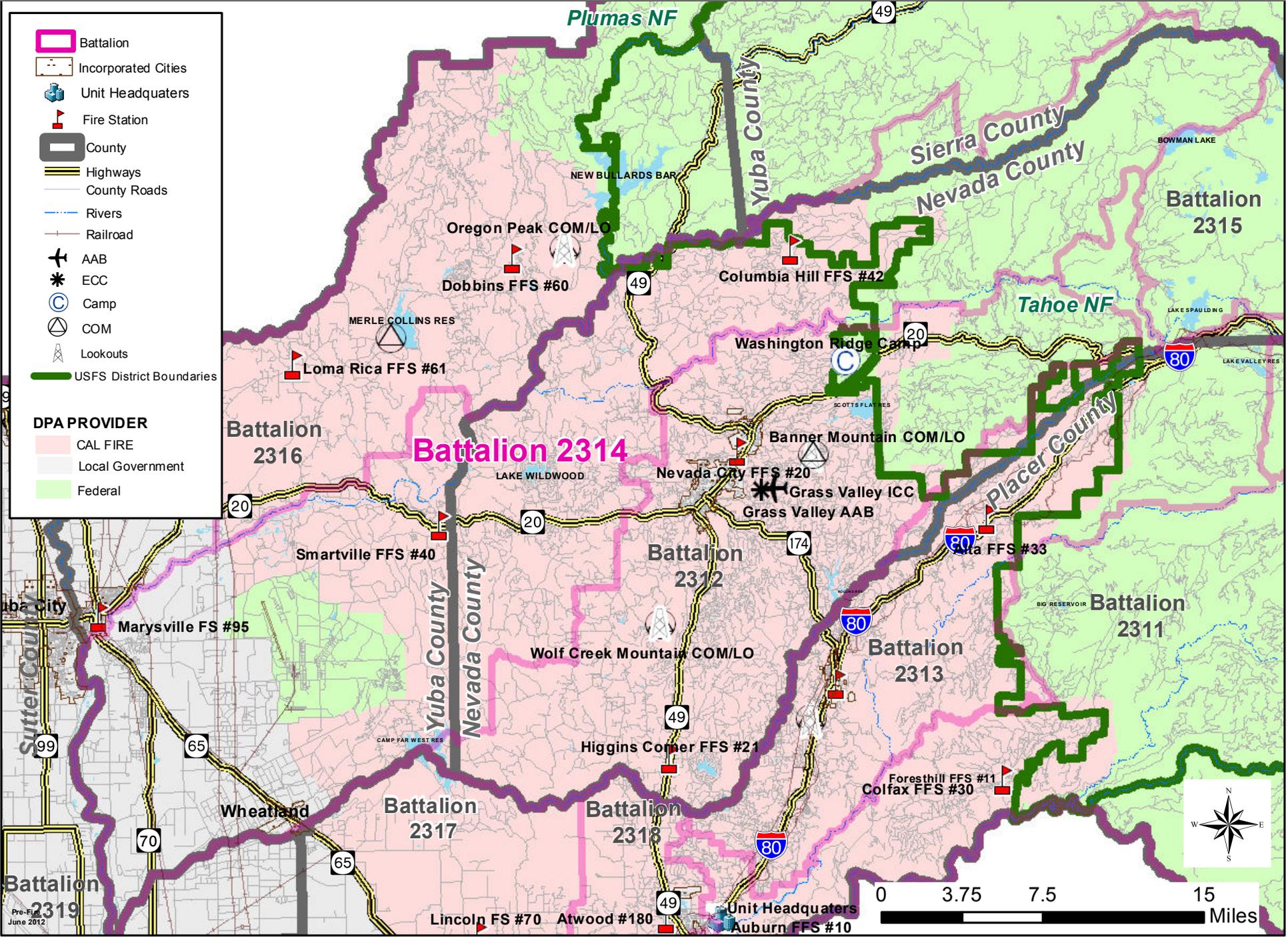
**Action Plan:**

- Continue to pursue completion of the VMP contracts that remain in the planning stage. As the contracts are completed we will focus on implementation. Implementation will focus on fuel reduction and live fire training for fire personnel.
- Opportunities to combine our VMP projects with the Fire Safe Council efforts will be researched.
- Continuance of the public education efforts will be a priority for battalion personnel.
- All personnel will focus their daily training efforts on wildland fire suppression.



# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 14- Administrative Boundaries





# *Ignition Management Plan*

## *Battalion 15*

### **Battalion Description**

Battalion 15 covers approximately 812,285 acres within Placer and Nevada counties including some portions of Sierra County. The primary population center is the Town of Truckee which is the Battalion Headquarters. This high sierra community has a permanent year-round population of 18,000 people. Due to the large number of vacation homes in the Battalion, the population can double on summer week-ends. A large portion of the Battalion lies within the boundaries of the Truckee Fire Protection District. In 1994, the Town of Truckee was incorporated, converting 21,000 acres of SRA to LRA. In 2010, a contract was initiated between the Town of Truckee and Cal Fire for fire suppression on approximately 7,900 acres of wildland within Truckee's LRA.

For the 2013 there will be a significant protection shift within the Tahoe Basin area of B2315. Traditionally, the Forest Service has been the dominant protection provider within the basin, but due to clarified policy within the agency on structure protection guidelines, areas of privately owned lands with structures are going back to state protection status. This translates to Cal Fire playing a significantly stronger role within the Basin. For 2013, Battalion 15 will be acquiring an additional 16,619 acres of state protection area, primarily encompassing the communities along the west shore of Lake Tahoe.

Fuel type varies from desert grass/brush to timber in topography ranging from mountain valleys to peaks over 9,000 feet. The fuel makeup is typical of this eastside timber and meadow environment. The fuel loading is indicative of a rain shadow with generally lower fuel loading than Significant WUI problems exist and are difficult to mitigate due to the temporary nature of the residents. Up to half of the residential structures are vacation homes.

Cooperators include Truckee Fire, Northstar Fire, North Tahoe Fire Protection District, North Lake Tahoe Fire Protection District, Meeks Bay Fire, Fire Safe Council of Nevada County, US Forest Service (TMU, Tahoe N.F., Plumas N.F.), and Army Corp of Engineers.

### **Statistics**

Table 14: Responsibility Area and Direct Protection Area for Battalion 2315

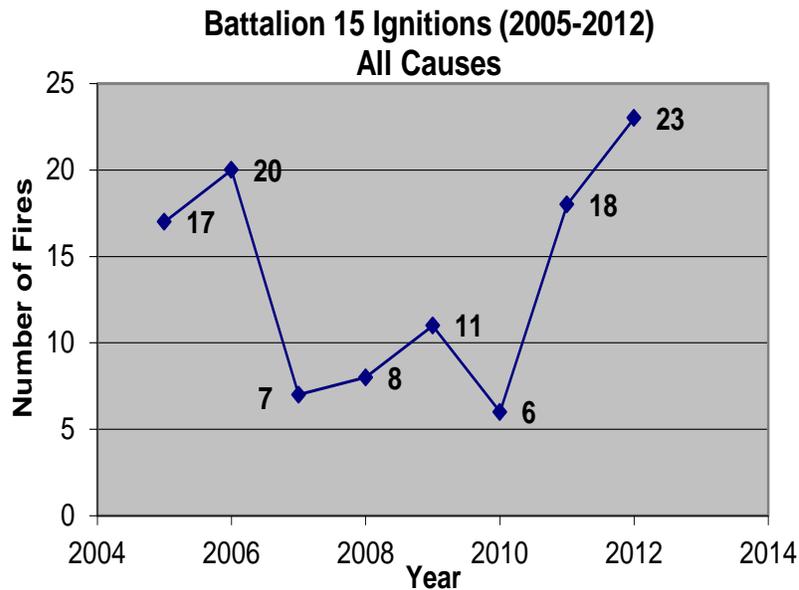
<b>Responsibility Area (acres)</b>	FRA 450,664	LRA 94,858		SRA 266,763
<b>Direct Protection Area (acres)</b>	Federal 663,750	Local Wildland Contract 7,882	Local 37,483	State 103,171

### **Battalion Fire History and Occurrence**

Large damaging and costly fires do occur on the east side of NEU. Significant in terms of acreage are the Donner Ridge Fire (1960 – 44,812 acres), Cottonwood Fire (1994 - 46,800 acres), and Martis Fire (2001 – 14,126 acres). Fire hazard severity (2007 FHSZ) predicts a high

likelihood that such fires will occur again. Typically, Battalion 15 will receive 15-25 vegetation fires per year dependent upon the occurrence of lightning, normally the primary ignition source (50% of ignitions). The balance of normal fire activity is primarily campfires, including homeless fires and party fires started by careless individuals. Other historic problems include freeway related causes from vehicle fires. Overheating and consumption of vehicles with the wildland as an exposure is the normal vegetation fire ignition source.

In recent years, a notable in railroad related ignitions has occurred. Railroad fires are found to be a function of workers using fire causing tools and ignition within the locomotive which spread to the vegetation. The railway traffic through the Truckee Pass is expected to potentially increase three fold in upcoming years. Prevention is focusing on performing industrial inspections at work sites and providing advice on improving fire-fighting ability of workers, by permitting work during fire season with mitigations to prevent fire, and by Union Pacific Railroad activities geared toward vegetation management along the rail line.



## Mitigation Strategies

### 1. Public Education:

Battalion 15 will work to reduce fire ignitions and reduce damage by fire occurrences by actively participating in public education programs, fuel reduction programs, and homeowner education programs. The components to meet these goals are as follows:

#### A. Burn Permit Administration

About 2,000 dooryard burn permits are issued annually in the battalion. The majority are issued by our local government cooperators. Permits are required from May 1 through December 1. The CAL FIRE imposed burn ban is an important and necessary regulation. Burning on the eastside is daylight hours only on approved burn days. Escapes are rare and usually insignificant.

LE-5 (California Inter-Agency Burning Permit) and LE-7 (Project Type Burning Permit) are issued on SRA lands after an inspection by an authorized employee of CAL FIRE or USFS. These project burn permits are typically used to dispose of

larger piles of material and typically require an inspection by agency personnel prior to authorization to burn.

About three project burn permits are issued annually by the Battalion Chief.

## **B. Public Education Forums**

CAL FIRE staff is involved in numerous public education programs. The Truckee-Tahoe area is a world known resort area. The target audience is quite large and has proven to be receptive to various programs.

Ongoing events throughout the year:

- School Programs - An interagency effort by CAL FIRE, the Truckee Fire Prevention District, Northstar Fire Department, and the USFS, targets all schools in Truckee, reaching grades K - 3 in the spring. Students create fire safety posters for display on roadside fire prevention signs.
- Fourth of July Parade – CAL FIRE will have an engine in this year's parade.
- Pre School Programs – CAL FIRE will continue to provide age appropriate fire safety programs with an appearance by Smokey Bear at the request of any public day care centers.
- Reno Rodeo - Assist Sierra Front with staffing a booth.
- Tahoe Re Green - An ongoing process assisting allied agencies around the Lake Tahoe Basin. Projects include: fuel reduction on state owned and conservancy lands and PRC 4291 cooperative inspections.
- Channel 6 - The local message station will run the defensible space tape throughout the summer and event specific messages on request.

## **C. Fire Prevention**

Martis Peak Fire Lookout - Martis Peak Fire Lookout is traditionally put into service as a detection platform on mid-July, and is staffed daily through September 30<sup>th</sup>. Martis Peak has the ability to report at distances of up to 40 miles away. Martis Peak has been documented as reporting numerous initial reports as far away as South Lake Tahoe and has also recorded the locations of numerous lightning strikes, and is instrumental in tracking the progress of developing thunderstorms. Lookout VIP staff at Martis Peak make over 2,000 public contacts annually, speaking with visitors from as far away as South Africa. The operating agreement with the USFS remains in place. We will continue to promote the lookout through the local media and community groups this spring to generate interest in volunteer staffing. All volunteers will be signed up as Volunteers in Prevention (VIP). The Truckee Town Wildland Contract will fund a paid CAL FIRE Lookout position for Martis Peak as in past years. This will be a four days per week position, so the remaining three days per week will require staffing by VIPs.

Fire Safe Programs – The Battalion will work regularly with developers and County Planning Departments to ensure PRC 4290 requirements are met on all new construction. Planners are assigned to Nevada and Placer Counties and will review projects where necessary. The BC will participate in field inspections at the BC level when needed. The objective is to emphasize fire safety during

construction and compliance with PRC requirements when complete. The BC will also participate in the Eastside Chapter of the Nevada Fire Safe Council.

Railroad and Power Company Contact - The Battalion Chief makes annual contact with Union Pacific representatives. The Battalion is informed of any on-going maintenance along the thirty miles of active track within the Battalion. Spot inspections are usually made and provide suggestions on areas of fire safety improvement. Railroad starts in the area average about one per year.

Annually, the BC meets with both Sierra Pacific Power and Truckee Donner PUD reps to discuss summer work projects in the area. Report and cooperation with SPP has been outstanding. Conductor clearance crews are aggressive in the Battalion. Power line inspections are currently performed by the companies themselves.

**D. PRC 4291 inspection:**

Station 55 personnel will continue to assist the North Tahoe Fire District with LE-100 inspections on the north and west shores of Lake Tahoe. NEU will supply a Fire Prevention Specialist to assist the Truckee Fire Protection District with LE-100 inspections within the Truckee town limits.

Northstar FD has a comprehensive inspection program in Placer County within SRA that has achieved near 100 percent compliance.

**2. Vegetation Management:** The vegetation management programs are directed at reducing the potential of a large fire and reducing the damage from a large fire.

**A. Chipper Program / Residential Fuel Treatment**

North Tahoe Fire funds and supports a residential chipping program within the North Tahoe Fire District. The program provides chipping services to landowners to abate hazardous vegetation with reduced costs to the landowner and fewer opportunities for an escaped control burn with the added benefit of reduced impacts to air quality. The Battalion receives great benefit from this program. The Battalion encourages landowners to keep their properties free from flammable vegetation. NEU will support this chipping effort by providing funding when available.

**B. Installation and Maintenance of Fuel Breaks**

The Battalion will support the acquisition of project funds that will achieve the installation and maintenance of fuel breaks. NEU Washington Ridge Fire Crews will continue to support the communities of Tahoe Donner and Northstar in a comprehensive fuel reduction and fuel break program.

### C. VMP Projects

Battalion 15 works closely with cooperating agencies to develop VMP projects that will reduce the potential for a large and damaging wildfire by eliminating the fuel in a controlled fashion.

Currently cooperative projects are taking place with:

- Donner State Park VMP – CA State Parks
- Chinquapin – North Tahoe Fire Protection District
- Waddle Ranch – Truckee Tahoe Airport District
- Tahoe Donner Homeowner’s Association – Truckee Fire Protection District

**Table 15 – Battalion 15 Fuel Modification Projects, Community Outreach and Education Programs**

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Chinquapin VMP	A	2014	Prescribed Fire	20
Donner State Park VMP	C	2011	Prescribed Fire	23
Waddle Ranch VMP	P	2016	Prescribed Fire	68
Truckee Home Show	O	-----	Community Education	N/A
Truckee Rodeo	O	-----	Youth Education	N/A
Tahoe Donner Homeowners Association VMP	P	2016	Prescribed Fire	19

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

### Success Stories

#### 80 Fire Success Story Results from Cooperative Fuel Reduction Efforts

CAL FIRE works cooperatively at the state, county and local levels to complete fuels reduction projects throughout the Nevada-Yuba-Placer Unit. Projects are designed to encourage landowners to create defensible space and to protect communities from costly and damaging fires. NEU utilizes state and federal grant funds to support these fuels reduction projects.

Recently, on August 22, 2007 cooperative fuel reduction efforts





completed by the Tahoe/Donner Homeowners Association, Truckee Fire District and CAL FIRE proved to be a critical component in stopping the advancement of what could have been a devastating wildland fire. The fire started near Highway 80 and quickly advanced upslope towards the Tahoe/Donner subdivision. As the fire approached the subdivision, it burned into an existing fuel break and was stopped. The fuel break was designed and implemented by the Tahoe/Donner Homeowner's Association and the

Truckee Fire District fuel reduction programs. Cal Fire has provided support to these programs through the California Forest Improvement Program (CFIP) and the Proposition 40 Fuels Reduction Program.

The purpose of Cal Fire's California Forest Improvement Program (CFIP) is to encourage private and public investment in, and improved management of, California forest lands and resources. The program scope includes the improvement of all forest resources, including fish and wildlife habitat, soil, and water quality. Cost-share activities include land management planning, site preparation, tree purchase and planting, timber stand improvement, fish and wildlife habitat improvement, and land conservation practices.

The goal of Cal Fire's Proposition 40 Fuels Reduction Program is to reduce wildland fuel loadings that pose a threat to watershed resources and water quality. This fuel reduction program is funded by Proposition 40, the California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002.

### **High Priority Target Areas**

- North side of Highway 80
- Glenshire
- Tahoe-Donner
- McKinney-Rubicon
- Talmont Subdivision

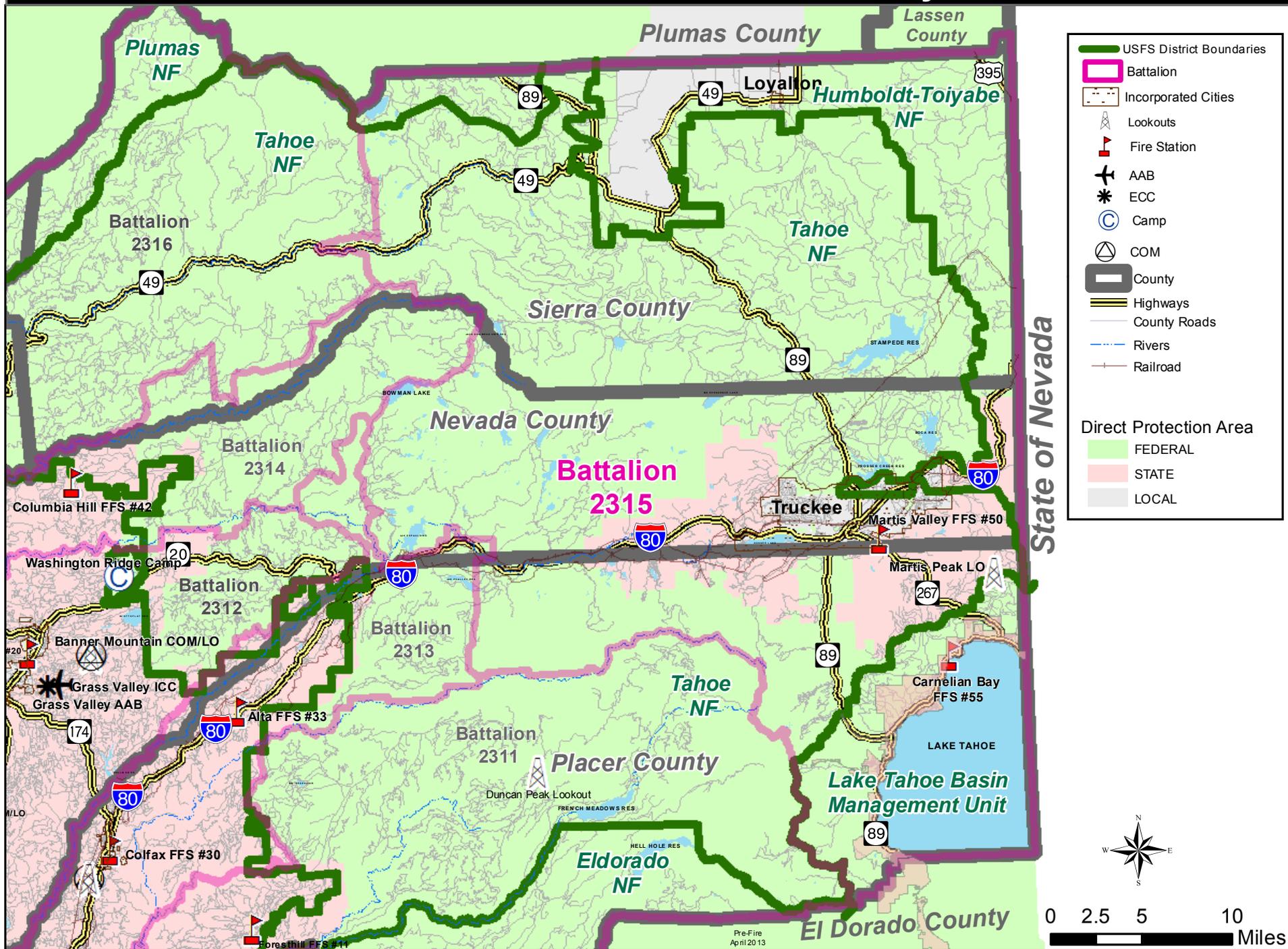
### **Action Plan:**

- Continue focusing on prevention / public education activities.
- Maintain strong interagency relationships with cooperators
- Develop strategies to work with visitors from outside the area on fire safety.
- Aggressively search out lightning strikes before they establish.



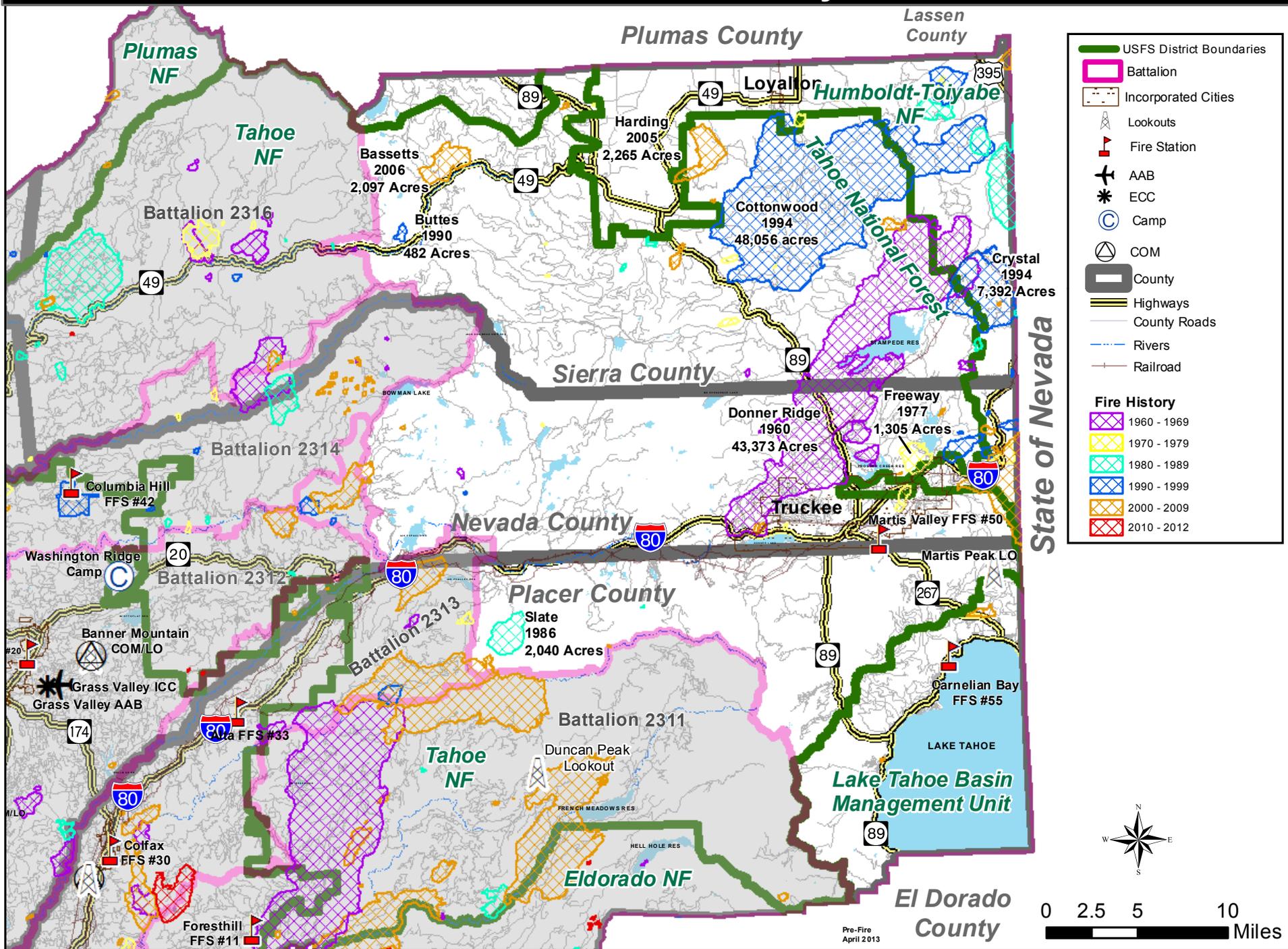
# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 15 - Administrative Boundary



# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 15 - Fire History



# *Ignition Management Plan*

## *Battalion 16*

### **Battalion Description**

The Loma Rica/Browns Valley battalion serves a large area of SRA. Population densities within the Battalion consist of the towns of Loma Rica, Browns Valley, Brownsville, Dobbins, and Oregon House. The battalion is dominated by grass fuel models in the low valley areas giving way to oak woodlands, mixed brush and conifer at the higher elevations. The topography is flat near the valley floor changing to gentle rolling slopes as one moves west toward the Sierra Nevada. The battalion contains several areas where small fires could likely become large damaging incidents.

There are several cooperators within the Battalion including Dobbins/Oregon House Fire Protection District, Foothill Fire Protection District, Loma Rica/Browns Valley Fire and the Yuba Watershed protection and Fire Safe Council.

### **Statistics**

Table 16: Responsibility Area and Direct Protection Area for Battalion 2310

<b>Responsibility Area (acres)</b>	FRA 218,022	LRA 10,815	SRA 194,138
<b>Direct Protection Area (acres)</b>	Federal 280,179	Local 10,829	State 131,966

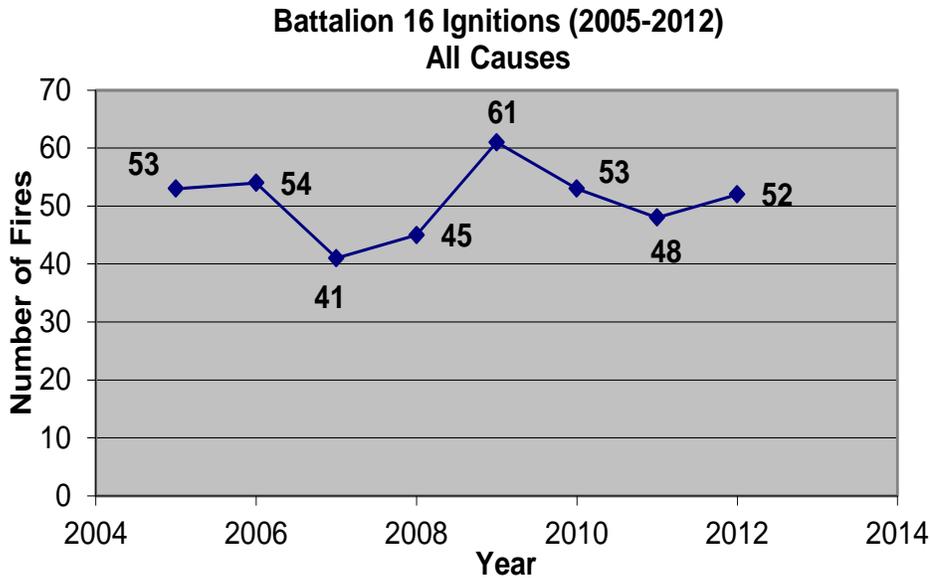
### **Battalion Fire History and Occurrence**

Large fire activity in the Battalion has been consistent over the past few years within Battalion 16. Large fire events include the Williams fire (Sept 1997- 5,838 acres), Pendola Fire (Oct 1999 – 11,725 acres), Marysville Fire (Aug 2006 – 388 acres), Yuba Fire (Aug 2009 – 3,829 acres), and Bullards Fire (Aug 2010 – 1,307 acres). Large damaging and costly fires are a regular occurrence in the Battalion. Fire Hazard Severity Zone mapping (2007 FHSZ), illustrates that there is a high hazard that large damaging and costly fires will occur in the future.

Historically debris fires have been the biggest problem within this battalion. This is followed by a consistent arson problem in the summer and increasing quantities of roadside fires. For the year 2012, debris fires continue to be the greatest cause of fire within the battalion at nearly thirty-one percent. Residents often delay burning until the final weeks prior to burn bans being instituted. The result is a greater number of burn piles being burned later in the season, when control of the fires is more difficult due to weather and fuel conditions. Public education at the time of burn permit issuance will continue to be used to reduce the number of escapes.

Many of the roads in the Battalion have vegetation growing very close to the road edge, or near the road surface. The exposure of these fuels to hot exhaust, exhaust discharge, or flame impingement from fires originating within the vehicle is a problem typical of any

community. This explains why vehicle related fires are the third largest cause class running at just over thirteen percent of all fires in the Battalion. Arson and undetermined fires are considered together and account for nearly thirty-nine percent of the fires in the battalion.



**Mitigation Strategies**

Mitigation strategies within the battalion include: advertising and executing LE-100’s, year round public education and fuel break construction.

There are several roads in B-16 that were maintained for fire access since the early 1950s. With changes in personnel and land ownership, many of those have been neglected over the past ten to fifteen years. Due to years of neglect many of these roads have become nearly impassable for emergency vehicles. Over the next several years, efforts will be made by B-16 personnel to identify the roads that will significantly improve the access into the back country within the battalion and work towards re-establishing as many of the original agreements as possible and developing new ones where appropriate.

**Fire Access Roads**

**Kane Ranch Rd:** This road connects the south end of Collins Lake with Marysville Rd. It is strategically located for getting lake visitors out and fire resources in to the Collins Lake area in the event of a fire blocking or threatening the northern access to the lake. The road traverses CDF&W land along with one other land owner. Battalion personnel are currently looking into that land owner’s willingness to support the project. It would involve simply removing the brush and vegetation along the roadway and possibly surfacing the road with a grader to improve access for emergency vehicles.

**Collins Lake/UC Field Station Access Rd:** This project is in concert with the work being done by Battalion 14 personnel in the area. See the Battalion 14 Ignition Management Plan for additional information.

Rice's Crossing Rd: Access through the Richard's Ranch to the north side of Englebright Reservoir. This road was last graded by CALFIRE personnel in 2008 and needs to be surveyed to determine the current needs to maintain the road.

UC Field/ Richard's Ranch Rd: This road will permit the evacuation of residents from Ure Mountain while allowing for a reduction in response times for emergency resources. The road needs some cleaning up and resurfacing but will eventually connect two well-maintained gravel roads. The road will have gated access only that will require emergency personnel to open.

## **1. Public Education**

### **A. Burn Permit Administration**

In March update the Yuba County Burning Permit Issuance Plan in conjunction with the Feather River Air Quality Management District.

In April, Battalion staff will train the V.I.P.s in burning permit issuance and ensure that Cal Fire employees have reviewed the the Yuba County Burning Permit Issuance Plan.

### **B. Public Education Forums**

Community Involvement - Public relations and interaction between Cal Fire and the community is a key factor in promoting a public understanding of fire prevention. Each year Battalion staff will:

- Station 61 will continue a year round coordination of the sales and installation of street and address signs and house numbers.
- Station 60 and 61 along with VIP's and the volunteers from the LR/BV C.S.D. will participate in local community activities including Wild Hog Glory Daze – Loma Rica Lions Club in May, Brownsville Mountain Fair – Foothill Fire Department in July, Bok Kai Parade – Marysville in March, Beale Fire Prevention Week – Beale A.F.B. in November.

### **C. Fire Prevention and Awareness**

An ongoing program, which furthers the public's awareness of the wildland fire problem and develops public habits conducive to fire safety, will be provided. Annually the Battalion staff will:

- During the months of May and June release (4) four general fire prevention news releases to the Appeal Democrat and the Rabbit Creek Journal newspaper.
- Post fire prevention signs
- Volunteers in Prevention (VIP) will conduct school programs each winter at the following schools: Yuba Feather, Dobbins, Loma Rica, and Browns Valley. Station 60 and 61 will provide assistance and an engine at each program

- Station 60 and 61 will be expected to conduct fire prevention programs when requested by local groups, provided fire activity allows for the commitment.
- Participate as an acting member on the Yuba Watershed Protection and Fire Safe Council.
- Conduct PRC 4291 inspection.
- Coordinate with Loma Rica/Browns Valley CSD personnel and incorporate fire prevention and burning permit issuance program to the local responsibility areas of the fire district.
- A door-to-door program to promote the reflective house numbering program.
- Meetings will be conducted with local cooperators covering fire prevention specific to their facilities or agency.
- Reduce the wildland fuel loading by 1) reviewing development projects within the SRA and require developers to instill fuel reduction practices, 2) Yuba Watershed Protection and Fire Safe Council Fuel Break/modification projects, 3) Yuba County Road fuel modification project, 4) CSA 2 emergency evacuation route development
- Each spring spot check 1/3 of the power lines within the Battalion, a map will be maintained to ensure that a different area is inspected each spring.

## **2. Vegetation Management:**

### **A. Chipping**

The Yuba County chipping program has provided free chipping to residents in the foothills to encourage their participation in maintaining the required clearance around their structures. This program is overseen by the Dobbins/Oregon House Fire District and has been partially funded with grant dollars provided by CALFIRE.

### **B. Fuel Breaks**

Working with the Yuba FireSafe and Watershed Council, several roadside fuel breaks have completed within the Battalion. The Council gets together annually to prioritize the roads needing work, then they work with the CALFIRE staff to identify work days when the crews will be able to clear the road right-of-ways by cutting and chipping the brush.

Each spring a dozer line is put in between Marysville Rd and California Department of Fish and Wildlife (CDF&W) lands at Daugherty and Stanfield Hills; historically, both of these areas experience roadside fires that have the potential to become costly and damaging, however; they are generally held in check by the dozer lines.

### **C. VMP**

## High Priority Target Areas

- Due to the demand for water quantity and clarity, watershed protection is a high priority.
- High tension power lines in the Battalion
- Yuba River drainage
- Dobbins Area WUI
- Daugherty Hill Wildlife Area
- Along Rural Roads in the Battalion
- Oregon Ridge Fuel Break

**Table 17 – Battalion 16 Fuel Modification Projects, Community Outreach and Education Programs**

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Yuba County Chipper	A	O	Fuel Reduction	
Yuba County Roadside Clearing	A	O	Fuel Reduction	
Daugherty Hill Wildlife Area Fuel Breaks	O	O	Fuel Break	
Daugherty Hill Wildlife Area VMP	P	2016	Prescribed Fire	<b>5,000</b>
Yuba Firesafe Council	O	O		
Richard's Ranch VMP	C	2009	Prescribed Fire	<b>3,375</b>

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

## Success Stories

### BLM Grant for Fuel Reduction is One of the Keys to Stopping the Dry Fire

The Yuba Watershed Protection & Fire Safe Council is targeting fuel reduction along roads as a focus for fire season planning in the Yuba County foothills. The Council's partnership with the Yuba County Public Works Department has resulted in the treatment and maintenance of fuel along over 40 miles of road to reduce vehicle fires from spreading to the wildland. The Bureau of Land Management provided funding through California State Fire Safe Council Clearinghouse to reduce fuel along a six mile portion of Marysville Road.

On the early evening of July 31, 2009, a truck traveling on Marysville Road started at least 5 small road-side grass fires along the cleared section of the project. The reduction of fuels along the road slowed the intensity and spread of the fires. Another large factor in controlling the fire was a dozer line constructed annually by CALFIRE in a wildlife refuge uphill from the fire starts. The fires initially did not burn with high intensity

due to fuel reductions. Air tanker use would have been limited if the fire continued to burn into the night, as operations must be suspended shortly after sunset.

Strong initial attack by CALFIRE air resources reinforced the fire lines, allowing ground forces to rapidly control all the fires. CALFIRE fire modeling estimated without the fire prevention work the flame length could have exceeded 20 feet (too extreme for direct attack by ground units at the head of the fire) and the fire would have reached the top of Stanfield Hill in about a half hour. Homes would have been critically threatened and destroyed. There was a potential for significant spotting. This fire would have exceeded initial attack, and would have required a significant augmentation of resources. It is very likely that this fire would have grown to at least a hundred acres, and destroyed several homes. This is the third documented vehicle-caused fire that did not become catastrophic because of these roadside fuel reduction projects.



Roadside fuel reduction also provides other management benefits during a fire by improving evacuation corridors for citizens and better access for fire fighters and equipment. Due to the roads' bare surface and the commitment of the Yuba County Public Works to maintain the fuel reduction along treated roads, they can also serve as fuel breaks in limited intensity fires.

For more information contact Yuba Watershed Protection & Fire Safe Council Facilitator, Glenn Nader at [ganader@ucdavis.edu](mailto:ganader@ucdavis.edu)

*Fuel reduced along the Yuba County's Marysville Road slowed the rate of spread of the Dry Fire*

### Middlebrook Fuel Break Used as a Fire Fighter Tool in the Yuba Fire

A CAL FIRE Prop 40 funded grant to the Yuba Watershed Protection & Fire Safe Council was used by fire crews to stop the Yuba Fire from going to Marysville Road and blocking traffic and damaging more watershed and homes in the Dobbins community.

In 2004, landowner, John Middlebrook completed construction of a fuel break 300 feet wide  $\frac{3}{4}$  of a mile on his property along Marysville Road and a portion of the east boundary using his own money. The Yuba Watershed Protection and Fire Safe Council, with assistance from High Sierra Resources Conservation and Development Council Inc. obtained a Proposition 40 grant from Cal Fire to complete an additional 1.1 miles of fuel break along the easterly boundary and southerly end of Middlebrook property. Brush and small trees were masticated with equipment or hand cut, piled and burned. A maintenance/access road within the SFB was also constructed. The project was started in 2007 and was completed early in 2008.



*Fire stopped at the Middlebrook fuel break and access road*

On Friday, August 14, 2009, the Yuba Fire started as a result of a bird hitting powerlines. The fire consumed 3,891 acres before it was contained. The fire was slowed down by the southerly end of the fuel break. If the fire had extended 500 to 1000 feet northerly it would have entered into young timber stands and done much economic damage and marched northerly uphill toward Marysville Road, a main arterial highway in the County. The fuel break provided time to marshal firefighting resources. Quick access to the fire was also gained from Lake Francis Road to the south into the fire and through the grant funded fuel break access road. The \$52,500 fuel break grant paid off many times over by slowing and stopping the fire, while at the same time providing access for the successful firefight.

### **Yuba County Roads Project**

After the 1997 Williams fire and following the recent (2009) Yuba Fire, the Yuba Watershed Protection & Fire Safe Council (YWP&FSC) identified that heavy fuel along roadways restricted the evacuation of residents and limited fire fighter access. Through this request, 7.5 miles of Oregon Hill Rd (45 acres) will have a shaded fuel break constructed along the county road easement. This will help ensure safe ingress / egress during future community evacuation and fire suppression efforts. This project will also show the public the need and success of reducing fuel loading on their properties. The Yuba County Department of Public Works with assistance from Cal Fire's Washington Ridge Conservation Crew will be completing the work. The hand crews will cut and chip small fuels, while larger fuels will be cut into firewood lengths and left for local landowners. The common chaparral species to be removed are Manzanita, deer brush, toyon, ceanothus, and tanoak. Some small conifer species will also be removed. Completing this project will increase community safety. This project continues a successful program that was initiated through 7 previous grants & has completed 100 miles of shaded fuel breaks along Yuba County Roads.



*Roadside Chipping Before.*



*Roadside Chipping After.*

### **Action Plan:**

- Increase advertising exposure and executing of LE-100 inspections.
- Continue year round public education efforts within the battalion
- Continue to support fuel reduction efforts within the battalion
- Establish roadside voluntary disking program where feasible on private property.



# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 16- Administrative Boundaries

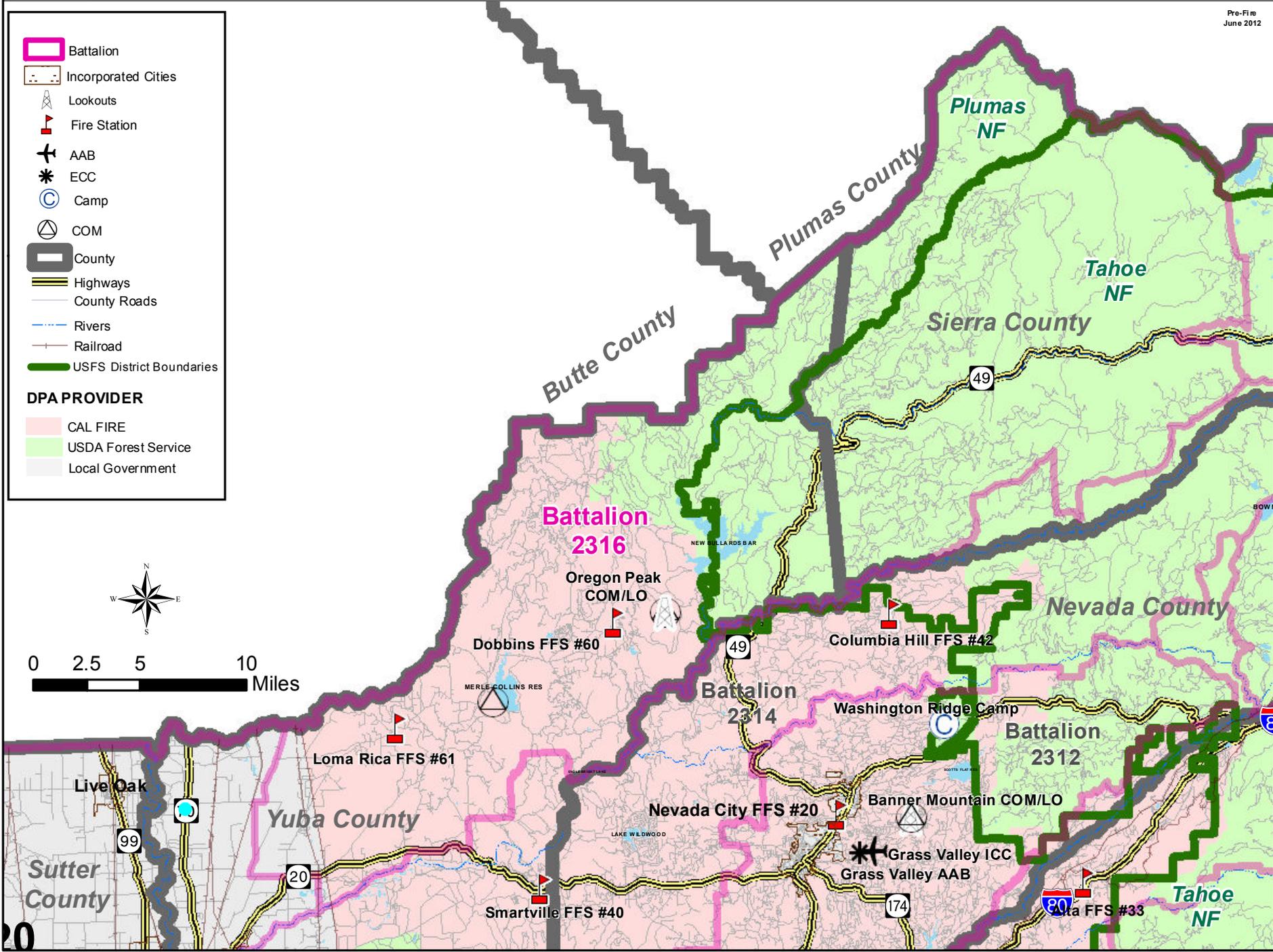
Pre-Fire  
June 2012

**Legend**

- Battalion
- Incorporated Cities
- Lookouts
- Fire Station
- AAB
- ECC
- Camp
- COM
- County
- Highways
- County Roads
- Rivers
- Railroad
- USFS District Boundaries

**DPA PROVIDER**

- CAL FIRE
- USDA Forest Service
- Local Government





# *Ignition Management Plan*

## *Battalion 17*

### **Description**

The Lincoln Battalion serves a mixture of SRA and LRA. The battalion is dominated by grass fuel models in the lower valley area and oak woodlands and mixed brush at higher elevations. The topography is flat near the valley floor changing to gentle rolling slopes as one moves east toward the foothill areas. The battalion contains several areas where small wind-driven fires could likely become large and damaging events.

There are several cooperators within the battalion including the cities of Lincoln, Roseville, Wheatland, Rocklin and Loomis Fire Departments, as well as the Placer County Fire Schedule A Program managed by CAL FIRE.

### **Statistics**

Table 18: Responsibility Area and Direct Protection Area for Battalion 2317

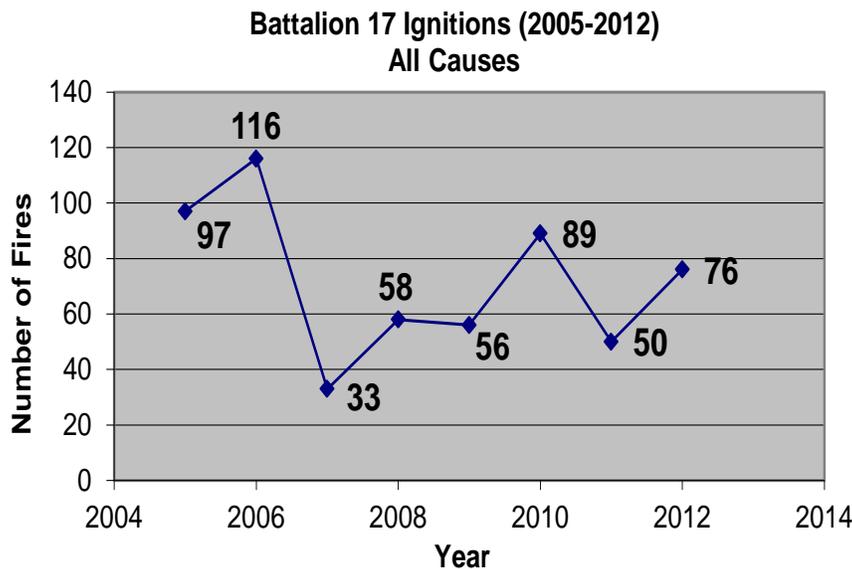
<b>Responsibility Area (acres)</b>	FRA 0	LRA 159,230		SRA 61,889
<b>Direct Protection Area (acres)</b>	Federal 0	Local Wildland Contract 6,124	Local 153,387	State 63,113

### **Fire occurrence within Battalion**

The Battalion 17 area historically has small acreage fire events. This area does have the potential to experience severe wind driven events. One of the most notable in past years is the wind driven Gladding fire (Sept 2008 – 1,090 acres). Lincoln has traditionally been an area of agriculture and irrigated pastures which served as effective firebreaks. Few farms and active ranches are maintained currently which has decreased the amount of available and maintained fuel breaks. Today development is changing the rural landscape, creating a wildland urban interface at risk.

Arson, most often sourcing from the urban center, is a significant problem within the battalion constituting 5.2% of the fires during the 2012 season. Battalion personnel are working with the prevention bureau to address this issue. Equipment use comprised nearly 12% of the ignitions with 2012. A roadside disking program is developing to assist with the reduction of roadside fire extending into the vegetation.

The majority of the fires within the battalion during the 2012 season were from undetermined (over 38%) causes. Prevention staff is working with the battalion on cause determination training to help reduce the undetermined causes. The result will allow hazard mitigation to address actual causes.



**Mitigation Strategies**

**Fire Protection Planner**

The Placer County Fire Protection Planner will continue to provide building plan fire and life safety reviews for PRC 4290 and uniform fire code regulations.

**Burn Permit Administration**

Issuing points for LE-62's will be Cal Fire/Placer County Fire Station 70 and Station 77. The local pollution control district determines burn hours. Pre-inspections will be provided on a requested or as needed basis. With each permit written, a Placer County Air Pollution Control District's Residential Open Burning informational sheet will be included. A copy of the permit will be filed at Station 70 or Station 77.

**Defensible Space**

A battalion goal is to target areas within the foothills that have a significant wildland fire threat or historical clearance problems and inspect homes using the PRC 4291 program. Campgrounds at Camp Far West Lake will be inspected prior to June 15<sup>th</sup> for compliance of related Forest and Fire Laws.

**Power line Inspections**

Inspection of power lines will occur during the PRC 4291 inspections. Staff will advise the battalion chief of a violation, the battalion chief will coordinate an inspection by the Units Fire Prevention Bureau.

## **Volunteer Presence**

Battalion 17 has a strong volunteer firefighter presence, including the following stations Paige (Station 75), Thermolands (Station 74), Fowler (Station 73), and Sheridan (Station 78).

## **Community Involvement**

National Night Out

Thermalands and Paige Volunteer Company Pancake Breakfasts

Sheridan Christmas Parade

Amoruso and Lincoln 4<sup>th</sup> of July Parades

## **Public Education**

*School programs-* Station 70 staff along with the Lincoln group; provide fire safe presentations to schools within the battalion. Age specific fire prevention material will be handed out at each presentation.

*Parades-* each year the City of Lincoln invites Station 70 and the Lincoln companies to their annual parade. The engine company staff will display the engine so members of the public can inspect the engine and equipment, staff will hand out fire prevention material and discuss fire prevention issues.

*Business fire safety programs-* Station 70 and Station 77 staff will provide instruction on the proper use of fire extinguishers to local businesses within the battalion.

*Fire Prevention Signs-* Station 70 staff provide maintenance of several signs within the Battalion. Station 70 staff request 3 additional fire prevention signs that will be placed in targeted areas during the fire season.

*Thunder Valley Casino-* Station 77 in cooperation with Thunder Valley Casino will provide fire prevention material and information to customers of the Casino during National Fire Prevention Week.

## **High Priority Target Areas**

Lincoln City boundaries, Sheridan

Open space areas surrounding dense populations and main road ways are included in the high priority areas.

## Projects

Table 19 – Battalion 17 Fuel Modification Projects, Community Outreach and Education

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Hidden Falls	A	O	Fuel Reduction	
Placer Land Trust VMP	P	P	Vegetation Management	
Fiddymment Training Area	O	O	Firefighter Training Area	<b>154</b>
Trail Corridors	O	O	Fuel Reduction	

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

### Success Stories

- Juvenile fire setter program

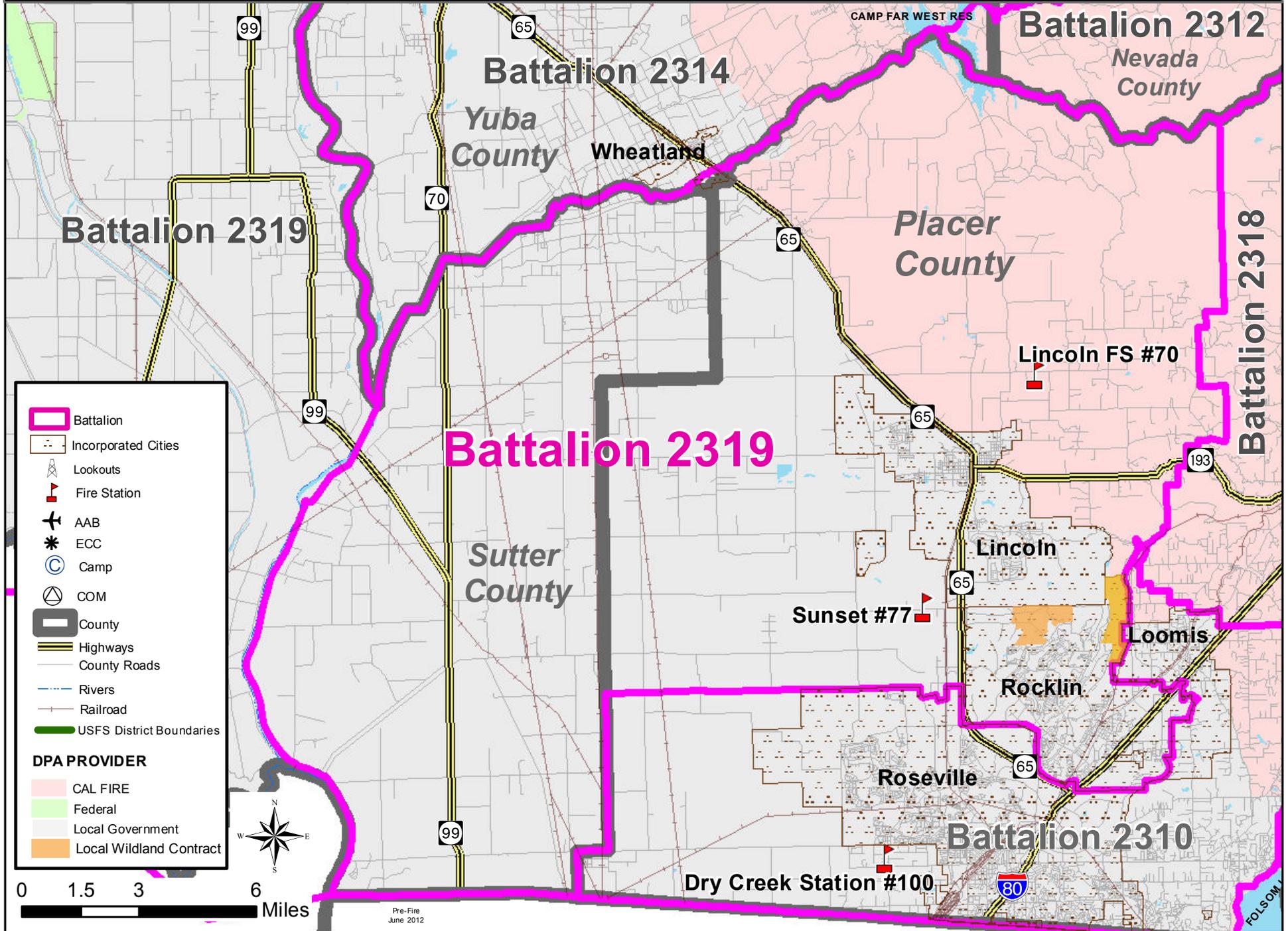
### Action Plan:

- Work with Unit prevention to reduce the number of undetermined fire causes: battalion staff will continue prevention training to help improve undetermined fire causes within the battalion.
- Continue public education efforts within the battalion
- Continue defensible space inspections within the battalion
- Focus on business inspections and pre-fire plan activity.
- Continue to improve the Battalion disking program
- Identify new and improve existing fire roads and fuel breaks



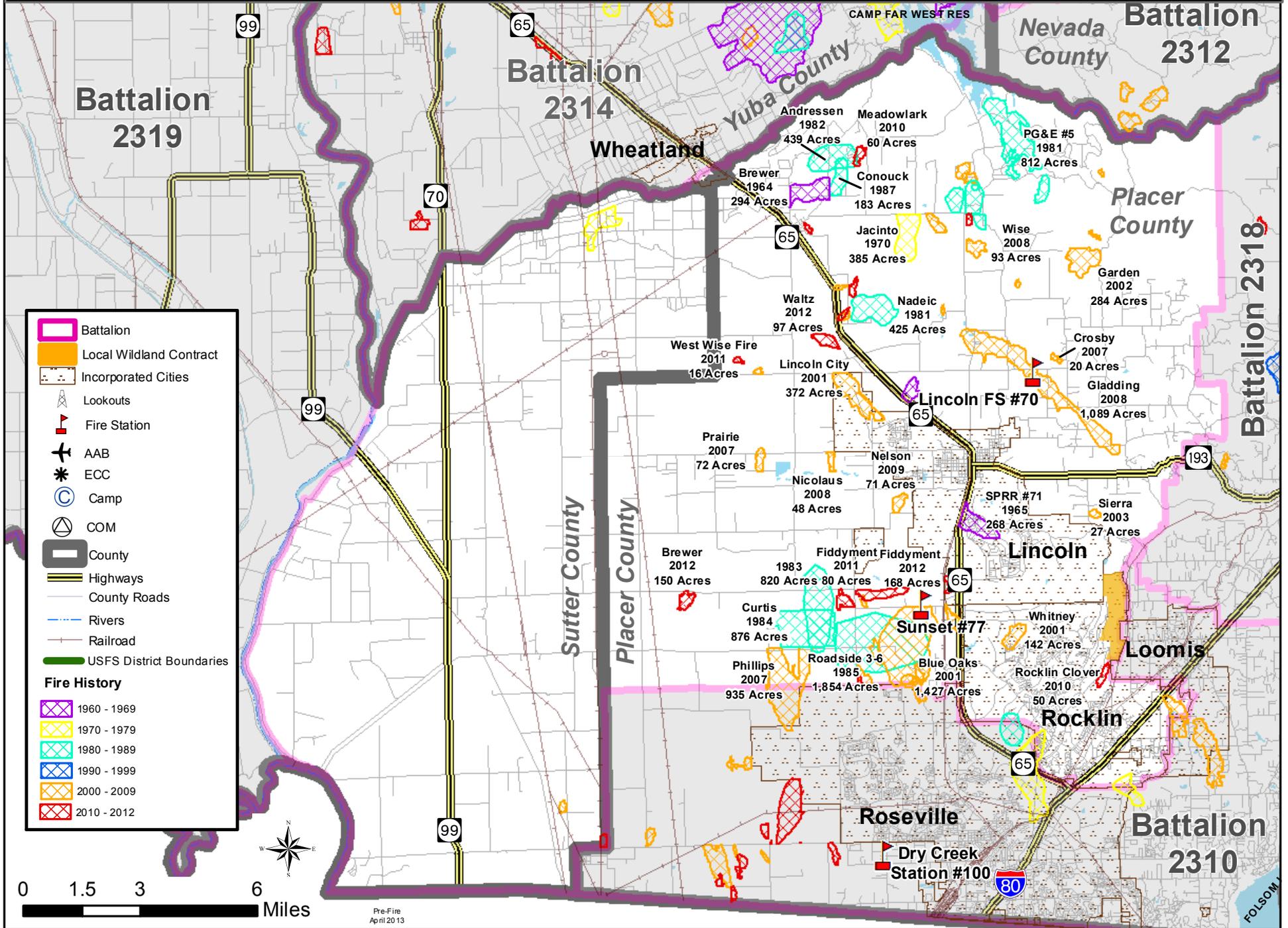
# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 17- Administrative Boundaries



# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalion 17- Fire History



0 1.5 3 6 Miles

Pre-Fire April 2013

# ***Ignition Management Plan***

## ***Battalion 18***

### **Description of the Battalion**

The Battalion includes unincorporated areas within Placer County and northwest Auburn City through Local Wildland Contract. Highway 80 borders the eastern portion of the battalion and Highway 193 comprises the southern boundary. The topography is characteristic of the Sierra Nevada foothills containing gentle slopes in the flat valley areas to steep inner gorge canyons along upper watercourses. Fuels are a mosaic of grasses, mixed brush, oak woodlands and mixed hardwood-conifer. The battalion includes an extensive amount of urban and rural developments, all bordered by wildland urban interface.

The Battalion contains several cooperators including Auburn City Fire, Newcastle Fire, Penryn Fire, Placer County, Placer County Fire Alliance, Placer County Resource Conservation District, U.S. Bureau of Reclamation.

### **Statistics**

Table 20: Responsibility Area and Direct Protection Area for Battalion 2318

<b>Responsibility Area (acres)</b>	FRA 320	LRA 3,122	SRA 43,329
<b>Direct Protection Area (acres)</b>	Federal 0	Local 3,115	State 43,654

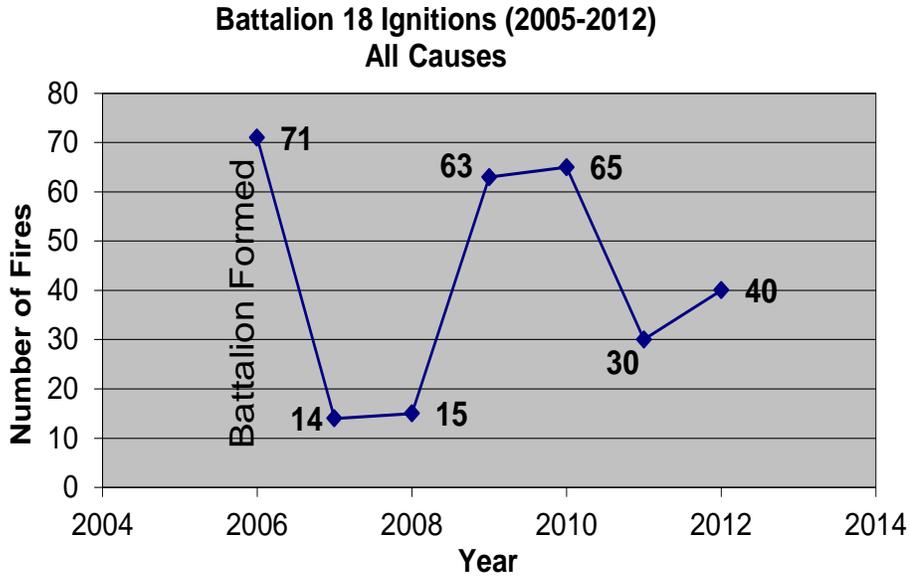
### **Discussion of fire occurrence within Battalion**

Historically equipment use and vehicle ignitions comprise most of the fire causes within the battalion. Construction and land management activities within the WUI often require the use of equipment. This equipment is often rented and use takes place where vegetative fuels are available and susceptible to burning.

Statistics show a dramatically increasing trend of escaped debris burns occurring. The residents realize that the fuel treatments near their residences must be done and often delay burning until the final weeks prior to burn bans being instituted. The result is a greater number of burn piles being burned later in the season, when control of the fires is more difficult due to weather and fuel conditions.

Arson and undetermined fires have been an inherent problem within this battalion. Some of these ignitions can also be associated with the significant homelessness issues that exist within this area. These fires are intentionally set fire or fires which the ignition could not be determined due to various factors. These fires are the most difficult to reduce due to their nefarious nature and difficulty in assessing.

Significant fire events within this battalion include the Fawn Fire (August 1992 - 350 acres), 13 structures destroyed and most recently the 49 Fire (Aug/Sept 2009) that burned 343 acres, destroying 65 residential and commercial structures.



**Mitigation Strategies**

Public Education

- The battalion mitigation strategies will focus on public education and outreach geared toward equipment use and defensible space.
- The battalion will continue to support defensible space inspections and chipping services to reduce fuels
- Battalion staff will work with local cooperators to develop and construct fuel breaks.

Training

- Battalion staff will work with prevention on cause determination training to help reduce the number of undetermined fires within the battalion

Burn Permit Program

- It must be recognized that public contact during burn permit issuance provides Cal Fire with the best opportunity to present a fire prevention message.

**High Priority Target Areas**

Watershed, high tension power lines, the American River drainage, Ophir, Newcastle / south of 80, Jordon, Mt Vernon, Lonestar, Christian Valley and the Penryn Fire District

## Projects

Table 21 – Battalion 18 Fuel Modification Projects, Community Outreach and Education

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Placer County Chipper	O	-----	Fuel Reduction	
Hidden Falls Park	O	-----	Fuel Reduction	
PG&E North Auburn VMP	P	2016	Prescribed Fire	TBD

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

## Success Stories

49 Fire – Moss Rock Dr homes had exceptional defensible space.

Placer County Chipper – over the past several years the Placer Chipper program has provided chipping services and encouraged defensible space for hundreds of homeowners within the battalion.

## Action Plan:

- Work with Unit prevention to reduce the number of undetermined fire causes: battalion staff will continue prevention training to help improve undetermined fire cause determination within the battalion.
- Continue public education efforts within the battalion
- Increase defensible space inspections within the battalion



# NEVADA - YUBA - PLACER UNIT (NEU)

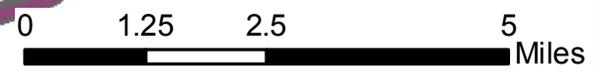
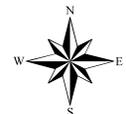
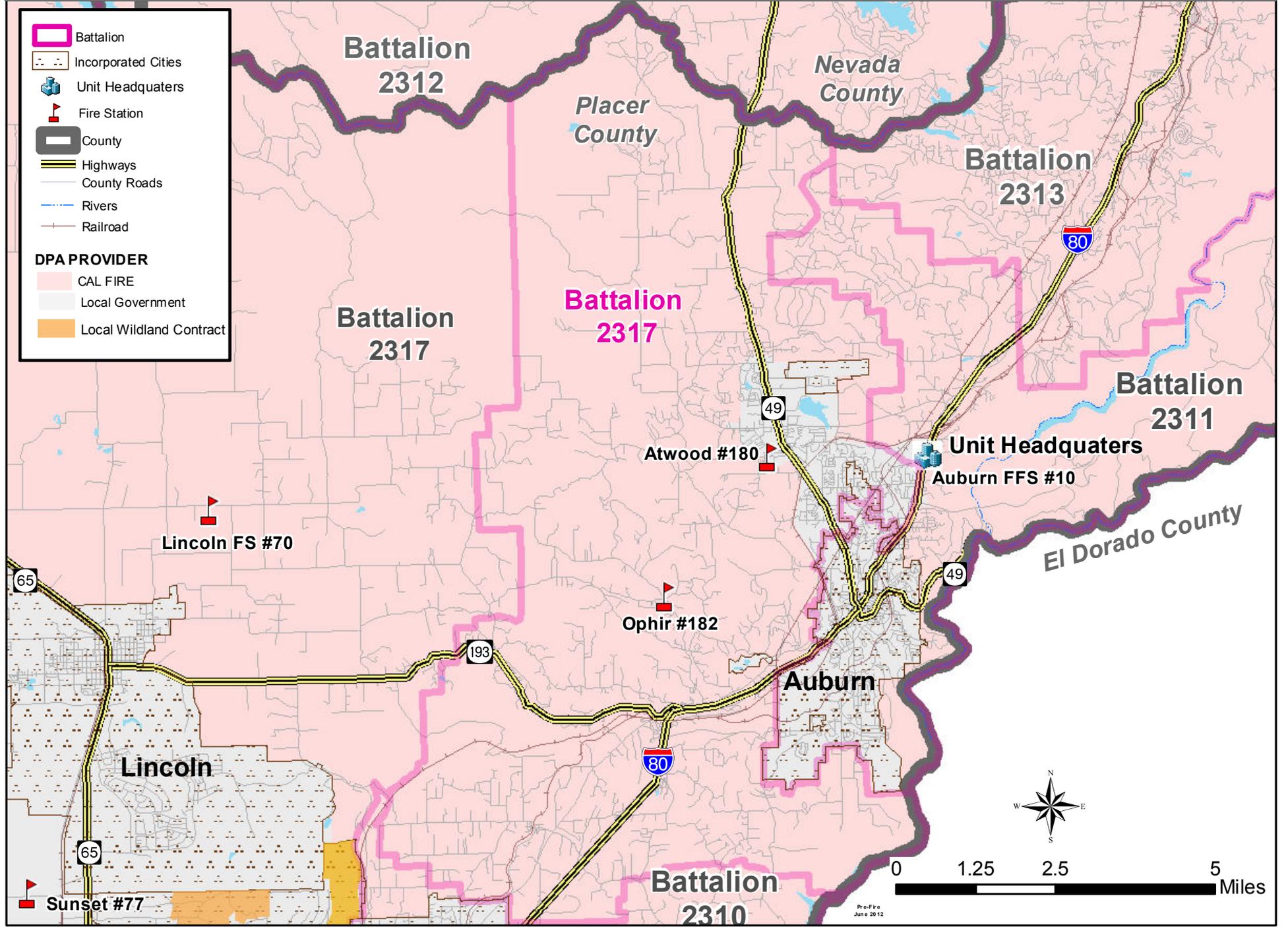
## Battalion 18- Administrative Boundaries

**Legend**

- Battalion
- Incorporated Cities
- Unit Headquarters
- Fire Station
- County
- Highways
- County Roads
- Rivers
- Railroad

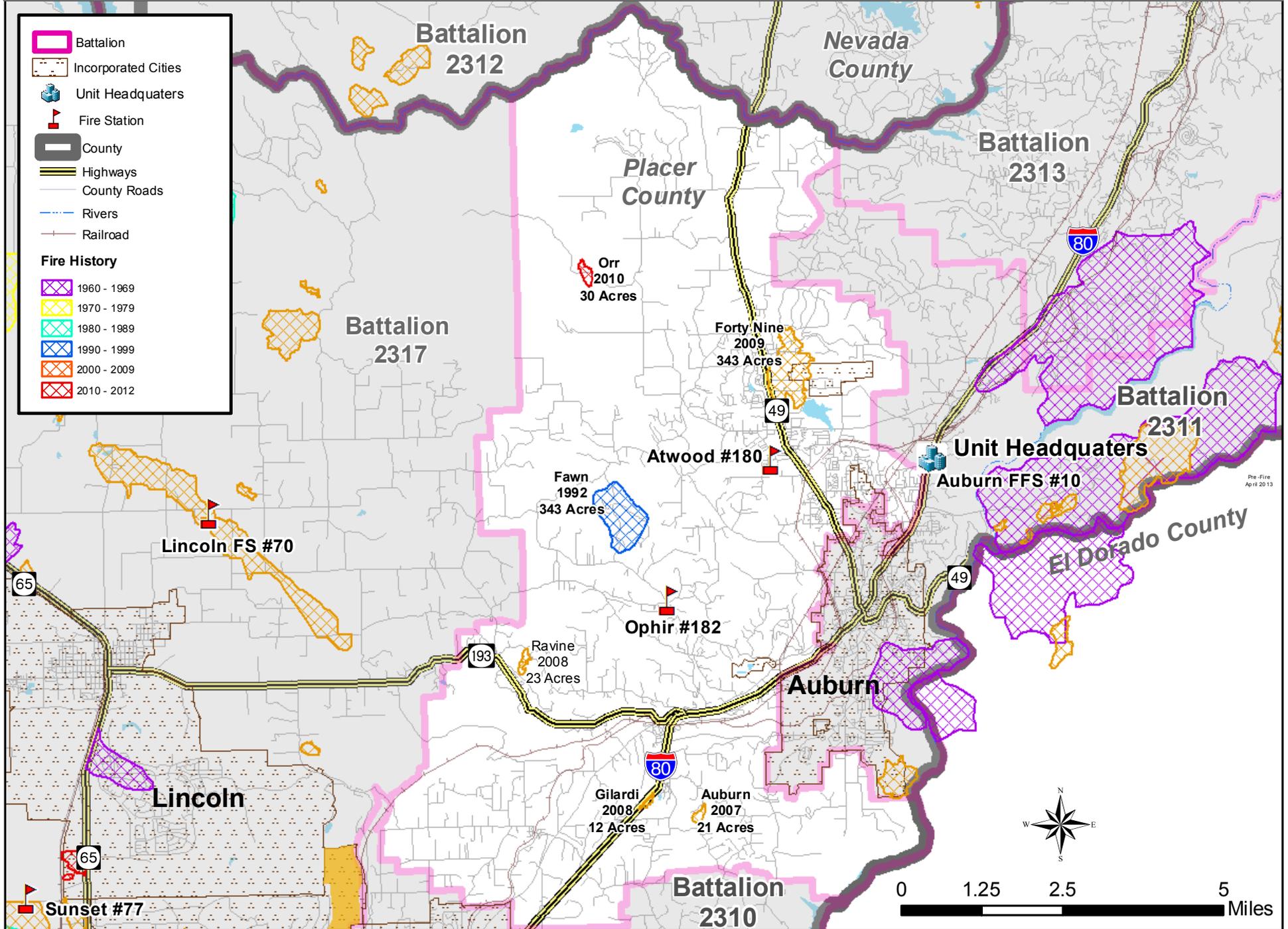
**DPA PROVIDER**

- CAL FIRE
- Local Government
- Local Wildland Contract



Pre-Fire  
June 2012

# NEVADA - YUBA - PLACER UNIT (NEU) Battalion 18- Fire History



# **Ignition Management Plan**

## **Battalion 19**

### **Description of the Battalion**

The Marysville battalion includes the Schedule A Contract for the City of Marysville and surrounding SRA lands. The area is commonly referred to as the Yuba-Sutter Area after the two counties. The City of Marysville is 40 miles north of Sacramento and located in the Sacramento Valley where the topography is generally flat. The city has a total area of 3.6 square miles and a population of approximately 12,072 people. The city is bordered on the south and east by the Yuba River and the west by the Feather River. The two rivers converge just southwest of the city and pose a serious flooding hazard during years of heavy precipitation and affiliated runoff. Fuels are dominated by grasses but dense brush is common along river bottoms and in non-agricultural areas. Agricultural crops comprise a significant portion of the battalion. Varying crop stages are often determinant of fire risk within the area. This battalion currently has CAL FIRE administrative battalion for Sutter County. It should be noted that the Marysville Fire Department utilizes Firehouse software for tracking of fire reports and all other activities. All burn permits for Marysville are issued directly from the air district; mostly agricultural/non-residential permits.

Cooperators within this battalion include Sutter County Fire, Yuba City Fire, Linda Fire

### **Statistics**

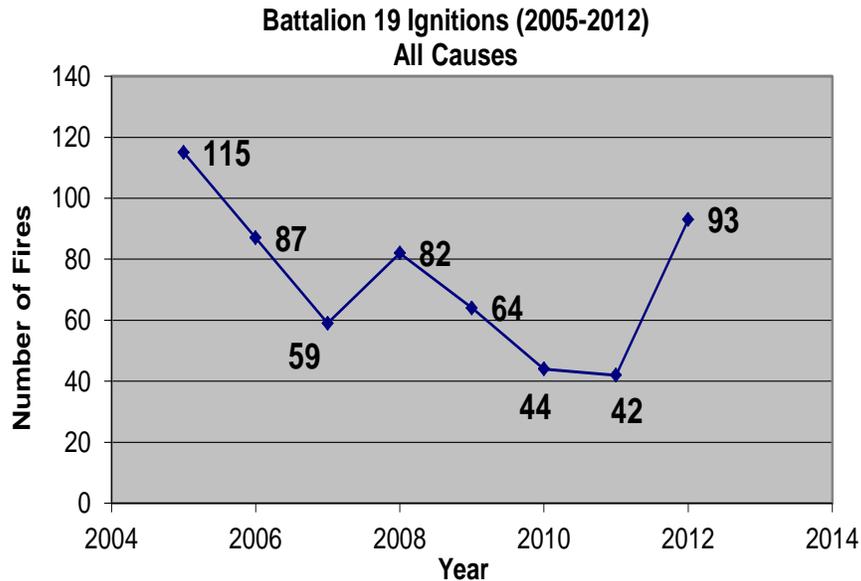
Table 22: Responsibility Area and Direct Protection Area for Battalion 2319

<b>Responsibility Area (acres)</b>	FRA 3,356	LRA 338,823	SRA 0
<b>Direct Protection Area (acres)</b>	Federal 3,408	Local 338,771	State 0

### **Discussion of fire occurrence within Battalion**

Arson and undetermined fires are considered equally and account for almost 70% of the fires in the Battalion. These fires are intentionally set fire or fires which the ignition could not be determined due to various factors. This community has a significant transient river population. CAL FIRE has been working closely with local law enforcement to mitigate. The community also has a large number of abandoned alleys and buildings that tend to attract warming type fires.

Outside the city boundaries, equipment and debris escapes are the most significant causes. Construction and land management activities often require the use of equipment. This equipment use takes place in the wildland areas where vegetative fuels are available and susceptible to burning.



### **Mitigation Strategies**

Battalion 19 will work to reduce fire ignitions and reduce damage by participating in public education programs, arson investigation, business inspections, and the plan review process. The components to meet these goals are as follows:

#### **Commercial Business Inspections**

- Inspect local businesses (high risk hazard inspection, sprinkler inspections)

#### **Fire Preplans**

- Update fire preplans for all businesses.
- Currently over 800 buildings within city limits with no preplan.
- Work to document resident knowledge of buildings and infrastructure.

#### **Plan Review**

- Conduct fire plan review on building projects within the city and district.

#### **Prevention**

- Continue working with law enforcement to investigate arson fires and mitigate homeless persons caused ignitions.

#### **Vegetation Management**

- Complete weed abatement inspections in Marysville City limits.
- Vegetation management along river bottom.
- Work with Marysville Police Department on annual cleanup day.

#### **Public Education**

- Participate in public education programs within the City and Yuba-Sutter Area.

- Marysville Joint Unified School District – Provide public education along with participation in School organized functions i.e., Read-a-Thon, Athletic events, lunch visits, Fire Station tours, Fire department class visits, School Safe program planning. Senior Safety-Provide fire safety training and public education to local senior care facilities.
- City sponsored Activities- Christmas Parade, Bok Kai Festival, Fourth of July Parade, Gold Days, Peach Festival, Hot Rod Jamboree, Marysville Rodeo, and the Yuba-Sutter Fair.
- Participate in Fire Prevention week with Fire Station Open House
- Participation at Marysville Motocross, providing prevention and EMS standby duties.

### Training

- Fire cause investigation training.
- Inter-company training with Yuba City Fire
- Coordinated hazmat exercises with cooperators.

### High Priority Target Areas

River bottoms, the Hollywood area and Thorntree Fish and Game property, open spaces surrounding the city, abandoned structures.

### Projects

Table 23 – Battalion 19 Fuel Modification Projects, Community Outreach and Education

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Public Education	A	O	Education/Outreach	
Fire Prevention Week	A	O	Education/Outreach	
Annual River Bottom Vegetation Management	A	O	Fuel Reduction	
Structure Pre-Planning	A	O	Pre-Fire Planning	

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

### Action Plan:

- Continues to interact with its community emphasizing fire safety.
- Maintains a cooperative relationship with its neighbors and collectively provide a strong fire safety message that benefits the community.
- Educate the public on fire prevention and fire safety.
- Work to identify fuel reduction opportunities for densely vegetative areas within and surrounding the city.



# NEVADA - YUBA - PLACER UNIT (NEU)

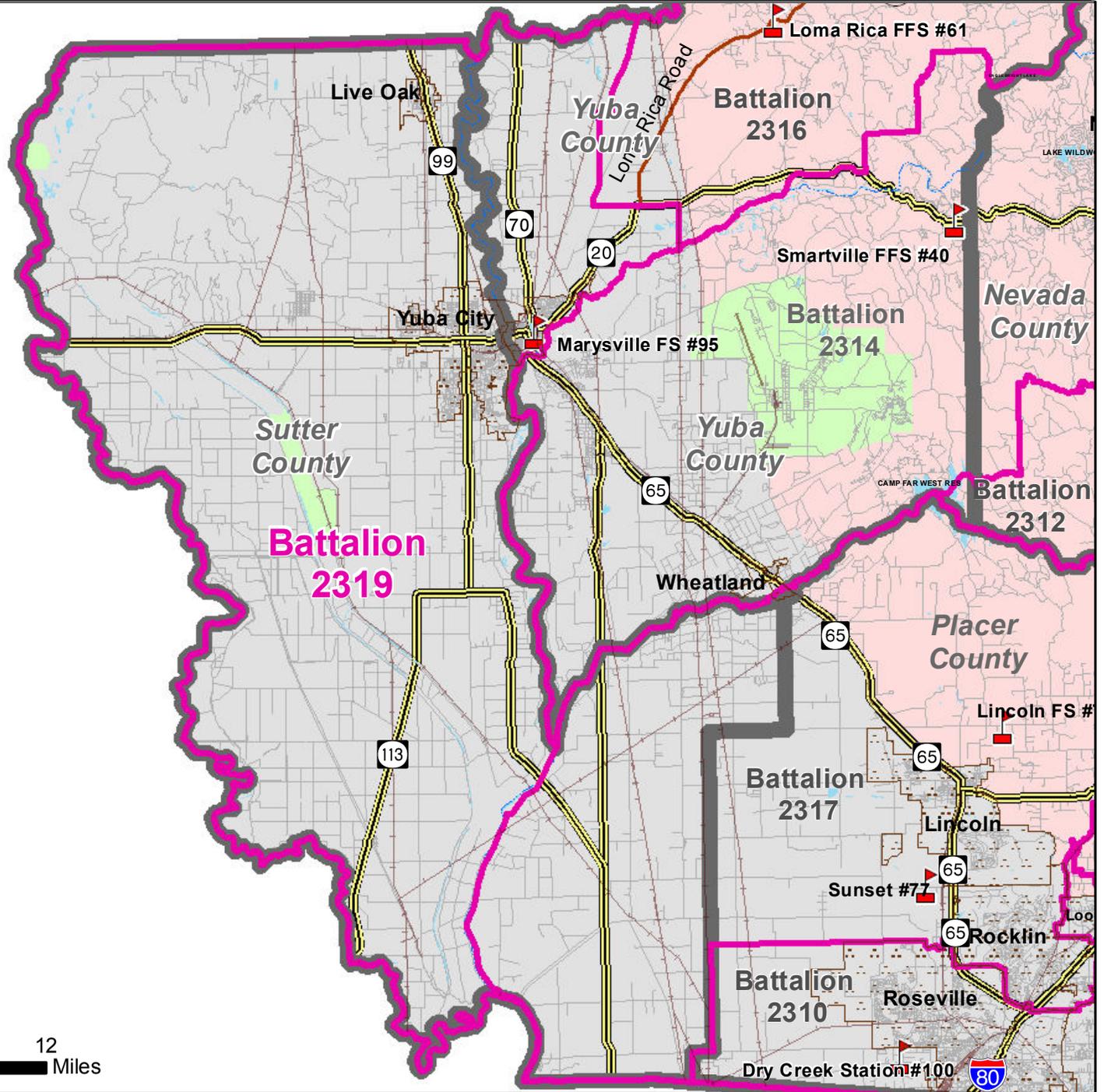
## Battalion 19- Administrative Boundaries

**Legend**

- Battalion
- Incorporated Cities
- Lookouts
- Fire Station
- AAB
- ECC
- Camp
- COM
- County
- Highways
- County Roads
- Rivers
- Railroad

**DPA PROVIDER**

- CAL FIRE
- Federal
- Local Government



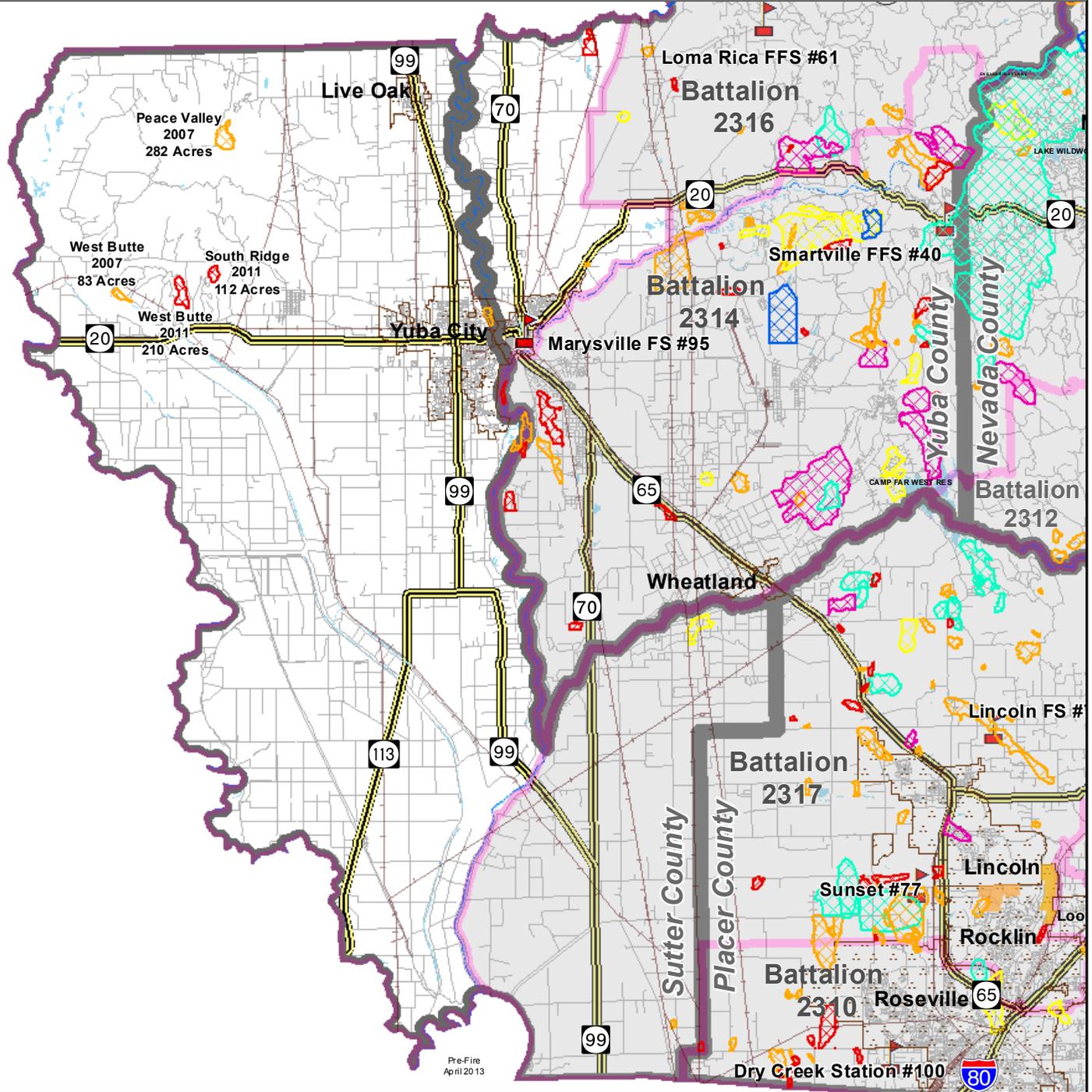
# NEVADA - YUBA - PLACER UNIT (NEU) Battalion 19- Fire History

**Legend**

- Battalion
- Incorporated Cities
- Lookouts
- Fire Station
- AAB
- ECC
- Camp
- COM
- County
- Highways
- County Roads
- Rivers
- Railroad
- USFS District Boundaries

**Fire History**

- 1960 - 1969
- 1970 - 1979
- 1980 - 1989
- 1990 - 1999
- 2000 - 2009
- 2010 - 2012



Pre-Fire  
April 2013

# *Training / Safety Battalion*

## Training

The Unit Training Bureau maintains a highly active and dynamic program.

The Battalion Staff is comprised of one Battalion chief and one engine captain and/or engineer that work in training 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 18 separate program areas, are a seven-day a week operation and are listed below:

Administration and Office staff	Pre-Fire Engineering
Battalion Chiefs	Joint Apprenticeship Program
Company Officers	Vegetation Management
Firefighters	Emergency Medical Services
Training	Hazardous Materials Responses
Emergency Command Center	Volunteer Firefighters
Air Attack	Volunteers-in-Prevention
Fire Prevention and Engineering	Fire Safe Councils
Automotive Fleet Maintenance	Joint-Agency Operations

### Strategies

- Identify the legal state and federal requirements for training in each program area.
- Identify training requirements for contract programs within the Unit.
- Meet or exceed those training standard identified in the CAL FIRE State Training handbook.
- Identify training priorities set by Senior Staff.
- Identify the needs of each of the 18 program areas to meet the training requirements established by the program managers.
- Maintain and update the Unit's Emergency Resources Directory (ERD).
- Determine the training needs for the Northern Region Training allocations.
- Work towards enhancing the knowledge and skill levels necessary for safe and effective response to possible weapons of mass destruction incidents.
- Identify the training needs of cooperators.
- Identify CAL FIRE's new training programs in the early stages of development, project their impact and develop an implementation plan.
- Identify projected vacancies and the training requirements necessary to help those personnel filling vacancies to do so successfully.
- Identify the needs of each employee to help achieve career development goals.
- Seek alternative funding sources in the form of grants, participation with universities and course sharing with other agencies.
- Establish a training priority list and develop a Training Plan with achievable goals for the Training and Safety Battalion.

- Work with Sierra College and other local cooperators to develop interagency training opportunities and strategies.

## Safety

The Nevada Yuba Placer Training Battalion Chief also serves as the Unit Safety Officer. The Unit Safety Officer oversees the Safety Committee meetings to discuss Safety issue; review personnel and vehicle accidents; recommend steps to prevent future mishaps; ensure the department's safety requirements and safety programs are being adhered to in the fire stations and on incidents.

Listed below is the Nevada Yuba Placer Unit Safety Committee Charter.

Nevada-Yuba-Placer Unit Safety Committee is established in accordance with section 1703 of the Department's Safety Issuance Manual in order to meet the objectives of the department's safety goals and policies. The purpose of this committee is to promote a safe and healthy work environment for employees and to recommend methods to reduce accidents and personal injuries.

### **MISSION STATEMENT**

The mission of the Nevada-Yuba-Placer Unit Safety Committee is to develop and promote a healthy and safe environment for all employees through the involvement of all individuals with regards to education, communication and safe work practices.

### **RESPONSIBILITIES**

The responsibilities of the safety committee are as follows:

- Developing program goals and objectives.
- Reviewing accident reports to determine causation and develop prevention recommendations.
- Recommending guidelines and programs for safety education and training.
- Exchanging ideas to improve methods of operation.
- Developing recommendations regarding policy and programs to senior staff.
- Review all submitted Employee Safety Suggestion & Unsafe Practices (IIPP-8).
- Reviewing needs and effectiveness of safety clothing and equipment.
- Work with all personnel in their respective program / battalion to assure compliance is achieved for:
  - Facility Safety Inspections
  - The Injury and Illness Prevention program
  - Material Safety Data Sheets
  - Mobile Equipment Safety Inspections
  - Personal Protective Equipment
  - Safety related training
  - The California Code of Regulations, Title 8.

- Defining major hazards and recommending corrective action.
- Disseminating safety information to keep managers, supervisors, and employees informed of safety hazards and prevention techniques.
- Evaluating the effectiveness of unit's safety program.
- Make recommendations for nominations of the Employee Safety Award

**STRUCTURE/ORGANIZATION**

Committee make-up will consist of the follow members:

<u>Program/Function</u>	<u>Member</u>
Senior Staff	1
Resource Management	1
Fire Prevention	1
ECC/GVABB	1
Administrative Support Staff	1
Place County Fire Volunteer Representative	1
Training and Safety Bureau	1
Field Battalions (one each)	10
Washington Ridge Camp	1
Fleet	1

The committee officers will consist of a Chairperson who will be the Unit Safety Officer, a Co-Chairperson, and a Secretary. Officers will be elected by the committee membership at the third quarter meeting of an election year to begin their tenure the following January. The objective is to ensure active participation by all committee members. Each committee member will serve a minimum two-year term.

# *Automotive Battalion*

Nevada Yuba Placer Unit's (NEU) Automotive Battalion (2330) encompasses facilities and resources across three counties and is responsible for both California State wildland protection funded equipment and Placer County Schedule A contract equipment. Two major automotive repair shops are at Auburn Headquarter (Station 10) and Nevada City Fire Station (Station 20). A smaller capability shop is located at Dobbins (Station 60) and is Schedule B, operating only during the fire season. The Heavy Fire Equipment Operators (HFEOs) assist the SCU's Heavy Equipment Mechanics (HEM) with automotive repairs, maintaining state fire breaks and roads and participate in VMPs and training burns when not assigned to wildland fire incidents. The Fleet Equipment Manager (FEM) directs and manages the NEU Automotive Battalion. The FEM manages the automotive budget, assigns repair projects, projects automotive needs of the future and coordinates equipment replacement.

The automotive battalion attempts to maintain each piece of mobile equipment in a condition consistent with the work for which it was designed. This is accomplished through the uniform application of an effective, preventive maintenance program in accordance with all state automotive and fiscal requirements. Repairs are made and parts replaced as necessary to keep the equipment functional, with priority being given to those items contributing to personnel safety. Mobile equipment is not altered or modified except, as outlined in the CAL FIRE Mobile Equipment Handbook. Approval for modifications or alteration is granted in writing by the appropriate level.

Regular inspections of all mobile equipment are made as outlined in the preventive maintenance procedure and record. The Automotive Battalion maintains accurate records of maintenance and repairs on all mobile equipment. As much as possible, major repairs are scheduled during the time of least expected incident activity. The Type III fire apparatus have the majority of maintenance performed during the winter months.

## Automotive Equipment Statistical Data:

Table 24: Nevada Yuba Placer has the following equipment (Schedule B).

25 Type 3 (Wildland Engines)	3 Fire Suppression Bulldozer
37 Utility vehicles (four wheel drive)	3 Transports
2 Service Units (Mobile repair vehicles)	3 Low Bed Trailers
1 Mobile Communications Unit	1 Grader
3 Sedans	1 Front End Loader
2 Supply Van	2 Stakesides (1 big and 1 small)
3 Dozer Tenders (Bulldozer Service Units)	1 Dump Truck
6 CCVs (WAR)	4 Forklifts
4 ATVs	

Table 25: Placer County Schedule A Equipment

10 Type 3 (Wildland Engines)	8 Water Tenders
17 Type 1 (Structural Engines)	1 - Hazmat Support Unit
2 100ft Ladder Trucks	1 Mobile Breathing Support
5 Command Vehicles	1 Squad Vehicle 4x4
4 Chippers	1 - MCI Trailer
10 Utilities	1 Repair Vehicle

Automotive Battalion Goals:

- Enhance skills and certifications of the automotive staff in order to stay current with automotive technology changes.
- Maintain the Unit's emergency response equipment in a safe, incident ready status.
- Continue to operate a cost effective and efficient automotive operation.
- Coordinate with the Unit's Vegetation Management Program to maintain fuel breaks and fire roads.
- Work closely with DGS and Regional Technical Service to maintain and upgrade facilities.

### **CALFIRE NEU Fuel Moistures**

Every other week, fuel moistures are collected, dried and weighed and posted to the NFMD (National Fuel Moisture Database). NEU has one of the most complete historical records of fuel moistures in the state. Collection species and locational information can all be found on NFMD.

#### **National Fuel Moisture Database Website**

<http://www.wfas.net/index.php/national-fuel-moisture-database-moisture-drought-103/>

#### **NEU Collection points:**

USBOR - Chamise

Nevada City – 1000 hr fuels

Tyler Foote – Manzanita

Reader – Manzanita and live oak

### **Historical Fire Perimeters**

Historic fire perimeters provide a mechanism for estimating current fuel conditions within burned areas, providing a starting point for field validation. Fire perimeter data is used during major fires to display where fires have taken place in order to take advantage of reduced fuels and previous control lines.

CAL FIRE NEU exceeds state collection standards and has policy in place to collect GPS perimeters for all wildland fires in the unit greater than 10 acres and all prescribed fire activity. Information collected includes incident number, start and end dates and cause.

Data is submitted annually to CAL FIRE's Fire and Resource Assessment Program (FRAP) and is available for download by the public in GIS format.

<http://frap.cdf.ca.gov/data/frapgisdata/download.asp?spatialdist=1&rec=fire>

### **CALMAPPER**

Cal MAPPER is a new forest improvement and fuel reduction project activity tracking database. This effort has been organized to bring the Department's records from various fuels reduction and forest improvement programs into a common database.

Cal MAPPER is an acronym and stand for CAL FIRE Management Activity Project Planning and Event Reporter. It contains GIS and tabular information. The goal is to improve project tracking and fiscal reporting, and to support emergency response, planning, and assessment.

The Pre-Fire Engineer is responsible for collecting all data from CAL FIRE programs and its cooperators, entering it into Cal MAPPER and submitting it to Sacramento quarterly.

### **Fireplan**

The current version of the statewide fireplan works to answer the question of "how do we utilize and live with the risk of wildfire?"

The PFE works cooperatively with Unit/Region/ Sacramento Staff in developing and analyzing data for Pre-Fire Management Plans and for public stakeholder meetings. They perform Level of Service (LOS) analysis, identify and validate values-at-risk, collect and display fire history and fire weather on GIS maps, and develop high risk/high value maps of the unit.

### **Training**

NEU Pre-Fire works with unit training to provide the unit training in fire behavior, GPS use, map reading and Field Observer (FOBS).

### **GIS**

Pre-Fire works with counterparts from other units, Sacramento, local counties, USDA Forest Service, BLM, BOR, NPS and any local entities to share data and communicate projects. Placer County and Yuba County have started up local user GIS groups.

### **SRA / DPA Review**

CAL FIRE is required to maintain official maps of State Responsibility Areas (SRA), where the State has financial responsibility for preventing and suppressing fires as determined by the State Board of Forestry and Fire Protection (PRC 4102-4125). CAL FIRE conducts a 5 year review of SRA maps as required by PRC 4125 to capture changes in land use, for example conversion in or out of agriculture, areas of densification due to development, and other relevant changes. SRA data are updated on a more frequent basis to capture annexations and changes in federal ownership that affect SRA status.

To provide a level of wildland fire protection for the intermingled lands "equivalent" to similar lands protected directly by the state or the federal agencies, the said intermingled and adjacent lands have been divided into practical "Direct Protection Areas" (DPAs) delineated by boundaries regardless of statutory responsibility, and this protection is assumed by administrative units of either the federal agencies or the state. The boundary will be reviewed annually during the process of developing operating plans. Proposed changes must be mutually agreed upon prior to forwarding for approval.

Both major and minor adjustments are encouraged based on changes in protection capability, changed land ownership or use, or Board of Forestry policy which states that "lands which can reasonably be more effectively protected by the state should not be contracted to the USFS for protection."

### **Fire Hazard Severity Zones**

[PRC 4201-4204](#) and [Govt. Code 51175-89](#) direct the California Department of Forestry and Fire Protection (CAL FIRE) to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), then define the application of various mitigation strategies to reduce risk associated with wildland fires and drive Title 24 requirements for building standards.

The Pre-Fire Engineer is the Unit representative for testing the model and validating all data produced for the Fire Hazard Severity Zone model. The Pre-Fire engineer also attends all public meetings, representing as a technical expert.

**CWPP Development**

CAL FIRE pre-fire participates in the development and advising stages of Community Wildfire Protection Planning Documents within all of our counties of responsibility.

**RAWS Maintenance and Monitoring**

Pre-Fire is responsible for monitoring the Unit RAWS stations and working with the vendor each year to complete annual maintenance.

## APPENDIX B: VEGETATION MANAGEMENT PROJECTS

### **UC Field Station VMP – Battalion 14**

Location: The VMP area encompasses approximately 1,040 acres in 7 units of the UC field station, approximately 12 miles west of Grass Valley, 7 miles southeast of Loma Rica, and 9 miles southwest of Dobbins.

Purpose: The UC Research Station VMP is an ongoing project to help manage and study means of managing and controlling noxious weeds and fire impacts on water quality. The weeds that are attempting to be controlled are yellow starthistle, barbed goatgrass, and medusahead. These burns allow the field station to scientifically evaluate the effectiveness of burning in a control program. The effect of a controlled, cool to moderate temperature burn on blue oaks will also be studied.

CEQA: PEIR

### **Bunker Hill VMP – Battalion 14**

Location: Approximately 5 miles northwest of the town of Nevada City. The proposed project consists of approximately 1,000 acres of mixed brush, primarily on west, north and east facing slopes.

Purpose: The project is within the South Yuba River Watershed. Shady Creek runs through the north end of the project and discharges into the South Fork of the Yuba River.

The project objective is to reduce the potential of a costly and damaging fire within the treated and surrounding area.

A series of prefire projects have been planned to create a contiguous are of hazardous fuel reduction to effectively create a shaded fuel break from Bridgeport extending east up the San Juan Ridge to North Bloomfield. These projects include the completed Bridgeport State Park prescribed VMP burns, the completed VMP prescribed burn at French Corral, Browning property, the completed and proposed Reader Ranch VMP projects, this proposed project, the completed Malakoff Diggins VMP project east of this project, and the completed Montezuma fuel break. These projects have been developed to create a strategic location where fire-fighting resources may more effectively attempt fire suppression activities to stop a costly and damaging fire such as the 49'er fire of 1988.

This proposed project will entail the pre-treatment of the brush fuel by creating hand piles with crews and/or piling and crushing with machinery. Control lines will also be re-established by dozers and/or hand crews. Burn piles are to be treated in spring and early fall, however, other conditions may occur that will allow burn treatment at another time of the year. Some areas may be broadcast burned.

CEQA: PEIR

### **Reader Ranch VMP – Battalion 14**

Location: Approximately 5 miles northwest of the town of Nevada City. The proposed project consists of approximately 1,200 acres of mixed brush, primarily on west, south and east facing slopes.

Purpose: The project is within the South Yuba River Watershed. Shady Creek runs through the north end of the project and discharges into the South Fork of the Yuba River.

The project objective is to reduce the potential of a costly and damaging fire within the treated and surrounding area.

A series of pre-fire projects have been planned to create a contiguous are of hazardous fuel reduction to effectively create a shaded fuel break from Bridgeport extending east up the San Juan Ridge to North Bloomfield. These projects include the completed Bridgeport State Park prescribed VMP burns, the completed VMP prescribed burn at French Corral, Browning property, the proposed Bunker Hill VMP projects, this proposed project, the completed Malakoff Diggins VMP project east of this project, and the completed Montezuma fuel break. These projects have been developed to create a strategic location where fire-fighting resources may more effectively attempt fire suppression activities to stop a costly and damaging fire such as the 49'er fire of 1988.

This proposed project will entail the pre-treatment of the brush fuel by creating hand piles with crews and/or piling and crushing with machinery. Control lines will also be re-established by dozers and/or hand crews. Burn piles are to be treated in spring and early fall, however, other conditions may occur that will allow burn treatment at another time of the year. Some areas may be broadcast burned.

CEQA: PEIR

#### **Spenceville VMP – Battalion 14**

Location: Throughout the Spenceville Wildlife Area. The project consists of several burn units scattered throughout the Spenceville Wildlife Area.

Purpose: The project is within the South Yuba River and Bear River Watersheds. Dry Creek runs through the center of the wildlife area and discharges into the Bear River.

The project objective is to reduce the potential of a costly and damaging fire within the treated and surrounding area while primarily focusing on noxious weed abatement. .

A series of units have been identified throughout the wildlife area to combat the spread of Yellow Star Thistle and Medusa Head Grass while allowing our personnel opportunities for live fire training and establishing annual fuel breaks.

This project will be accomplished primarily through broadcast burns of pre-established units.

CEQA: PEIR

#### **Donner State Park VMP – Battalion 15**

Location: Approximately 23 acres within the Donner State Park boundary. The project area is located south and west of the town of Truckee. Donner Lake is north of the project area.

Purpose: In cooperation with California State Parks, the primary objectives of the project are fuel hazard reduction and wildlife habitat improvement. The project area is strategically located to protect State Park facilities and the Town of Truckee from a summer wildfire burning in the Coldstream Valley or on Schallenberger Ridge. The project shall reduce the threat of catastrophic wildfire and improve native forest composition and structure.

Program Funds: VMP

CEQA: PEIR

### **Chinquapin – North Tahoe Fire Protection District VMP – Battalion 15**

Location: Approximately 20 acres between the Dollar Point subdivision and the Chinquapin Condominiums within the North Tahoe Fire Protection District near Tahoe City and Kings Beach. An additional 50 acres will be treated south of the Kingswood West subdivision. The burn will be conducted by CALFIRE, North Tahoe Fire Protection District and other local fire agencies.

Purpose: The primary objectives of the project are for fuel hazard reduction, fuel modification and wildlife habitat improvement. The project area consists of Sierra mixed-conifer timber type.

Program Funds: VMP, Community Assistance Grant

CEQA: Cal Fire Mitigated Negative Declaration

### **Waddle Ranch VMP – Battalion 15**

Location: Waddle Ranch consists of approximately 1,462 acres of forest land within the Martis Valley. The landowner is the Truckee Tahoe Airport District.

Purpose: The primary objective is the reduction of fuel. Project area is 60 acres divided into 10 units, all of which have been previously masticated.

Program Funds: VMP

CEQA: PEIR

### **Daugherty and Stanfield Hill VMPs – Battalion 16**

Location: The Daugherty Hill Wildlife Area encompasses all the CDF&W lands within five miles of Collins Lake Reservoir.

Purpose: The project area encompasses all 5850 acres of CDF&W lands in the Daugherty and Stanfield Hill areas. The project objective is to reduce the fuel loading across the ownership while creating a vegetative mosaic to enhance wildlife habitat. This will further reduce the threat of roadside fires becoming large and damaging.

The overall objective is to remove the standing Manzanita and live oak stands which have taken over the project area, reduced the grazing capabilities of the land, and created a heavy fuel load for firefighting efforts. Reducing the fuel load will improve wildlife habitat, improve grazing use and allow for better fire protection to the communities of Loma Rica, Oregon House and Dobbins from wildfires that may originate along Marysville Rd. Prescribed fire and piling and burning will be the treatment methods for the project.

CEQA: PEIR

## APPENDIX C: STANDARDS FOR HAZARDOUS FUEL REDUCTION IN NEU

### Purpose/Overview

The purpose of the development, implementation and maintenance of a project such as fuel modification can be considered a fire prevention/management tool that may promote awareness, mitigation, and assist in fire suppression activities in the event of a wildland fire situation in Interface Lands. The objective is to reduce, modify, and manage fuels within designated areas that may enhance mitigation efforts in the event of a wildland fire situation. The Shaded Fuel Break is an identified key component of any project:

is a strategic location along a ridge, access road, or other location where fuels have been modified. The width of the fuel break is usually 100 to 300 feet depending on the site. This is a carefully planned thinning of dense vegetation, so fire does not easily move from the ground into the overhead tree canopy. A shaded fuel break is not the removal of all vegetation in a given area. Fire suppression resources can utilize this location to suppress wildland fires due to the modification of fuels of which may increase the probability of success during fire suppression activities. Any fuel break by itself will not stop a wildland fire.

The Shaded Fuel Break is a recommended guideline for fuel management within identified Interface Lands.

The goal is to protect human life and both public and private resources by reducing the risk and potential hazard of wildland fire by practicing management strategies that promote the preservation and restoration of natural resources and protection of cultural resources.

Objectives are mitigation of fire dangers in an effort to: Enhance public safety; Protect natural and cultural resources; Provide for recreational opportunities; Conduct cost effective maintenance of features and facilities.

In previous Fire Plans, three separate fuel reduction prescriptions were described (Defensible Space, Defensible Landscape, and Modified Shaded Fuel Break). With the adoption of the new PRC 4291 standards, NEU is recommending landowners utilize the guidelines adopted statewide. Further, we recommend landowners utilize the "Defensible Space – Reduced Fuel Zone" guidelines for areas beyond the required 100 feet. These guidelines can be downloaded from the Internet at: [http://www.bof.fire.ca.gov/pdfs/4291finalguidelines2\\_23\\_06.pdf](http://www.bof.fire.ca.gov/pdfs/4291finalguidelines2_23_06.pdf)

The three fuel reduction prescriptions described below are standards or guidelines and are being provided for guidance, they are not intended to be regulatory and are as follows:

**Defensible Space (PRC 4291):** Area surrounding a structure where fire protection or firebreak is made by removing all brush, flammable vegetation, or combustible growth which is located up to 100 feet from such structure or to the property line, whichever is closest. The goal is to create an area where ground based fire suppression resources, such as fire engines, can successfully defend the structure from an advancing fire.

**Defensible Landscape:** The area outside of the defensible space zone where additional fuel reduction is completed to enhance the protection value of the defensible space zone around a structure. Increased aesthetics and habitat values are planned for in this prescription.

**Modified shaded fuel break: defined as a defensible location, where fuels have been modified, that can be used by fire suppression resources to suppress oncoming wildfires.** Any fuel break by itself will NOT stop a wildfire. It is a location where the fuel has been modified to increase the probability of success for fire suppression activities. Ground resources can use the location for direct attack or firing out. Air resources can use the location for fire retardant drops. The public and fire resources can use the location for more efficient ingress and egress.

The three prescriptions are listed below. The defensible space and defensible landscape prescriptions incorporate the modified shaded fuel break prescription with a few variations. ***The only trees eligible to be removed under the following prescriptions are in the 10- inch diameter class (diameter of main stem at breast height) or smaller. All trees larger than the 10- inch diameter class will only be pruned to a height of 8 to 10 feet above the ground, not to reduce the live crown ratio of the plant to below 50%. Exceptions for defective trees and snags are noted below.***

#### **I. Defensible Space Prescription: PRC 4291**

Includes all of following:

1. Maintain around and adjacent to a building or structure a firebreak made by removing and clearing away, for a distance of not less than 100 feet on each side thereof or to the property line, whichever is nearer, all flammable vegetation or other combustible growth. This does not apply to single specimens of trees, ornamental shrubbery, or similar plants that are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure.
2. Remove that portion of any tree that extends within 10 feet of the outlet of any chimney or stovepipe.
3. Maintain any tree adjacent to or overhanging any building free of dead or dying wood.
4. Maintain the roof of any structure free of leaves, needles, or other dead vegetative growth.
5. Provide and maintain at all times a screen over the outlet of every chimney or stovepipe that is attached to any fireplace, stove, or other device that burns any solid or liquid fuel. The screen shall be constructed of nonflammable material with openings of not more than one-half inch in size.
6. Within 100 feet of existing structures all annual grasses are to be maintained to below 6 inches in height.
7. Except as noted in 1 above, the Modified Shaded Fuel Break prescription described below also applies.

#### **II. Defensible Landscape Prescription:**

Includes all of the following:

1. Oak trees with trunks within 3 feet of each other, essentially making one canopy, may be considered one tree in the defensible landscape areas. Prune branches off of all residual trees from 8 to 10 feet off the forest floor, not to reduce the live crown ratio below 1/2 of the height of the tree. **Adjacent trees shall be removed to create horizontal distances between residual trees from 20 feet between trunks up to 8 to 15 feet between tree crown drip lines.**

2. One clump of trees per lot or acre, where tree trunks are within 20 feet of each other, may also be retained in the defensible landscape areas providing spread of fire to or from this feature is adequately mitigated. Mitigation measures for this feature include:

- a. Prune branches off of all residual trees from 8 to 10 feet off the forest floor, not to reduce the live crown ratio below 1/2 of the height of the tree
- b. Trees adjacent to this feature shall be removed to create horizontal distances **between residual trees from 20 feet between trunks up to 8 to 15 feet between tree crown drip lines.** No ground fuels shall exist within the drip line of the feature.

3. Except as noted in 1 and 2 above, the Modified Shaded Fuel Break prescription described listed below also applies.

### **III. Modified Shaded Fuel Break Prescription:**

Implementation consists of removing or pruning trees, shrubs, brush, and other vegetative growth on the project area. For site protection, all work is encouraged to be completed by use of a masticator and/or hand crews supported by chippers and/or burning. Heavy equipment with blades is not recommended for use for fuel reduction work.

#### **1. Understory Fuels**

Understory fuels over 1 foot in height are to be removed in order to develop vertical separation and low horizontal continuity of fuels. Individual plants or groups of plants up to 10 feet in canopy diameter may be retained provided there is a horizontal separation between plants of 3 to 5 times the height of the residual plants and the residual plants are not within the drip lines of an overstory tree.

For rare and endangered species concerns, elderberry trees shall not be removed or treated within the shaded fuel breaks in elevations below 3000 feet.

#### **2. Mid-story Fuels**

Only trees up to the 10-inch diameter class (at breast height (dbh)) may be removed. Exception to this size limit shall be trees that have significant defect and/or which do not have a minimum of a 16-foot saw log. Live but defective trees larger than the 10-inch diameter class providing cavities or obvious wildlife use will be retained.

**Trees shall be removed to create horizontal distances between residual trees from 20 feet between trunks up to 8 to 15 feet between tree crown drip lines. Larger overstory trees (> 10 inches dbh) do count as residual trees and, in order to reduce ladder fuels, shall have vegetation within their drip lines removed.** Prune

branches off of all residual trees from 8 to 10 feet off the forest floor, not to reduce the live crown ratio below 1/2 of the height of the tree.

For rare and endangered species concerns, elderberry trees shall not be removed or treated within the shaded fuel breaks below the 3000 feet elevation level.

Criteria for residual trees (< 10 inch diameter class (dbh)):

### **Conifers:**

Leave trees that have single leaders and thrifty crowns with at least 1/3 live crown ratio.

Conifers - Leave tree species in descending order:

- Ponderosa pine
- Sugar pine
- Douglas fir
- White fir
- Incense cedar

Intolerant to shade species have a higher preference as leave trees because their seed will be less likely to germinate in the understory.

### **Snags**

Snags are a conduit for fire spread during a wildfire. However, they also provide excellent wildlife habitat in their natural state. The following is the criteria of when snags shall be retained:

18 inch diameter class or larger and not more than 30 feet in height which are not capable of reaching a road or structure provided there is a separation of least 100 feet between snags.

### **Hardwood trees:**

Leave trees that have vertical leaders and thrifty crowns with at least 1/3 live crown ratio. Retain all elderberry trees.

Hardwoods -Leave tree species in descending order:

- Big Leaf Maple- Riparian area, less common
- Blue Oak - least leaf surface area, less volatile when burning
- Black Oak - higher leaf surface area
- Madrone - more volatile when burning
- Live Oaks - most volatile when burning, branches closest to ground.

### **Brush:**

It is desirable to remove as much brush as possible within the shaded fuel break area. However, if individual plants or pairs of plants are desired to be left, leave plants with the following characteristics: young plants less than 5 feet tall and individual or pairs of plants that are no more that 5 feet wide. Retain all elderberry trees.

Brush Species - Leave species in descending order:

Toyon – Less Common

Buckeye – Less Common

Dogwood – less common

Lemmon Ceanothus - less common, less volatile

Buck brush (Wedge leaf ceanothus) - smaller brush plant, less volatile

Redbud - less common

Coffeeberry - less common

Whitethorn - lower lying plant

Deer brush - larger plant, high leaf surface area, more volatile when burning

Manzanita - larger plant, high leaf surface area, more volatile when burning

Chamise - foliage contains highest amount of flammable oils, most volatile when burning

### **Wetlands:**

Functional wetlands will be avoided for treatment and ground operations.

### **Watercourse and Lake Protection Zone (WLPZ):**

To provide mitigation for riparian associated species and to reduce the potential risk of habitat fragmentation, the following will apply:

### **Maintenance Prescriptions**

Once fuels have been modified within an area, maintenance activities should be planned and implemented on a regular basis to keep the effectiveness of the original treatment. If no maintenance activities occur, the effectiveness of the original treatment will diminish every year, potentially yielding no net effect within 5 years. The necessary maintenance activities will be minimal if implemented on an annual basis.

The original prescription treatment should be followed for maintenance. Possible fuel reduction techniques to be utilized for maintenance include the following:

**Hand Work:** Use of hand tools by crews or individuals. This technique is labor intensive and potentially expensive (>\$1000 per acre). Impacts to soils are negligible.

**Mechanical Work:** Use of heavy equipment such as masticators and/or bulldozers. This technique is moderately expensive (as low as \$400 per acre) but limited by topography (to slopes less than 50%) and not appropriate for most watercourse and lake-protection zones and excessively wet soils.

**Chemical Controls:** Use of California registered herbicides. This is the most cost-effective technique. Implementation usually requires one or two individuals for ground application. This technique has negligible soil effects but may not be appropriate for certain areas such as riparian zones, watercourses, and areas of listed plants.

**Prescribed Browsing:** Use of goats in a controlled setting to browse within appropriate areas to reduce fuel levels. Browsing goats can be an effective tool to control grasses

and low growing vegetation, when controlled properly, can have little impact to the environment. Costs may vary.

**Prescribed Burning:** The use of planned and controlled burning operations to reduce fuel levels. Control lines are established prior to burning. Burning and Air Pollution permits are required to conduct these operations. This technique varies in cost per acre depending on complexity of project. Burning is becoming more difficult to complete due to air regulations.

## APPENDIX D: IGNITION MANAGEMENT UNIT STATISTICS

### Ignition Statistics:

	LRA	SRA	FRA	Unknown	Total
2010	144 (30%)	288 (61%)		45 (9%)	477
2011	135 (31%)	294 (69%)		0	429
2012	201 (35%)	364 (64%)	2 (<1%)	6 (<1%)	573

### Ignitions by Cause (NEU):

	2008	2009	2010	2011	2012
Undetermined	91 (19%)	95 (23%)	105 (21.5%)	71 (17%)	148 (25.65%)
Lightning	3 (<1%)	7 (2%)	5 (1%)	5 (1%)	8 (1.39%)
Campfire	11 (2%)	9 (2%)	8 (<2%)	10 (2%)	16 (2.77%)
Smoking	14 (3%)	14 (3%)	15 (3%)	16 (4%)	15 (2.6%)
Equipment	92 (20%)	61 (15%)	83 (17%)	85 (20%)	67 (11.61%)
Vehicle	70 (15%)	57 (14%)	72 (15%)	90 (21%)	92 (15.94%)
Debris	73 (15%)	58 (14%)	78 (16%)	72 (17%)	109 (18.89%)
Arson	66 (14%)	52 (13%)	54 (11%)	20 (5%)	44 (7.63%)
Powerline*	26 (6%)	22 (5%)	23 (5%)	27 (6%)	27 (4.68%)
Railroad	4 (<1%)	2 (<1%)	9 (<2%)	1 (<1%)	9 (1.56%)
Playing With Fire (PWF)	10 (2%)	5 (1%)	9 (<2%)	9 (2%)	9 (1.56%)
Other	11 (2%)	29 (7%)	27 (5.5%)	23 (5%)	33 (5.72%)
<b>Total</b>	<b>471</b>	<b>411</b>	<b>488</b>	<b>429</b>	<b>577</b>

\* Bird strike against powerline caused fires increasing in number.

### Largest 5 Fires in NEU 2010

	Month	Acres	Cause
Bullards	August	1,307	Arson
Grand	October	493	Unknown
Baseline	August	441	Unknown
Morrison	October	82	Vehicle
Twin Bridges	July	68	Arson

### Largest 5 Fires in NEU 2012

	Month	Acres	Cause
Robbers	July	2,635	Fireworks
Ramirez	July	199	Debris
Broadway	July	188	Arson
Fiddyment	June	168	Unknown
Beale	August	110	Equipment

## Battalion Level Statistics

### Battalion 10:

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Undetermined	5 (16%)	7 (19%)	7 (16%)	6 (17%)	7 (15.91%)
Lightning	0	0	0	0	0
Campfire	0	1 (3%)	1 (2%)	0	2 (4.55%)
Smoking	0	1 (3%)	3 (7%)	1 (3%)	2 (4.55%)
Equipment	5 (16%)	5 (13.5%)	6 (14%)	6 (17%)	3 (6.82%)
Vehicle	2 (6.5%)	2 (5%)	2 (4.5%)	6 (17%)	6 (13.64%)
Debris	2 (6.5%)	5 (13.5%)	4 (9%)	1 (3%)	4 (9.09%)
Arson	9 (29%)	13 (35%)	18 (41%)	9 (25%)	8 (18.18%)
Powerline*	2 (6.5%)	2 (5%)	2 (4.5%)	2 (5%)	5 (11.36%)
Railroad	0	0	0	0	0
Playing With Fire (PWF)	1 (3.5%)	0	1 (2%)	3 (8%)	2 (4.55%)
Other	5 (16%)	1 (3%)	0	2 (5%)	5 (11.36%)
<b>Total</b>	<b>31</b>	<b>37</b>	<b>44</b>	<b>36</b>	<b>44</b>

### Battalion 11:

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Undetermined	13 (28%)	3 (11%)	4 (15%)	8 (23.5%)	15 (28.30%)
Lightning	1 (2%)	1 (4%)	0	0	0
Campfire	2 (4%)	1 (4%)	1 (4%)	0	1 (1.89%)
Smoking	1 (2%)	0	2 (7%)	1 (3%)	1 (1.89%)
Equipment	3 (7%)	3 (11%)	5 (19%)	8 (23.5%)	15 (28.30%)
Vehicle	9 (20%)	7 (26%)	7 (26%)	9 (26%)	11 (20.75%)
Debris	6 (13%)	3 (11%)	2 (7%)	5 (15%)	6 (11.32%)
Arson	2 (4%)	5 (19%)	4 (15%)	0	1 (1.89%)
Powerline*	5 (11%)	0	1 (3.5%)	2 (6%)	0
Railroad	0	3 (11%)	0	0	0
Playing With Fire (PWF)	0	0	1 (3.5%)	1 (3%)	0
Other	4 (9%)	1 (4%)	0	0	3 (5.66%)
<b>Total</b>	<b>46</b>	<b>27</b>	<b>27</b>	<b>34</b>	<b>53</b>

### Battalion 12:

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Undetermined	8 (15%)	8 (12%)	8 (12%)	10 (16%)	12 (17.14%)
Lightning	4 (7%)	0	2 (3%)	1 (1.5%)	1 (1.43%)
Campfire	1 (2%)	0	4 (6%)	2 (3%)	1 (1.43%)
Smoking	3 (6%)	2 (3%)	1 (2%)	2 (3%)	1 (1.43%)
Equipment	10 (19%)	13 (20%)	10 (15%)	10 (16%)	9 (12.86%)
Vehicle	11 (20%)	7 (11%)	6 (9%)	7 (11%)	10 (14.29%)
Debris	11 (20%)	20 (31%)	16 (25%)	19 (30%)	24 (34.29%)
Arson	0	2 (3%)	8 (12%)	0	0
Powerline*	4 (7%)	4 (6%)	5 (8%)	6 (10%)	7 (10.00%)
Railroad	0	0	0	0	0
Playing With Fire (PWF)	0	3 (5%)	2 (3%)	1 (2%)	1 (1.43%)
Other	2 (4%)	6 (9%)	3 (5%)	5 (8%)	4 (5.71%)
<b>Total</b>	<b>54</b>	<b>65</b>	<b>65</b>	<b>63</b>	<b>70</b>

**Battalion 13:**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Undetermined	4 (11%)	3 (4%)	7 (12%)	8 (13%)	10 (12.99%)
Lightning	0	1 (1%)	0	0	1 (1.30%)
Campfire	0	1 (1%)	1 (2%)	2 (3%)	4 (5.19%)
Smoking	0	3 (4%)	1 (2%)	4 (6%)	1 (1.30%)
Equipment	5 (14%)	12 (16%)	6 (11%)	11 (17%)	7 (9.09%)
Vehicle	14 (38%)	22 (30%)	26 (46%)	22 (35%)	23 (29.87%)
Debris	8 (22%)	13 (18%)	7 (12%)	7 (11%)	15 (19.48%)
Arson	2 (5%)	6 (8%)	6 (11%)	2 (3%)	4 (5.19%)
Powerline*	0	3 (4%)	0	4 (6%)	2 (2.60%)
Railroad	1 (3%)	4 (5%)	1 (2%)	1 (2%)	7 (9.09%)
Playing With Fire (PWF)	0	1 (1%)	0	0	0
Other	3 (8%)	4 (5%)	2 (4%)	2 (3%)	3 (3.90%)
<b>Total</b>	<b>37</b>	<b>73</b>	<b>33</b>	<b>63</b>	<b>77</b>

**Battalion 14:**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Undetermined	3 (7.5%)	8 (26%)	2 (9%)	8 (18%)	9 (18.37%)
Lightning	2 (5%)	1 (3%)	0	0	2 (4.08%)
Campfire	1 (2.5%)	0	1 (4.5%)	0	0
Smoking	1 (2.5%)	1 (3%)	1 (4.5%)	1 (2%)	0
Equipment	3 (7.5%)	2 (6%)	4 (18%)	10 (22%)	7 (14.29%)
Vehicle	3 (7.5%)	4 (13%)	1 (4.5%)	5 (11%)	6 (12.24%)
Debris	15 (38%)	4 (13%)	7 (32%)	8 (18%)	14 (28.57%)
Arson	3 (7.5%)	4 (13%)	0	0	1 (2.04%)
Powerline*	2 (5%)	2 (6%)	2 (9%)	4 (9%)	2 (4.08%)
Railroad	0	0	0	0	0
Playing With Fire (PWF)	1 (2.5%)	0	1 (4.5%)	0	2 (4.08%)
Other	6 (15%)	5 (16%)	3 (14%)	9 (20%)	6 (12.24%)
<b>Total</b>	<b>40</b>	<b>31</b>	<b>22</b>	<b>45</b>	<b>49</b>

**Battalion 15:**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Undetermined	2 (25%)	2 (18%)	0	5 (28%)	4 (17.39%)
Lightning	0	2 (18%)	1 (16.5%)	4 (22%)	4 (17.39%)
Campfire	0	2 (18%)	1 (16.5%)	3 (17%)	3 (13.04%)
Smoking	0	0	0	1 (5.5%)	2 (8.70%)
Equipment	2 (25%)	1 (9%)	0	0	0
Vehicle	1 (12.5%)	0	1 (16.5%)	2 (11%)	0
Debris	1 (12.5%)	1 (9%)	0	2 (11%)	3 (13.04%)
Arson	0	0	0	0	1 (4.35%)
Powerline*	0	1 (9%)	1 (16.5%)	0	2 (8.70%)
Railroad	0	0	2 (33%)	0	2 (8.70%)
Playing With Fire (PWF)	2 (25%)	1 (9%)	0	1 (5.5%)	0
Other	0	1 (9%)	0	0	0
<b>Total</b>	<b>8</b>	<b>11</b>	<b>6</b>	<b>18</b>	<b>23</b>

**Battalion 16:**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Undetermined	15 (33%)	16 (26%)	11 (21%)	8 (17%)	15 (28.85%)
Lightning	0	0	0	0	0
Campfire	2 (4%)	0	0	1 (2%)	0
Smoking	2 (4%)	0	2 (4%)	0	0
Equipment	6 (13%)	8 (13%)	14 (26%)	9 (19%)	4 (7.69%)
Vehicle	5 (11%)	12 (20%)	6 (11%)	7 (15%)	7 (13.46%)
Debris	7 (16%)	13 (21%)	8 (15%)	13 (27%)	16 (30.77%)
Arson	3 (7%)	4 (7%)	3 (5.5%)	1 (2%)	5 (9.62%)
Powerline*	2 (4%)	5 (8%)	4 (8%)	5 (10%)	2 (3.85%)
Railroad	0	0	0	0	0
Playing With Fire (PWF)	0	2 (3%)	3 (5.5%)	1 (2%)	0
Other	3 (7%)	1 (2%)	2 (4%)	3 (2%)	3 (5.77%)
<b>Total</b>	<b>45</b>	<b>61</b>	<b>53</b>	<b>48</b>	<b>52</b>

**Battalion 17:**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Undetermined	17 (29%)	10 (18%)	22 (25%)	8 (16%)	29 (38.16%)
Lightning	0	0	0	0	0
Campfire	0	0	0	0	1 (1.32%)
Smoking	0	1 (2%)	2 (2%)	1 (2%)	4 (5.26%)
Equipment	10 (17%)	14 (25%)	19 (21%)	14 (28%)	9 (11.84%)
Vehicle	5 (9%)	5 (9%)	6 (7%)	15 (30%)	11 (14.47%)
Debris	2 (3%)	9 (16%)	14 (16%)	5 (10%)	11 (14.47%)
Arson	19 (33%)	4 (7%)	14 (16%)	3 (6%)	4 (5.26%)
Powerline*	3 (5%)	4 (7%)	7 (8%)	2 (4%)	0
Railroad	1 (2%)	2 (4%)	1 (1%)	0	3 (3.95%)
Playing With Fire (PWF)	0	1 (2%)	3 (3%)	0	1 (1.32%)
Other	1 (2%)	6 (11%)	1 (1%)	2 (4%)	3 (3.95%)
<b>Total</b>	<b>58</b>	<b>56</b>	<b>89</b>	<b>50</b>	<b>76</b>

**Battalion 18:**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Undetermined	4 (27%)	19 (30%)	19 (29%)	1 (3.5%)	5 (12.50%)
Lightning	0	0	0	0	0
Campfire	0	0	0	0	2 (5.00%)
Smoking	0	2 (3%)	1 (2%)	4 (13%)	4 (10.00%)
Equipment	3 (20%)	19 (30%)	20 (31%)	7 (23%)	7 (17.50%)
Vehicle	4 (27%)	7 (11%)	6 (9%)	7 (23%)	6 (15.00%)
Debris	0	6 (9.5%)	8 (12%)	6 (20%)	10 (25.00%)
Arson	1 (6.5%)	6 (9.5%)	7 (11%)	1 (3.5%)	1 (2.50%)
Powerline*	2 (13%)	3 (5%)	4 (6%)	2 (7%)	2 (5.00%)
Railroad	0	0	0	0	0
Playing With Fire (PWF)	0	0	0	2 (7%)	0
Other	1 (6.5%)	1 (2%)	0	0	3 (7.50%)
<b>Total</b>	<b>15</b>	<b>63</b>	<b>65</b>	<b>30</b>	<b>40</b>

**Battalion 19:**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Undetermined	29 (35%)	29 (45%)	11 (25%)	9 (21%)	42 (45.16%)
Lightning	0	0	0	0	0
Campfire	3 (4%)	2 (3%)	2 (5%)	2 (5%)	2 (2.15%)
Smoking	7 (9%)	5 (8%)	1 (2%)	1 (2%)	0
Equipment	14 (17%)	6 (9%)	8 (18%)	10 (24%)	6 (6.45%)
Vehicle	3 (4%)	6 (9%)	9 (20%)	10 (24%)	10 (10.75%)
Debris	6 (7%)	4 (6%)	7 (16%)	6 (14%)	6 (6.45%)
Arson	13 (16%)	10 (16%)	6 (14%)	4 (10%)	19 (20.43%)
Powerline*	2 (2%)	0	0	0	2 (2.15%)
Railroad	0	0	0	0	0
Playing With Fire (PWF)	1 (1%)	1 (2%)	0	0	3 (3.23%)
Other	4 (5%)	1 (2%)	0	0	3 (3.23%)
<b>Total</b>	<b>82</b>	<b>64</b>	<b>44</b>	<b>42</b>	<b>93</b>

**APPENDIX E: Fire Planner Services Provided within NEU**

**FIRE PLANNER TASKS AND FEE LIST**

Effective January 1, 2013

TASK	EXPLANATION	HOURS	2013 FEE	REQUIRED BY*
<b>GENERAL / MISCELLANEOUS</b>				
Pre-development meetings (non major projects)	Site visit, meeting and paperwork	2.75	321.78	CDRA
Underground LPG tank installation	Plan Check and inspection	2.75	321.78	CFC
Set-back Variance	Plan Check and inspection	2	234.02	PRC / CDRA
Fireworks display (review only)	Plan Check and inspection	3.5	306.43	H & S Code 12648
Fireworks display with stand-by	Same as above and present at the display	7.75	906.81	H & S Code 12648
Temporary outdoor event permit (per site)	Plan Check and inspection	4.5	526.54	CFC / CDRA
State mandated inspections (Care homes, day care, etc.)	Plan Check and inspection	2.5	292.53	CFC
Parcel Maps	Plan Check and inspections	4	468.03	CFC / PRC / CDRA
Hydrant Flow Test	Site Visit	5.25	614.28	CFC
Special Inspection request	1 hour minimum	2.25	263.27	CFC/NFPA/PRC/CDRA
7A inspection	Site Visit	3.5	409.53	UBC / PRC / CDRA
Environmental Questionnaire (minor/modifications)	Review for compliance	3.75	438.78	CFC / CDRA
Minor Use Permit (MUP)	Review for compliance	2.75	321.78	CFC / CDRA
Conditional Use Permit (CUP) (non major projects)	Review for compliance	4.5	526.54	CFC / CDRA
<b>CIVIL</b>				
Traffic and Circulation	Plan Check	3.25	380.27	CFC / CDRA
Private Fire Service Main (sprinkler feed only)	Plan Check, Inspection, Testing	4.5	526.54	NFPA 24 / CDRA
Private Fire Service Main (hydrants only)	Plan Check, Inspection, Testing	5.5	643.54	NFPA 24 / CDRA
Private Fire Service Main (hydrant and sprinkler feet)	Plan Check, Inspection, Testing	5.5	643.54	NFPA 24 / CDRA
<b>SUPPRESSION SYSTEMS</b>				
UL 300 hood system	Plan Check, Inspection, Testing	2.25	263.27	CFC / CDRA
Special suppression system-clean agent	Plan Check, Inspection, Testing	3.75	438.78	CFC / CDRA
Standpipe - Dry	Plan Check and Inspection	4.75	555.79	NFPA 14 / CDRA
Standpipe - Wet	Plan Check and Inspection	4.75	555.79	NFPA 14 / CDRA
Fire Pump	Plan Check, Flow Test, Inspection	5.25	614.28	NFPA / CDRA
Sprinkler - Shell/initial system 1-99 heads	Plan Check, Visual Inspection, 2-hour Hydro Test and Final	5.5	643.54	NFPA 13 / CDRA
Sprinkler - Shell/initial system 100-299 heads	Plan Check, Visual Inspection, 2-hour Hydro Test and Final	7.75	878.69	NFPA 13 / CDRA
Sprinkler - Shell/initial system 300+ heads	Plan Check, Visual Inspection, 2-hour Hydro Test and Final	8.75	992.07	NFPA 13 / CDRA
Sprinkler - Tenant Improvement 1-49 heads	Plan Check, Visual Inspection	3.5	422.64	NFPA 13 / CDRA
Sprinkler - Tenant Improvement 50+ heads	Plan Check, Visual Inspection, 2-hour Hydro Test and Final	5.5	643.54	NFPA 13 / CDRA
Spray Booth	Plan Check, Visual Inspection	2.75	321.78	CFC / CDRA
<b>FIRE ALARM SYSTEMS</b>				
Alarm System - 1-9 devices	Plan Check, Inspection, Testing	2.75	328.92	NFPA 72 / CDRA
Alarm System - 10-29 devices	Plan Check, Inspection, Testing	3.75	445.30	NFPA 72 / CDRA
Alarm System - 30+ devices	Plan Check, Inspection, Testing	4.75	538.55	NFPA 72 / CDRA
<b>SUBDIVISIONS / MULTI-RESIDENTIAL</b>				
Subdivisions 5-25 units	Plan Check, EIR, Inspection	6	702.04	CFC / PRC / CDRA
Subdivisions 26-50 units	Plan Check, EIR, Inspection	8	936.06	CFC / PRC / CDRA
Subdivisions 51+ units	Plan Check, EIR, Inspection	10	1133.79	CFC / PRC / CDRA
Multi-residential 5-25 units	Plan Check, Inspection	5.5	623.59	CFC / PRC / CDRA
Multi-residential 26-50 units	Plan Check, Inspection	6.5	760.55	CFC / PRC / CDRA
Multi-residential 51+ units	Plan Check, Inspection	8	936.06	CFC / PRC / CDRA
<b>DO NOT CHARGE AT THIS TIME</b>				
Planning Entitlements				
Building Permits				
ESD Civil, Improvement Plans				
Miscellaneous				

ATTACHMENT  
to Fire Protection Planning Ordinance

## APPENDIX F: PAST, ACTIVE AND PLANNED PRE-FIRE PROJECTS

### NEU Pre-Fire Fuels Reduction Projects

#### Northstar Forest Enhancement Project – Community Assistance Grant

The goal of the project is to reduce hazardous fuels and restore the forestland as best as possible to pre-western migration conditions. The area is a high priority for treatment due its proximity to residential and commercial areas. Completing this project will meet the objectives already outlined in the Northstar Community Wildfire Protection Plan and will help reduce the potential for catastrophic wildfires such as the Martis Fire in 2001 and the Angora Fire of 2007. Cal Fire Conservation Crews and private Licensed Timber Operators have been selected to perform this work.

CEQA: Cal Fire CEQA-NOE

#### Meadow Vista Shaded Fuel Break – Community Assistance Grant

This cooperative project combines community pre-fire planning and fuels reduction to benefit the communities of Colfax, Weimar, Iowa Hill, Meadow Vista and Applegate. The project included a series of fuels reduction efforts of private lands involving mastication and hand crews. Treated areas will be target that enhance fire suppression efforts, improve and provide for safe evacuation routes and promote land stewardship.

CEQA: Forest Practice Exemption. It is also hopeful that this project will allow for utilization of the Meadow Vista PTEIR for certain project areas.

#### Ralston Ridge Shaded Fuel Break – Community Assistance Grant

This cooperative shaded fuel break involves both private and federal lands. Located in an area known for historical costly and damaging fire, the Ralston Ridge Shaded Fuel Break is designed to support and enhance fire suppression efforts and provide community wildfire protection. A combination of masticators and hand crews will be used to treat vegetation. The project will focus on promoting healthy productive forests and land steward through fuel reduction.

CEQA: Cal Fire Forest Practice, Federal NEPA

#### American River Canyon Shaded Fuel Break

The American River Canyon Shaded Fuel Break consists of approximately 300 acres of public and private lands within and adjacent to the City of Auburn. The project area is considered a “very high” risk area because of the proximity of residential, commercial, and recreational development and is within the Wildland Urban Interface and is designated in Very High and High Fire Hazard Severity Zones.

The intent of the Shaded Fuel Break is to provide protection through removal of flammable fuels consumed in a wildfire as so to lessen fire intensity in an attempt to allow fire resources to utilize such a location to increase the probability of success during fire suppression activities. The Shaded Fuel Break is a carefully planned thinking of dense vegetation in an area approximately 300 feet wide where fire does not easily move from the ground into the overhead tree canopy.

The purpose of the Shaded Fuel Break is to minimize destruction to the City of Auburn from wildfire and to protect and enhance natural resources; watershed and habitat of the

pristine American River Canyon and Auburn State Recreation Area. The goal is to treat these lands using the prescribed fuels application with the desired outcome of manageable lands for future fire prevention projects.

CEQA: Auburn Fire Department has a CEQA Exemption document on file.

#### “Project Canyon Safe”

“Project Canyon Safe” was first initiated on May 22, 2010 by way of a “community” event involving over 110 individuals; citizen volunteers, agency personnel, and private contractors, performing fuels reduction work on the American River Canyon Shaded Fuel Break in the Robie Point area. After a day of fuels reduction, 9 acres were treated, 3 chippers were operated through donated contractor time and personnel, and 158 tons of fuel were chipped and scattered in the project area. The initial event proved that community participation can make a difference in reducing our threat of wildfire.

“Project Canyon Safe” continues forward with the collaboration of organized neighborhoods, federal, state, and local government agencies, and the Greater Auburn Area Fire Safe Council. The focus is on the accomplishment of fuels reduction and sustainability of the American River Canyon Shaded fuel Break.

Through neighborhood work events or raising funds to contract for work performed, the community is committed to continue a collaborative effort in reducing our threat of wildfire to the Auburn area.

#### Placer County Chipper

Since 1998, the Placer County Chipper Program has provided service to residents of the County. This helps to lower the costs of creating and maintaining defensible space and also reduces the amount of outdoor burning and the associated air pollution as well as escaped fires.

The County owns four chippers and tow vehicles, purchased from a PG&E settlement and supplemented by a Prop 204 grant. Maintenance is performed by CAL FIRE. Therefore the annual cost is for the four crew managers, one for each chipper, and the crews. In order to keep costs down, trustees from the County Jail are used as crews.

**Priority (H, M, L):** High

Establish Fire Safe Councils in the Lincoln Area, Granite Bay – and Greater Truckee Area

Establishing Fire Safe Council(s) in this area of the County is a first step towards educating local residents about the fact that they live in an urban forest and there is a wildfire hazard, and motivating them to take appropriate action to reduce their risk.

**Priority (H, M, L):** High

Meadow Vista / Applegate Pre-Fire Project

Event 1: A series of roadside fuel modifications, located in strategic areas to allow fire fighting resources access and a location to effectively suppress an encroaching wildfire. Using existing roads for the location of the fuel modification takes advantage of the area occupied by the road surface, which is devoid of all vegetation. Modifying the fuels for a distance of 25 feet on both sides of the existing road will give an effective fuel break width of approximately 70 to 80 feet for secondary roads. The location of these fuel modifications will allow ready access and a strategic defensive position for fire suppression resources and facilitate long term maintenance of the fuel breaks.

CEQA: Forest Practice Exemption document, filed by Placer County RCD

Event 2: An intensive inspection program of the Meadow Vista and Applegate area to enforce the Public Resources Code 4291 Fire Safe standards (LE-100 Inspection). Placer County Planning Department estimates that there are approximately 3,400 housing units in this general area.

Event 3: Revise the Defensible Space and Healthy Forest Handbook: A Guide to Reducing the Wildfire Threat (2003). This handbook was developed specifically for landowners within the Meadow Vista Community Plan area and its surrounding communities.

Event 4: Work with landowners within the Meadow Vista Community Plan area to implement and make use of the Meadow Vista PTEIR (Program Timberland Environmental Impact Report), completed initially in 1999.

Event 5: Work with Placer County OES to develop an evacuation plan for this community.

**Priority (H, M, L):** High

### Develop GIS Layers for Emergency Services within Yuba County

Within the Yuba Fire Safe Council, a GIS subcommittee has been established to share GIS data and information, as well as set standards for development of GIS data to support major incidents.

**Priority (H, M, L):** Medium

### Columbia Hill Shaded Fuel Break Project

With California's wildland-urban interface areas quickly growing, as well as the population of Nevada County, the objective of the Columbia Hill Shaded Fuel Break Project is to create a shaded fuel break in the Columbia Hill area of Nevada County. Strategically, the project will tie in with the earlier established Montezuma Fuel Break to give firefighters a place to make an efficient stand against a wildfire on the San Juan Ridge.

CEQA: Cal Fire CEQA-NOE

### Alder Hill Community Fuel Break – Community Assistance Grant

This project would encompass the creation of two community fuel breaks near Alder Hill in the Truckee area of Nevada County. One fuel break is adjacent to the Tahoe Donner and Alder Hill Estates subdivisions while the second is adjacent to the Pine Forest subdivision. Both sections of the shaded fuel break would be approximately one mile in length and 300 feet wide in strategically placed areas around the communities. Total acres 75. Additionally, the project involves development and construction of community shaded fuel breaks throughout the Truckee area through cooperation with local and state fire personnel.

CEQA: Cal Fire CEQA-NOE

### Senior and Disabled Assistance Program

The Fire Safe Council of Nevada County has identified a need to continue the Senior and Disabled Assistance Program to provide defensible space clearing for elderly and disabled Nevada County residents unable to physically and financially clear on their own. The program currently utilizes workers from the Nevada County Probation Department's Work Release Program with supervision and direction from FSCNC staff to complete the requested work and bring participants into compliance with current defensible space laws.

**Priority (H, M, L):** High

### Defensible Space Drop Off Programs

In an effort to encourage residents in outlying portions of the County and the East side of the County to clear defensible space, the FSCNC provides drop-offs days and locations throughout the County where residents are allowed to drop off vegetative material, including pine needles and other materials not able to be processed through the chipping program, for a weekend time frame. Materials are then ground and transported

to cogeneration facilities or distributed as mulch. This program has proven more effective than chipping in the Eastern portion of Nevada County.

Priority: Medium

#### Yuba County Public Works Roadside Clearing Plan

Roads side clearance projects that will benefit the various foothill community's fire protection and traffic safety have been identified by the cooperative efforts of Cal Fire, USFS, and the Yuba Watershed Protection & Fire Safe Council. Through a system of prioritization and cooperation the Yuba County Department of Public Works (YCDPW) will direct their roadside clearing efforts to those roads identified as having the greatest potential for improving fire safety, evacuation, egress, and access.

Priority: High

Roads identified include Forbestown Road, Pendola Extension Road and the 169 Road. Also included and identified by CAL FIRE as priority roads are Selby Ranch, Woods Creek Truck Trail, Labadies High Prairie Road and Oregon Peak Lookout Road.

CEQA: Yuba County has filed a NOE

**APPENDIX G: NEU PROPOSITION 40 CFIP PROJECTS**

**PROPOSITION 40 CFIP PROJECTS**

Project Name	Project Number	Type	County	Treated Acreage	Status
DeMartini	11-NEU-NEV-1008	Mastication	Nevada	56	Complete
Millette	11-NEU-NEV-1007	Plan	Nevada		Complete
Steger Family Trust	11-NEU-NEV-1028	Mastication	Nevada		Active
Brigham	11-NEU-NEV-1016	Mastication	Nevada		Active
NID	11-NEU-NEV-1015	Plan	Nevada		Active
Bear Yuba Land Trust	11-NEU-NEV-1027	Mastication	Nevada		Active
Burns	11-NEU-NEV-1036	Hand pile / burn	Nevada		Active
Tahoe Donner	11-NEU-NEV-1035	Mastication	Nevada		Active
Rayner & Levy	11-NEU-NEV-1048	Mastication	Nevada		Active
Derrell Piper Trust	11-NEU-NEV-1053	Hand pile / burn	Nevada		Active
Ananda Church	11-NEU-NEV-1051	Plan	Nevada		Active
Owens	11-NEU-PLA-1011	Plan	Placer		Complete
North Fork Association	11-NEU-PLA-1024	Mastication	Placer	51.0	Active
Weimar Institute	11-NEU-PLA-1041	Mastication	Placer	53.0	Active
Josh Wilson	11-NEU-PLA-1049	Mastication	Placer		Active
Paul Foxworthy	11-NEU-PLA-1044	Mastication	Placer	30.0	Active
Camille DeCamps	11-NEU-PLA-1050	Planting	Placer		Active
Robert Bean	11-NEU-YUB-1018	Hand pile/burn	Yuba		Active
Neil Holmes	11-NEU-YUB-1052	Plan	Yuba	10.0	Active
C.C. Gold	11-NEU-SIE-1017	Plan	Sierra		Complete
C.C. Gold	11-NEU-SIE-1031	Mastication	Sierra	23.0	Active
Lemon Canyon	11-NEU-SIE-1058	Plan	Sierra		Active
Tahoe Donner Association	08-NYP-NEV-1057	Mastication	Nevada	58.0	Complete
Peacemaker Trust	08-NYP-YUB-1058	Mastication	Yuba	20.0	Complete
Pacific Edge	08-NYP-YUB-1059	Mastication	Yuba	25.0	Complete
Seferovich Family Trust	08-NYP-NEV-1064	Mastication	Nevada	32.0	Complete
Oro Mtn. View Properties	08-NYP-PLA-1065	Mastication	Placer	49.0	Complete
Coyote Hill, et al Amended 7-24-08	08-NYP-PLA-1069	Mastication	Placer	14.2	Complete
Pitts/Carr	08-NYP-NEV-1070	Mastication	Nevada	13.0	Complete
Hill Haven	08-NYP-PLA-1073	Hand pile/burn	Placer	36.2	Complete
Lorang, James & Kathryn J.	08-NYP-PLA-1075	Mastication	Placer	33.0	Complete
Cunningham Trust/Carraway	08-NYP-NEV-1081	Mastication	Nevada	17.0	Complete
Palisades Association	08-NYP-PLA-1082	Mastication	Placer	23.0	Complete
Homewood Village	08-NYP-PLA-1089	Mastication	Placer	5.0	Complete
Fletcher Family Trust	08-NYP-YUB-1090	Mastication	Yuba	39.0	Complete
Nina Allen Cunningham	08-NYP-NEV-1119	Mastication	Yuba	14.0	Complete
Miller (Lady Bug Ranch)	08-NYP-NEV-1120	Mastication	Nevada	31.0	Complete
Weimar Institute	08-NYP-PLA-1121	Mastication	Placer	53.0	Complete
Paye	08-NYP-NEV-1123	Mastication	Nevada	11.7	Complete
Clemons, Art & Joanna	07-NYP-PLA-1001	Mastication	Placer	16.0	Complete
Salvation Army/Kittle, Bob	07-NYP-NEV-1003	Mastication	Nevada	29.0	Complete

Burns Family Trust	07-NYP-NEV-1011	Planting	Nevada	20.0	Complete
Eaglecrest Association	07-NYP-PLA-1014	Mastication	Placer	16.0	Complete
Trailhead Estates Association	07-NYP-PLA-1015	Mastication	Placer	34.5	Complete
Trails End/Wilson	07-NYP-PLA-1016	Mastication	Placer	18.0	Complete
T. Phillips Trust	07-NYP-YUB-1017	Hand pile/burn	Yuba	44.0	Complete
DiBari Family Trust	07-NYP-NEV-1019	Mastication	Nevada	30.0	Complete
Robinson & Sons Terminated 7-29-08	07-NYP-NEV-1021	Mastication	Nevada	10.0	Complete
Esoteric Fraternity	07-NYP-PLA-1024	Mastication	Placer	25.0	Complete
McCormick, Jr.	07-NYP-PLA-1025	Mastication	Placer	40.0	Complete
Jensen, Erik	07-NYP-YUB-1027	Mastication	Yuba	43.0	Complete
Czarnecki Trust	07-NYP-NEV-1031	Hand pile/burn	Nevada	14.0	Complete
Church of Sacramento	07-NYP-NEV-1032	Mastication	Nevada	56.0	Complete
McCaffree, Patrick	07-NYP-NEV-1033	Mastication	Nevada	11.0	Complete
Adyota/Dinardo	07-NYP-NEV-1035	Mastication	Nevada	43.0	Complete
Steger Trust	07-NYP-NEV-1036	N/A	Nevada	0.0	Complete
Bare Trust	07-NYP-NEV-1037	Mastication	Nevada	13.0	Complete
Silver Tip Ent.	07-NYP-PLA-1038	Mastication	Placer	34.0	Complete
Trabucco/Reynolds/Trabucco Trust	07-NYP-NEV-1043	Mastication	Placer	55.0	Complete
North Fork Association	07-NYP-PLA-1044	Mastication	Placer	75.0	Complete
Firth/Yee/Murray	07-NYP-SIE-1056	Mastication	Sierra	24.0	Complete
Paye, Mark H.	07-NYP-NEV-1100	Mastication	Nevada	47.0	Complete
Paye, Mark Howerth	07-NYP-NEV-1113	Mastication	Nevada	65.0	Complete
Mitchell, Dale	07-NYP-YUB-1114	Mastication	Yuba	35.0	Complete
Tahoe Donner Association	05-CNR-NEV-01	Mastication	Nevada	51	Complete
Genshire/ Devonshire	05-CNR-NEV-02	Hand pile/burn	Nevada	29	Complete
York	05-CNR-NEV-03	Mastication	Nevada	38	Complete
Keufer/Mcdowell etal	05-CNR-NEV-04	Hand pile/burn	Nevada	19	Complete
Deschamps etal.	05-CNR-NEV-05	Mastication	Nevada	21	Complete
Brewer/Lasley	05-CNR-NEV-06	Mastication	Nevada	17	Complete
Wolfe Trust	05-CNR-NEV-07	Hand pile/burn	Nevada	26.2	Complete
Loma Rica Ranch	05-CNR-NEV-08	Hand pile/burn	Nevada	79	Complete
Paye	05-CNR-NEV-10	Mastication	Nevada	50	Complete
Bond/ Raymond	05-CNR-NEV-11	Mastication	Nevada	33	Complete
Bennett- Morrow	05-CNR-PLA-01	Mastication	Placer	18	Complete
Miller	05-CNR-PLA-02	Mastication	Placer	20	Complete
Mahoney	05-CNR-PLA-03	Mastication	Placer	16	Complete
Jacobsen	05-CNR-PLA-04	Mastication	Placer	60	Complete
Peterson	05-CNR-PLA-05	Hand pile/burn	Placer	60	Complete
Leonard	05-CNR-PLA-06	Mastication	Placer	30	Complete
Allen-Ray	05-CNR-PLA-07	Mastication	Placer	30	Complete
Oro Mtn.View Properties	05-CNR-PLA-08	Mastication	Placer	38	Complete
North Fork Association	05-CNR-PLA-09	Mastication	Placer	75	Complete
Susan Dunn	05-CNR-PLA-10	Mastication	Placer	24.4	Complete
Dashiell	05-CNR-PLA-11	Mastication	Placer	25	Complete
Hufford	05-CNR-PLA-12	Mastication	Placer	17	Complete
Gordon Trust	05-CNR-PLA-13	Mastication	Placer	10	Complete
Garry Gordon	05-CNR-PLA-14	Mastication	Placer	57	Complete
Bowman (Trust)	04-CNR-NEV-01	PCT, Chipping	Nevada	18.0	Complete

Sieler	04-CNR-NEV-02	PCT, Planting	Nevada	20.0	Complete
Snapp Family Trust	04-CNR-NEV-03	Mastication	Nevada	45.0	Complete
Personeni	04-CNR-NEV-04	Mastication	Nevada	57.0	Complete
Kramer	04-CNR-NEV-05	Mastication	Nevada	40.0	Complete
Fuller	04-CNR-NEV-06	Hand pile/burn	Nevada	32.0	Complete
Dover	04-CNR-NEV-07	Mastication	Nevada	32.0	Complete
Scotts Flat Pine Group #1	04-CNR-NEV-08	Mastication	Nevada	28.0	Complete
Toney	04-CNR-NEV-09	Hand pile/burn	Nevada	22.4	Complete
Coffin/Hoppe	04-CNR-NEV-12	Mastication	Nevada	13.5	Complete
Jacobson	04-CNR-NEV-13	Hand pile/burn	Nevada	15.5	Complete
Ostrom	04-CNR-NEV-14	Mastication	Nevada	28.0	Complete
Wilder	04-CNR-NEV-15	Mastication	Nevada	37.0	Complete
Yeager	04-CNR-NEV-18	Hand pile/burn	Nevada	27.0	Complete
Barklage	04-CNR-NEV-19	PCT, Planting	Nevada	50.0	Complete
Wilde	04-CNR-NEV-20	Mastication	Nevada	33.0	Complete
Conner	04-CNR-NEV-21	PCT, Planting	Nevada	9.0	Complete
Malott	04-CNR-NEV-22	Mastication	Nevada	39.0	Complete
Stanford	04-CNR-NEV-23	Hand pile/burn	Nevada	25.0	Complete
Warrick	04-CNR-NEV-24	Hand pile/burn	Nevada	42.0	Complete
Hass (Trust)	04-CNR-NEV-25	Hand pile/burn	Nevada	36.0	Complete
O'Conner	04-CNR-NEV-26	Hand pile/burn	Nevada	11.0	Complete
Sawyer,Fowler,Jeffery, Copas, Downing	04-CNR-NEV-27	Hand pile/burn	Nevada	18.0	Complete
Optimist Foundation	04-CNR-NEV-28	Mastication	Nevada	25.0	Complete
Steber	04-CNR-NEV-29	Hand pile/burn	Nevada	21.0	Complete
Morgan	04-CNR-NEV-30	Mastication	Nevada	39.0	Complete
Church of God Association	04-CNR-NEV-31	Mastication	Nevada	34.0	Complete
Nevada Irrigation District	04-CNR-NEV-32	Mastication	Nevada	41.0	Complete
Browning	04-CNR-NEV-33	N/A	Nevada	0.0	Complete
Sinclair	04-CNR-NEV-34	Hand pile/burn	Nevada	36.0	Complete
Valentino/Rossi	04-CNR-NEV-35	Hand pile/burn	Nevada	37.0	Complete
Rubin	04-CNR-NEV-36	Mastication	Nevada	21.0	Complete
Behrend	04-CNR-YUB-01	Mastication	Yuba	17.0	Complete
Lacey	04-CNR-YUB-02	Mastication	Yuba	28.0	Complete
Mitchell	04-CNR-YUB-03	Mastication	Yuba	37.0	Complete
Harris	04-CNR-YUB-04	Hand pile/burn	Yuba	24.0	Complete
Mitchell	04-CNR-YUB-07	Mastication	Yuba	17.0	Complete
Adasiewicz	04-CNR-SIE-01	Hand pile/burn	Sierra	20.0	Complete
Schroll	04-CNR-SIE-02	Herbicide	Sierra	120.0	Complete
Hammock/Wheelehan	04-CNR-PLA-01	Hand pile/burn	Placer	12.5	Complete
Chastain	04-CNR-PLA-02	Mastication	Placer	13.0	Complete

**APPENDIX H: COOPERATOR PROJECTS**

Placer County

**Foresthill / Iowa Hill Fire Safe Council & Foresthill Fire Protection District**

Project Name	Type	County	Treated Acreage	Status / Priority
McKeon Fuel Reduction	PCT, Pruning, Mastication	Placer	93	Planning / 1
Yankee Jims Fuel Reduction	PCT, Pruning, Burn	Placer	138	Planning / 5
Todd Valley Fuel Break	PCT, Pruning, Mastication	Placer	130	Planning / 1
Mosquito Hazard Reduction 1	PCT, Pruning, Mastication	Placer	Unknown	Planning / 2
Mosquito Hazard Reduction 2	PCT, Pruning, Mastication	Placer	Unknown	Planning / 2
Mosquito Hazard Reduction 3	PCT, Pruning, Mastication	Placer	Unknown	Planning / 3
Mosquito Hazard Reduction 4	PCT, Pruning, Mastication	Placer	Unknown	Planning / 2
Mosquito Hazard Reduction 5	PCT, Pruning, Mastication	Placer	Unknown	Planning / 3
Mosquito Hazard Reduction 6	PCT, Pruning, Mastication	Placer	Unknown	Planning / 3
Thomas Street Education	Education and Outreach	Placer	N/A	Active
Spring into Safety	Education and Outreach	Placer	N/A	Active
Evacuation Street Signage	Evacuation Signage	Placer	N/A	Complete
Foresthill Evacuation Plan	Education and Outreach	Placer	N/A	Active
Foresthill Evacuation Map	Education and Outreach	Placer	N/A	Active
Foresthill Harvest Festival	Education and Outreach	Placer	N/A	Active
2000 to 2008 Wildfire on the Divide	Education and Outreach	Placer	N/A	Complete
2011 Long Point (100 AC)	PCT, Pruning, Mastication	Placer		Active
2011 Roach Hill (100AC)	PCT, Pruning, Mastication	Placer		Active
2010 Rooster Ridge	PCT, Pruning, Mastication	Placer	192	Complete
2008 Pipe Line 1	PCT, Pruning, Mastication	Placer	63	Complete
2008 Todd Valley 1	PCT, Pruning, Mastication	Placer	147	Complete
2007 Indian Creek	PCT, Pruning, Mastication	Placer	100	Complete
2006 Roach Hill	PCT, Pruning, Mastication	Placer	100	Complete
2005 Iowa Hill	PCT, Pruning, Mastication	Placer	200	Complete
2004 Monte Verdi	PCT, Pruning, Mastication	Placer	100	Complete
2004 Finning Mill	PCT, Pruning, Mastication	Placer	243	Complete

**Auburn City Fire Department**

Project Name	Type	County	Treated Acreage	Status / Priority
Areolia Heights/Chamberlain (7 Acres)	PCT, Pruning, Pile & Burn	Placer	0	Planning / 1
Aeolia Olive Orchard (6 acres)	PCT, Pruning, Pile & Burn	Placer	0	Planning / 1
Virginia/Gold (4 Acres)	PCT, Pruning, Pile & Burn	Placer	0	Planning / 1
Union Pacific Railroad right-of-way throughout the	PCT, Pruning,	Placer	Unknown	Active

City of Auburn	Removal			
Interstate 80 corridor areas within City limits	PCT, Pruning, Chipping	Placer	Unknown	Active
American Canyon Shaded Fuel Break	PCT, Pruning, Pile & Burn	Placer	N/A	planning / 2
Auburn Dam Overlook	PCT, Pruning, Pile & Burn	Placer	N/A	planning / 2
Borland Ave., El Dorado/Hwy 49 areas & Canyon Ridge Subdivision	PCT, Pruning, Pile & Burn	Placer	N/A	planning / 2
Southridge Subdivision	PCT, Pruning, Pile & Burn	Placer	N/A	planning / 2
Grayhorse Subdivision	PCT, Pruning, Pile & Burn	Placer	N/A	planning / 3
Grand Oaks Homeowners Open Space	PCT, Pruning, Pile & Burn	Placer	N/A	planning / 3
Auburn Bluffs Subdivision	PCT, Pruning, Pile & Burn	Placer	N/A	planning / 3
Vienna Woods Subdivision, Dairy Road	PCT, Pruning, Pile & Burn	Placer	N/A	planning / 4
White Hawk Meadows Subdivision	PCT, Pruning, Pile & Burn	Placer	N/A	planning / 4
2010-2011 Virginia & Gold St. Fuel Break (Davenport)	PCT, Pruning, Pile & Burn	Placer	6	Complete
2010-2011 Canyon Rim Estates, Eagles Nest Fuel Break	PCT, Pruning, Pile & Burn	Placer	5	Complete
2004 GAAFSC Shaded Fuel Break II	PCT, Pruning, Chipping	Placer	37	Complete
2005 GAAFSC Shaded Fuel Break III	PCT, Pruning, Chipping	Placer	66	Complete
2007 GAAFSC Shaded Fuel Break III	PCT, Pruning, Chipping	Placer	30	Complete

### North Tahoe Fire Protection District

Project Name	Type	County	Treated Acreage	Status / Priority
2011 CTC Future Project (25 Acres)	PCT, Pruning, Chipping	Placer	0	Planning / 1
2011 Vedanta (80 Acres)	PCT, Pruning, Chipping	Placer	0	Planning / 1
2011 Maloney (3 Acres)	PCT, Pruning, Chipping	Placer	0	Planning / 1
2011 Regency CTC (40 Acres)	PCT, Pruning, Chipping	Placer	0	Planning / 1
2011 NTRP (31 Acres)	PCT, Pruning, Chipping	Placer	0	Planning / 1
2011 Mourelatos (15 Acres)	PCT, Pruning, Chipping	Placer	0	Planning / 1
2011 Beach Street (5 Acres)	PCT, Pruning, Chipping	Placer	0	Planning / 1
2011 McKinney Chambers (40 Acres)	PCT, Pruning, Chipping	Placer	0	Planning / 2
2011 Book 85 (40 Acres)	PCT, Pruning, Chipping	Placer	0	Planning / 2
2010 Eagle Rock CTC	PCT, Pruning, Chipping	Placer	8	Complete
2010 Rideout School	PCT, Pruning, Chipping	Placer	3	Complete
2010 Ward Unit CSP	PCT, Pruning, Chipping	Placer	154	Complete
2010 Talmont CTC1	PCT, Pruning, Chipping	Placer	9	Complete
2010 Talmont CTC2	PCT, Pruning, Chipping	Placer	6	Complete
2010 Tahoe City Private	PCT, Pruning, Chipping	Placer	20	Complete
2010 Skylandia	PCT, Pruning, Chipping	Placer	15	Complete
2010 Highlands TCPUD	PCT, Pruning, Chipping	Placer	7	Complete
2010 CTC Water Tank	PCT, Pruning, Chipping	Placer	3	Complete

2010 Sierra Pacific Power	PCT, Pruning, Chipping	Placer	20	Complete
2010 Carmelian Bay	PCT, Pruning, Chipping	Placer	155	Complete
2010 Placer County KWW	PCT, Pruning, Chipping	Placer	15	Complete
2010 Woodvista CTC	PCT, Pruning, Chipping	Placer	97	Complete
2008-2009 Hazardous Fuels Reduction	Chipping	Placer	100	Complete
2009 Homewood	PCT, Pruning, Chipping	Placer	57	Complete
2009 Mark Twain	PCT, Pruning, Chipping	Placer	35	Complete
2009 Granlibakken	PCT, Pruning, Chipping	Placer	4	Complete
2009 Tahoe City CSP	PCT, Pruning, Chipping	Placer	10	Complete
2009 Old Mill Road CTC	PCT, Pruning, Chipping	Placer	2	Complete
2009 Old Mill Road Private	PCT, Pruning, Chipping	Placer	14	Complete
2009 Highlands Combo	PCT, Pruning, Chipping	Placer	110	Complete
2009 CTC Beverly	PCT, Pruning, Chipping	Placer	7	Complete
2009 OTC	PCT, Pruning, Chipping	Placer	123	Complete
2009 Chinquapin	PCT, Pruning, Chipping	Placer	40	Complete
2007-2008 Hazardous Fuels Reduction	Chipping	Placer	175	Complete
2008 Mark Twain	PCT, Pruning, Chipping	Placer	5	Complete
2008 Talmont	PCT, Pruning, Chipping	Placer	7	Complete
2008 Rocky Ridge	PCT, Pruning, Chipping	Placer	22	Complete
2008 Kingswood West	PCT, Pruning, Chipping	Placer	85	Complete
2008 Kingswood East	PCT, Pruning, Chipping	Placer	6	Complete
Brockway Springs	PCT, Pruning, Chipping	Placer	24	Complete
2006-2007 Hazardous Fuels Reduction	Chipping	Placer	150	Complete
2007 Highlands TCPUD	PCT, Pruning, Chipping	Placer	8	Complete
2004 Hazardous Fuels Reduction	Chipping	Placer	200	Complete

### Placer County Resource Conservation District

Project Name	Type	County	Treated Acreage	Status / Priority
Dutch Flat / Alta Fuels Treatment - Phase 3	PCT, Pruning, Chipping	Placer	0	Planning/ 1
Applegate Community Shaded Fuel Break	PCT, Pruning, Chipping	Placer	0	Active
Placer County Chipper Program	Chipping	Placer	Unknown	Active
Foresthill WUI Fuels treatment Incentive	Chipping	Placer	Unknown	Active
Thomas Street Community Fuel Break	PCT, Pruning, Chipping	Placer	0	Planning/ 1
Gills Hill Fuel Break	PCT, Pruning, Chipping	Placer	0	Planning/ 1
Northstar CDC Thinning and Fuels Reduction	PCT, Pruning, Chipping	Placer	0	Planning/ 1
2004 Placer County Fuels Reduction Phase 4	Chipping	Placer	1440	Complete

### Greater Auburn Area Fire Safe Council

Project Name	Type	County	Treated Acreage	Status / Priority
Upper Auburn Fuelbreak & Maintenance	Hand thin, pile & burn or chip	Placer	unknown	Active
Lower Auburn Fuelbreak & Maintenance	Hand thin, pile & burn or chip	Placer	unknown	Active
Russell Road Community Defense	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 1
Kilham Road Community Defense	Masticate,PCTpile burn, chip	Placer	18	Planning / 1
Foresthill East Fuelbreak Maintenance	Hand thin, pile & burn or chip	Placer	29	Planning / 1
Sylvan Vista - Hammond Roads Community Defense	Hand thin, pile & burn or chip	Placer	45	Planning / 2
Covey - Krueger Roads Community Defense	Hand thin, pile & burn or chip	Placer	46	Planning / 2
Luther - Dairy Roads - Auburn Ravine Community Defense	Hand thin, pile & burn or chip	Placer	308	Planning / 3
I-80 Hilltop Community Defense	Hand thin, pile & burn or chip	Placer	32	Planning / 3
Welty Lane - Hidden Creek Community Defense	Hand thin, pile & burn or chip	Placer	36	Planning / 4
I-80 - Ophir Road Community Defense	Hand thin, pile & burn or chip	Placer	132	Planning / 4
Auburn Rancheria Community Defense	Mow	Placer	41	Planning / 5
Placer County Demonstration Area	Hand thin, pile & burn or chip		7	

### Placer County Land Trust

Project Name	Type	County	Treated Acreage	Status / Priority
Canyon View Parcel Fuel Break	Hand Pile & Burn	Placer	17	Active
7,000 acres Lincoln Area	Grazing	Placer	Unknown	Active

### Truckee Fire Protection District

Project Name	Type	County	Treated Acreage	Status / Priority
2007 District Defensible Space	Chipping	Nevada	275	Complete
2006 District Defensible Space	Chipping	Nevada	500	Complete
2005 District Defensible Space	Chipping	Nevada	214	Complete

### Northstar Fire Department

Project Name	Type	County	Treated Acreage	Status / Priority
2010 Northstar Property Owners Association NPOA	Unknown	Placer	10	Complete
2010 Northstar Mountain Properties LLC	Unknown	Placer	1	Complete

2010 Trimont Land Corporation	Unknown	Placer	69	Complete
2010 CNL Income Northstar LLC	Unknown	Placer	16	Complete
2010 Northstar at Tahoe Association	Unknown	Placer	3	Complete
2010 Northstar 5B Block 7	Unknown	Placer	1	Complete
2010 Northstar Unit 1 - B	Unknown	Placer	1	Complete
2010 Northstar Unit 1 - D	Unknown	Placer	8	Complete
2010 Northstar Unit 5 -B	Unknown	Placer	5	Complete
2009 CNL Income Northstar LLC	Unknown	Placer	32	Complete
2009 DMB Highlands	Unknown	Placer	1	Complete
2009 Highlands Central Parcel Association	Unknown	Placer	5	Complete
2009 Northstar 5B Block 7	Unknown	Placer	2	Complete
2009 Northstar Mountain Properties LLC	Unknown	Placer	4	Complete
2009 Northstar Property Owners Association NPOA	Unknown	Placer	36	Complete
2009 Northstar Unit 1 - B	Unknown	Placer	1	Complete
2009 Northstar Unit 1 - D	Unknown	Placer	24	Complete
2009 Northstar 5B Block 6	Unknown	Placer	28	Complete
2009 Trimont Land Corporation	Unknown	Placer	45	Complete
2008 Highlands Central Parcel Association	Unknown	Placer	3	Complete
2008 Northstar Property Owners Association NPOA	Unknown	Placer	49	Complete
2008 Northstar Mountain Properties LLC	Unknown	Placer	31	Complete
2008 Northstar Unit 1 - B	Unknown	Placer	2	Complete
2008 Northstar Unit 1 - D	Unknown	Placer	1	Complete
2008 Trimont Land Corporation	Unknown	Placer	43	Complete
2007 Northstar Fire Department Green Waste Defensible Space Program	Chipping	Placer	150	Complete

### Placer Sierra Fire Safe Council

Project Name	Type	County	Treated Acreage	Status / Priority
Meadow Visa - McElroy Roadside Clearing (23 Acres)	Hand thin, pile & burn or chip	Placer	N/A	Planning / 1
Cerro Vista Roadside Clearing (23 Acres)	Hand thin, pile & burn or chip	Placer	N/A	Planning / 5
Boole Roadside Clearing (16 Acres)	Hand thin, pile & burn or chip	Placer	Unknown	Active
Long Point Fuelbreak (74 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 3
Canyon Rim Fuelbreak (137 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 7
Ponderosa Way Roadside Clearing (19 Acres)	Hand thin, pile & burn or chip	Placer	N/A	Planning / 6
Ponderosa Way Fuelbreak (118 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 4
Jefferson Fuelbreak	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 5
Big John Ridge Fuelbreak (102 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 6
Gillis Fuelbreak (187 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 1
Gillis Fuelbreak Extension (146 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 2

Colfax Fuelbreak (50 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 8
Alpine Meadows Subdivision Roadside Clearing (31 Acres)	Hand thin, pile & burn or chip	Placer	N/A	Planning / 2
Alpine Meadows Subdivision Community Defense (40 Acres)	Hand thin, pile & burn or chip	Placer	N/A	Planning / 1
Dutch Flat / Alta Roadside Clearing (72 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 3
Moody Ridge Roadside Clearing (40 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 7
Placer Hills Roadside Clearing (52 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 4
Secret Town Fuel Break (100 Acres)	Masticate,PCTpile burn, chip	Placer	N/A	Planning / 5

## Nevada County

### Fire Safe Council of Nevada County

Project Name	Type	County	Treated Acreage	Status / Priority
2010-2011 Green Waste Drops	Drop Off for Chipping	Nevada	N/A	Unfunded / 1
2010-2011 Community Chipping	Chipping	Nevada	N/A	Active
2010-2011 Juniper Hill Fuel Break	PCT, Pruning, Chipping	Nevada	N/A	Unfunded / 1
2010-2011 Cascade Shores Fuel Break	PCT, Pruning, Chipping	Nevada	N/A	Unfunded / 1
2010-2011 Model Defensible Space Home Tour	Education and Outreach	Nevada	N/A	Active
2010-2011 Dear Creek Fuel Break	PCT, Pruning, Chipping	Nevada	N/A	Unfunded / 1
2010-2011 Firewise	Education and Outreach	Nevada	N/A	Active
2010-2011 Columbia Hill Fuel Break Expansion	PCT, Pruning, Chipping	Nevada	N/A	Planning
2009-2010 Scotch Broom Challenge	Scotch Broom brush pulling	Nevada	5	Complete
2009-2010 Alder Creek Fuel Break	PCT, Pruning, Chipping	Nevada	N/A	Planning
2009-2010 Dear Creek Fuel Break	PCT, Pruning, Chipping	Nevada	N/A	Planning
2009-2010 W Truckee I-80 Fuel break	PCT, Pruning, Chipping	Nevada	51	Complete
2009-2010 Firewise	Education and Outreach	Nevada	N/A	Complete
2009-2010 Defensible Space Advice	Education and Outreach	Nevada	N/A	Complete
2009-2010 Special Needs Assistance	PCT, Pruning, Chipping	Nevada	66	Complete
2009-2010 Green Waste Drops	Drop Off for Chipping	Nevada	812	Complete
2009-2010 Community Chipping	Chipping	Nevada	572	Complete
2008-2009 Scotch Broom Challenge	Scotch Broom brush pulling	Nevada	6	Complete
2008-2009 W Truckee I-80 Fuel Break	PCT, Pruning, Chipping	Nevada	N/A	Planning
2008-2009 Firewise	Education and Outreach	Nevada	N/A	Complete
2008-2009 Defensible Space Advice	Education and Outreach	Nevada	N/A	Complete
2008-2009 Special Needs Assistance	PCT, Pruning, Chipping	Nevada	41	Complete
2008-200- Green Waste Drops	Drop Off for Chipping	Nevada	598	Complete
2008-2009 Community Chipping	Chipping	Nevada	666	Complete

2007-2008 Scotch Broom Challenge	Scotch Broom brush pulling	Nevada	4	Complete
2007-2008 Washington Town Site	PCT, Pruning, Chipping	Nevada	55	Complete
2007-2008 Woodpecker Ravine Roadside	PCT, Pruning, Chipping	Nevada	27	Complete
2007-2008 Jones Ridge Neighborhood	PCT, Pruning, Chipping	Nevada	55	Complete
2007-2008 Firewise	Education and Outreach	Nevada	N/A	Complete
2007-2008 Defensible Space Advice	Education and Outreach	Nevada	N/A	Complete
2007-2008 CWPP Development	County Planning Report	Nevada	N/A	Complete
2007-2008 Special Need Assistance	PCT, Pruning, Chipping	Nevada	63	Complete
2007-2008 Green Waste Drop	Drop Off for Chipping	Nevada	641	Complete
2007-2008 Community Chipping	Chipping	Nevada	2169	Complete
2006-2007 Scotch Broom Challenge	Scotch Broom brush pulling	Nevada	2	Complete
2006-2007 Red-Dog-You Bet Roadside	PCT, Pruning, Chipping	Nevada	38	Complete
2006-2007 Columbia Hill FB Expansion	PCT, Pruning, Chipping	Nevada	42	Complete
2006-2007 Oak tree Road Demonstration	PCT, Pruning, Chipping	Nevada	29	Complete
2006-2007 Defensible Space Advice	Education and Outreach	Nevada	N/A	Complete
2006-2007 Public Education	Education and Outreach	Nevada	N/A	Complete
2006-2007 Special Needs Assistance	PCT, Pruning, Chipping	Nevada	93	Complete
2006-2007 Green Waste Drop	Drop Off for Chipping	Nevada	598	Complete
2006-2007 Community Chipping	Chipping	Nevada	1902	Complete
2005-2006 Red Dog - You Bet Roadside	PCT, Pruning, Chipping	Nevada	35	Complete
2005-2006 Columbia Hill Fuel Break	PCT, Pruning, Chipping	Nevada	200	Complete
2005-2006 Public Education	Education and Outreach	Nevada	N/A	Complete
2005-2006 Special Needs Assistance	PCT, Pruning, Chipping	Nevada	58	Complete
2005-2006 Green Waste Drops	Drop Off for Chipping	Nevada	552	Complete
2005-2006 Community Chipping	Chipping	Nevada	1716	Complete

**California State Parks - Sierra District**

Project Name	Type	County	Treated Acreage	Status / Priority
2004 North Bloomfield Fuel Reduction Project	PCT, Pruning, Chipping	Nevada	81	Complete
2005 Union Hill Fire reduction	PCT, Pruning, Chipping	Nevada	0	Abandoned

## Yuba County

### High Sierra Resource Conservation & Development Area

Project Name	Type	County	Treated Acreage	Status / Priority
2011 Pre Fire Fuel Reduction of Yuba County Communication Sites (53 acres)	unknown	Yuba	0	planning / 1
2011 Oregon Ridge Fuel Break Phase 3 (67 Acres)	PCT, Pruning, Mastication	Yuba	0	planning / 1
2011 Pendola - Davis Shaded Fuelbreak (140 Acres)	PCT, Pruning, Mastication	Yuba	0	planning / 1
2011 GIS Database Update and Data Distribution	GIS	Yuba	N/A	planning / 1
2005 Fuel Reduction on County Roads	CEQA	Yuba	N/A	Complete
2005 Fuel Reduction on Private Lands Forest Service Slapjack DFPZ	CEQA	Yuba	N/A	Complete
2005 Fuel Reduction on Private Lands Forest Service Slapjack DFPZ	CEQA	Yuba	N/A	Complete
2004 Fuel Reduction on Private Lands Forest Service Slapjack DFPZ-Middlebrook	PCT, Pruning, Chipping	Yuba	40	Complete
2004 Fuel Reduction on Private Lands Forest Service Slapjack DFPZ - CHY Co.	PCT, Pruning, Chipping	Yuba	114	Complete
2004 Fuel Reduction on County Roads	PCT, Pruning, Chipping	Yuba	15	Complete
2004 Residential Chipping Program for Yuba Foothills	Chipping	Yuba	169	Complete

### Dobbins - Oregon House Fire Protection District

Project Name	Type	County	Treated Acreage	Status / Priority
2011 Ure Mountain Fire Evacuation Routes	PCT, Pruning, Chipping	Yuba	unknown	planning/1
2007 Residential Chipping Program for Yuba Foothills	Chipping	Yuba	300	Complete
2006 Residential Chipping Program for Yuba Foothills	Chipping	Yuba	212	Complete
2005 Residential Chipping Program for Yuba Foothills	Chipping	Yuba	246	Complete
2004 Yuba County Chipper Phase 1	Chipping	Yuba	169	Complete

### Yuba County Public Works

Project Name	Type	County	Treated Acreage	Status / Priority
2011 Fuel Reduction Along County Roads (7.6 Miles of Road)	PCT, Pruning, Chipping	Yuba	unknown	Planning / 1
2011 Fuel Reduction Along Major Evacuation Routes ( 10.2 Miles of Road)	PCT, Pruning, Chipping	Yuba	unknown	Planning / 1
2011 Fuel Reduction Along County Roads (11.8 Miles of Road)	PCT, Pruning, Chipping	Yuba	unknown	Planning / 1
Fuel Reduction on County Roads	PCT, Pruning, Chipping	Yuba	52	Complete

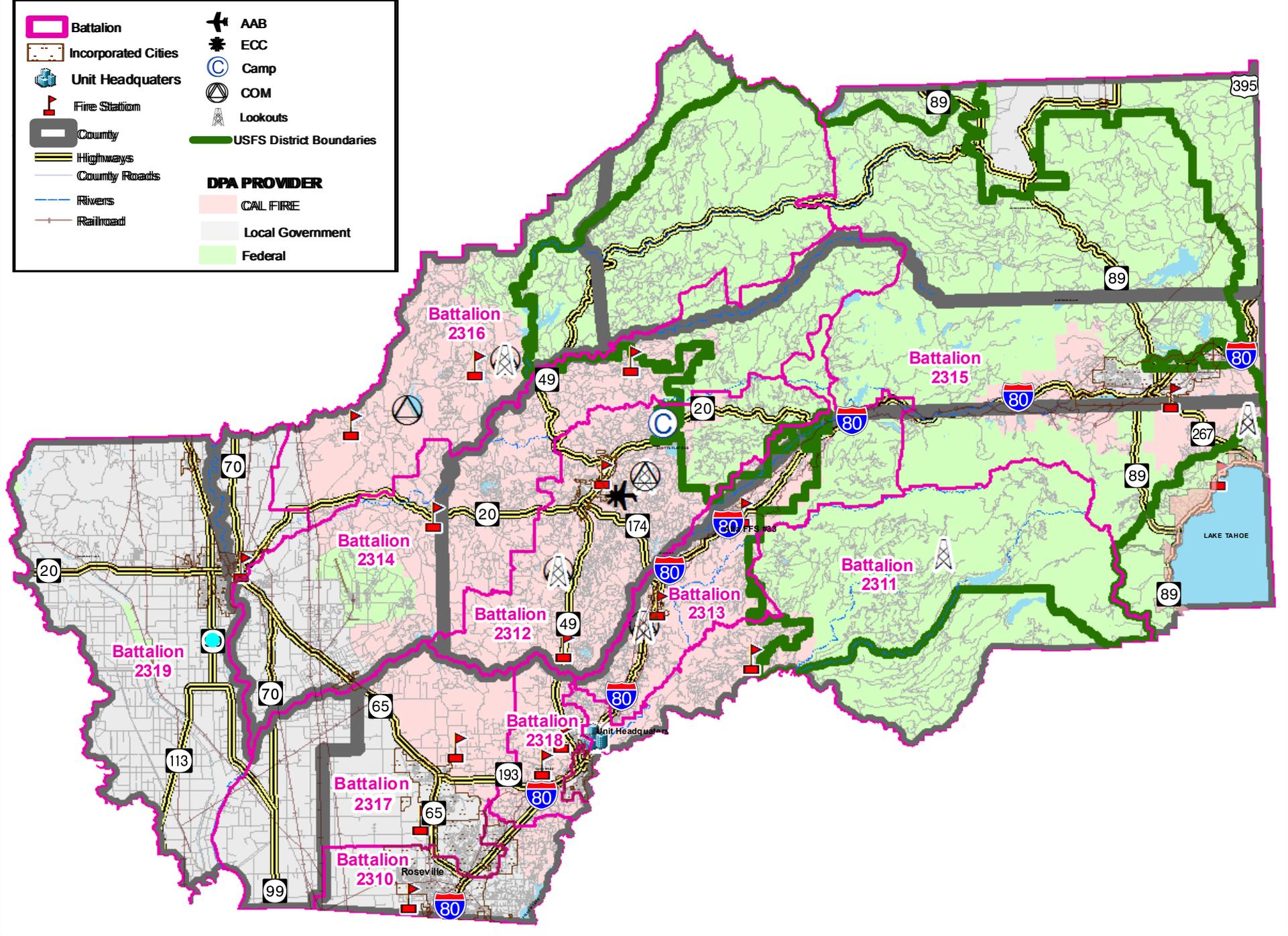
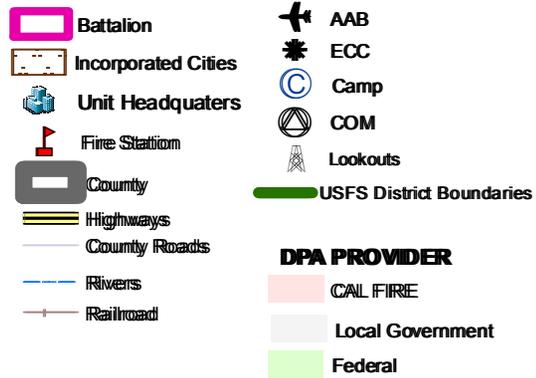
**EXHIBITS:**

**MAPS**

**Exhibit 1 – Unit Map**

# NEVADA - YUBA - PLACER UNIT (NEU)

## Battalions- Administrative Boundaries



## **SUPPLEMENT: 2013**

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

The Nevada-Yuba-Placer Unit has continued to work on a variety of projects throughout 2012. Unit Staff continues to work with cooperators assisting in the development, implementation, and oversight of numerous fuel reduction projects. In addition to fuel reduction work, the Unit has also dedicated time and resources to defensible space inspections (LE-100), and community education and participation.

#### **LE-100 Defensible Space Inspections**

Approximately three thousand seven hundred LE-100 inspections were completed throughout the Unit in 2012. Of this, approximately five hundred properties were not in compliance after the first inspection. After continued re-inspections and education, one hundred percent compliance was reached.

#### **Volunteers In Prevention (VIP'S)**

The Unit utilizes a dedicated cadre of volunteer personnel or Volunteers In Prevention. These volunteers are utilized to staff two fire lookouts within the Unit during fire season. Assist with two County Fairs and a Christmas parade. Assist with writing and issuing dooryard burn permits at State Fire Stations. Provide office support staff to the Unit's Fire Prevention Bureau, and staff the Unit's Fire Information Center during large incidents. During 2012, our VIP's volunteered a combined total of just over three thousand hours.

#### **Education and Community Involvement**

It is the goal of the Nevada-Yuba-Placer Unit to engage in a wide variety of community education opportunities. In a typical year, the Unit attends specific events such as the Nevada County Fair, the Gold Country Fair, and the Lincoln City Christmas Parade. Throughout the year, the Unit is invited to and attends numerous other events. Community education, participation, and involvement is not borne by any one CAL FIRE program, but encompasses all programs and staff. The program works best when individual stations can react to, and attend an unplanned community event.

## **Fuel Reduction Projects**

Cal Fire NEU has always had an extremely active pre-fire / vegetation management program supporting the development and management of fire prevention projects across the unit. Cal Fire crews out of Washington Ridge Camp are an important asset to these projects. The following contains 2012 Unit accomplishments.

### **Nevada County**

Over 2800 LE-38 Inspections

Nevada County Roadside Clearings

### **Placer County**

Mt Howell Maintenance

Foresthill Bridge Retrofit Project and Prescribed Burn

Extension of the Auburn Fuel Break

I-80 Fuel Reduction Project

Meadow Vista / McElroy Road Fuel Break

Ralston Ridge Fuel Break

Applegate Fuel Reduction Project

Gillis Hill Fuelbreak / Robbers Fire Contingency

Auburn State Recreation Area Fuel Reduction

### **Yuba County**

Yuba County Roads Fuel Reduction

Stanfield Hill Fuelbreak

Daugherty Hill Fuelbreak

Spenceville Shooting Range

Oregon Peak Fuel Reduction

### **Sierra County**

Sierra County Roads – Cooperative with Sierra County and CalTrans