

# *Unit Strategic Fire Plan*

## *Butte Unit*



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**SIGNATURES**

**Unit Strategic Fire Plan developed for Butte 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.

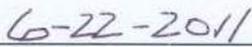


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**Unit Chief**

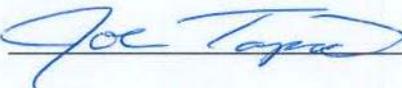
George Morris

by Steve Emerick, Acting Unit Chief



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**Date**



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**Pre-Fire Engineer**

Joe Tapia



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**Date**

## EXECUTIVE SUMMARY

The Butte Unit Strategic Fire Plan will be developed and updated based upon the priority goals and objectives identified by the Department and by local collaborators. Local area knowledge is a key element in identifying the local concerns and assets at risk within priority landscapes. Most projects are conceptualized at the ground roots level. Unit personnel will work with local collaborators and community groups, including the local Fire Safe Councils, to establish priority projects within each battalion. Project objectives must be consistent with the fire plan area goals, must be achievable with available resources, must be fiscally responsible and must have community and landowner support. Project implementation usually requires the cooperation and coordination of various program staff, agencies, local community groups and individual property owners to accomplish the goals and objectives of each specific project.

Projects implemented by Butte Unit personnel will comply with the three General Orders that guide the activities of the Butte County Fire Department/CAL FIRE Butte Unit.

1. The Butte County Fire Department/CAL FIRE Butte Unit will always remember who we work for. Simply put, we work for the citizens of California and Butte County regardless of the jurisdiction or situation. We will base our decisions on the common good and always within our training, experience and the law.
2. The Butte County Fire Department/CAL FIRE Butte Unit will always look for opportunities to work cooperatively with other agencies and public service providers, and we will work hard to maintain those cooperative relationships. Agencies working together will always provide better service to the public than agencies working individually.
3. Butte County Fire Department/CAL FIRE employees will support each other professionally and personally. All employees must recognize that we are absolutely dependent on each other in every aspect of this important job.

Three key objectives will be at the core to the successful implementation of the Butte Unit Fire Plan.

1. Engage and participate with local stakeholder groups (i.e., fire safe councils and others) to validate and prioritize the assets at risk.
2. Increase the number and effectiveness of defensible space inspections.
3. Maintain and improve cooperative relationships and agreements with local community groups and local, state and federal agencies.

**A: UNIT DESCRIPTION**

Butte County is located in the eastern side of the northern Sacramento Valley. The majority of the public lands include parts of the Lassen National Forest and of the Plumas National Forest. The bordering counties include: Plumas County on the northeast, Yuba County on the southeast, Sutter and Colusa Counties on the southwest, Glenn County on the west and Tehama County on the northwest. State Routes 32, 70 & 99 are the primary highways through the county.

Butte County encompasses just over one million acres of land, ranging in elevation from 60 feet to 7,000 feet above sea level. The county is divided in half by two topographical features. The Sacramento Valley section in the southwest portion of the county is relatively flat and is predominantly grassland and farmland. The foothills and mountainous region of the northern Sierra Nevada and southern Cascade Mountains comprises the northeast portion of the county. This area is scattered with homes and communities intermixed amongst woodland fuels creating a serious wildland urban interface problem. These are areas where wildland fire once burned only vegetation but now burns homes as well. The WUI for Butte County consists of communities at risk as well as the area around the communities that pose a fire threat.

There are two types of WUI environments. The first is the true urban interface where development abruptly meets wildland. For Butte County the town of Paradise and the community of Paradise Pines are examples of high density housing meeting wildland. The second WUI environment is referred to as the wildland urban intermix. Wildland urban intermix communities are rural, low density communities where homes are intermixed in wildland areas. For Butte County the communities of; Cohasset, Forest Ranch, Concow, Yankee Hill, Berry Creek and Forbestown are some of these examples. Wildland urban intermix communities are difficult to defend because they are sprawling communities over a large geographical area with mixed vegetation types throughout. This profile makes access, structure protection, and fire control difficult as fire can freely run through the community. Human impact on wildland areas has made it much more difficult to protect life and property during a wildland fire. This home construction has created a new fuel load within the wildland and shifted fire fighting tactics to life safety and structure protection.

**Topography and Fuels**

Butte County's foothills and mountains are carved up by several river drainages, the largest being the Feather River watershed which culminates in Lake Oroville. The Feather River watersheds include the West Branch of the North Fork east of Paradise, the North Fork separating Yankee Hill from Berry Creek, the Middle Fork separating Berry Creek and Feather Falls, and the South Fork separating Feather Falls from Forbestown and the La Porte Road communities. The northern part of Butte County is bisected by Butte Creek west of Paradise and Big Chico Creek watersheds which separate the Forest Ranch and Cohasset ridges.

The topography in these drainages differs significantly from the deep and very steep, heavily timbered drainages of the Feather River watershed to the moderately steep wide and generally brush filled Butte Creek and Chico Creek drainages. The drainages are oriented toward south and west aspects which lead to prolonged sun exposure and diminished fuel moisture in the wildland fuels.

Butte County is comprised of three general fuel types (grass, brush and timber). There are a number of factors such as fuel type and size, loading (tons/acre), arrangement (vertical & horizontal), chemical composition, and dead and live fuel moisture that contribute to the flammability characteristics of vegetation.

The valley and lower foothills, up to roughly 1000' elevation, comprise the grass fuel type. This fuel type is comprised of fine dead grasses and leaf litter which is the main carrier of fire. Fires in this fuel type react dramatically to changes in weather, particularly low relative humidity and high wind speed. Grassland fires can be very difficult to control during strong wind conditions and often spread over a large area quickly, threatening life and property.

The mid foothill and lower mountain areas, generally between 1000' and 2500' elevation, are dominated by brush. Fire in this fuel type can burn readily, especially later in the summer as live fuel moistures drop to critical levels. Brush fuel, unlike grass fuel, does not react readily to changes in relative humidity. Brush fires can be difficult to control under normal summer burning conditions when their fuel moistures reach critical levels and become very difficult to control on steep topography and when subjected to strong winds.

The mountainous areas above the 2000' to 2500' elevation make up the timber fuel type. Timber fires burn readily, especially if they occur in overstocked stands, in stands with a lot of down dead material, and/or later in the summer as live fuel moistures drop. Timber fires can be difficult to control under normal summer burning conditions, but they become very difficult to control on steep topography and when subjected to strong winds.

### **Weather and Fire History**

Butte County has a Mediterranean climate with cool, wet winters and hot dry summers. Precipitation is normally in the form of rain, ranging from approximately 20 to 80 inches per year, with snow in the higher elevations. The average annual high temperature for January is 55 degrees and for July is 96 degrees.

The predominant summer weather pattern includes high to very high temperatures, low humidity and light to moderate south winds associated with high pressure weather gradients. Occasionally during the summer, dry weather fronts will approach northern California bringing increased wind speeds from the south on approach, then changing direction to north winds after passing the area.

Each year, especially in the autumn months, north wind events bring high temperatures, very low humidity and strong winds. These north wind events usually produce *red flag warning* conditions and provide the highest potential for extreme fire behavior. With the fuels already at their driest moisture content, north winds can create a severe fire weather situation.

The Butte Unit has had a significant history of large fire occurrences during the past fifty years. Over 500,000 acres have burned during this time period. In 1990, the Campbell fire scorched 131,000 acres. The 1999 Butte Lightning Complex burned 33,000 acres. The Poe fire burned 8,333 acres and destroyed 50 homes in 2001. More recently, the Humboldt fire burned over 23,000 acres and 351 structures and the Butte Lightning Complex, destroyed or damaged over 100 homes and 59,000 acres in 2008. Wildfire history is a significant factor of the pre-fire management planning process. Identifying where fires have occurred can help managers determine the most beneficial locations for pre-fire management projects.

## **B: UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES**

The Butte Unit is geographically divided into seven battalions. Cooperative fire protection “Schedule A” agreements are maintained with the Butte County Fire Department, City of Biggs Fire Department, and City of Gridley Fire Department. During peak season preparedness, CAL FIRE/Butte County Fire Department resources include:

### State Resources

- 235 Personnel
- 10 Fire stations
- 15 Engines
- 2 Transport/bulldozers
- 1 OV-10A Air tactical plane
- 1 S-2T Air tanker
- 1 Camp (unstaffed)

### County/City Resources

- 11 Fire stations
- 12 Engines
- 1 Aerial ladder truck

A typical State engine company is staffed minimum 3.0 with one company officer and two firefighters. A typical County engine company is staffed minimum 2.0 with one company officer and one firefighter.

During periods of extreme fire danger, the lookouts on Bald Mountain (in northern Butte County) and Bloomer Hill (in southern Butte County) are typically staffed, aiding in early fire detection. During the past few years, community fundraisers have provided staffing for Sawmill Peak lookout (near Paradise) from late August through September.

The Butte County Fire Department is a combination fire department. The delivery of fire department resources is accomplished using both career and volunteer firefighters. Butte County has a strong and active volunteer firefighter program. Butte County Fire Department volunteer resources include:

- 16 Fire stations
- 17 Engines
- 16 Water tenders
- 14 Squads
- 2 Rescues
- 2 Breathing support units

### **Mutual/Automatic Aid Agreements**

The Butte Unit maintains automatic aid agreements with all fire agencies within Butte County and with many adjacent to the county. These agencies include:

#### Within Butte County:

- Chico Fire Department
- El Medio Fire Protection District
- Oroville Fire Department
- Paradise Fire Department
- Lassen National Forest
- Plumas National Forest

#### Adjacent to Butte County:

- Foothill Volunteer Fire Department
- Hamilton City Fire Department
- Loma Rica/Browns Valley Community Services District
- Sutter County Fire Department
- Tehama County Fire Department

**Dispatch Agreements**

The Butte Unit Emergency Command Center maintains agreements to provide dispatch, communication, command and control, and “pre-arrival” emergency medical services to the following agencies:

- Butte County Fire Department
- Biggs Fire Department
- Gridley Fire Department
- El Medio Fire Protection District
- Oroville Fire Department

**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:

**Plan Development Team:**

Organization	Representative (title)
Butte County Fire Safe Council	Calli-Jane Burch (Executive Director)
Berry Creek Fire Safe Council	Dennis Nay (Chairperson)
Feather Falls Fire Safe Council	Carol Dower (Chairperson)
Forbestown Fire Safe Council	Kathryn Weiss (Chairperson)
Paradise Fire Safe Council	Mark Haunschild (Chairperson)
Upper Ridge Coordinating Council	Darrel Wilson (Chairperson)
Yankee Hill Fire Safe Council	Brenda Rightmyer,(Managing Director)

**A: ASSETS AT RISK**

The primary purpose of the Butte Unit Fire Plan is to protect the wide range of assets found throughout the wildlands of Butte County. There are many assets at risk which include:

- soil erosion
- water quality
- hydroelectric power
- ecosystem health
- wildlife and fish habitat
- air quality
- rangeland
- timberland
- private structures
- public infrastructure
- recreation
- historic buildings
- scenic resources

Many of these assets are dependent upon each other, and when vegetation is destroyed, other assets may suffer greatly.

The *2010 Forest and Range Assessment* produced a variety of GIS based data layers identifying assets, threats and priority landscapes (combinations of assets and threats into priorities) that are available for use in implementing the Strategic Plan. These layers can be utilized to assess values at risk and to design mitigation activities to address these risks. Although some of these priority landscapes address more than just wildfire threat, typically wildfire is weighted as the more severe threat, and is the main driver in the analysis. In addition to the priority landscapes identified in the 2010 Assessment, RAVAR data provides three of the most critical Assets – private structures, public critical infrastructure, and HAZMAT. The RAVAR process leaves it up to each state to define and develop Tier 2 Assets. CAL FIRE will need to collaborate with the Forest Service and other agencies to fully develop the list of Tier 2 data, and decide exactly what constitutes each Asset. GIS tools are being developed to assist Unit personnel in tallying the Assets that may be protected if a project were implemented.

**B: COMMUNITIES AT RISK**

The Butte Unit has 23 nationally recognized communities at risk. The communities are listed below:

<b>Community</b>	<b>Federal Threat</b>	<b>Federally Regulated</b>
Bangor		
Berry Creek	Y	Y
Butte Creek	Y	Y
Butte Meadows	Y	Y
Chico		Y
Cohasset	Y	Y
Concow	Y	Y
Durham		Y
Feather Falls	Y	Y
Forest Ranch	Y	Y
Hurleton	Y	Y
Inskip	Y	Y
Jonesville	Y	Y
Magalia	Y	
Oroville		Y
Oroville East		Y
Palermo		Y
Paradise		Y
Pentz		Y
Robinson Mills	Y	Y
South Oroville		Y
Stirling City	Y	Y
Thermalito		

**A: FIRE PREVENTION**

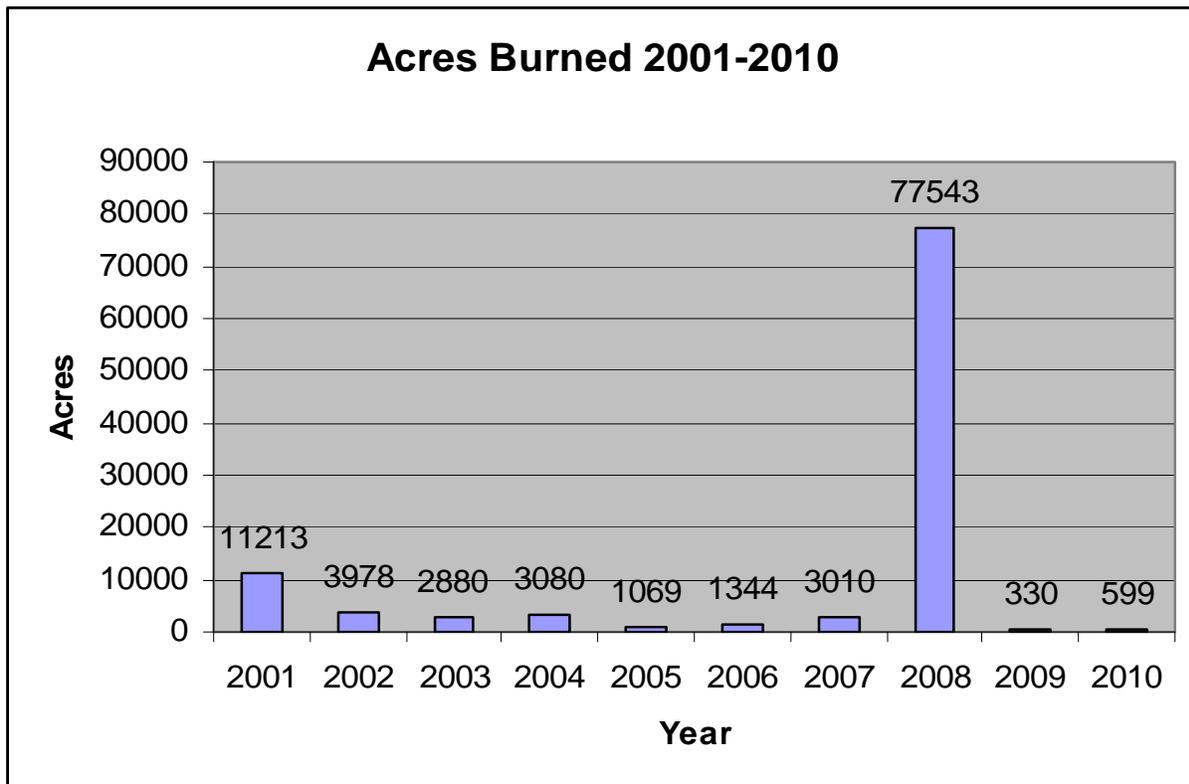
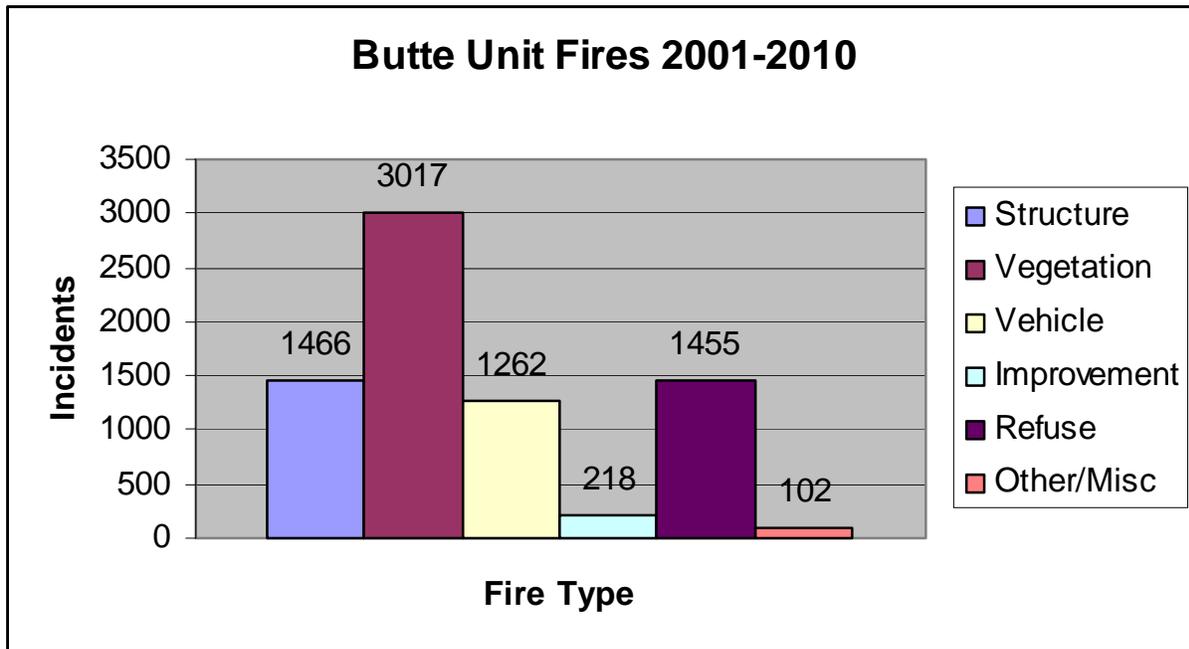
The Butte Unit Fire Prevention Bureau is responsible for public education, public information, fire hazard abatement, fire planning, life safety and fire investigations. Each of these programs is an important facet of a well-balanced fire prevention program.

The Fire Prevention Bureau supports the fire investigation needs of the Unit, assisting with complex fire investigations such as those involving fire fatalities, commercial structures, arson, or detailed follow-up investigative work. Through the fire investigation process, specific fire cause problems can be identified and will be addressed utilizing focused prevention efforts of education and enforcement programs. For example, over the past few years, fires have been caused by using machinery, such as lawn mowers, to cut standing dead grass. Mower blades striking rocks, mower exhaust igniting grass, mechanical failures and improper fueling techniques have all caused fires. To combat these preventable fires, the Department developed a brochure and a public service announcement (PSA) detailing the hazards of mowing dry grass during warm weather and the preventative measures for a landowner to utilize.

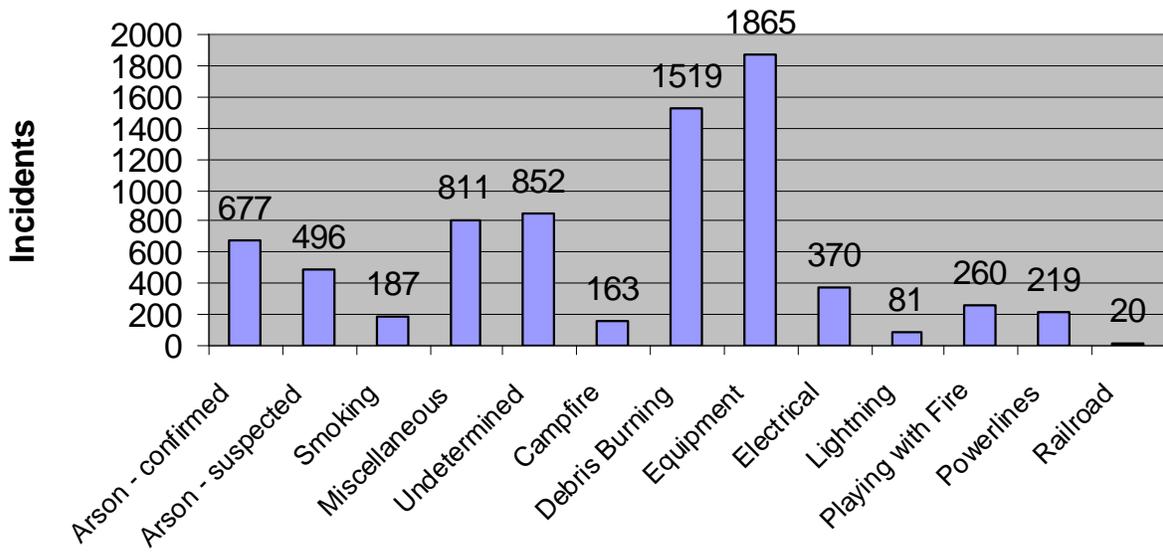
Priority projects are listed in Appendix A.

## Ignition Analysis

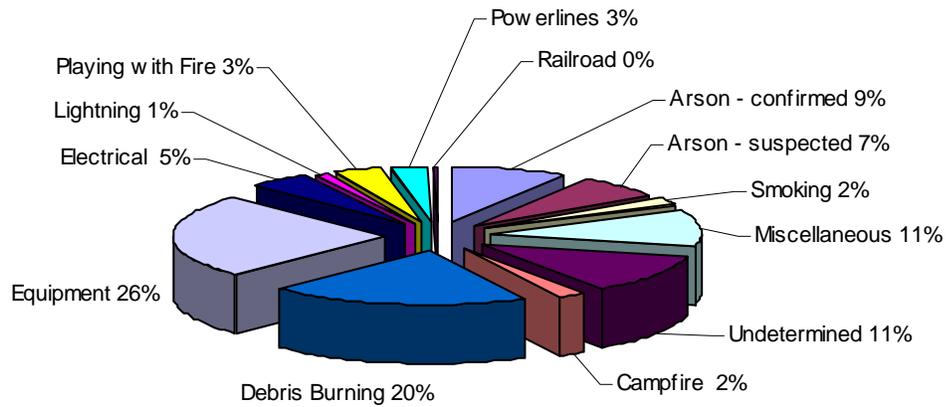
All fires within CAL FIRE/Butte County Fire Department jurisdiction are included in this analysis. The most common ignition cause in the Butte Unit during the past ten years has involved the use of equipment, at 26% of all ignitions. The second most common cause is debris burning at 20%. Most ignitions are associated with roads and areas of higher population density. Determining the cause of each ignition is an ongoing challenge. The causes of many fires can only be narrowed down to a few possibilities, therefore they are classified as 'undetermined'. Company officers attend training to hone their fire origin and cause investigation skills. The following charts illustrate the occurrence and cause of fires for previous ten years.



## Butte Unit Fire Causes 2001-2010



## Butte Unit Fire Causes 2001-2010

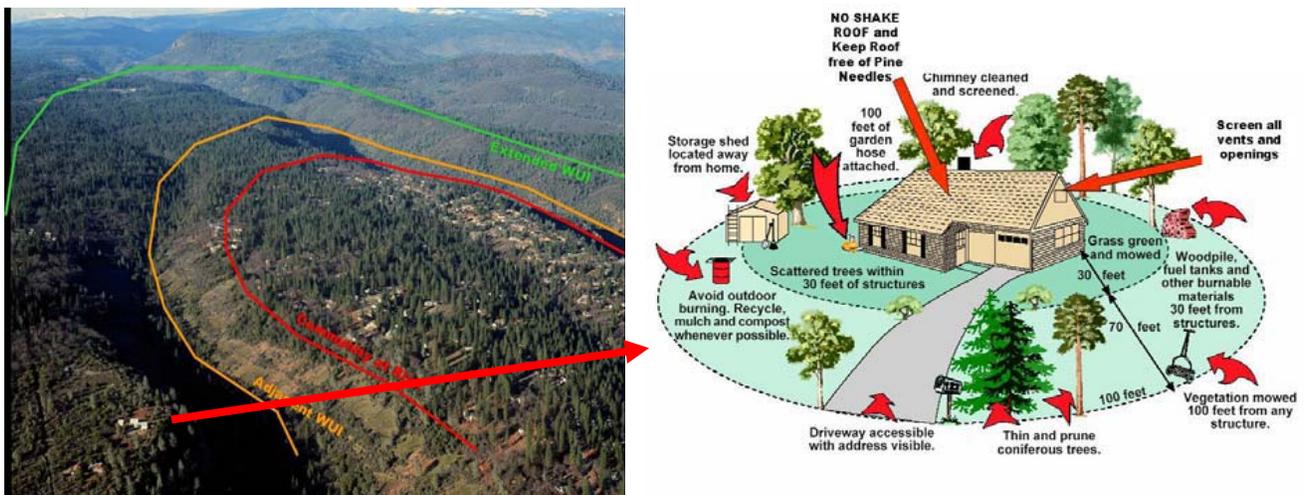


## ENGINEERING & STRUCTURE IGNITABILITY

One key component of the fire plan is the protection of structures during the event of a wildfire. This critical asset is one of the most difficult and costly to defend during a wildfire. Compliance with Public Resources Code (PRC) 4291 regulations gives the best opportunity for structural survivability during a large wildfire. However, it is not enough to have defensible space without giving careful thought and effort toward improving the home's resistance to structural ignitability. Structural ignitability is a term that describes a structure's susceptibility to catch fire during a wildland fire. Aiding a fire in this capacity would be any item allowing an ember to readily start a new fire. Many structures can be destroyed well in advance of the main fire. During firestorms, fires are often fanned by strong winds creating a blizzard of embers which blow through the air. These embers can land in a receptive fuel bed on or near a structure. Receptive fuels include materials such as needles and leaves that accumulate on, under and near a home, material stored on or near the home such as yard furniture or woodpiles, and some types of building materials. Building materials that lend themselves readily to "structural ignitability" include the obvious shake roof and the not so obvious deck material and interior support members in the attic or sub-floor space. When reducing a structure's ignitability, the mitigation measures are best accomplished by the individual homeowner.

The illustration below displays the importance of maintaining PRC 4291 clearance as it relates to location in relevance to the community at risk and a home's place in the wildland urban interface (WUI). In this illustration, the identified home falls within the Extended WUI. The location at the top of a ridge would only increase the danger of a structure succumbing to a wildland fire. A structure such as this would benefit greatly by adhering to PC 4291 compliance.

### Detailed Illustration of the Home Ignition Zone



### HOME IGNITION ZONE

- Fire resistant building construction
- Defensible space around the home 100 feet.

PRC 4291 regulations are enforced by fire station personnel and by focused inspection teams in pre-identified areas. Inspectors provide fire safety information and education materials to receptive landowners. If needed, re-inspections may be forwarded to an officer within the bureau for follow-up

law enforcement action. In 2010, over 3,400 defensible-space inspections were performed. Defensible space inspections remain a high priority fire prevention program in the Butte Unit.

Through a grant-funded project, the Butte County Fire Safe Council provides free assistance to residents, who meet certain income, age and ability requirements, to bring their residences into compliance with PRC 4291 regulations.

In January of 2008, new building codes were instituted to maintain high levels of fire and life safety. The California Building Commission has adopted these codes that include provisions for ignition resistant construction standards in the WUI. Updated fire hazard severity zones will be used by building officials to determine appropriate construction materials for new or remodeled buildings in the WUI. The California Building Code that references the building standards can be found in section 703A.1 to 705A.

PRC 4290 regulations establish minimum wildfire protection standards in conjunction with building, construction and development in State Responsibility Areas (SRA), providing for emergency access, signing and building numbering, and vegetation modification. These regulations became effective September 1, 1991.

In coordination with the Butte County Department of Development Services, the Deputy Fire Marshal, is responsible for enforcing Butte County Improvement Standards and California Fire Code on all use permits, minor use permits and commercial building permits countywide. The Deputy Fire Marshal enforces PRC 4290, PRC 4291, Butte County Improvement Standards, and the California Fire Code, on all new building construction (commercial and residential) within Butte County. Installation of sprinkler systems in one and two family dwellings and manufactured homes is enforced in accordance with National Fire Protection Association (NFPA) standard 13D and California Fire Code Chapter 9. Fire Protection planning is reviewed at the subdivision and parcel map level and typically implemented at the development stages of a project.

## **INFORMATION AND EDUCATION**

The Information and Education programs in the Butte Unit are coordinated efforts, supported by the commitment of the Fire Prevention Bureau, Volunteers in Prevention (VIP's), fire station personnel, Butte County Fire Chief's Association, and the Butte County Sherriff's Office.

### **Information**

The public information function is covered 24 hours per day by Incident Command System (ICS) qualified Public Information Officers (PIO's) and by the Emergency Command Center personnel. The overall goal of this function is to keep our customers, the citizens of Butte County, informed by providing timely and accurate information to the varied media market in the northern Sacramento Valley.

Information Call Center and Joint Information Center training is conducted in cooperation with multiple agencies to foster inter-agency relations and to expand the base of qualified call-taker personnel. The Butte Unit also has approximately 20 VIP's that are trained and experienced call-takers. These VIP's are vital to the information function during a significant incident.

In addition to CAL FIRE/Butte County Fire Department specific public information, The Butte County Fire Chief's Association PIO's, with representatives from CAL FIRE/Butte County Fire Department, Chico Fire Department, El Medio Fire Protection District, Oroville Fire Department, Paradise Fire Department and the U.S. Forest Service meet bi-monthly to plan joint information releases that cover message topics including: Summer Safety and Heightened Fire Danger, Changing Smoke Detector Batteries, Holiday Home Safety and Fall Home Heating Safety.

### **Education**

Annually, thousands of Butte County residents, both children and adults, attend dozens of events including school programs, fair exhibits, and community events. Presentations that cover many topics, including Stop, Drop and Roll, Home Safety, Fire Safety, and Defensible Space, are provided.

The most intricate fire prevention education program taught in the Butte Unit is the Fire PALS (Fire Prevention and Life Safety) program. Fire PALS is an elementary school program produced in cooperation with the agencies from the Butte County Fire Chief's Association and the Butte County Sherriff's Office. Lessons include fire safety as well as life safety, including home exit plans, bicycle helmet use and firearm safety. Fire PALS presentations remain a high priority education program.

Contributing factors to the success of public education in the Butte Unit are the commitment of the VIP's, cooperation with multiple agencies, and community involvement by fire station personnel. The Butte County Fire Chief's Association, Butte County Fire Safe Council and the Butte County Sherriff's Office have all partnered with CAL FIRE to coordinate and deliver consistent safety programs and messages. Approximately 90-percent of the hours dedicated to education each year are provided by fire station personnel. At community events station personnel bring a very important "personal" touch to the messages that are taught, which underscores our department's commitment to customer service.

## **B: VEGETATION MANAGEMENT**

The Butte Unit Resource Management staff administers numerous programs which support the Strategic Fire Plan.

### **Fuels Modification**

- Forest Practice – CAL FIRE Resource Management staff is responsible to enforce the California Forest Practice Act and Forest Practice Rules for timber operations on private timberlands. This enforcement process starts with the initial project review, and continues through the harvesting of timber to final completion. The treatment of logging slash to reduce the overall fuel hazard within timberland areas must comply with the rules and regulations, which generally apply around structures and along roads. During the review of commercial timber harvesting plans CAL FIRE staff has opportunities to provide written recommendations to project proponents designed to facilitate a positive change in the methods in which timber operations are conducted. Our foresters continually look for ways to improve fire safety, hazard reduction, public safety, vehicular access, water sources, timing of operations, wildlife benefits, and other site specific mitigating measures necessary to support the Strategic Plan.
- Vegetation Management Program (VMP) - The Vegetation Management Program (VMP) is a cost-share program that utilizes prescribed fire, and mechanical means, for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. The use of prescribed fire models natural processes, restores fire to its historic role in wildland ecosystems, and provides significant fire hazard reduction benefits that enhance public and firefighter safety.

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

- California Forest Improvement Program (CFIP) – This is a state cost share program to assist private timberland owners in the management of their forest lands. Eligible practices include reforestation projects (funding up to 90% on lands damaged by wildfire) and fuel treatments accomplished through thinning, pruning, and follow-up fuel reduction.
- Grant funded fuel treatments – These projects generally involve the construction or maintenance of fuel breaks in the Wildland-Urban Interface. Proposition 40 funded dollars were used extensively within Butte County to construct fuel breaks and accomplish other fuels reduction projects. Three projects funded under the CNR (CAL FIRE Northern Region) Hazardous Fuels Treatment Grant created shaded fuel breaks in strategic locations near communities at risk within the Butte Unit.

## **Environmental Review**

The California Environmental Quality Act (CEQA) requires public agencies to consider actions on projects that may directly or indirectly result in a physical change in the environment. When CAL FIRE funds, approves, permits, facilitates or carries out a project as lead agency it is obligated to ensure that the appropriate steps are taken in complying with CEQA by preparing an environmental review. On the Butte Unit, this review is conducted by the Division Chief, Resource Management, who is also the Unit Forester and Unit Environmental Coordinator. Review conducted by the Unit Forester/Environmental Coordinator ensures that CAL FIRE's statutory responsibilities within the Butte Unit are addressed in the project planning phase. Examples of CAL FIRE projects in Butte include facility construction, repairs, maintenance, and fire hazard clearance. Fuel reduction projects include shaded fuel breaks, prescribed burns, and live fire training burns.

## **Fire Suppression Repair**

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

The Resource Management staff provides suppression repair duties in the Unit. Their natural resource background, training and knowledge of both fire control issues and methods of addressing complex environmental issues greatly support the Department's Strategic Plan. They work with landowners and other stakeholders to provide a rapid post-fire assessment of burned areas. They have many private and agency contacts, and effectively utilize available resources, including CAL FIRE hand crews, to accomplish the restoration and protection activities.

## **Forest and Range Health**

The CAL FIRE mission emphasizes management and protection of California's natural resources. The Resource Management Program is an integral part of that responsibility. Management of overstocked timber stands is necessary to achieve the goals of restoring, enhancing and protecting California's natural resources. Healthy forests are more productive, are more resistant to diseases that weaken trees or cause mortality, and generally are at lower risk to catastrophic wildfire. Restoring rangeland through prescribed burning of non-native noxious weeds, forbs and grasses promotes increased range health, which has environmental and socio-economic benefits.

**A: DIVISION / BATTALION / PROGRAM PLANS****Battalion One** – Paradise, Magalia, Stirling City**Collaborators**

CAL FIRE / Butte County Fire Department Battalion Chief Chris Haile  
Town of Paradise Fire Department  
Town of Paradise Fire Safe Council  
The Upper Ridge Coordinating Council

**Wildland Urban Interface Situation**

Battalion One encompasses two large communities, Paradise and Paradise Pines (Magalia), and the smaller community of Stirling City. The Town of Paradise and community of Paradise Pines are more characteristic of an urban interface environment where wildland abruptly adjoins high density housing. Both communities are relatively large and densely populated, comprised substantially of an elderly population. Other areas within the battalion can be characterized as intermix areas, where houses are scattered amongst the wildland, such as those south of the Town of Paradise and north and east of the community of Paradise Pines.

Emergency access into and out of both communities is a real concern, due to limited, narrow roads and the expectation of large numbers of citizens trying to evacuate simultaneously. This is especially true in Magalia where the population density is very high and there is only one arterial road, the Skyway, leading in to and out of the community. This is further complicated by a stretch of the roadway that crosses Magalia Reservoir. To mitigate the traffic issues during an evacuation, several miles of the Skyway has been reconstructed and paved from Stirling City to Butte Meadows as a possible additional evacuation route. Evacuation plans, have also been created and distributed to the public and service providers in cooperation with the Butte County Fire Safe Council, Town of Paradise, and Butte County Office of Emergency Management.

**Fuels**

There is a wide range of vegetation types found within the Paradise Ridge. The vegetation types range from grass, chaparral brush mix, oak woodland and mixed-conifer timber. The lower elevations of Paradise have an overstory of ponderosa pine/California black oak mix, with an understory chaparral brush component consisting primarily of manzanita, ceanothus, Scotch broom, and poisonoak. The upper elevations of Magalia and Stirling City have a mixed-conifer timber overstory including Douglas-fir, ponderosa pine, sugar pine, white fir and incense-cedar. Hardwood trees in the understory include California black oak, tanoak, canyon live oak, bigleaf maple and California laurel. There is also an understory chaparral brush component consisting primarily of manzanita, deer brush, ceanothus, Scotch broom and poisonoak. Some areas of undeveloped lots or greenbelt areas have very dense brush which can affect fire behavior.

All these vegetation types provide fire control problems because of overstocked and overgrown conditions due to years of successful fire suppression. The potential for a large, fuel driven fire is very real when fuel moisture conditions are conducive to burning. Fire control will be very difficult due to high fire intensities leading to fire behavior problems such as long-range spotting, high rates of spread and long flame lengths. Direct attack will be impossible under these burning conditions for safety reasons. An indirect attack with a defensive approach is the most likely scenario for fire control.

## **Topography**

The most prominent topographic features within the battalion are the numerous steep canyons dispersed throughout the area. The two largest of these canyons, and most influential on fire behavior, are Butte Creek Canyon and West Branch Feather River Canyon. Butte Creek Canyon borders Paradise and Magalia to the west, while West Branch Feather River Canyon borders both towns and Stirling City to the east. Less prominent canyons, but still very influential on fire behavior, are located along the south border of Paradise. The smaller canyons run north-south into town limits, but substantially decrease in size by the time they enter Paradise. These canyons include Nance, Hamlin, Berry, Clear Creek and Dry Creek.

Gently sloping, broad ridges make up most of the Paradise, Magalia and Stirling City residential areas. There are some smaller canyons entering both Paradise and Magalia. The canyons entering Magalia are Little Butte Creek and Middle Butte Creek. These canyons are relatively small where they enter Magalia. However, a well established fire starting in either canyon would provide a substantial resistance to control. There are also numerous tributary drainages to all of the canyons entering Paradise and Magalia, which can substantially influence fire behavior.

## **Weather and Fire History**

Butte County has a Mediterranean climate with cool, wet winters and hot dry summers. Precipitation is normally in the form of rain, ranging from approximately 20 to 80 inches per year, with snow in the higher elevations. The average annual high temperature for January is 55 degrees and for July is 96 degrees.

The predominant summer weather pattern includes high to very high temperatures, low humidity and light to moderate south winds associated with high pressure weather gradients. Occasionally during the summer, dry weather fronts will approach northern California bringing increased wind speeds from the south on approach, then changing direction to north winds after passing the area. North wind events usually produce *red flag warning* conditions and provide the highest potential for extreme fire behavior.

Lightning is cyclic in this area and is generally a minor occurrence. However, there have been lightning storms that have started numerous, damaging fires. Recent examples of this occurred in August of 1999 and June 2008 when fires started by lightning burned 59,000 acres in Butte County.

Historically, extreme weather conditions have not been the primary factor in large fires within the Paradise and Magalia area. However, there is a huge potential for weather to be a strong influence on fire behavior and should not be discounted. In June 2008, the wind-driven Humboldt fire burned over 23,000 acres and 351 structures.

## **Battalion Priorities**

- PRC 4291 compliance inspections
- School fire prevention education presentations
- Shaded fuel break projects along primary community escape routes - Skyway
- Shaded fuel break projects adjacent to Magalia / Paradise Pines

## **Battalion Two – Cohasset, Forest Ranch, Butte Meadows**

### **Collaborators**

CAL FIRE / Butte County Fire Department Battalion Chief Dan Summerville  
Cohasset Community Association  
Buzztail Community Services District  
Big Chico Creek Ecological Reserve  
Forest Ranch Preservation Alliance  
Forest Ranch Fire Safe Council  
Butte Meadows/Jonesville Community Association  
Sierra Pacific Industries  
Lassen National Forest

### **Wildland Urban Interface Situation**

Battalion Two encompasses the Chico foothills, Lower Butte Creek Canyon, and the Communities of Cohasset, Forest Ranch, Butte Meadows/Jonesville, and the Hwy 32 corridor from the Chico city limits to the Tehama County line. With the exception of the core area of the communities of Forest Ranch and Cohasset, which are similar to an urban interface environment, the communities in the battalion can be characterized as intermix areas. Residences are scattered amongst the wildlands, which makes the 100' clearance around structures vital, as these residences are not as densely located compared to a more urban interface environment. Protecting these structures are more challenging to protect due to a lack of resources. The Cohasset area also is faced with a 'one way in/one way out' evacuation concern.

Steep inaccessible terrain combined with the previously mentioned light, flashy fuels at lower elevations and heavy fuel loading at higher elevations dominate the Fire Planning Area. Fires that start in this area immediately threaten high value/high risk exposures and are often complicated by the challenges of wildland urban interface firefighting.

### **Fuels**

There is a wide range of vegetation types found within the Battalion 2 Planning area. The vegetation types range from grass, chaparral brush mix, oak woodland, and timber.

Vegetation found within the communities of Cohasset and Forest Ranch is predominantly timber and associated brush. The timber type is primarily ponderosa pine/California black oak mix, with an understory chaparral brush component consisting primarily of manzanita, deerbrush, ceanothus, scotch broom, and poisonoak. Some areas of undeveloped lots or greenbelt areas have very dense brush which can affect fire behavior.

The community of Butte Meadows/Jonesville has a mixed-conifer timber type. Species of conifer trees in the overstory include Douglas-fir, ponderosa pine, sugar pine, white fir and incense-cedar. Hardwood trees in the understory include California black oak, tanoak, canyon live oak, bigleaf maple and California laurel. There is also an understory chaparral brush component consisting primarily of manzanita, ceanothus, Scotch broom, and poisonoak.

Vegetation found in the Chico foothills and in the canyons of lower Butte Creek, Little Chico Creek and Big Chico Creek range from grass and brush to oak woodland. Some species of trees in this area include gray pine, blue oak, California black oak and California laurel. Brush species include toyon, western redbud, poisonoak and ceanothus.

All these vegetation types provide fire control problems because of overstocked and overgrown conditions due to years of successful fire suppression. The potential for a large, fuel driven fire is

very real when fuel moisture conditions are conducive to burning. Fire control will be very difficult due to high fire intensities leading to fire behavior problems such as long-range spotting, high rates of spread and long flame lengths. Direct attack will be impossible under these burning conditions for safety reasons. An indirect attack with a defensive approach is the most likely scenario for fire control.

### **Topography**

Steep canyons and drainages are the dominant topographic feature in the Cohasset Forest Ranch Ridge Fire Planning Area. Typically these canyons/drainages have limited access for fire apparatus and have few options for control line placement which may allow fires to become well established and very resistive to control efforts.

### **Weather and Fire History**

Butte County has a Mediterranean climate with cool, wet winters and hot dry summers. Precipitation is normally in the form of rain, ranging from approximately 20 to 80 inches per year, with snow in the higher elevations. The average annual high temperature for January is 55 degrees and for July is 96 degrees.

The predominant summer weather pattern includes high to very high temperatures, low humidity and light to moderate south winds associated with high pressure weather gradients. Occasionally during the summer, dry weather fronts will approach northern California bringing increased wind speeds from the south on approach, then changing direction to north winds after passing the area. North wind events usually produce *red flag warning* conditions and provide the highest potential for extreme fire behavior.

Lightning is cyclic in this area and is generally a minor occurrence. However, there have been lightning storms in the past that have started numerous, damaging fires. An example of this occurred in August of 1999 when 47 fires started by lightning burned over 33,000 acres across Butte County, the majority of which burned in Battalion 2.

### **Battalion Priorities**

- PRC 4291 compliance inspections – the number of structures spread out throughout the area make this of vital importance
- Visible address signs – “help us find you”
- Shaded fuel break projects along primary community escape routes and firefighter ingress/egress routes.
- Sierra Pacific Industries H-line VMP

## **Battalion Three – Durham, Richvale, Yankee Hill**

### **Collaborators**

CAL FIRE / Butte County Fire Department Battalion Chief Jeff Harter  
Yankee Hill / Concow Fire Safe Council

### **Wildland Urban Interface Situation**

Battalion Three includes the communities of Butte Valley, Butte Community College, Durham, Richvale, Nelson, Dayton, Concow and Yankee Hill. It consists of about 80,000 acres of which the U.S. Government, PG&E, Sierra Pacific Industries and other timber companies and local landowners control the larger tracts of land. There are extensive hydroelectric power facilities and transmission lines, Union Pacific railroad and a State scenic route (Highway 70) in the Feather River Canyon. The Thermalito Irrigation District owns Concow Lake and much of the land surrounding it. The greatest concentration of population is on developed parcels along Highway 70, Concow Lake and the Big Bend area. Many areas have narrow access routes and inadequate defensible space. Another significant problem is the lack of water supply for fire protection with no pressurized community fire hydrants and very few large storage tanks. An evacuation plan and a community information radio station were created in cooperation with the Yankee Hill Fire Safe Council.

### **Fuels**

The local responsibility area (LRA) which is west of Highway 99 is primarily agricultural with orchards, rice and field crops. There is a diminishing amount of grass and valley oak, especially near the Sacramento River and the major creeks and sloughs. One exception to this is the Llano Seco Ranch where various government and private agencies are restoring parts of the ranch to native habitat.

The State Responsibility Area (SRA) which is east of Highway 99 is primarily oak woodland and grass with some brush. As the terrain continues up Highway 70 along the north fork of the Feather River Canyon, the fuel type transitions from grass-oak woodland to brush then to mixed conifers and black oak. Below 1000' elevation, annual grasses and oak woodland with blue and valley oak cover the lower foothills. At the 1000' elevation brush species including manzanita, chaparral, toyon and white thorn, appear and grow especially thick in the drainages. Between 2000' and 2500', mixed-conifer, ponderosa pine and black oak appear in the overstory.

### **Topography**

The elevations range from 200' to 4300'. The area west of Highway 99 is relatively flat agricultural orchards and crops. To the east of Highway 99, the Feather River drainages and their tributaries lend towards steep slopes and chimneys. This also contributes to strong and erratic wind patterns. Forest conditions are highly variable in the area.

### **Weather and Fire History**

Butte County has a Mediterranean climate with cool, wet winters and hot dry summers. Precipitation is normally in the form of rain, ranging from approximately 20 to 80 inches per year, with snow in the higher elevations. The average annual high temperature for January is 55 degrees and for July is 96 degrees.

The predominant summer weather pattern includes high to very high temperatures, low humidity and light to moderate south winds associated with high pressure weather gradients. Occasionally during the summer, dry weather fronts will approach northern California bringing increased wind speeds from the south on approach, then changing direction to north winds after passing the area. North wind events usually produce *red flag warning* conditions and provide the highest potential for extreme fire behavior.

The steep drainages that exist from the Butte Valley into the Plumas National Forest contribute to strong and erratic wind patterns. In 2008 there was a lightning event that caused 15 to 21 fires (many of which burned together), this was the second significant lightning event in ten years.

The Yankee Hill – Concow area has a history of large wildfires. The Camp fire, which was part of the Butte Lightning Complex (2008), destroyed or damaged over 100 homes and accounted for a large portion of the 59,000 acres consumed during the siege; the Poe fire (2001) burned 8,333 acres and destroyed 50 homes; the Seventy fire (2001) burned 1,711 acres; the Concow fire (2000) burned 1,845 acres, killed one civilian, injured several firefighters and destroyed 16 homes; and a lightning event in 1999 burned tens of thousands of acres on the east side of Highway 70 north of Pulga.

### **Battalion Priorities**

- PRC 4291 compliance inspections - the number of structures spread out throughout the area make this of vital importance
- Visible address signs – “help us find you”
- School fire prevention education presentations
- Shaded fuel break projects along primary community escape routes and firefighter ingress/egress routes.
- Sierra Pacific Industries V-line VMP

## **Battalion Four – Chico foothills and valley (north)**

### **Collaborators**

CAL FIRE / Butte County Fire Department Battalion Chief Greg McFadden  
City of Chico Fire Department

### **Wildland Urban Interface Situation**

Battalion Four encompasses an area of approximately 170 square miles with a population of about 50,000 people in the northwestern corner of Butte County, including the greater unincorporated area surrounding the City of Chico. CAL FIRE personnel staff three Butte County Fire Department fire stations that make up “Battalion Four” which maintains automatic aid agreements with the City of Chico, Tehama County and Hamilton City Fire Department in Glenn County. Critical infrastructure includes a Union Pacific Railroad main line, an underground petroleum pipeline, Highway 99 and Highway 32 as well as the Sacramento River. The Chico Foothills have seen a substantial increase in home development. Prescription emphasis is placed on public education and enforcement.

### **Fuels**

The valley area contains a large agricultural component. The Chico foothills mainly consist of light to medium fuels such as annual grasses and chaparral brush mix. Combined with the topography and recent structural development, these fuels create a fire suppression concern due to their ability to quickly increase in size.

### **Topography**

The valley area is predominantly flat. The Chico foothills rise at approximately a 15% slope with a generally western aspect. The Butte Creek, Little Chico Creek and Big Chico Creek watercourses/drainages run through the battalion.

### **Weather and Fire History**

The valley (north) and Chico foothills do not exhibit any substantial differences to the Unit-wide weather pattern. Since the battalion lies in the lower elevations, annual rainfall is approximately 26” per year. The predominant summer weather pattern includes high to very high temperatures (above 100-degrees F), low humidity and light to moderate south winds associated with high pressure weather gradients. Occasionally during the summer, dry weather fronts will approach northern California bringing increased wind speeds from the south on approach, then changing direction to north winds after passing the area.

North wind events usually produce red flag warning conditions and provide the highest potential for extreme fire behavior. Wind is the primary factor in large fire spread in the battalion. Large fires in Battalion Four include the Skyway fire which burned 425 acres in 2006 and the Humboldt fire which burned over 23,000 acres in 2008.

### **Battalion Priorities**

- School fire prevention education presentations
- PRC 4291 compliance inspections

## **Battalion Five – Bangor, Berry Creek, Forbestown, Feather Falls**

### **Collaborators**

CAL FIRE / Butte County Fire Department Battalion Chief Mike Shorrock  
Berry Creek Fire Safe Council  
Forbestown Fire Safe Council  
Feather Falls Fire Safe Council  
Plumas National Forest

### **Wildland Urban Interface Situation**

Battalion Five covers the areas of Berry Creek, Brush Creek, Mountain House, Feather Falls, Forbestown, Clipper Mills and several Native American rancherias. There are also significant land holdings of Sierra Pacific Industries and State and Federal lands. Battalion Five spans three prominent ridges.

The community of Berry Creek is the most compact but still qualifies as a wildland urban *intermix*. Access and the remote location create a timely response concern in the event of a fast moving fire. The highest concentrations of structures are within the Lake Madrone development and along Bald Rock Road. The community also houses the summer retreat Camp Okizu. An evacuation plan has been created for the community.

The community of Feather Falls, on Lumpkin Ridge, is also a wildland urban intermix. Access/egress is via Lumpkin Road. Traffic from logging trucks and summer recreational travel increases seasonally. Many residents are located on remote roads that are ill-maintained and address identification is often limited. An evacuation plan has been created for the community.

Forbestown Ridge includes the community of Forbestown. Forbestown is near the edge of Butte and Yuba County. Steep mountainous roads create an increase in emergency response times. The Butte County Fire Department maintains automatic aid agreements with the Foothill Fire Protection District and Loma Rica/Brownsville Community Services District, both in Yuba County.

The communities have active fire safe councils that are involved in evacuation planning, fuel hazard reduction and outreach and education.

### **Fuels**

Battalion Five consists of a wide range of vegetation types. Below 1000' elevation, annual grasses and oak woodland with blue and valley oak cover the lower foothills. At the 1000' elevation, brush species, including manzanita, chaparral, toyon and white thorn, appear and grow especially thick in the drainages. Between 2000' and 2500' second growth ponderosa pine/ black oak appear in the overstory, and above 2500' there is a mixed-conifer overstory.

### **Topography**

Elevation ranges from 400 feet to over 4,000 feet. Prominent topographical features in the planning area are the numerous steep canyons dispersed throughout the area. The two main canyons form the Middle Fork and South Fork of Lake Oroville. The area contours for numerous tributaries including Oregon Gulch, Cedar Ravine, Jack Hill Ravine and Forbestown Ravine to name a few. The remote nature of the area makes access difficult along these areas.

### **Weather and Fire History**

The predominant summer weather pattern includes high to very high temperatures, low humidity and light to moderate south winds associated with high pressure weather gradients. Occasionally during the summer, dry weather fronts will approach northern California bringing increased wind

speeds from the south on approach, then changing direction to north winds after passing the area. North wind events usually produce *red flag warning* conditions and provide the highest potential for extreme fire behavior. To the east, areas of the adjacent Plumas Forest generate weather patterns that produce thunderstorms and dry lightning throughout the fire season.

Battalion Five has had several large fires occur in recent history. These fires include the South and Union fires that were part of the 1999 Butte Lightning Complex, the Frey fire that burned 4,000 acres of SRA in 2008 and the Craig fire that burned 2,001 acres in 2008.

### **Battalion Priorities**

- PRC 4291 compliance inspections - the number of structures spread out throughout the area make this of vital importance
- Visible address signs – “help us find you”
- Community outreach/education at community events
- Forbestown Road Shaded Fuel Break
- Zink Road Shaded Fuel Break

## **Battalion Six – Oroville, Palermo, Kelly Ridge**

### **Collaborators**

CAL FIRE / Butte County Fire Department Battalion Chief Russ Fowler  
City of Oroville Fire Department  
El Medio Fire Protection District  
Department of Fish & Game - Oroville Wildlife Area  
Department of Parks & Recreation  
Department of Water Resources

### **Wildland Urban Interface Situation**

Battalion Six includes the communities of Cherokee, Oregon City, Thermalito, Kelly Ridge, WP Addition, Wyandotte, Copley Acres, and Palermo. The City of Oroville and the El Medio Fire Protection District lie within the planning area boundaries. Automatic aid agreements are maintained with the City of Oroville Fire Department and the El Medio Fire Protection District. There is extensive State Parkland and Department of Water Resources owned land throughout the area. There are two Indian Rancherias within the planning area, both with gaming casinos and tribal communities (Mooretown and Berry Creek). CAL FIRE provides wildland fire protection to the Native American rancherias in the State Responsibility Area through our statewide agreement with the Bureau of Indian Affairs. The main influencing factor for vegetation fires is light flashy fuels mixed in with numerous structures.

The City of Oroville and the El Medio Fire Protection District both have unique fire safety planning areas within their jurisdictions. The City of Oroville has large areas of wildland urban interface. The City has a weed abatement program to help alleviate the risk of wildfire to some of these occupancies. The El Medio Fire District has large areas of light flashy fuels, which have a yearly tendency to become ignited and spread rapidly into surrounding homes and businesses. The District attempts to mitigate this by conducting fuel hazard reduction burns in typically fire prone areas. However, this measure only treats a small portion of a relatively large area of the District.

Critical infrastructure within this planning area includes the Department of Water Resources State Water Project (Oroville Dam/ Hyatt powerhouse, Diversion Dam/ power plant, Thermalito Powerhouse), Pacific Gas and Electric Company's high-voltage transmission infrastructure (major power grid), Union Pacific railroad's all-weather transcontinental route, and South Feather Water and Power's hydro-generating and water distribution infrastructure.

Pre-fire prescription emphasis is in education and enforcement (hazard reduction). The battalion, in cooperation with the Butte Fire Safe Council, was a participant in "Fire in the Foothills" – a fire safe community outreach program to reach fire prone residents in the Eastern foothills of Oroville. Fire fighters maintain strong community ties, enhancing fire safety and prevention, by actively attending community meetings and events as well as participating in school education programs.

### **Fuels**

The southern portion of the fire planning area is predominately grass land. As the area extends north and east the fuel type's change with the increased slope in topography. Fuel types increase in size and type to include grass, oak woodland, and manzanita, chaparral, toyon and white thorn. The 11,869 acre Oroville Wildlife Area is primarily a riparian woodland habitat along the Feather River and grasslands around the Thermalito Afterbay.

### **Topography**

The southern area is predominately flat. As the area extends into the adjoining planning area, the slope increases (up to 25%), leading into the other planning areas. The steepest slopes can be found

leading up the Cherokee Ravine and the Oregon Gulch drainage. As the topography extends east the slope is not as severe but the area is scattered with multi- directional drainages and access is problematic due to sporadic road placement.

### **Weather**

Table Mountain – East Oroville does not exhibit any substantial differences to the Unit wide weather pattern. Nightly drainage winds develop on a regular basis in the eastern foothills, primarily below the Oroville Dam

### **Fire History**

Significant fire history (since 1990) includes wind driven grass/riparian fires and topographic driven brush/WUI fires (WUI listed if structures destroyed).

Brush Fires:	Oregon Fire, 2004, 1,955 acres, WUI, Oregon Gulch Rd Canal Fire, 1989, 595 acres, WUI, East Oroville/Mt Ida Rd Table Fire, 1994, 1,132 acres, Schrimmer Ravine/Table Mtn
Grass Fires:	Wild Fire, 1990, 257 acres, WUI, Oroville Wildlife Area Larkin Fire, 2001, 627 acres, Oroville Wildlife Area Larkin Fire, 2000, 487 acres, Oroville Wildlife Area Seventy Fire, 2003, 608 acres, WUI, Hwy 70/Palermo Ophir Fire, 2008, 959 acres, WUI, Hwy 70/Palermo 149 Fire, 1995, 2,140 acres, Hwy 149/Cottonwood Nelson Fire, 1993, 744 acres, Nelson Rd/Campbell Hills

### **Battalion Priorities**

- Increase awareness within the planning area by continuing education on the importance of defensible space around structures, importance of exterior construction materials, ingress and egress, visibility/address, and access to water supplies.
- Conduct Vegetation Management Program activities in the Oroville Wildlife Area and the Lake Oroville State Park System.
- Reduce debris burning caused vegetation fires by education and enforcement

## **Battalion Seven – Biggs, Gridley**

### **Collaborators**

CAL FIRE / Butte County Fire Department Battalion Chief Mike Brown  
CAL FIRE / Gridley Fire Department Fire Captain Skip Sannar  
Gray Lodge Wildlife Area (Department of Fish and Game)  
Cities of Biggs and Gridley  
Sutter County Fire Department

### **Wildland Urban Interface Situation**

The Valley (South) encompasses the southwestern corner of Butte County and includes the cities of Biggs and Gridley, and the unincorporated communities of Honcut and Manzanita. An automatic aid agreement is maintained and with Sutter County Fire Department/Live Oak.

The Gray Lodge Wildlife area is an off map critical infrastructure area within the unit. The area has benefited from an aggressive Vegetation Management Program.

Pre-fire prescription emphasis is placed on education and enforcement, especially municipal weed abatement. Firefighters seek to establish strong ties to the community through the maintenance of pre-fire plans, smoke detector installation, third grade education programs and other community education events.

The greatest risk of fire loss to the Valley (south) is within the cities of Biggs and Gridley and the concentrated areas affecting agricultural processing plants, storage areas and crop acreage. Also, fires that start near the river bottom may spread to adjacent fire sheds.

### **Fuels**

The east side of the Valley (south) is a transition zone at the edge of the Sacramento Valley and is bisected by the State Responsibility Area and Local Responsibility Area line. This “front” is characterized by grass fuels on the flat valley edge and blue oak woodland in the rolling foothills. The west side is the Upper Butte Sink of Butte Creek, an important flyway, fishery and wildlife habitat characterized by seasonal marshes, riparian habitat and a heavy loading of fine fuels. The two cities are surrounded by intensely farmed land. The Feather River bisects the battalion flowing from north to south. The river bottom is a ten thousand-acre hardwood forest with its own unique fire regime.

### **Topography**

The Valley (South) is predominantly flat. Elevation ranges from 50’ to 110’. The river bottom contributes the only unique feature to the area.

### **Weather**

The Valley (south) does not exhibit any substantial differences to the unit-wide weather pattern. The predominant summer weather pattern includes high to very high temperatures, low humidity and light to moderate south winds associated with high pressure weather gradients. Occasionally during the summer, dry weather fronts will approach northern California bringing increased wind speeds from the south on approach, then changing direction to north winds after passing the area. North wind events usually produce red flag warning conditions and provide the highest potential for extreme fire behavior.

### **Battalion Priorities**

- Municipal weed abatement
- School fire prevention education presentations

- Red Suspenders Day – community outreach event
- Butte County Fair – Fire Resistant Building Materials Demonstration
- Butte County Fair – Fire Resistant Landscaping Demonstration

## **Training and Safety Bureau**

### **Purpose Statement**

The Butte Unit Training and Safety Bureau is responsible for the delivery and documentation of training for all career and volunteer personnel. The Bureau will ensure that all federal, state and local training mandates, laws and regulations are followed as they pertain to training.

The Bureau will operate within and enforce the policies, procedures and protocols of CAL FIRE, Butte County Fire Department and the Butte County Fire Chiefs Association.

In 2010, the Training and Safety Bureau provided or coordinated a total of 30,127 student instructional hours to over 420 career and volunteer firefighters from CAL FIRE Butte Unit, Butte County Fire Department and personnel from other Butte County Training officer Association agencies.

There was also a significant amount of staff time spent to coordinate students, courses, instructors, recording and tracking training, and ensuring accurate trainee and qualified ICS qualifications are listed in ROSS.

The Bureau is also responsible to coordinate and facilitate the unit-wide training plan, match training courses with approved personnel training requests and maintain a central location for updated training records for all employees.

The Bureau is currently staffed with four Fire Captains, one part time Office Assistant, One part time Photographer/Videographer, and one Battalion Chief.

The Butte Unit Training and Safety Bureau is an active participant in the Butte County Training Officer's Association.

### **Objectives**

- Enforce state/federal law, and CAL FIRE-Butte County Fire Department training policies, procedures and protocols as they apply to career and volunteer personnel.
- Ensure that all personnel receive the opportunity for training that is required for their specific positions.
- Document all employees training in a common database (Train Tracker and TMS).
- Work with the CAL FIRE Region Office regarding the allocation of training for CAL FIRE personnel and the presentation of training at regional training locations.
- Work with cooperators at the Butte Community College to ensure communications, cooperation and coordination of all public safety training.
- Work with cooperators as a member of the Butte County Training Officers Association.
- Meet or exceed those training standards identified in the CAL-FIRE Training handbook.

- Implement the training priorities set by the Butte Unit's executive staff.
- 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 sharing courses with other agencies.

**Mission**

The Butte Unit Training and Safety Bureau Program goal is to assure quality service to the public by developing the skills and abilities of all CAL FIRE, Butte County Fire Department's career and volunteer personnel. This is accomplished through training that is economical, effective, and consistent with the needs of the public, the State of California, the County of Butte, the Department, and the employee.

## **Emergency Command Center**

### **Purpose Statement**

The Butte Unit Emergency Command Center (BTU ECC) provides command and control services, as well as "pre arrival" emergency medical services, for all of the unincorporated areas of Butte County, in addition to the Cities of Oroville, Biggs, Gridley, the El Medio Fire Protection District, and the Mooretown Indian Rancheria. The BTU ECC is also the CAL FIRE Command and Control center for State Responsibility Area (SRA) lands within Butte County.

Furthermore, the BTU ECC is the California Emergency Management Agency (Cal EMA) Fire Operational Area Mutual Aid Coordination Center for Butte County. As the Operational Area Coordinator, the BTU ECC has responsibility to coordinate all fire mutual aid requests for all jurisdictions within Butte County. This responsibility also gives the BTU ECC the authority to directly obtain resources from all neighboring counties including Yuba, Sutter, Plumas, Glenn, Colusa, Tehama, and Lassen.

In 1995, the BTU ECC processed 12,024 incidents. In 2010, 15,411 incidents were processed, an increase of over **28%** in 15 years. The BTU ECC is currently staffed with five Fire Captains, seven Communications Operators, and one Battalion Chief. This staffing has remained fairly constant since 2006, and allows for three person staffing during day shift hours, and generally two person staffing "wide awake" during the night shift with the ECC Duty Captain available close by.

### **Objectives**

- Continue to provide quality command and control services, as well as excellent customer service, to all of our customers.
- Pursue staffing increases to support increases in daily incidents, as well as increasing job complexity, and to provide for relief dispatchers.
- Pursue cooperative agreements with other departments and agencies to enhance efficiency of resource command and control, within Butte County.
- Pursue available technology to more efficiently conduct command and control operations.
- Cooperate fully and effectively with allied agencies.

### **Mission**

The mission of the Oroville Emergency Command Center is to provide a consistent, accurate, timely, and coordinated command and control system. "We will provide support, direction, and communications with our ultimate goal being the best service possible to all who depend on our team."

## **Butte County Fire Safe Council**

The Butte County Fire Safe Council (BCFSC) is the County's largest ally in educating and assisting the public with wildfire preparedness. The BCFSC is funded by grants and community donations, and it operates in cooperation with public works and fire agencies throughout Butte County.

The BCFSC is the "parent" organization to several active and organized local fire safe councils throughout the county. Local fire safe councils have been established in the Town of Paradise, Upper Ridge, Lower Pentz (below Paradise), Yankee Hill, Berry Creek, Forbestown, Feather Falls, Palermo-Oroville, Cohasset, and Forest Ranch. The BCFSC Board of Directors is comprised of representatives from the local councils and representatives of many public and private stakeholders throughout Butte County, including CAL FIRE/Butte County Fire Department.

Several defensible space assistance programs are provided by the BCFSC. The Fire Safe Home Visit Program allows residents to receive free expert advice to improve their home's chances of surviving a wildfire. The Chipping Program is available to chip brush and tree trimming slash for community members of the fire safe council. The Residents Assistance Program assists Butte County residents who are physically and financially unable to maintain defensible space around their home and have no other person to assist in the clearance.

The BCFSC is also a wildfire education outlet. The "Wildfire in the Foothills" 6<sup>th</sup> grade education program educates students on proper planning to reduce risks and survive a wildfire. The organization also produces and distributes information to residents on public safety topics including wildfire safety, evacuation planning and preparedness, and tips for dealing with winter weather events.

The BCFSC has taken the lead to implement many fuel reduction projects. Projects typically involve shaded fuel breaks, reducing ground and ladder fuels along community escape routes. Many projects are implemented in cooperation with Butte County Public Works and CAL FIRE handcrews. Most projects are conceived, planned and implemented by the initiative and dedication of community volunteers with support from the BCFSC staff, local agencies and various grant funding sources.

Additional information regarding the BCFSC and the programs and resources it provides can be obtained at their website [www.thenet411.net](http://www.thenet411.net).

**APPENDIX A: HIGH PRIORITY PRE FIRE PROJECTS**

Batt	Project Number	Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Unit		PRC 4291 Inspections	A		Education Enforcement	
Unit		Fire PALS Presentations	A		Education	
Unit		Butte County Fire Chief's Association Prevention in the Park	A		Education	
1		Fire on the Ridge Community Meetings	O		Education	
1		Skyway Shaded Fuel Break	A	2012	Fuel Break	
1		Butte Creek Canyon Shaded Fuel Break	P	2012	Fuel Break	
2		Buzztail CSD/Wilder Road Fuel Break	A	2011	Fuel Break	
2		Highway 32 Shaded Fuel Break	A	2011	Fuel Break	
2		Crown Point Road Shaded Fuel Break	P	2012	Fuel Break	
3		Yankee Hill County Roads Fuel Reduction	P	2012	Fuel Break	
3		Concow Hazardous Fuels and Reforestation	P	2012	Fuel Break	
5		Forbestown Road Shaded Fuel Break	P	2012	Fuel Break	
5		Zink Road Shaded Fuel Break	P	2012	Fuel Break	
6		Oroville Wildlife Area VMP	P		VMP burn	
7		Fire Resistant Building Materials Demonstration – Butte County Fair	A		Education	
7		Fire Resistant Building Materials Demonstration – Butte County Fair	P		Education	

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



CAL FIRE Units were asked to identify two or more priority objectives under each goal in the 2010 Strategic Fire Plan for California. The Units' priorities are identified in bold and a measurement criteria are provided for each of the identified objectives. Throughout the next year, the Units will implement the identified priorities and report on the measurement criteria by June 2012. The priority objectives are displayed under three headings:

**A. SACRAMENTO PROGRAMS OR COMMITTEE ONLY**

**B. SACRAMENTO PROGRAMS AND STAFF OR COMMITTEE, REGIONS AND UNITS**

**C. UNITS ONLY**

These categories are not intended to exclude Units from addressing priority objectives in any of the three categories, they are only recommendations.

**A. SACRAMENTO PROGRAMS OR COMMITTEE ONLY**

Goal 1: Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the sharing of all analyses and data collection across all ownerships for consistency in type and kind.

Objectives:

- a) **Identify and provide appropriate automated tools to facilitate the collection, analysis and consistent presentation of datasets.**

**Measurement Criteria:** *CAL FIRE shall establish policy that specifies spatial databases covering all forest and rangeland to not be older than 10 years. Include minimum requirements for spatial databases. Follow the coordinated work schedule with the USDA Forest Service to maintain cost effective collection and processing of data.*

Goal 2: Articulate and promote the concept of land use planning as it relates to fire risk and individual landowner objectives and responsibilities.

Objectives:

- a) **Identify the minimum key elements necessary to achieve a fire safe community, and incorporate these elements into land use planning, CWPPs and regional, county and Unit fire plans.**

**Measurement Criteria:** *CAL FIRE to create a working committee with CAL Chiefs, USDA Forest Service and other key organizations to develop, monitor and refine elements of fire safe community, including evacuation plans. The Committee shall review existing templates for FIREWISE Assessments, CWPPs, fire plans and land use plans; identify the common elements and approaches for better integration. Utilize fire protection, planning and engineering expertise to identify the key elements (from existing templates) necessary for fire safe communities. Once agreed upon, these key elements will then be used as a checklist to guide consistency in fire safe planning efforts across jurisdictions. At a minimum, annually report to the Board on results.*

Goal 3: Support and participate in the collaborative development and implementation of wildland fire protection plans and other local, county and regional plans that address fire protection and landowner objectives.

Objectives:

- a) **Establish a working group, consisting of Board members and Departmental staff, to develop minimum standard elements for inclusion in Unit fire plans.**
- b) **Emphasize coordination of Unit fire plans with community wildfire protection plans to encourage and support one consistent approach. Develop county or regional fire plans by bringing together community-based groups, such as fire safe councils and affected fire and land management agencies.**

**Measurement Criteria:** *These measurement criteria meets objectives a and b. CAL FIRE to revise the template for the Unit fire plans to incorporate the goals and objectives of the 2010 Strategic Fire Plan. During the revision, the template for a CWPP will be jointly reviewed in order to reduce duplication of fire planning efforts. The key elements identified through the process identified in Goal 2, Objective b will also be incorporated into the Unit fire plan/CWPP.*

- c) **Create and support venues in which individual community members can be actively involved in local fire safe councils, community emergency response teams, FIREWISE and other community-based efforts to develop readiness plans and educate landowners to mitigate the risks and effects of wildland fire.**

**Measurement Criteria:** *The California Fire Alliance to work with the California and local FSCs to develop venues (e.g., workshops) that assist landowners with readiness planning and education. CAL FIRE, California Fire Alliance Liaison to report to the Board annually on Alliance activities.*

Goal 4: Increase awareness, knowledge and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires, such as defensible space and other fuels reduction activities, fire prevention and fire safe building standards.

Objectives:

- a) **Educate landowners, residents and business owners about the risks and their incumbent responsibilities of living in the wildlands, including applicable regulations, prevention measures and preplanning activities.**

**Measurement Criteria:** *In coordination with the CAL FIRE Communications Program, the USDA Forest Service and local fire agencies, University of California and county cooperative extension offices, CAL FIRE to collect information on methods and effectiveness of existing outreach. Complete the information collection within year one of adoption of the 2010 Strategic Fire Plan. Develop a common set of measures to assess CAL FIRE efforts, build those into Unit fire plans and report to the Board. Report the progress of implementation at the end of year two.*

Goal 5: Develop a method to integrate fire and fuels management practices with landowner priorities and multiple jurisdictional efforts within local, state and federal responsibility areas.

Objectives:

- b) **Work to remove regulatory barriers that limit hazardous fuels reduction activities.**

**Measurement Criteria:** *In conjunction with the Resource Protection Committee, CAL FIRE will develop an approach to identifying and recommending ways to address regulatory and other barriers that limit hazardous fuels reduction activities. This approach should include consultation with the Board's Interagency Forestry Working Group and with other agencies, such as the USDA Forest Service, the US Fish and Wildlife Service, the California Energy Commission, the Department of Fish and Game, regional water quality control boards, local government and the public. Finish this compilation within the first year of adoption of the 2010 Strategic Fire Plan. Based on barriers identified and recommendations for change, report to the Board starting in the second year.*

Goal 6: Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.

Objectives:

- e) **Initiate and maintain cooperative fire protection agreements with local, state and federal partners that value the importance of an integrated, cooperative, regional fire protection system and deliver efficient and cost effective emergency response capabilities beneficial to all stakeholders.**

**Measurement Criteria:** *CAL FIRE to identify the number and effectiveness of agreements and partnerships. In conjunction with the Board's Resource Protection Committee, CAL FIRE will develop suggested measures of effectiveness of cooperative agreements. This should be in collaboration with its partners, completed within 18 months of adoption of the 2010 Strategic Fire Plan and reported to the Board.*

- i) **Provide for succession planning and employee development at all levels within CAL FIRE to maintain emergency response leadership capabilities, administrative management skills and pre-fire planning expertise.**

**Measurement Criteria:** *CAL FIRE to revise and update the information developed in the 2005 Succession Planning meetings. This work should be completed within two years of the adoption of the 2010 Strategic Fire Plan, with annual reporting to the Board based on issues raised, including identification of key training needs, funding available and expenditures on the training program, content of Academy curricula, number of students requesting and/or able to take classes at the Academy, local community college or other educational outlets.*

## **B. SACRAMENTO PROGRAMS AND STAFF OR COMMITTEE, REGIONS AND UNITS**

Goal 1: Identify and evaluate wildland fire hazards and recognize life, property and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the sharing of all analyses and data collection across all ownerships for consistency in type and kind.

Objectives:

- b) Engage and participate with local stakeholder groups (i.e., fire safe councils and others) to validate and prioritize the assets at risk.**

**Measurement Criteria:** *CAL FIRE shall designate personnel as advisors/liaisons to the California Fire Safe Council (CFSC) and to each county or regional FSC. The advisors will be responsible for reporting activities to the Unit and Region. The advisor to the CFSC will report to the Board. Annual reporting of time-spent working will be displayed in hours at the Unit, Region and Headquarters level. Reporting will include activities with local FSCs, communities, watershed groups or others defining hazards and risk of wildfire and documenting these in a CWPP or Unit fire plan. Emphasize the products developed in Goal 3, Objective b. Advisors will emphasize using standard guidelines and templates for consistency throughout the state.*

Goal 2: Articulate and promote the concept of land use planning as it relates to fire risk and individual landowner objectives and responsibilities.

Objectives:

- b) Assist the appropriate governmental bodies in the development of a comprehensive set of wildland and wildland urban interface (WUI) protection policies for inclusion in each county general plan or other appropriate local land use planning documents.**

**Measurement Criteria:** *CAL FIRE to appoint a committee including Unit, Region, Headquarters and Contract County representatives. Develop a work plan that identifies key elements of improving WUI strategies, including planning. Reporting should be based on elements identified and priorities for addressing them.*

*Under the Board's Resource Protection Committee, review existing Board policies as they relate to wildland fire and the relevance (ease of use, applicability) to incorporation in local general plans. Identify areas of possible improvement and update policies.*

*Track and report hours at the Unit, Region and Headquarters level spent in reviewing plans and projects; number of local Board/Council, Planning Commission meetings and/or meetings with other cooperators.*

Goal 4: Increase awareness, knowledge and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires, such as defensible space and other fuels reduction activities, fire prevention and fire safe building standards.

Objectives:

- c) **Increase the number and effectiveness of defensible space inspections and promote an increasing level of compliance with defensible space laws and regulations through the use of CAL FIRE staffing as available, public and private organizations, and alternative inspection methods.**

**Measurement Criteria:** *CAL FIRE to form an advisory committee to review PRC §4291 regulations and make recommendations to the Board that will provide for consistency, streamlining and clarification of existing regulations. The Committee shall develop criteria to increase the number and effectiveness of defensible space inspections. The Committee will develop an implementation plan for the recommendations and report on progress to the Board*

Goal 7: Address post-fire responsibilities for natural resource recovery, including watershed protection reforestation, and ecosystem restoration.

Objectives:

- a) **Encourage rapid post-fire assessment, as appropriate, and project implementation to minimize flooding, protect water quality, limit sediment flows and reduce other risks on all land ownerships impacted by wildland fire.**

**Measurement Criteria:** *Provide training for CAL FIRE personnel on suppression repair and damage assessment procedures. Develop standard formats and documentation templates for these assessments. Identify and use the findings to reduce the impacts of fire suppression on the landscape and improve resiliency of assets at risk from wildfire.*

## C. UNITS ONLY

Goal 5: Develop a method to integrate fire and fuels management practices with landowner priorities and multiple jurisdictional efforts within local, state and federal responsibility areas.

Objectives:

- h) Support the availability and utilization of CAL FIRE hand crews and other CAL FIRE resources, as well as public and private sector resources, for fuels management activities, including ongoing maintenance.**

**Measurement Criteria:** *CAL FIRE will report to the Board on the number of crews available each year with a description of projects, including acres treated, completed by each Unit. Report the number of agreements and/or amount of funding and acres treated that involve grants or partnerships with federal agencies, resource conservation districts, local FSCs, fire districts, watershed groups or other non-profit or community groups that support the ability to carry out fuels reduction projects.*

Goal 7: Address post-fire responsibilities for natural resource recovery, including watershed protection reforestation, and ecosystem restoration.

Objectives:

- e) Assist landowners and local government in the evaluation of the need to retain and utilize features (e.g., roads, firelines, water sources) developed during a fire suppression effort, taking into consideration those identified in previous planning efforts.**

**Measurement Criteria:** *CAL FIRE (utilizing Incident Command Teams) to schedule a post-fire review of the planning documents that cover the area affected by the fire. Review the goals, objectives and projects (implemented and planned) to identify successes and failures. Review the features developed during the fire and incorporate them into the existing Unit fire plan documents. This objective will only be reported when a fire occurs in an area with an existing Unit fire plan document. Incident command teams may conduct this post fire assessment under the direction of the Unit Chief.*

# *Butte Unit Lightning Plan*

**MAY 27, 2003**



# **Butte Unit Lightning Plan**

## **Introduction**

Lightning is an occasional source of fire activity in the Butte Unit (BTU). This plan was developed to handle the multiple fires that could occur within a very short time frame. The total number of lightning fires that may occur from any given thunderstorm varies greatly. There have been situations where several major, lightning caused fires have been burning simultaneously. This plan is designed to provide guidance to personnel so that efforts at managing a series of lightning caused fires is safe, efficient, and effective. This plan is implemented when the ECC is unable to (or is potentially unable to) efficiently dispatch the standard response plan resources, due to the volume (or expected volume) of fires. In addition, this plan could easily be modified for other all-risk type incidents with multiple impact points (floods, earthquakes, freeze damage, etc.)

## **Plan Development**

This plan is developed to standardize the procedures used by the Butte Unit. The plan is designed to effectively respond to multiple incidents as a result of lightning. A lightning fire that develops beyond initial attack (serious augmentation, extended attack, or multi-division) will be removed from the lightning plan procedures and treated as a separate command.

## **Activation of the Plan**

Activation may occur when one or more of the following conditions exist. Keep in mind that there could be outside influences or local conditions that may call for plan activation. The ECC will notify all field units by radio (activate pager/house alarm for all officers/stations) of activation of the lightning plan. The ECC will also notify cooperators (fire departments, PNF, LNF, timber companies) of plan activation.

1. Ground strikes on BTU direct protection areas.
2. Multiple lightning fires existing in BTU Direct Protection Areas (DPA).

**When notifying the Unit, the ECC will state (after 2 beeps), “The Lightning Plan is in effect for all lightning caused fires”.**

## Preparedness Levels

The following Preparedness Levels will be used in establishing resource call back (supplemental staffing) in order to prepare for effective resource utilization based on threat:

### Level 1: Alert/Watch

- Fire Weather Office has issued LAL's (Lightning Activity Levels) of 2 or 3, and
- Unit **Duty Chief**, based on fire weather predictions, determines **lightning threat** exists, and
- Lookouts report **ground strikes** near the Unit or the ECC detects ground strikes nearing the Unit, via Radar (or other intelligence).

### Level 2: Warning

- Fire Weather Office has issued a **Red Flag Warning** for **dry lightning** and/or LAL's (Lightning Activity Level) of 4 or greater, and
- Duty Chief** perceives **lightning threat** warrants this increased level of Preparedness

### Level 3:

- Multiple lightning fires** exist in the Unit with containment success is unlikely within the Initial Attack period, and
- Multiple fires for multiple days**, requiring major logistical support, and
- Initial Attack fires **predicted to grow** into Extended Attack and/or Major Fires, and
- Duty Chief** perceives **lightning threat and resource draw down** warrants this increased level of Preparedness

## Staffing for Preparedness Levels

Based on the Preparedness Level determined by the Duty Chief, the ECC will order/process the following resources/notifications:

### Level 1:

- Notify Unit Chief
- Staff all state engines (includes reserve engines)
- Staff 3 fire crews
- Staff 2 dozers

- ❑ Staff ECC with 4 ECCO's day, 3 ECCO's night (2 wide-awake)
- ❑ Staff Fire Lookouts, as per Lookout Staffing Plan
- ❑ Maintain a minimum of 4 battalion chiefs (or acting BC's)

Level 2 (in addition to Level 1):

- ❑ Notify Unit Chief
- ❑ Call back appropriate number of battalion chiefs (or acting BC's) to maintain 2 B.C. coverage for I/A (not committed to Branch activities)
- ❑ Staff all county reserve engines with career operators and career/volunteer fire fighters
- ❑ Selected staffing of volunteer Type-3 engines w/ 3 fire fighters (career/volunteer)
- ❑ Staff 4 water tenders w/ 2 fire fighters (2 north/2 south)
- ❑ Maintain 2 dozers available for I/A (attempt agency dozers first)
- ❑ Staff Service Center with minimum 3 personnel (Logistical Support)
- ❑ Staff Shop with minimum of 2 mechanics
- ❑ Early start time for AirTac at CAAB
- ❑ Hire CWN Type-2 Helicopter, with bucket, at CAAB (w/CWN manager)
- ❑ Hire CWN relief AirTac (w/ATGS) at CAAB
- ❑ Order Plans Technical Specialist (reports to I.C.)
- ❑ Order Finance Technical Specialist (reports to I.C.)
- ❑ Order Information Officer (reports to I.C.)

Level 3 (in addition to Level 1 & 2):

- ❑ Notify Unit Chief
- ❑ Call back DC's and BC's (staff and field), as needed
- ❑ Staff ECC for fully expanded operation (shift work)
- ❑ Hold fire control personnel on duty (except vacation/sick), as needed
- ❑ Establish Incident Base (and Camps), if needed
- ❑ Order MKU or local food service vendor
- ❑ Order MCC or Butte County Sheriff's Communications Unit
- ❑ Order the following overhead, as needed:
  - Logistics Section Chief
    - 3 mechanics
    - Food Unit Leader
    - Facilities Unit Leader
  - Finance Section Chief
    - Cost Unit Leader
    - Equipment Time Recorder
    - Motel Manager
  - Plans Section Chief
    - Check-In/Status Recorders (2)
    - Resources Unit Leader
    - Situation Unit Leader
  - Information Officers (3 to 6)
- ❑ Hire additional CWN helicopters (crew transport, water dropping, recon), as needed

- ❑ Hire additional CWN dozers (DVBE), as needed (if agency dozers unavailable)
- ❑ Staff additional volunteer water tenders, as needed
- ❑ Staff additional volunteer engines, as needed

## **Detection**

Lookouts will report all smokes to the ECC in degrees with the distance (mileage). The lookout should also state the geographic location and a legal location (if it can be determined). Lookouts should report lightning smokes as “Emergency Traffic, Branch \_\_\_”. Lookouts must be careful not to report fog pockets.

Air reconnaissance (air tactical or helicopter) will be activated as soon as possible during/after lightning activity. The Unit Duty Chief will determine the reconnaissance area priorities and start times. In all cases of aerial recon both the Plumas and Lassen National Forest Dispatch centers will be notified (by phone) to safeguard and coordinate aerial operations (i.e. multiple air ships in the same area).

Air reconnaissance will locate, log, and report all fires to the ECC and the effected Branch Director(s). Aircraft typically have the capability to report and receive fire locations by latitude and longitude only. Therefore, all descriptions of fires will be converted by the ECC (in both legal and lat/long formats) when aerial operations are involved

## **Modified Dispatching**

Initial Attack dispatching is normally accomplished by using the BTU Standard Response Plan. Since lightning fires usually involve multiple starts, resources quickly become in short supply. When the BTU Lightning Plan is activated the ECC will be in a modified dispatch situation. Initially, this modified dispatch situation may consist of a single resource response of one engine (may also include an air tactical/helicopter, if available). The ECC Chief/Duty Officer and/or Duty Chief can modify this.

Once the need for a branch has been determined (multiple fires or immediate threat of multiple fires) the ECC will dispatch the following resources to “activate” the branch:

- ❑ 1 Branch Director (preferably the Battalion Chief covering that Battalion)
- ❑ 1 Staging Area Manager
- ❑ 1 Fire Crew
- ❑ 3 Type 3 Engines (type 2 if type-3 in short supply)
- ❑ 1 Water Tender
- ❑ 1 Overhead Position (fire fighter, etc) as Branch Assistant (Situational/Resource Status)

These resources will be staged at a location determined by the ECC Duty Officer and/or assigned Branch Director. A tactical frequency will be assigned for use within the Branch. Due to the need to maintain initial attack capabilities, the Unit will not normally drop below “Yellow” coverage level (local Level 2 draw down criteria, Exhibit 8130A) in order to “fill” branch needs. Needs that are unfilled will be placed into MIRPS for the GACC to process and/or placed to Operational Area Mutual Aid cooperators (including surrounding counties).

## Operations

### Branches:

During significant lightning activity BTU will be divided into branches to better facilitate command and control. The intent is to maintain an efficient, effective, and safe span of control through adjustment in workload. The Duty Chief appoints an Incident Commander during activation of the Lightning Plan. The Branch Directors (OPBD) direct all lightning caused fires within their branch. They report directly to the Incident Commander, unless an Operations Section Chief is assigned. Branch Directors are responsible for maintaining situational and resource status of all fires and resources within their branch.

### Branch Descriptions:

**Branch 1:** Battalion 1 (Stirling City, Paradise, West Branch Feather River). The branch will include the “F, H, and V” Planned Response Areas (P.R.A.’s).

**Branch 2:** Battalion 2 (East of Chico, Butte Creek Canyon, Butte Meadows, Cohasset, Forest Ranch, and upper Deer Creek Drainage). The branch will include the “B, C, and I” P.R.A.’s.

**Branch 3:** Battalion 3 (Jarbo Gap, Butte College, Concow, Big Bend, North Fork Feather River, Richvale, Durham). The branch will include the “E, N, and J” P.R.A.’s.

**Branch 4:** Battalion 4 (Nord, North Chico, Chico). The branch will include the “T, Q, and K” P.R.A.’s.

**Branch 5:** Battalion 5 (East of Oroville, Feather Falls, Forbestown, Cascade, Middle and South Fork of Feather River). The branch will include the “D, S, and U” P.R.A.’s.

**Branch 6:** Battalion 6 (Cherokee, Lake Oroville, Kelly Ridge, Table Mountain, Campbell Hills, W.P. Addition). The branch will include the “A and L” P.R.A.’s.

**Branch 7:** Battalion 7 (Palermo, Gridley, Biggs). The branch will include the “R, P, and Y” P.R.A.’s.

**Branch 8:** Portion of Battalion 5 – Berry Creek area. The branch will include the “G” P.R.A.

## Incident/Fire Naming and Numbering System

Each Branch Director will maintain a log of all fires within their Branch. On a regular basis the Branch Director will contact the ECC for incident log purposes (assigning incident and fire numbers).

The Branch Director will designate all fires within their branch by Branch Number first, followed by Division letter (i.e. Branch 8, Division A, or “8-A”). Branch Directors will assign Divisions based on each fire’s need but should be very careful not to duplicate Division Numbers within their branch (i.e. the “Stephens Fire” could have 1 division and the “Galen Fire” could

have 2 divisions. The two fires would not both have Division A's, since they are within the same branch.) This modified naming system allows a clear understanding of fire location and allows a smooth transition into Extended Attack/Major Fire operations. Fires that extend beyond three divisions will be "pulled" from the Branch and designated as a separate Command.

## **Branch Dispatching**

Branches will be responsible for all fire activities and resources within their area. Branches will directly dispatch resources under their control to fires within their branch. Additional resource requests will be directed to the ECC. The ECC will not directly dispatch resources to new lightning fires within an activated branch unless the branch requests the ECC to do so. The Branch must maintain records on each fire, resource status, and situational status. Plans, situational status, and resource requests/surpluses must be communicated to the ECC.

**All resources, while assigned to a branch, will maintain all communications through that branch. OPBD's are encouraged to make their resources available for nearby incidents, even if not related to their branch activities. Resources that are off-shift (R & R), but still assigned to the Branch, will not advise the ECC of their status or location. All resources will be immediately released to the ECC when the OPBD has declared them excess.**

## **Communications**

The ECC will transition to Butte Support Net (or other command net) for Lightning Plan support activities. The ECC, upon direction of the ECC Chief/Duty Officer and/or Unit Duty Chief, will also order a Command Net(s) for use between Branches and Incident Commander. The ECC will assign tactical frequencies (to each Branch) based on need. Tactical frequencies normally used within that battalion will be the first choice.

## **Logistics**

All logistical support will be ordered through the ECC, or, if activated, the Logistics Section. This includes such items as fuel, food, rehabilitation drinks, lodging, mechanics, etc.

## **Finance**

The Technical Specialist-Finance will prepare and maintain a cost estimate, handle all financial issues (personnel and hired equipment time reporting, hired equipment payments, and Cal-Card purchases), and prepare the final cost package.

## **Safety**

The Incident Commander will order Safety Officers as appropriate. The “Thunderstorm Safety” briefing sheet (Handbook 7000) and Section 8617.1.2 (Lightning Safety) should be included in operational briefings. Each Branch is authorized to request Safety Officers as needed.

## **Plans**

The Technical Specialist-Plans will collect, organize, and display Lightning Plan situational and resource status. This position will also prepare and maintain the ICS-209. Furthermore, under the direction of the I.C., the position will assemble the daily I.A.P. (Incident Action Plan). The I.A.P. will be provided to all branches, the ECC, the Duty Chief, affected cooperators, the Regional ECC and Duty Chief, and all fire stations (via electronic mail).

## **Command and Control**

The ECC will maintain overall coordination to insure timely and accurate detection, reporting, and dispatching of resources. All requests for additional resources will be placed from the Branch to the ECC. The I.C. shall prioritize fires for resource allocation. The ECC will transition into an “Expanded” operation when the lightning plan is activated.

The Duty Chief will maintain close communications with affected Cooperators (Sierra Pacific Industries, USFS (PNF and LNF), other fire departments, etc.)

The ECC will maintain and review status of personnel and equipment for determining maximum resource utilization. Advise CDF North Region (CNR) Duty Officer when BTU is at “maximum draw down”.

The ECC will coordinate Branch activation and deactivation.

The ECC will notify each Branch of any new lightning fires reported within their branch.

The ECC is responsible for all fires outside of the lightning plan areas and all incidents, not lightning caused, within the lightning plan areas. Furthermore, the ECC is responsible for the transition to a separate command of all Extended Attack (i.e. lightning fires that become multiple divisions) and Major Fires.

The ECC will dispatch all aircraft as requested. First priority use of helicopters is for fire fighter Safety, Initial Attack, and to transport personnel to fires. Branch Reconnaissance and logistical use by helicopters should be held to a minimum.

The ECC (or the “Plans Section”) will attempt to maintain the Unit Operations Map with all lightning fire locations.

The ECC will attempt to “fill” all requests for additional personnel, equipment, and special services using the closest, most appropriate resources.

## **Extended Attack Fires**

If one or more fires develop beyond Initial Attack capabilities (i.e. multiple divisions) they will be removed from the lightning plan with concurrence of the Unit Duty Chief and the Incident Commander. A separate incident organization will be established and operated through the ECC under standard dispatch procedures.

## **Deactivation of the Lightning Plan**

The following guidelines should be used to deactivate a branch:

All fires in the branch will have been staffed, controlled, and in patrol status. Resources remaining on fires, after branch deactivation, will maintain their status with the ECC.

**APPENDIX E:**

**DETAILED PROJECT LIST**

<b>Butte County Community Wildfire Protection Plan: Projects List Updated 2-07-2011</b>					
<b>Start Year</b>	<b>Location</b>	<b>Project Name</b>	<b>Project Sponsor</b>	<b>Project Description</b>	<b>2011 Status</b>
2002-2003	Bangor	Bangor Community Address Identification	Fire Company 55	Over 400 Reflective Address Signs purchased	Ongoing
1996	Berry creek	Brush Creek DFPZ	USFS Plumas NF	Fuels Reduction Projects on USFS lands	Completed in 2007 Maintenance starting 2009
2003	Berry Creek	Berry Creek Evacuation Plan	Berry Creek FSC	Developed first community Evacuation Plan and distribution	Completed
2003	Berry Creek	Emergency Advisory Radio	Berry Creek FSC	AM 1250 Emergency Advisory Radio System	installed and maintenance needed.
2005	Berry Creek	Community Demonstration Area	Berry Creek FSC	Fire Safe Community Demonstration area located at Bald Rock Rd. and Sugar Pine Dr.	Completed
2005	Berry Creek	Berry Creek Fire Safe Calendar	Berry Creek FSC	2005/2006 Community Calendar produced with fire prevention messages and information	Completed
2007	Berry Creek	Fire Safe Home Visit Program	Berry Creek FSC	Training of community members to conduct fire safe home visits	Completed
2008	Berry Creek	Lake Madrone Shaded Fuel Break	Berry Creek FSC	Shaded fuel break project	In Progress
2011	Berry Creek	Zink Rd. Shaded Fuel Break	Berry Creek FSC	Shaded fuel break project north of Bald Rock Rd.	Proposed
2008-2009	Berry Creek	Firewise Demonstration Area	Berry Creek FSC	Drought tolerant and Native planting located at Fire Station 61 Harts Mill	Completed
2008	Butte Creek	Butte Creek Canyon Shaded Fuel Break	BCFSC	Shaded Fuel Break Project	Completed
2008-2009	Butte Meadows/J	Butte Meadows Community Evacuation Shelter	BMJCA	2-3 acre fuels reduction at Fire Station 10	Proposed
2008-2009	Butte Meadows/J	Butte Meadows Community Demonstration/Communication Site	BMJCA	Establishing an evacuation location at Fire Station 10 to shelter 40 residents with necessary equipment and supplies	Proposed
2008-2009	Butte Meadows/J	Upper Humboldt Rd Shaded Fuel Break	BMJCA	Shaded fuels reduction on both sides of Rd. between Lomo and Jonesville	Proposed
2008-2009	Butte Meadows/J	Emergency Advisory Radio	BMJCA	Low power emergency advisory radio	Proposed

2008-2009	Butte Meadows/J	Community Evacuation Plan	BMJCA	create a community evacuation plan	Proposed
2005	Chico FH	Big Chico Creek Ecological Preserve	California Deer Association	Roadside cutting, piling and burning on 315 acres of Big Chico Creek	Ongoing
2008-2009	Chico FH	Bidwell Park Fuel Reduction	Friends of Bidwell Park	Fuels Reduction Work throughout Bidwell	Proposed
2008-2009	Chico FH	Little Chico Creek Arundo Donax Control	Susan Mason	Arundo Donax	Proposed
2008-2009	Clipper Mills	Evacuation Planning, Community Education and Fuels Reduction	BCFSC	Evacuation Planning, Community Education and Fuels Reduction	Proposed
2000	Cohasset	Cohasset SPI H-Line	SPI	Shaded fuel break project	Ongoing
2003	Cohasset	Development of Community Evac Plan	Cohasset Community Association	Developed an evacuation plan for the 2000 residents on the Cohasset Ridge.	Completed and distributed, updated needed.
2005	Cohasset	Cohasset Rd Shaded Fuel Break	Cohasset Community Association	Roadside Fuel reduction along 4 miles of Cohasset Rd	Completed, maintained follow up needed.
2008-2009	Cohasset	Mann Nolta Shaded Fuel Break	Jim Brobeck	Shaded fuel break project	Proposed
2008-2009	Cohasset	Emergency Advisory Radio	Cohasset Community Association	Low power emergency advisory radio	Proposed
2008-2009	Cohasset	Evacuation Plan Update	Cohasset Community Association	Update of the community evacuation plan	Proposed
2000	County wide	Defensible Space Chipper Program	BCFSC	available to help residents get rid of brush and other potential fire fuels in a 100-foot area around houses, and along driveways and access roads. Operates November- May.	Ongoing
2001	County wide	6th Grade Education Program	BCFSC	Pilot program presented to three classes in 2004-05.	Project is ongoing, classes have been held 2005-2008 in Paradise, Yankee Hill/Concow, Magalia, Berry Creek and Feather Falls.
2001	County wide	Executive Director & Fire wise Programs	BCFSC	This funding allowed the BCFSC Executive Director to conduct outreach for our programs.	Ongoing
2002	County wide	Development of Fuel Model Brochures	BCFSC	The BCFS developed and printed three versions of the "Homeowners Guide to Fire wise Landscaping" This brochure has been adopted for use statewide by the California Fire Safe Council.	Ongoing
2003	County wide	Defensible Space Media Campaign	BCFSC	TV, Radio, Sign, Web Page & Billboard Campaign	Ongoing
2003	County wide	Wild Fire Vs. Your Home Video	BCFSC	Provides homeowners with practical steps to make their home safer from wildland fire.	completed & distributed - new printed needed

2003	County wide	Special Needs Assistance Program	Elder Services DPC	Packets which prepare residents for evacuation and other emergency situations.	Ongoing
2003	County wide	Forest Stewardship Education Workshops	BCFSC & CSVRC	A workshop was hosted in 2003 and in 2008	Ongoing
2004	County wide	Residents Assistance Program	BCFSC	Provides defensible space assistance for qualifying low income, senior and physically disabled residents in Butte County.	Ongoing
2005	County wide	Wildfire Safety Education Workshops	BCFSC	Fire on the Ridge, Fire in the Foothills, community events, fairs, booths and public speaking events	Ongoing
2005	County wide	Butte County Defensible Space Shaded Fuel Breaks	BLM	Fuels treatment on public lands behind private homes and selected roadways. Cut and Chip projects.	Ongoing
2007	County wide	Scotch Broom Eradication	BC Weed Management Area	Removal of invasive Scotch Broom	Funding applied for and not received
2007	County wide	North Valley Fire Prevention Fire Pals	Cal-Fire	Student Fire Safety Education	Ongoing
2007	County wide	Targeted 4291 Inspections	Cal-Fire	4291 defensible space inspections in targeted communities	Ongoing
2010	County wide	LE100 Landscape Expansion	Cal-Fire	Putting LE100 inspection data into a Access database to facilitate strategic planning between various prevention programs	Ongoing
2007	Feather Falls	Feather Falls Shaded Fuel Break	BCFSC	8 miles shaded fuel break on Lumpkin Rd.	In progress
2008	Feather Falls	Feather Falls Evacuation Plan	Feather Falls FSC	Community Evacuation Plan	Funded and in progress
2008	Feather Falls	SLAP Jack DFPZ	USFS Plumas	Fuels Reduction Projects on USFS lands	In progress
2010	Forbestown	Forbestown Ridge Reflective Address Signs	Forbestown Ridge Fire Safe Council	Provide standard reflective address signs to all residences within the boundaries of the Forbestown Ridge FSC.	Proposed
2010	Forbestown	Forbestown Road Fuel Break	Forbestown Ridge Fire Safe Council	Forbestown Rd. from Lumpkin Rd. (east) to termination at La Porte Road (Yuba County), work within the boundaries of the Forbestown Ridge FSC.	Ongoing
2000	Forest Ranch	Hwy 32 Demo Site	Citizens of Forest Ranch	Created a community demonstration site	Completed
2001	Forest Ranch	Forest Ranch area Forestwise Landscaping Brochure	Citizens of Forest Ranch	booklet on living safely with wildfire	Completed
2006	Forest Ranch	Broom Eradication	BEEP	removal of invasive broom	Ongoing seeking funding
2007	Forest Ranch	HWY 32 Roadside Fuel Reduction	Cal-Trans & Cal-Fire	Roadside fuel reduction project along Hwy 32 in Forest Ranch area.	Completed

2011	Forest Ranch	Crown Point Road Shaded Fuel Break	Forest Ranch Fire Safe Council	shaded fuel break project south of Hwy 32	Proposed
1998-1999	Forest Ranch	Forest Ranch Wildfire Defense Plan	Citizens of Forest Ranch	booklet on living safely with wildfire	Completed
2008-2009	Forest Ranch	Wilder Rd. Shaded Fuel Break	citizens	shaded fuel break project	Proposed
2008-2009	Forest Ranch	Forest Ranch Headwaters Rd. Shaded Fuel Break	M.Fune member of Headwaters Rd. Association	shaded fuel break project	Proposed
2008-2009	Forest Ranch	Doe Mill Rd. Shaded Fuel Break	citizens	shaded fuel break project	Proposed
2008-2009	Forest Ranch	Buzz Tail Shaded Fuel Breaks	Buzz Tail Community Service District	Complete and preserve fuel breaks created during 2008 Humboldt Fire	Proposed
2002	Grey Lodge	Grey Lodge VMP	Cal-Fire	wildlife habitat, prescribed fire and hand work	Ongoing
2008-2009	Gridley	Little Dry Creek	Cal-Fire	wildlife habitat, prescribed fire and hand work	Proposed
Start Year	Location	Project Name	Project Sponsor	Project Description	2011 Status
2004	Oroville	Northeast Oroville Community Education and Outreach	BCFSC	This developed a community "demonstration site" to educate homeowners about thinning vegetation, also a booth was set up and many residents received brochures on how to create their defensible space around the home	Completed
2008-2009	Oroville	Oroville Wildlife Area	Cal-Fire	wildlife habitat, prescribed fire and hand work	Proposed
2000	Paradise	Paradise VMP	Paradise Fire Department	Honey Run to Neal Rd. 300' under power lines	Completed
2003	Paradise	Paradise Valley View Citizens Fuel Reduction	Paradise Citizens	Fuels Reduction project around homes	completed
2003	Paradise	Community Defensible Space Program	Paradise Fire Department	Provides defensible space inspections in Paradise	Ongoing
2003	Paradise	West Branch Fuel Reduction Project	Paradise Fire Department	shaded fuel break project	Completed
2003	Paradise	Canyon Edge Fuel Reduction Project	Paradise Fire Department	3 mile fuel reduction project along eastern edge of Paradise.	Completed
2003	Paradise	Town Radio - AM 1500	Paradise Fire Department	AM 1500 radio station with coverage to approximately 25,000 residents.	completed/ongoing
2003	Paradise	Dean Rd Roadside Fuel Reduction	BLM & Paradise Fire Department	One mile of roadside fuel reduction east of Paradise.	Completed

2004	Paradise	Evacuation Plan Print & Mail - 2004	Paradise FSC/ Paradise Fire Department	19,000 of the Wildland Fire Evacuation Plan printed and mailed to residents of Paradise and the Upper Ridge including Stirling City.	Completed
2004	Paradise	Top of Paradise Fuel Reduction Project - Canyon Edge FRP	Paradise FSC/ Paradise Fire Department	6 mile fuel reduction project in upper Paradise on both the northeastern and northwestern flank.	Completed
2004	Paradise	Youth Wildland Fire Council	Paradise FSC/ Paradise Fire Department	Pilot program to involve teenagers in the Fire Safe Council.	Completed
2005	Paradise	Paradise Quail Trails Mobile Home Park - Unit 6	BLM & Paradise Fire Department	mastication and hand work	Maintenance
2007	Paradise	Honey Road Fuel Reduction	Paradise FSC/ Paradise Fire Department	shaded fuel break project	Completed
2007	Paradise	Dry Creek Shaded Fuel Break and Watershed Protection Project	Paradise FSC/ Paradise Fire Department	shaded fuel break project	Completed
2010	Paradise	Trail way Fuels Reduction	Paradise FSC/ Paradise Fire Department	shaded fuel break project	In Progress
2010	Paradise	Skyway Shaded Fuel Break	BCFSC/ Paradise Fire Department	shaded fuel break project along Skyway in both County and Town of Paradise	In Progress
2010	Paradise	Quail Trails Fuel Reduction	BLM	Project completed July 2010. CCC crews cut and piled brush east of homes along the canyon - 1 acre	Maintenance
2011	Paradise	Fire on the Ridge Community Meetings	Paradise FSC/ Paradise Fire Department	wildfire safety education seminars	Proposed
2008-2009	Paradise	Clear Creek Shaded Fuel Break	Paradise FSC/ Paradise Fire Department	shaded fuel break project	Funded - work to be started
2008-2009	Paradise	Berry Creek Shaded Fuel Break	Paradise FSC/ Paradise Fire Department	shaded fuel break project	Proposed
2008-2009	Paradise	Hamlin Canyon Shaded Fuel Break	Paradise FSC/ Paradise Fire Department	shaded fuel break project	Proposed

2008-2009	Paradise	Shaded Fuel Break Management and Maintenance Project	Paradise FSC/ Paradise Fire Department	shaded fuel break project	Proposed
2008-2009	Paradise	Wildfire Safety Education Trailer	Paradise FSC/ Paradise Fire Department	wildfire safety education	Proposed
2008-2009	Paradise	Pentz Rd. Shaded Fuel Break	BCFSC	shaded fuel break project along Pentz Rd. from County area to Town of Paradise Boundary	Proposed
2008-2009	Paradise	Neal Rd. Shaded Fuel Break	BCFSC	shaded fuel break project along Neal Rd. in both County and Town of Paradise	Proposed
2008-2009	Paradise	Clark Rd. Shaded Fuel Break	BCFSC	shaded fuel break project along Clark Rd. in both County and Town of Paradise	Proposed
2008	Sacramento River Refuge	Pine Creek	U.S. Fish and Wildlife Service	Fuels reduction work with goat, hand thinning, prescribed fire	Ongoing
1993	Upper Ridge	Trail Days	Upper Ridge Wilderness Area Inc.	Trail Days is a forest education opportunity and public service program for all fifth grade students of the Pine Ridge and Cedar wood Elementary Schools. The Program is complied of four days of activity.	Ongoing
1999	Upper Ridge	Wildland Safety Fair	Don Steele	Wildland Fire Safety Fair held at the POA in Paradise Pines that occurred during the lighting caused fire siege in August 1999. Ashes were falling on the fair.	Completed
2000	Upper Ridge	Compton Rd.	BLM	BLM land treated using Cal-Fire crews	Completed
2001	Upper Ridge	Upper Ridge Fuel Reduction Project 17 mile shaded fuel break	Cal-Fire & PID	17 miles of Fuel Reduction around Paradise Pines and up to and along Nimshew Rd. and behind Fir Haven Community	Completed, maintenance work completed, fuel break condition inventoried, continued maintenance work necessary
2001	Upper Ridge	Upper Ridge Radio 1460 AM		AM 1460 emergency radio station that reaches about 80% of the residents on the Upper Ridge.	Completed
2002	Upper Ridge	PPOA Greenbelt Fuel Reduction	Don Steele	Maintenance Plan for greenbelt	Completed
2004	Upper Ridge	PPOA Dooryard Education Program	Don Steele	Individual visits to homeowners upon request to provide customized information on wildland fire safety at their home.	Completed

2004	Upper Ridge	Upper Ridge Preservation Alliance	Don Steele	To assist in the formation of a group that would take on the task of developing and implementing a maintenance plan for the 17 mile fuel break	Completed
2005	Upper Ridge	Ponderosa Wy Parcel aka Butte Defensible Space Unit 4	BLM	Fuels Reduction work with lop and scatter, pile burning	Ongoing
2006	Upper Ridge	Coutolenc Shaded Fuel Break and Watershed Protection Phases I - III	BCFSC	A 200' fuel break along the Coutolenc Road area provides watershed and protection and community protection during a wildland fire	Completed
2008	Upper Ridge	Paradise Lake	Paradise Irrigation District	Paradise Lake Access	Completed
2009	Upper Ridge	Concow Project - Magalia Parcels	USFS Plumas Ranger District	Fuels Reduction Projects on USFS lands	environmental compliance stage
2010	Upper Ridge	Pine Ridge School Defensible Space	School District/BLM	Fuels Reduction demonstration site	In Progress
2010	Upper Ridge	New Skyway Shaded Fuel Break	BCFSC	Shaded Fuel Break Project	In Progress
2010	Upper Ridge	Magalia Reservoir Shaded Fuel Break	BCFSC	Shaded Fuel Break Project	In Progress
2010	Upper Ridge	Humbug Rd. Shaded Fuel Break	BCFSC	SFB from intersection of NimsheW to Skyway	In Progress
2010	Upper Ridge	South Fir Haven Neighborhood Fuels Reduction	BCFSC	fuel reduction, residents assistance, education and demonstration sites	In Progress
2010	Upper Ridge	Old Dog Town Rd.	Paradise Irrigation District	Shaded Fuel Break Project	Maintenance
2011	Upper Ridge	Magalia PUSD	BCFSC	Fuel reduction on 60 acre PUSD parcel north of Rosewood	Completed
2011	Upper Ridge	Powellton Rd. SFB	BCFSC	From Doe Mill Rd. to Lovelock	In Progress
2011	Upper Ridge	Skyway Fuels reduction at Toadtown	BLM	Project ties in to efforts with cooperators to develop a safer corridor along the Skyway. 100 feet each side of road - hand cut and chip - with possibility of masticating small sections.	Proposed
2011	Upper Ridge	Little Butte Creek SFB -Phase I -	BCFSC	Shaded Fuel Break- Fernglen Wy. to the East to Carnegie, across Middle Butte Creek to Wycliff wy.	Proposed
2011	Upper Ridge	Little Butte Creek SFB -Phase II	BCFSC	Shaded Fuel Break- Parallel South Park Drive to West Park Dr. to Ponderosa Wy. West on Ponderosa Wy. to NimsheW. South on NimsheW and back to the Little Butte Creek confluence.	Proposed

2011	Upper Ridge	Little Butte Creek SFB -Phase III	BCFSC	Phase 3- South of Nimshew Rd; Southwest of Middle Butte Creek and Little Butte Creek confluence. Proceeding southeast to Panorama Pt. continuing Northeast to Woodland Dr./Nutmeg Wy.	Proposed
2011	Upper Ridge	Little Butte Creek SFB -Phase IV	BCFSC	Phase 4- North of Nutmeg wy. or Woodland Dr./Quail Wy. across Little Butte Creek to the North to Road N258-Athens Wy.	Proposed
2008-2009	Upper Ridge	Forks of Butte Shaded Fuel Break	BLM	Shaded Fuel Break Project	Ongoing
2008-2009	Upper Ridge	Doe Mill Rd. from Powleton to Butte Creek	Upper Ridge FSC	Shaded Fuel Break Project	Proposed
2008-2009	Upper Ridge	PG&E Canal	Upper Ridge FSC	Shaded Fuel Break Project from Doe Mill to UR FSC northern boundary	Proposed
2008-2009	Upper Ridge	Skyway Shaded Fuel Break	Upper Ridge FSC	both sides of Skyway from Old Magalia to URFSC northern boundary	Proposed
2008-2009	Upper Ridge	Hup Coutoelnc Rd. Shaded Fuel Break	BCFSC	Hup Coutolenc Rd. tie to Skyway to protect Magalia from a North wind event	Proposed
2008-2009	Upper Ridge	Troy Estates	Upper Ridge FSC	Fuel reduction on two 10 acre parcels	Proposed
2008-2009	Upper Ridge	17 mile shaded fuel break north boundary	Upper Ridge FSC	Shaded Fuel Break Project	Proposed
2008-2009	Upper Ridge	West Side of Old Magalia	Upper Ridge FSC	Shaded Fuel Break Project	Proposed
2008-2009	Upper Ridge	Centerville Rd. Shaded Fuel Break	Upper Ridge FSC	Shaded Fuel Break Project	Proposed
2008-2009	Upper Ridge	Hum Bug Rd. Shaded Fuel Break	Upper Ridge FSC	SFB from intersection of Nimshew to Skyway	Proposed
2008-2009	Upper Ridge	West Side of Old Magalia	Upper Ridge FSC	Shaded Fuel Break Project	Proposed
2008-2010	Upper Ridge	Coutolenc Rd. Dozer Line	Upper Ridge FSC	Extension of dozer line parallel to Coutolenc	Proposed
2008-2009	West of Chico	Llano Seco	Cal-Fire	wildlife habitat, prescribed fire and hand work	Proposed
2008-2009	West of Chico	Howards Slough	Cal-Fire	wildlife habitat, prescribed fire and hand work	Proposed
1999	Yankee Hill/Concow	Yankee Hill Evacuation Plan	YHFSC	Plan updated 2010 with a community wide mailing	Ongoing
2001	Yankee Hill/Concow	Dooryard Education Visit Program	YHFSC	The beginning of the Dooryard Program concept, residents wanted to be more proactive in educating homeowners about defensible space and disaster preparedness, personal and community. Provided community coordinator, necessary equipment and supplies for volunteers and revision of evacuation plan and distribution.	Ongoing

2001	Yankee Hill/ Concow	Cherokee Clean-up	YHFSC	An illegal dumpsite, arson hit site, was cleaned up, 350 tires removed plus other debris, then gated off.	Completed
2001	Yankee Hill/ Concow	Yankee Hill FSC Calendar 2003	YHFSC	Community Calendar produced as a way to get fire prevention messages into the home.	Completed
2001	Yankee Hill/ Concow	Detlow Rd Demonstration Site	YHFSC	¾ mile of roadside fuel reduction, ties into a community Public Assembly Point, where community presentations are hosted and demo site is used.	Ongoing
2001	Yankee Hill/ Concow	Poe Fire Clean-up	YHFSC	14 parcels abandoned were cleaned up with assistance from 58 community volunteers and some contractual assistance to removing cars and debris.	Completed
2001	Yankee Hill/ Concow	Water Source Identification and Mapping	YHFSC	Created a water source ID sign accepted by emergency personnel and use them in communities with no hydrant systems to assist fire personal to resources.	Ongoing
2002	Yankee Hill/ Concow	SPI V Line VMP	SPI	Fuels Reduction Project	Ongoing
2003	Yankee Hill/ Concow	Jordan Hill Fuel Reduction Project	YHFSC	3.5 miles of roadside fuel reduction, providing access to fire personnel to a ridgeline fuel break and residents access for evacuation.	Maintenance
2004	Yankee Hill/ Concow	Yankee Hill Emergency Communication System	YHFSC	AM 1630 will provide and emergency communication system for community and emergency responders	Ongoing
2004	Yankee Hill/ Concow	Community Education Workshops	YHFSC	Will allow 6th Grade Curriculum at Concow School on Pre, During and Post Wildfire preparedness and reforestation field day	Ongoing
2005	Yankee Hill/ Concow	Roadside Hazardous Fuels and Reforestation	YHFSC	Continuation of Poe Fire Clean up, dead and down trees along the egress and access roads, allows 6 street signs and an education with Concow School children	completed phase I/ ongoing
2005	Yankee Hill/ Concow	Crain Ridge Fuel Break and Watershed Protection	YHFSC	A grant awarded early 2005, to begin a strategic fuel break along a ridgeline above the Concow basin and Yankee Hill community.	Completed
2009	Yankee Hill/ Concow	Concow Project	USFS Plumas Ranger District	Fuels Reduction Projects on USFS lands	environmental compliance stage

2011	Yankee Hill/ Concow	Concow Cabins	YHFSC	Design and establish affordable, sustainable housing fire safe, firewise designs for fire prone environments. Assist community residents in the wildland urban interface who are rebuilding a home lost to wildland fire and/or assist residents who want to retrofit and build a home. Continue education on firewise building design and materials, raise funding with an architect design contest and, build (20) FIREWISE - Concow Cabins for residents who lost their home in the 2008 Camp Fire.	Proposed
1980 est.	Yankee Hill/ Concow	V Line VMP	Cal-Fire	Prescribed fire underburn	Ongoing
2007-2008	Yankee Hill/ Concow	Yankee Hill/Concow Concow Road Fuel Reduction-Safety Zones.	YHFSC	Focus on community evacuation/Staging area Safety Zones: Concow School, Crain Park, Camelot.	Completed
2008-2009	Yankee Hill/ Concow	Concow Lake Site Improvement and Invasive Broom Removal Phase I	YHFSC	shaded fuel break project - one mile stretch on Concow Rd.	Pending Project-waiting funding
2008-2009	Yankee Hill/ Concow	Yankee Hill County Roads Fuels Reduction	YHFSC	Roadside Fuels Reduction for ingress and egress	Pending Project-waiting funding
2008-2009	Yankee Hill/ Concow	Jordan Hill Forest Density Thinning	BLM	shaded fuel break project	Proposed
2008-2009	Yankee Hill/ Concow	Crain Ridge/Rim Road Shaded Fuel Break and Watershed and Protection	YHFSC	shaded fuel break project	Completed
2008-2009	Yankee Hill/ Concow	Fire Wise Communities Status	YHFSC	Seeking to become a firewise community	Active since 2009
2008-2009	Yankee Hill/ Concow	Fire Safe Council Managing Director	YHFSC	Someone to provide management for organizational needs, active projects and programs, and seek funding	Completed/Ongoing
2008-2009	Yankee Hill/ Concow	Community Demonstration Sites	YHFSC	Expand and create new demonstration sites located at; Detlow Rd., Lunt Rd., Shuman Ln.	Proposed
2008-2009	Yankee Hill/ Concow	Student After School Wildfire Program	YHFSC	Program to provide education and trade building skills for community students	Proposed
2008-2010	Yankee Hill/ Concow	Biomass Utilization	YHFSC	Research and funding to sustain new and old methods of biomass utilization such as fire wood, pellet stove wood production	Proposed
2010/2011	Yankee Hill/ Concow	Concow Hazardous Fuels and Reforestation	YHFSC	Focus on clean up of post fire large tree debris/Utilize tub grinding for biomass.	Proposed
2011	Yankee Hill/ Concow	Yankee Hill Webcam	YHFSC	Establish a web-cam at Flea Mountain to provide another piece of information to residents when incidents occur	Proposed

Figure A: Unit Map

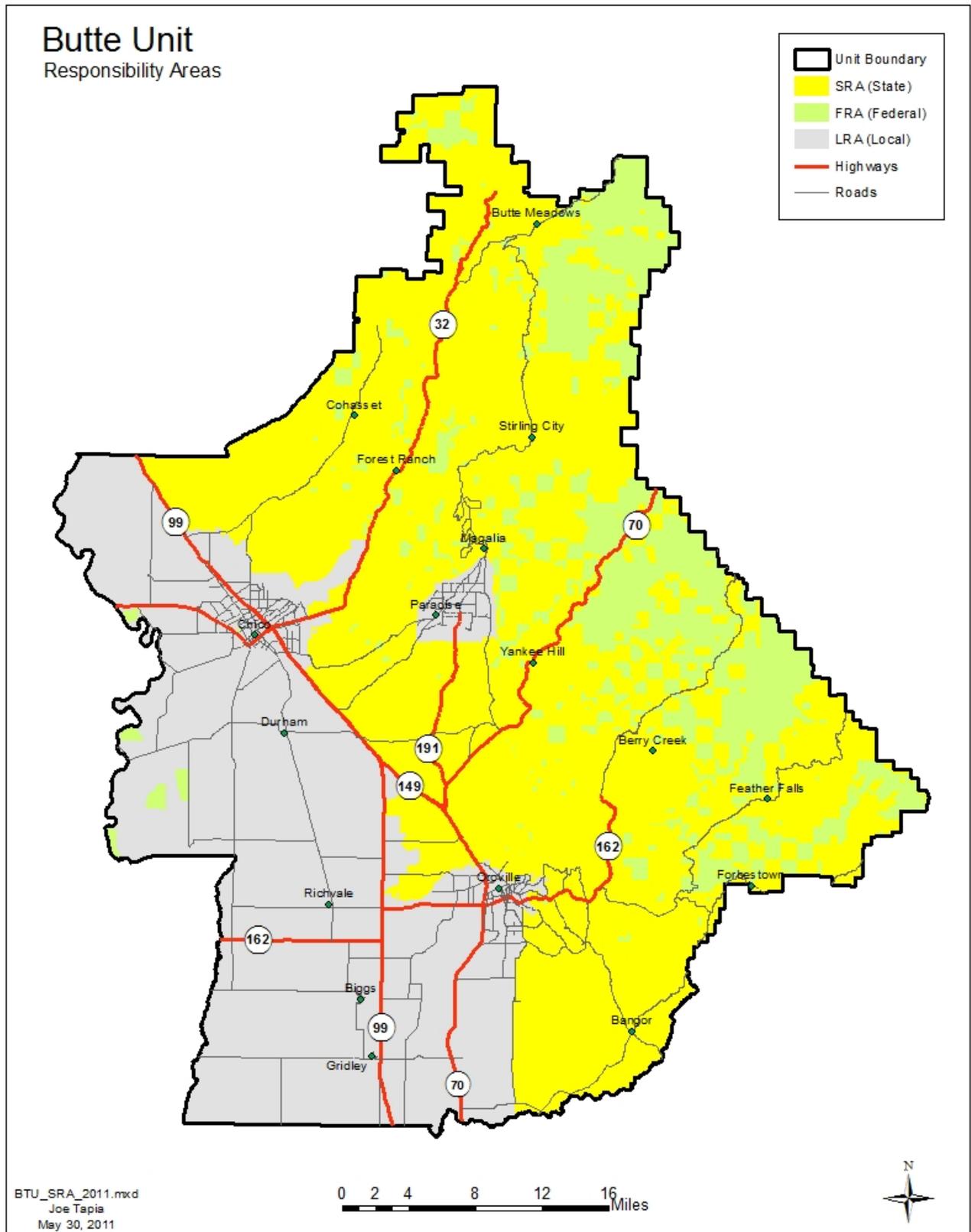


Figure B: Battalion Map

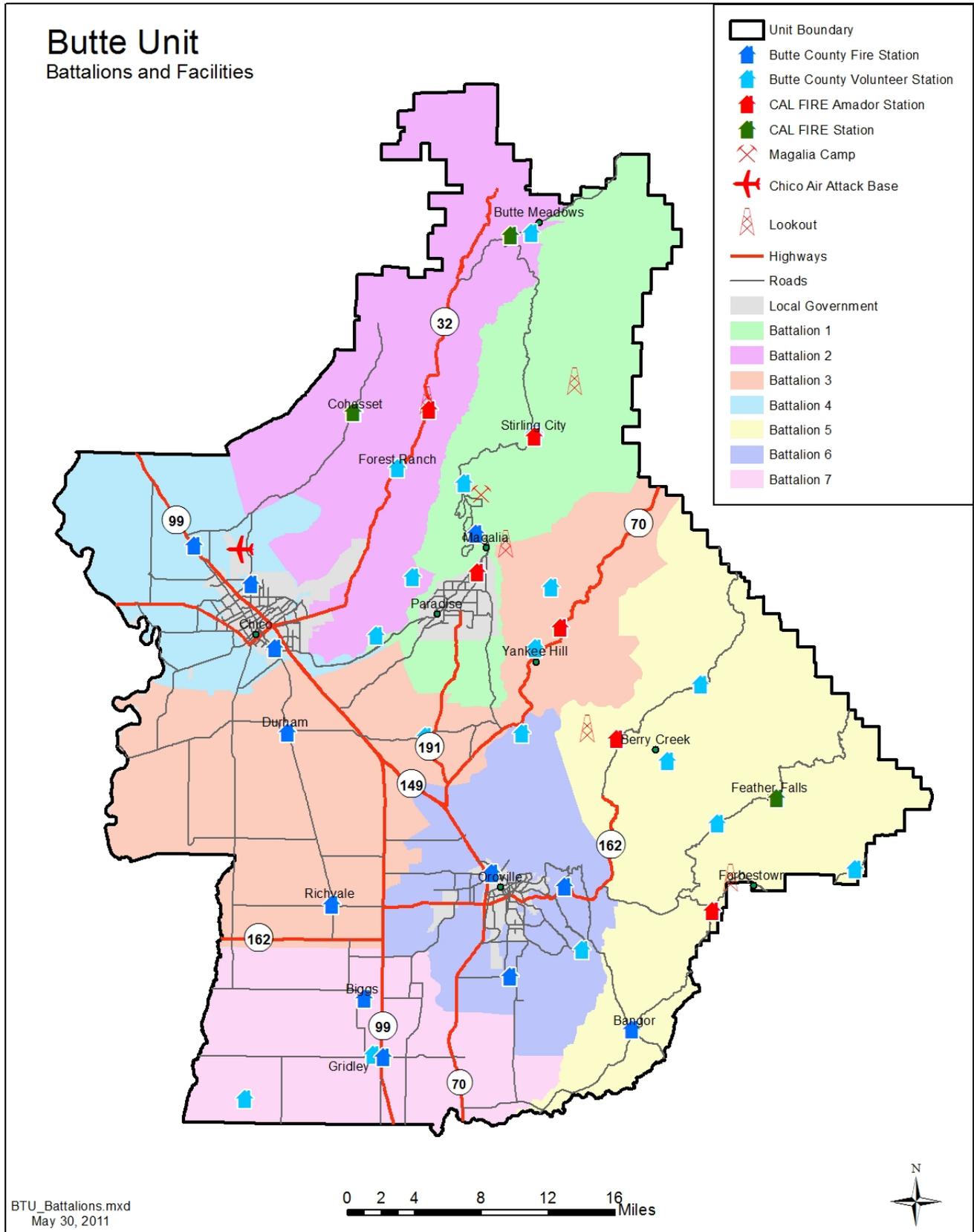


Figure C: Battalion 1 Map

### Butte Unit - Battalion 1

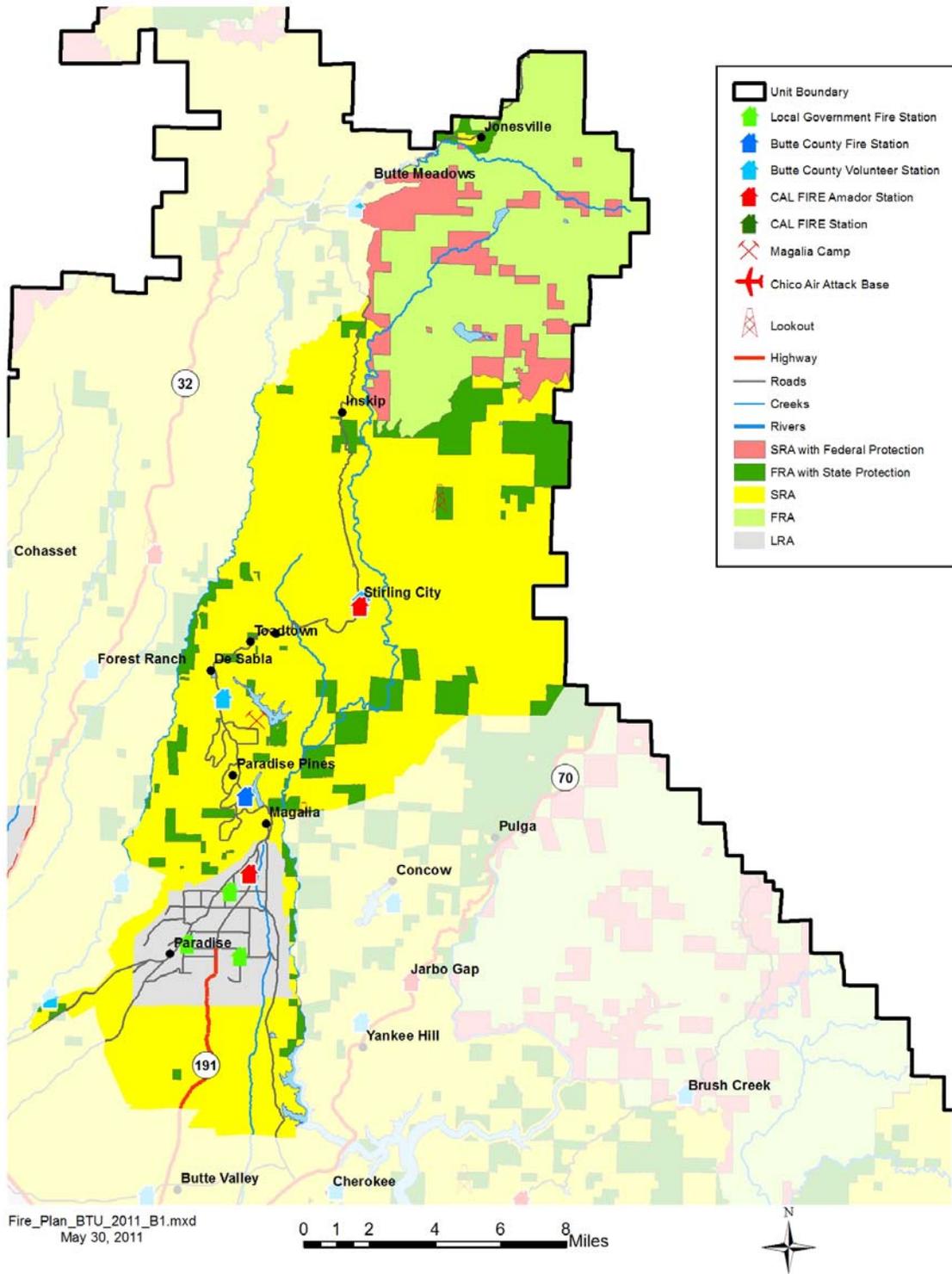


Figure D: Battalion 2 Map

### Butte Unit - Battalion 2

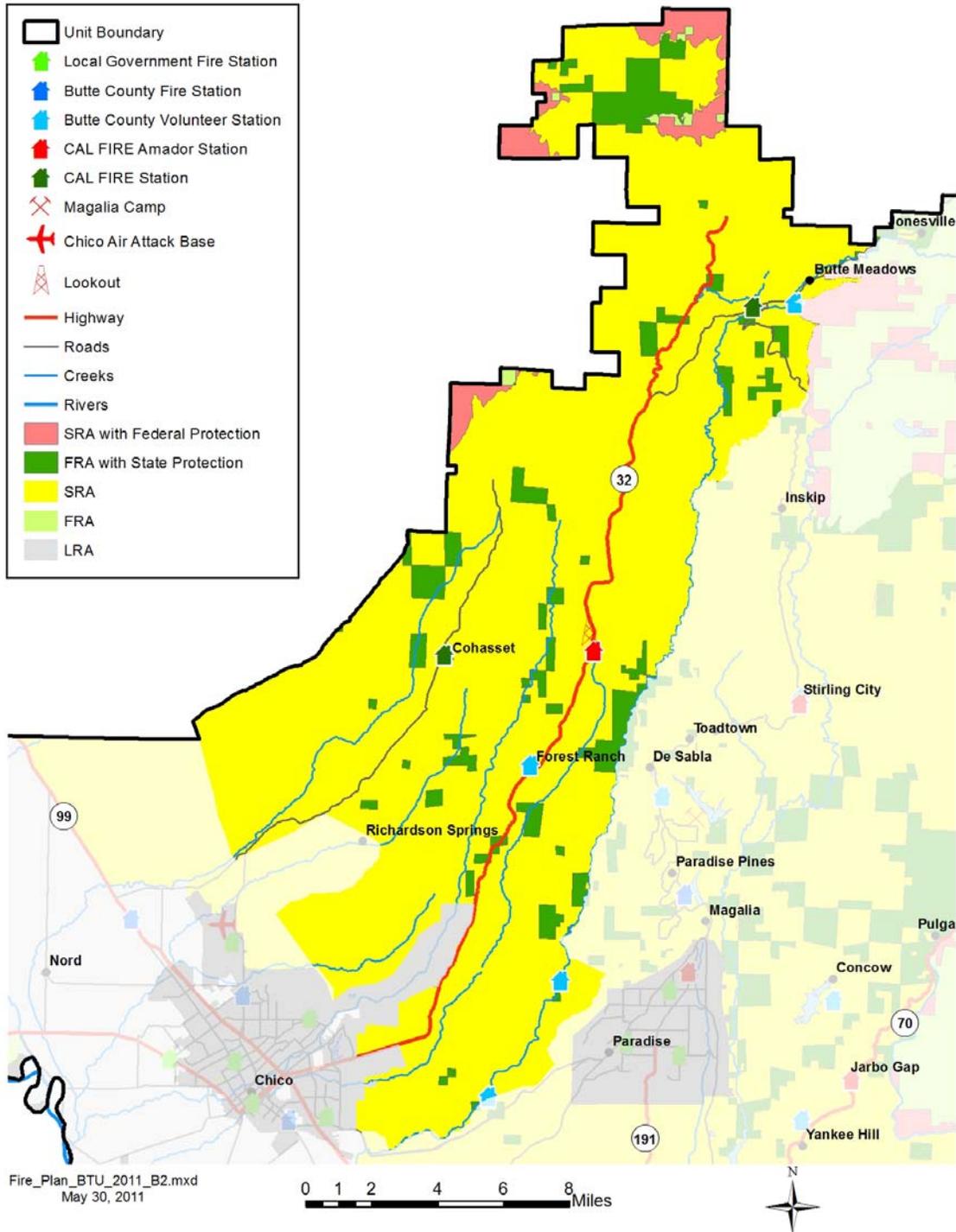


Figure E: Battalion 3 Map

### Butte Unit - Battalion 3

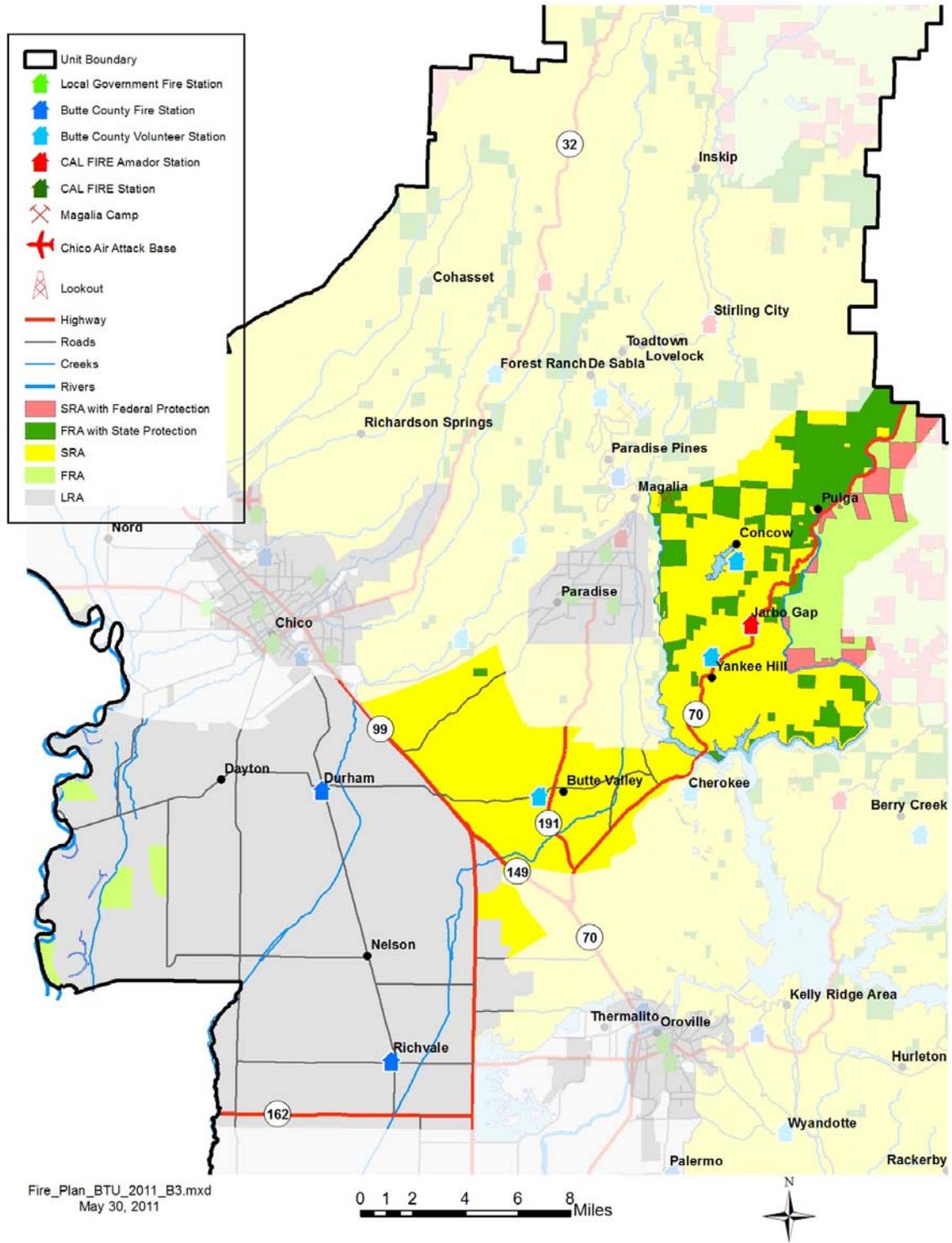


Figure F: Battalion 4 Map

# Butte Unit - Battalion 4

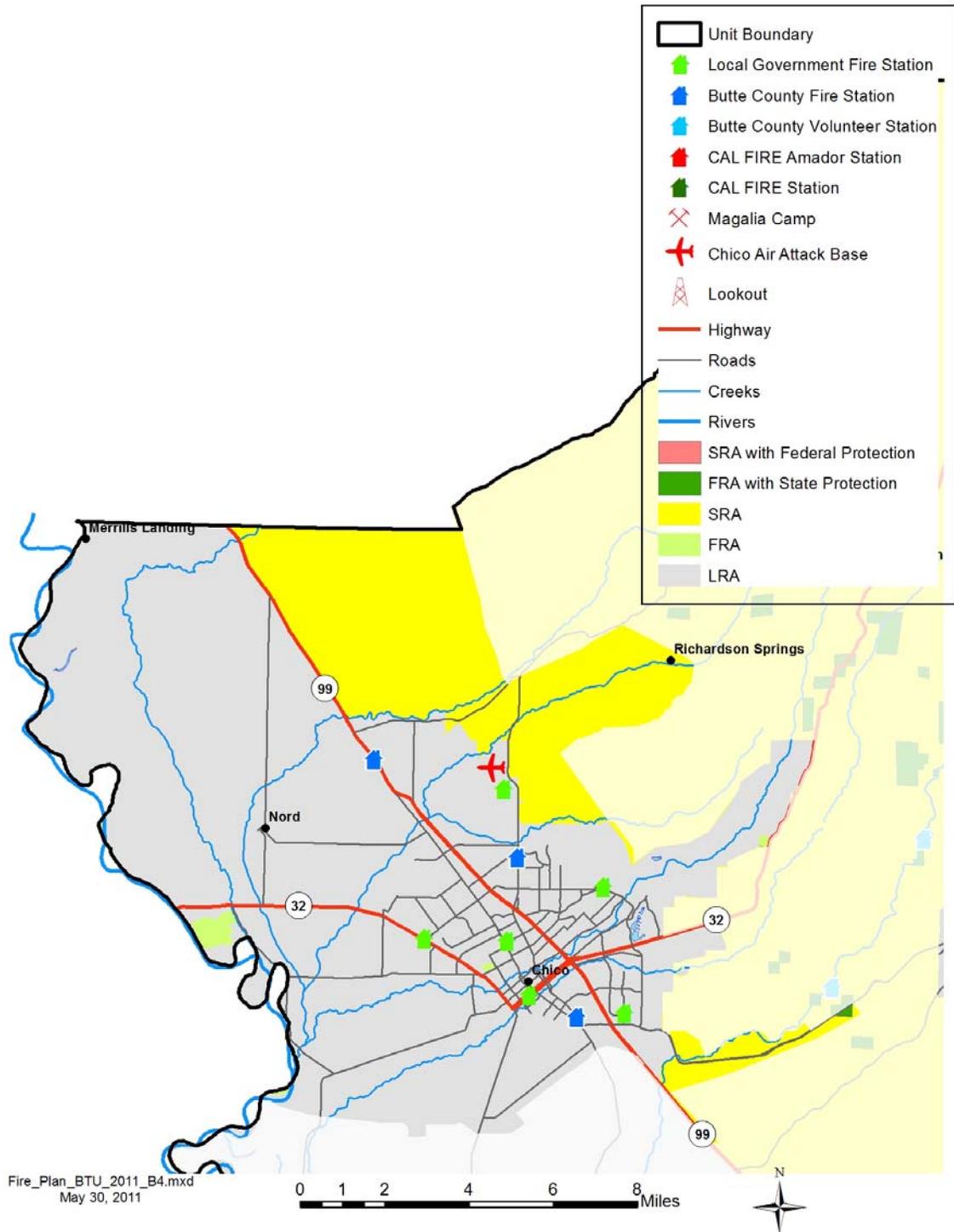


Figure G: Battalion 5 Map

### Butte Unit - Battalion 5

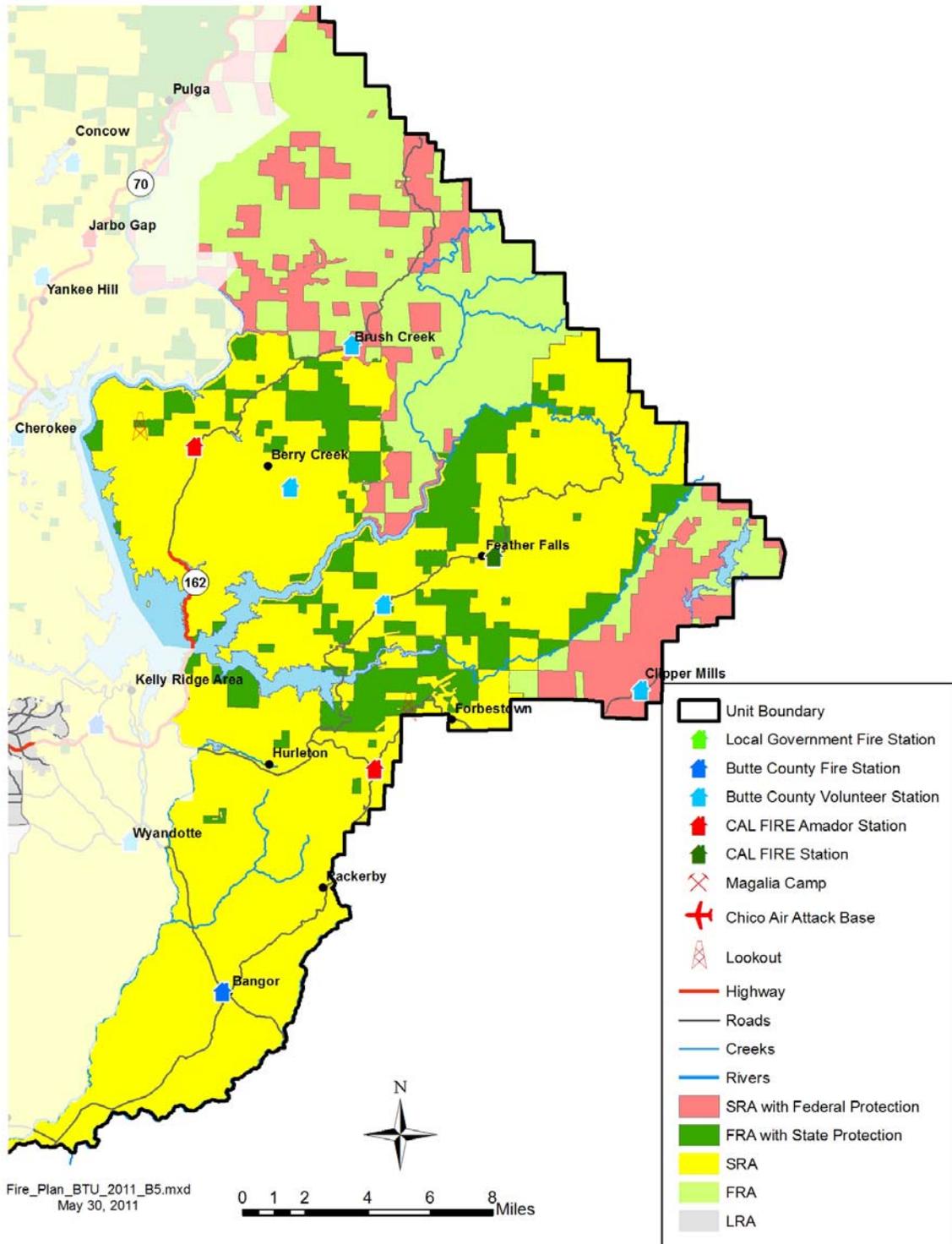


Figure H: Battalion 6 Map

### Butte Unit - Battalion 6

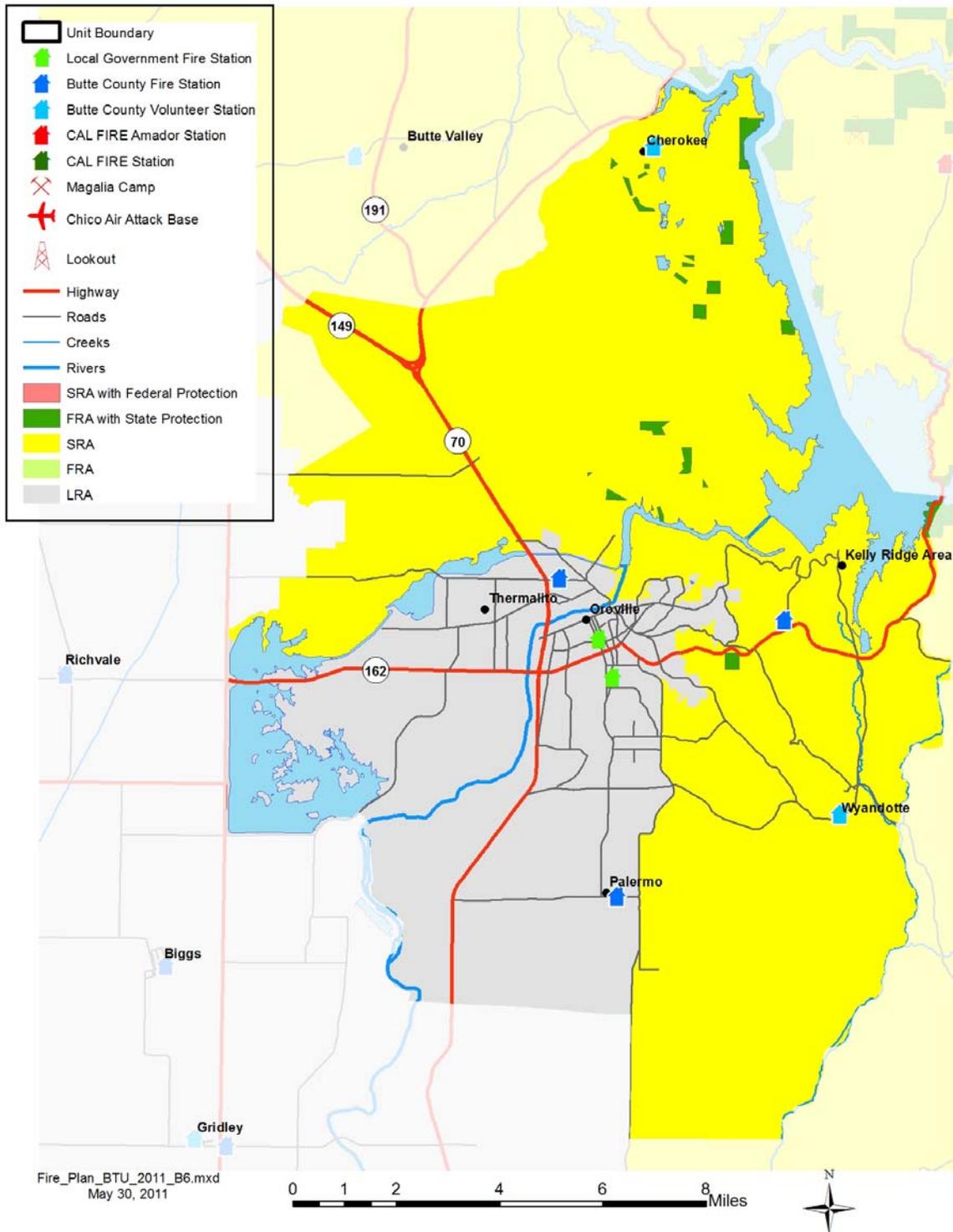
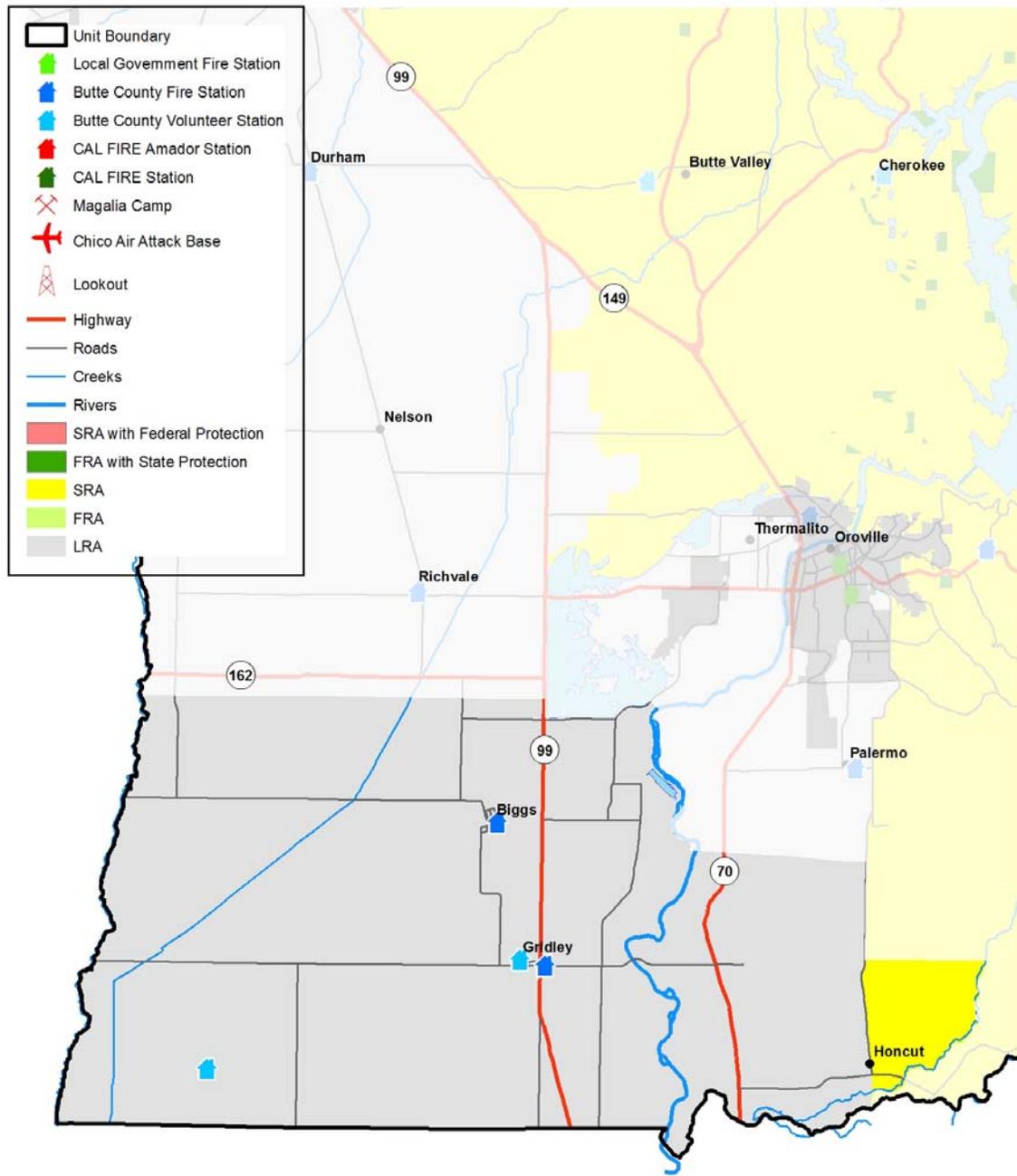


Figure I: Battalion 7 Map

# Butte Unit - Battalion 7



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To be submitted June 2012