

# CAL FIRE

NEVADA-YUBA-PLACER UNIT

## 2022 STRATEGIC FIRE PLAN



Nevada Yuba Placer Unit  
&  
Placer County Fire Department

Brian Estes  
Unit and Fire Chief



## 2022 UNIT STRATEGIC FIRE PLAN AMENDMENTS

<u>Date</u>	<u>Section Updated</u>	<u>Page Numbers Updated</u>	<u>Description of Update</u>	<u>Updated By</u>
5/1/2022	I	6	Updated Population Statistics	MC
5/1/2022	I	8	Updated Fire History	MC
5/1/2022	I	9	Updated Unit Preparedness and Capabilities	MC
5/1/2022	II	19	Updated Local Agreements and Contracts	MC
5/1/2022	V	32	Updated Battalion Plans	MC
5/1/2022	Appendix D	89-106	Updated Ignitions Statistics	EKH
5/1/2022	Appendix H	114	Battalion Priority Project Descriptions	MC
5/1/2022	Appendix I	124	Past and Proposed Battalion Priority Projects	MC
5/1/2022	VI	132	Added Section	MC
5/1/2022	VII	133	Added Section	MC
5/1/2022	Maps	Multiple	Text and font changes	EKH

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**SIGNATURES**

**2022 Unit Strategic Fire Plan developed for Nevada Yuba Placer Unit**

This Plan:

- Was collaboratively developed. Interested parties, Federal, State, City, and County agencies within NEU 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 NEU.
- 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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Brian Estes

5-12-22  
Date



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5-12-2022  
Date



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5-12-2022  
Date

## EXECUTIVE SUMMARY

### Executive Summary

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

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

A big challenge facing NEU is one of education. Many new residents do not realize what building houses in the middle of fire adapted ecosystems means for their safety and the need for fuels management to comply with PRC 4291. The forest types surrounding the population centers within NEU are Mixed Conifer, Ponderosa/Shrub, Montane Chaparral, and California Oak Woodland. Fire adapted ecosystem research shows that prior to European settlement, fire return intervals ranged from 2 to 8 years in California Oak Woodlands and 5 to 16 years in the remaining forest types. This equated to low intensity fires at frequent intervals indicative of lower fuel loading. As of 1900 to 1920, wildfires have been suppressed in these vegetation types. Thus, over the last 80 - 100 years' vegetative fuels have increased significantly in tons per acre. Unnaturally high fuel loads have resulted. But most of the public does not realize this, nor do they understand what this means in terms of fire intensity and their safety. They have come to believe what they see now is "natural."

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

## Priorities and Goals

The State Board of Forestry and the California Department of Forestry and Fire Protection have drafted a comprehensive update of the Fire Plan for wildland fire protection in California. NEU has reviewed the 2019 Strategic Fire Plan (State) goals to develop and incorporate those goals into the Unit Fire Management Plan. NEU's priorities provide the foundation upon which our local goals and objects are built. NEU's priorities and Goals are as follows:

### Priorities:

1. To reduce the risks to citizens and emergency responders from wildland fire.
2. Develop a "land stewardship" ethic in the residents of the NEU.

### Goals:

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

## Current Pre-fire Management and Development

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

## UNIT DESCRIPTION

The Nevada-Yuba-Placer Unit (NEU) is in mid-California, along the east side of the state. The Administrative Unit boundary encompasses all of Nevada, Yuba, Placer, Sierra, and Sutter counties and extends from the Sacramento Valley floor over the crest of the Sierra Nevada to the Nevada state line. The total acreage in NEU is 2,911,086. Of the total acres, approximately 65% is forested land. The balance of acres divides nearly equally between grass and brush. CAL FIRE has direct responsibility for fire protection on approximately 1,200,000 acres. Total direct protection area (DPA) is approximately 875,000 acres, leaving approximately 325,000 acres of state responsibility area serviced by the USFS through local operating agreements.

### Historical Influences

There are four major historical influences that continue to impact fire planning in NEU. These influences also reflect **NEU's Assets at Risk**, which are referenced in a separate portion of this plan. The first historical influence is the installation of the Transcontinental Railroad (TCRR) circa 1860-1890 which has created a checkerboard of land ownership. The ownership is composed of public and private land, being managed with different objectives, and receiving fire protection by different fire agencies. The second influence is the installation of major hydroelectric infrastructure (HYDRO) circa 1912 to 1966, which has created an extensive ignition source and exposure problem in NEU. There are three major hydroelectric systems in place, each owned by a different agency in partnership with Pacific Gas and Electric Company (PG&E). The system provides electricity to over 500,000 homes and businesses in Northern California and includes a power grid that transects multiple large river drainages. Installation of Interstate 80 (I-80) circa 1950-1960, is the third influence and has provided quick easy access for residents, recreation, and commercial traffic. The Interstate has also allowed significant emigration from urban centers to rural communities from 1950-present which has resulted in a rapidly expanding Wildland Urban Interface (WUI) condition. The interstate is not only an ignition source but is also a major route requiring protection in the event of a wildland fire.

Each of these influences helped create the current fire problem in NEU. These influential factors are also clearly linked to **NEU's Assets at Risk**. Life, Property, and Resources are the general priorities for wildland firefighting agencies. In NEU, the assets at risk are further defined in categories as follows: 1) Life safety, 2) Fixed Property, Infrastructure Assets and Real Estate, 3) Watershed Values, Habitat and Natural Resources. Each of the programs and projects implemented by the Nevada Yuba Placer Unit will act to mitigate the threat from wildfire to these resource values at risk from wildland fire.

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

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

the TCRR installation through NEU. Currently, Union Pacific Railroad owns and operates the commercial rail system through NEU. Recent information from Union Pacific reveals that the current rail traffic is 45-50 trains per day.

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

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

Hydroelectric power generation in NEU dates to the Gold Rush. Nevada, Yuba, and Placer counties are now major producers of water and hydroelectric power. Approximately 1,623,000-acre feet of water are stored in 21 reservoirs throughout the region. Of that amount, 472,000-acre feet are delivered directly for domestic and agricultural uses annually. The total generative capacity of electricity in the region is 703 megawatts (MW) from 16 separate powerhouses, providing 3,014,000 megawatt hours (MWh) per year, a quantity of electricity sufficient to service 502,330 homes.

Placer County Water Agency owns and operates the Middle Fork American River Project (MFP). The MFP consists of two major storage reservoirs, five smaller regulating reservoirs and diversion pools, and five powerhouses that began operation in 1967. The MFP supplies water for homes, industry, and agriculture within western Placer County and clean renewable energy to the California electric grid. The project's major storage reservoirs, French Meadows, and Hell Hole have combined capacity of 342,583-acre feet (ac-ft.). The project has a generation capacity of approximately 224 MW and has produced an average of about 1,030,000 MWh per year. The Project includes recreation facilities near its storage reservoirs. In addition, its operations accommodate popular whitewater rafting opportunities in the Middle Fork American River Below Oxbow Powerhouse.

The Nevada Irrigation District began producing power in 1966. NID's reservoir system provides a combined 280,380 acre-feet of water. The district has ten dams and seven power plants with a generation capacity of 82.2 MW and produces an average of 375,000 MWh of energy each year.

Yuba County Water Agency owns and operates 4 dams with a storage capacity of roughly 1 million acre-feet of water and associated powerhouses capable of generating approximately 397 MW of energy with an annual productive capacity of 1,609,000 MWh. Additionally, New Bullard's Bar Reservoir provides a multitude of recreational activities. YCWA delivers about 310,000 acre-feet of water to local irrigation districts annually.



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

Built between 1956 and 1961, Interstate 80 is now the main travel route from Reno to San Francisco. At highway speeds, the travel time from Downtown Sacramento to the heart of NEU is under 1 hour, a distance that many consider acceptable for commuting. In turn, the significant population growth that has occurred since 1960 is due in large part to the Interstate. Established population centers such as Roseville, Rocklin, Loomis, Newcastle, Auburn, Colfax, and Truckee are connected to the Central Valley by Interstate 80. Freight is of prime importance. It is said that closure of Interstate 80 has an economic impact equal to \$1 Million for each minute of closure. Although no statistics could be found to verify this claim, it is well understood that the economic impact of closure justifies one of the most expensive snow removal programs in the entire United States. Closure for any reason is a situation to avoid if possible.

Interstate 80 drops from 7239 feet at Donner Summit to 531 feet at Loomis, an elevation change of 6,708 feet over 67 miles. This steep grade creates significant friction for commercial vehicles travelling downslope towards the Sacramento Valley. During the summer, when temperatures rise and fuels become dry, the potential of a wildfire from hot brakes or vehicles that catch fire due to friction increases. Alternatively, vehicles traveling up slope can overheat resulting in an ignition of roadside vegetation. NEU works diligently to prevent roadside ignitions from becoming major fires.

### **Demographics**

NEU's primary service area encompasses 2,993 square miles. Population will continue to increase over the next decade in this area. SRA areas and LRA areas where NEU has responsibility for fire protection will experience this population growth, creating more occurrences and increased density of Wildland Urban Interface.

Table 1. - Land Area and Population Statistics, CAL FIRE Nevada Yuba Placer Unit, All Counties (2010 - 2020)

County Name	Land Area (Acres)	Year 2010	Year 2021	Trend
Nevada	621,870	98,764	102,241	Upward
Yuba	403,641	72,155	81,575	Upward
Placer	898,787	384,432	404,739	Upward
Sutter	385,625	94,737	99,633	Upward
Sierra	601,163	3,240	3,236	Flat
Totals	2,911,086	653,328	691,424	Upward

Source: U.S. Census Bureau (2020), \* Sierra County population growth is projected to be flat based on 2017-2019 census estimates.

## Physical Description of Environmental Conditions

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

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

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

### Weather and Topography

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

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

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

## Fire History

CAL FIRE strives to extinguish 95% of all wildland fires at 10 acres or less. For those few fires that exceed 10 acres, costs of suppression and value losses grow exponentially. Fire history for the last decade show that most “failures”, fires that are greater than 10 acres, occur primarily on brush and grass covered lands west of Highway 49. Some factors that contribute to these failures include limited resources, long response times, arson and negligence, delayed detection / reporting, fuel types of rapid spread rate, multiple jurisdictions, longer aircraft flight times, simultaneous rapidly expanding incidents.

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

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

It must be reinforced, however, that a wildfire occurring on a severe fire weather day (hot, dry, and windy) will spread with such speed and intensity, that even the promptest response from emergency resources and most aggressive fire control tactics may be ineffective.

There are many local examples of this type of fire – here are some recent ones:

<b>Fire</b>	<b>Year</b>	<b>Community</b>	<b>Size in Acres</b>	<b>Structures Lost</b>
Glenn	2021	Dobbins	184	10
River	2021	Colfax	2,619	142
Intanko	2021	Wheatland	939	2
Willow	2020	Oregon House	1,311	41
Jones	2020	Newtown	705	21
Cascade	2017	Oregon House	9,989	142
McCourtney	2017	Grass Valley	76	6
Lobo	2017	Bitney Springs	821	25
Lowell	2015	You Bet	2,304	1
King	2014	Placer / El Dorado County	97,717	80
Applegate	2014	Applegate	459	10
Dog Bar	2014	Alta Sierra	155	5
Robbers	2012	Iowa Hill	2,635	1
49	2009	Auburn	343	64
Gladding	2008	Lincoln	1,090	4

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

<http://frap.fire.ca.gov/mapping/gis-data/>

## UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

### NEU Facilities

NEU Headquarters is located along Interstate 80 near Auburn. At peak season, NEU staffs 17 fire stations (12 State, 5 Placer County Fire Department), an air attack base, two conservation camps, a fire-prevention bureau, a pre-fire planning office with GIS resource mapping capabilities, 7 RPF's, and 1 Environmental Scientist. NEU also maintains numerous types of heavy equipment.

NEU facilities are spread from the Loma Rica area, in the valley grasslands of Yuba County, through the Gold Country of Placer and Nevada Counties, eastward to Truckee and the Tahoe Basin. NEU also provides various levels of fire protection service through cooperative agreements with three counties and several fire districts. Resources are dispatched and managed through the Grass Valley Emergency Command Center, which is co-located with the Grass Valley Air Attack Base. Peak season air resources include one fixed wing air attack, two air tankers, and one exclusive use Type II Helicopter (EU). NEU supports the use of four lookouts located on State lands in Nevada, Yuba, and Placer Counties. The following is a list of NEU's facilities, equipment, and overhead personnel locations:

Location	Quantity	Personnel and Resources
<b>Auburn Headquarters</b>	1	Unit Chief
	1	Deputy Chief
	3	Battalion Chiefs (Training, Prevention, Admin)
	1	Division Chief (Western)
	1	Administrative Division Chief
	2	Prevention Officers
	1	Heavy Equipment Mechanic
	1	Unit Service Center
	3	Foresters (VMP, Forest Practice and Unit Forester)
	2	Training Captains
	5	Defensible Space Inspectors
	1	Public Information Officer
	1	IT Coordinator
<b>Battalion 11</b>		
Auburn - Station 10	1	Battalion Chief
	2	State Funded Fire Engines
	1	Bulldozer / Transport
	3	Heavy Fire Equipment Operators
	1	State Funded Reserve Fire Engine
	1	Type II Exclusive Use Helicopter
Foresthill - Station 11	2	State Funded Fire Engines
<b>Battalion 12</b>		
Nevada City - Station 20	1	Battalion Chief
	3	Foresters (1 - Forester II, 2 - Forester I)
	2	State Funded Fire Engines
	1	State Funded Reserve Fire Engine
	1	Bulldozer / Transport
	3	Heavy Fire Equipment Operators
	1	Fire Equipment Manager

	3	Heavy Equipment Mechanics
Higgins Corner - Station 21	2	State Funded Fire Engines
<b>Battalion 13</b>		
Colfax - Station 30	1	Battalion Chief
	2	State Funded Fire Engines (1 year around)
Alta - Station 33	2	State Funded Fire Engines
Colfax - Station 36	1	Type I Engine
	1	Type III Engine
	1	Rescue Unit
Alta - Station 98	1	Type II Engine
	2	Type II Water Tenders
<b>Battalion 14</b>		
Smartsville - Station 40	1	Battalion Chief
	2	State Funded Fire Engines
Columbia Hill - Station 42	2	State Funded Fire Engines
<b>Battalion 15</b>		
Truckee - Station 50	1	Battalion Chief
	2	State Funded Fire Engines
	1	State Funded Reserve Fire Engine
Carnelian Bay - Station 55	1	State Funded Fire Engine
<b>Battalion 16</b>		
Dobbins - Station 60	2	State Funded Fire Engines
	1	Bulldozer / Transport
	2	Heavy Fire Equipment Operators
Loma Rica - Station 61	1	Battalion Chief
	1	State Funded Fire Engine
<b>Battalion 17</b>		
Lincoln - Station 70	1	Type I Engine
Thermolands - Station 74	1	Type I Engine
	1	Type III Engine
	1	Water Tender
Paige - Station 75	1	Water Tender
		Type I Engine
	1	Type III Engine
Sunset - Station 77	2	Battalion Chiefs
	1	Type I Engine
	1	Type III Engine
	1	Type I Ladder truck
	1	Type II Hazmat
Sheridan - Station 78	1	Type I Engine
Dry Creek - Station 100	2	Type I Engines
	1	Type I Water Tender
	1	Type III Engine
<b>Battalion 18</b>		
Atwood - Station 180	1	Battalion Chief
	2	Type I Engines
	1	Type I Ladder Truck

	1	Rescue Unit
Ophir – Station 182	1	Type I Engine
	1	Breathing Support
	1	Type I Water Tender
<b>Grass Valley Emergency Command Center</b>	1	Emergency Command Center Battalion Chief
	6	Emergency Command Center Captains
	17	Emergency Command Center Communications Operators
<b>Grass Valley Air Attack Base</b>	1	Air Attack Battalion Chief
	1	Air Attack Captain
	2	Type III Air Tankers
	1	Air Tactical Platform

## NEU Conservation Camp Programs

The Placer Fire Center is a cooperative program with the California Conservation Corps (CCC). These CAL FIRE/CCC fire crews are available for fire suppression, other emergency incident mitigation, and to perform fire prevention and resource management work.

Washington Ridge (WAR) is a cooperative program with the California Department of Corrections and Rehabilitation (CDCR). Based on inmate population WAR can house enough inmates to form 5 crews. When not responding to emergencies, the crews perform service work projects for state, federal, and local government agencies.

The California National Guard Task Force Rattlesnake (CNA 23) is a Type I Fire Crew that provides hazardous fuel reduction and wildland suppression incident response in California. The program is a cooperative program between CAL FIRE and the State of California Military Department called Task Force Rattlesnake. CNA 23 is currently housed at CAL FIRE Station 20 Nevada City and responds with 15-24 soldiers and two CAL FIRE Captains in an Emergency Crew Transport.

Grass Valley Crew is a crew of personnel and machines dedicated to fuels reduction projects. They focus on hazardous fuels reduction techniques including prescribed burns, hand and mechanical fuel reduction, fire planning, and fire prevention education with an emphasis on improving public health and safety while reducing wildfire potential to California communities and forests. They work under NEU's Pre-Fire Prevention Program and support fuel reduction projects. In times of resource shortages due to wildfire activity the crew also responds to wildland fire incidents.

<b>Location</b>	<b>Quantity</b>	<b>Personnel and Resources</b>
<b>Placer Fire Center</b>	1	Division Chief (Eastern)
	8	Fire Captains
	2	CCC Fire Crews
<b>Washington Ridge Camp</b>	1	Division Chief (Northern)
	8	Fire Captains
	Up to 5	CDCR Inmate Crews
<b>Task Force Rattlesnake</b>	1	California National Guard Fire Crew
	2	Fire Captains
<b>Grass Valley Crew</b>	1	Forester I
	1	Fire Captain
	1	Fire Apparatus Engineer
	1	Forestry Assistant II
	1	Equipment Operator II
	9	Forestry Technicians

## **NEU Fire Lookouts**

### **Mt Howell Lookout (Placer County)**

Mount Howell is located two miles south of Colfax above Interstate 80 and along the Union Pacific Railroad. The lookout was initially constructed in 1930 and has been reconstructed several times. The Lookout is unstaffed unless significant fire weather is projected. Areas serviced by Mount Howell Lookout are visible from other lookouts in NEU and numerous residents and travelers provide reports of fires in the area.



### **Banner Mountain Lookout (Nevada County)**

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





### Wolf Mountain Lookout (Nevada County)

Wolf Mountain is a broad, flat north trending ridge located in Nevada County west of WolfCreek. The lookout was built in 1981 and is staffed annually with volunteers during fire season. the site has radio and microwave facilities.



### Oregon Peak Lookout (Yuba County)

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



## **NEU Remote Automated Weather Stations (RAWS)**

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

Historic data is available from May 1992 forward.

Location: Secret Town, CA

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

Elevation: 2,826 ft.

NWS ID: 041808

<https://wrcc.dri.edu/cgi-bin/rawMAIN.pl?caCSEC>

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

Historic data is available from September 2002 forward.

Location: Reader Ranch, CA

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

Elevation: 1,968 ft.

NWS ID: 041809

<https://raws.dri.edu/cgi-bin/rawMAIN.pl?caCRDR>

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

Historic data is available from August 1991 forward.

Location: Lincoln, CA

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

Elevation: 200 ft.

NWS ID: 041907

<https://raws.dri.edu/cgi-bin/rawMAIN.pl?caCLIN>

### **Tahoe Donner RAWS (Install 2016) – Nevada County**

Historic data is available from August 2016 forward.

Location: Truckee, CA

Latitude: 39°20'18"      Longitude: -120°16'24"

Elevation: 7,399 ft.

NWS ID: 041810

<https://raws.dri.edu/cgi-bin/rawMAIN.pl?caCTDN>

### **Homewood RAWS – Placer County**

Historic data is available from June 2011 forward.

Location: Homewood, CA

Latitude: 39°05'01"      Longitude: -120°10'16"

Elevation: 7,121 ft.

NWS ID: 041909

<https://raws.dri.edu/cgi-bin/rawMAIN.pl?caCHOM>

### **Knox 2 RAWS – Washoe County**

Historic data is available from September 2012 forward.

Location: Incline, NV

Latitude: 39°16'24"      Longitude: -119°57'42"

Elevation: 7,569 ft.

NWS ID: 260117

<https://wrcc.dri.edu/cgi-bin/rawMAIN.pl?nvNKNX>

## **Local Agreements and Contracts**

Meeting the objective of containing 95% of all wildland fires to 10 acres or less requires the application of closest resource concept. This process allows the nearest fire suppression resource to respond to the scene of a wildland fire and begin suppression activities without focusing on responsibility areas or jurisdiction. The co-location of the CAL FIRE ECC with the United States Forest Service Tahoe National Forest dispatch, and local government dispatch responsibilities being a Grass Valley ECC function assists in the application of closest resource concept.

### **Cooperative Fire Protection**

NEU provides various emergency services to local cities, counties, and districts. These cooperative agreements range from full-service fire protection services to dispatch only agreements. Agreements exist in Nevada, Yuba, and Placer Counties. Dispatch services are provided for all local departments in Nevada County. In Yuba County, five local districts receive dispatch services from NEU. In Placer County, NEU provides dispatch only services for several local fire departments and districts in Placer County. Various Amador contracts exist throughout NEU and the Placer County Cooperative Fire Protection Contract provides full fire department services to the County of Placer.

### **Amador Agreements**

Amador agreements are Cooperative Fire Protection Agreements between CAL FIRE and Fire Districts or Departments. The agreements provide for CAL FIRE while in Winter Preparedness to staff State engines at State facilities and provide for fire protection for local fire districts or departments.

### **Mutual Threat Zones**

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

### **Communities receiving full fire protection services include:**

- North Auburn
- Ophir
- Lincoln
- Dry Creek

### **Departments receiving Amador Contract services include:**

- Higgins Fire Protection District
- Loma Rica / Browns Valley Fire Department
- Placer County Fire Department

**Cities receiving Local Wildland Contracts services include:**

- Rocklin - 518.2 acres
- Lincoln – 1,295.2 acres
- Truckee – 6,800 acres

**Cities with Mutual Threat Zone Agreements include:**

- Grass Valley
- Nevada City
- Auburn
- Colfax

**Mutual Aid provided through Cooperative Fire Protection Agreements**

- CAL FIRE / Placer County Fire Department & Local Government Closest Resource Agreement
- CAL FIRE / Placer County Fire Department & Pleasant Grove Fire Department
- CAL FIRE / Placer County Fire Department & Sacramento Metropolitan Fire District
- CAL FIRE / Placer County Fire Department & Wheatland Fire Authority
- CAL FIRE / Placer County Fire Department & Higgins Fire District
- CAL FIRE / Higgins Fire District (CAL FIRE Station 21) & Placer Hills Fire Protection District
- CAL FIRE / Higgins Fire District (CAL FIRE Station 21) & Nevada County Consolidated Fire District
- CAL FIRE / Loma Rica / Browns Valley Community Service District (CAL FIRE Station 61) CAL FIRE / Loma Rica / Browns Valley Community Service District (CAL FIRE Station 61) & Butte County Fire Department
- CAL FIRE / Loma Rica / Browns Valley Community Service District (CAL FIRE Station 61) & Smartsville Fire District
- CAL FIRE / Loma Rica / Browns Valley Community Service District (CAL FIRE Station 61) & Marysville Fire Department

**Departments receiving dispatch services from Grass Valley Emergency Command Center include:**

**NEVADA COUNTY**

- CAL FIRE / Higgins Fire Protection District
- Graniteville Fire Protection District
- Grass Valley Fire Department
- Nevada City Fire Department
- Nevada County Consolidated Fire District
- North San Juan Fire Protection District
- Ophir Hill Fire Protection District
- Peardale-Chicago Park Fire Protection District

- Penn Valley Fire Protection District
- Rough and Ready Fire Protection District
- Washington Fire Protection District
- Sierra Nevada Ambulance Service

**PLACER COUNTY**

- CAL FIRE / Placer County Fire Department
- CAL FIRE / Alta Fire Protection District
- CAL FIRE / City of Colfax
- City of Auburn Fire Department
- American Medical Response (AMR)

**YUBA AND PLUMAS COUNTIES**

- CAL FIRE / Loma Rica-Browns Valley Community Services District
- Camptonville Volunteer Fire Department
- Dobbins / Oregon House Fire Protection District
- Foothill Fire Protection District
- La Porte Fire Protection District
- Smartsville Fire Protection District
- Bi-County Ambulance

**EASTSIDE (EL DORADO, NEVADA, PLACER AND WASHOE COUNTIES)**

- Meeks Bay Fire Protection District
- North Lake Tahoe Fire Protection District
- Northstar Fire Department
- North Tahoe Fire Protection District
- Olympic Valley Fire Department
- Truckee Fire Protection District

**CAL OES COORDINATION SERVICES**

- Region 4 State OES Coordination Center (11 Counties)
- Nevada County Operational Area Coordination Center
- Lake Tahoe Basin Operational Area Coordination Center

**SIERRA SACRAMENTO VALLEY EMSA HELICOPTER EMS COORDINATION SERVICES**

- Colusa, Nevada, Placer, Sutter, Yuba Counties

**SECTION II: COLLABORATION****A: COMMUNITY / AGENCIES / FIRE SAFE COUNCILS**

Representatives involved in the development of NEU’s Strategic Fire Plan are included in the following table. Their organization and title are indicated below:

**TABLE 2 - Plan Development Team:**

<b>Organization</b>	<b>Representative (title)</b>
CAL FIRE	Unit Forester
CAL FIRE	VMP Coordinator
CAL FIRE	Pre-Fire Engineer
Auburn City Fire	Fire Chief
Placer County Office Emergency Services	Assistant Director
Placer Fire Alliance	Placer County Fire Mitigation Coordinator
Placer County Resource Conservation District	District Manager
Foresthill Fire Protection District	Fire Chief
Placer Hills Fire Protection District	Fire Chief
Fire Safe Council of Nevada County	Director
Northstar Fire Department	Fire Chief / Fuels Specialist
North Tahoe Fire Protection District	Fuels Specialist
Truckee Fire Protection District	Fire Prevention Officer
UC Davis	Sierra Foothill Research & Extension Center Director
Yuba County Fire Safe Council	Yuba Watershed Protection & Fire Safe Council Facilitator
Sierra County Fire Safe Council	Sierra County Fire Safe & Watershed Council

## **Fire Safe Councils and CWPP's within NEU**

### **Placer County**

**Placer Fire Alliance** (<https://www.placer.ca.gov/5721/Fire-Safe-Alliance>)

(Foresthill FSC, Greater Auburn FSC, Placer Sierra FSC, Greater Lincoln Area FSC)

Placer County CWPP: <https://www.placer.ca.gov/DocumentCenter/View/506/Community-Wildfire-Protection-Plan-PDF>

North Lake Tahoe CWPP: [http://www.tahoelivingwithfire.com/wp-content/uploads/2018/11/LakeTahoeBasinCommunityWildfireProtectionPlan\\_ReducedQuality.pdf](http://www.tahoelivingwithfire.com/wp-content/uploads/2018/11/LakeTahoeBasinCommunityWildfireProtectionPlan_ReducedQuality.pdf)

Northstar Fire CWPP: <http://evogov.s3.amazonaws.com/186/media/161507.pdf>

Olympic Valley CWPP: <https://www.ovpsd.org/ovfd/olympic-valley-community-wildfire-protection-plan>

### **Nevada County**

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

Nevada County CWPP:

<http://www.wildfirelessons.net/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=515965ef-3469-484d-a9a9-cae6b4f45611&forceDialog=0>

Truckee Fire CWPP: <https://www.truckeefire.org/cwpp>

### **Yuba County**

Yuba County Fire Safe Council: <https://yubafiresafe.org/>

Yuba County Foothills CWPP:

[http://www.deercreekgis.com/files/Yuba\\_CWPP/20140819\\_FINAL\\_Yuba\\_CWPP\\_web.pdf](http://www.deercreekgis.com/files/Yuba_CWPP/20140819_FINAL_Yuba_CWPP_web.pdf)

### **Sierra County**

Sierra Fire Safe Council: <http://sierracountyfiresafe.org/>

CWPP is located at: <http://www.sierracounty.ca.gov/documentcenter/view/1468>

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

The Unit description contained in this Fire Management Plan provides the background for identifying NEU's Assets at Risk. The 2017 California Forest and Rangeland Assessment Executive Summary is the most recent analysis and utilizes the Seven Montreal Process Criterion to associate with the assets at risk. The Seven Montreal Process criteria characterize the essential components of sustainable forest management (e.g., biodiversity conservation). In NEU, the assets at risk are further defined in categories as follows: 1) Life safety, 2) Fixed Property, Infrastructure Assets and Real Estate, 3) Watershed Values, Habitat and Natural Resources. Each of NEU's programs is geared to protect or enhance following summary list of NEU's Assets at Risk:

The 2017 California Forest and Rangeland Assessment is located at:

<https://frap.fire.ca.gov/assessment/>

Life Safety of Community and Fire Personnel

NEU is comprised of a significant population of residents in the Wildland Urban Interface. Many of the roads and driveways are narrow with vegetation occurring up to and overhanging the road edge. Cooperative efforts to improve ingress and egress for evacuation and fire response are needed to ensure public and firefighter safety. Work includes pre-planning of community road systems and water supplies and mapping of temporary refuge areas. Open road access contributes to rapid mitigation of emergency incidents. Reflective signage programs to increase the likelihood that emergency responders will rapidly mitigate threats to residential structures in the WUI will reduce the overall risk to residents' life safety. Water tank placement ensures that remote enclaves of structures deep in the wildland can be protected despite a protracted return time for water tenders or fire engines.

Real Estate, Fixed Property, and Infrastructure Assets

One of the most critical assets at risk are the residential and commercial real estate which provides wealth to individuals and tax base to the municipalities. Protection of structures in the wildland requires defensible space. Proper PRC 4291 clearance ensures that structures have the basics in defense necessary to quickly triage and mitigate fast moving wildfires that tend to cause the greatest damage in the WUI. Prevention efforts to implement broad PRC 4291 inspection activities across the NEU are geared toward achieving compliance. Community based programs, such as chipping programs and other grant related programs are vital in supporting the community-based efforts to achieve compliance.

Nevada, Yuba, and Placer counties are major producers of water and hydroelectric power. The total generative capacity of electricity in the region is 703 megawatts (MW) from 16 separate powerhouses, providing 3,014,000 megawatt hours (MWh) per year, a quantity of continuous electricity enough to service 502,330 homes. Hundreds of miles of main distribution lines supply power to the grid and out to residences in the community. Wildland fires cause power system interruption due to line failures and shutdown due to public and firefighter safety. Many of the main power lines run in locations that are important for the containment of a wildland fire. Main ridges and road systems often align with power infrastructure, both features being important in containing a wildland fire. Interagency and government / private partnerships encourage pre-fire mitigation efforts that minimize the



threats to a consistent uninterrupted power supply and safe conditions for fire resources and the public.

Freight and tourist travel are of prime importance when considering the Railroad and Highway infrastructure. It is said that closure of Interstate 80 or the UP-rail system has an economic impact equal to \$1 Million for each minute of closure. Recent information from Union Pacific Railroad reveals that 45-50 trains per day traverse NEU. It is well understood that the economic impact of interstate closure justifies one of the most expensive snow removal programs in the entire United States. Closure of Interstate 80 or the Union Pacific rail system for any reason is a situation to avoid if possible.

Watershed Values and Water Quality / Quantity

NEU provides approximately 1,623,000-acre feet of water which is stored in 21 reservoirs throughout the region. Of that amount, 472,000-acre feet are delivered directly for domestic and agricultural uses annually to central and southern California. These waters are also used to generate significant amounts of power through hydroelectric generation that supply residents and industry throughout the State. Wildland fires cause power system interruption and can decrease the quality and quantity of water derived from the watershed. Landscape level fuel modification geared toward protection of the watershed ensures the protection of this vital resource. Public information and education on proper forest management techniques and the need for land stewardship promotes long term landscape level fuels reduction.

Timber and Agricultural Values

Timber and Agriculture is a major economic driving force for the region of California that encompasses the NEU. Agriculture reporting is accurate and annually updated. Figures generated here are based on 2019 statistics, the most current complete source available. Regionally, Plumas and Sierra Counties are commonly reported and an adjustment factor of 25% is applied to extract an estimate for Sierra County alone, an area of one quarter the size of Plumas and Sierra combined.

Timber Harvest Value in 2020 by County.  
(Source: CA Dept. of Tax and Fee Administration)

Placer County	\$6,132,721
Nevada County	\$1,909,996
Yuba County	\$2,160,621
Sierra County	\$4,674,920
<b>Grant Total</b>	<b>\$14,878,258</b>

A grand total of \$399.8 Million is directly derived from timber and agriculture in the region, an adjusted value of \$361.2 Million within the NEU alone. A factor of four can be used to establish the total economic benefit from this economic sector which establishes that \$1.599 Billion to \$1.445 Billion enter the economy from agricultural and timber enterprise annually in NEU. Nearly all the agricultural commodities face some level of threat from wildland fire.

Wildlife and Ecosystem

Numerous rare and endangered floral and faunal species thrive in NEU. Project development includes assessment of rare, threatened, and endangered species to ensure

that projects do not result in a significant negative impact to species and individuals. Protection of the species and individuals ultimately is achieved by prevention of large damaging wildfires within NEU. Ecosystem restoration results from implementation of Vegetation Management Projects utilizing low intensity broadcast burning on Department owned properties and private landowners under the VMP program.

## **B: NEU COMMUNITIES AT RISK**

After the 2000 fire season CAL FIRE, working with the California Fire Alliance, developed a list and associated map of communities at risk from wildfire using 1990 Census and USGS Geographic Names Information System data to identify populated places, and CAL FIRE'S Fire and Resource Assessment Program (FRAP) [<http://frap.cdf.ca.gov/>] fuel hazard data. On January 4, 2001, for the purposes of the National Fire Plan, the Department of Interior (DOI) published in the *Federal Register* a "Notice of Wildland Urban Interface (WUI) Communities within the Vicinity of Federal Lands That Are at High Risk from Wildfire."

<https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/fire-plan/communities-at-risk/>

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

Nevada County: 43  
Placer County: 39  
Sierra County: 12  
Sutter County: 2  
Yuba County: 17

## **C: FIREWISE COMMUNITIES**

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

<http://www.firewise.org/>

### **Placer County Firewise Information:**

<https://www.placer.ca.gov/5739/Firewise-USA-Community-Program>

### **Nevada County Firewise Information:**

<https://www.mynevadacounty.com/2782/Organize-Your-Neighborhood>

### **Sierra County Firewise Information:**

<http://sierracountyfiresafe.org/>

### **Yuba County Firewise Information:**

<https://wp-9tvqc6wz7l.pairsite.com/firewise-usa/>

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

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

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

**Engineering** occurs through local building department functions where CAL FIRE personnel are assigned to assist in planning fire safe projects.

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

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

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

Engineering and Structure Ignitability

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

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

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

**Strategies include:**

- Assisting County Planning Departments to properly locate development with

minimum exposure to wildfire.

- Evaluation of construction methods and materials that minimize the potential for structure ignition.
- Reduction of flammable vegetation around structures and along evacuation routes.
- Design of appropriate access capacity, including roadway design, turnarounds, fire lanes.

**Daily tasks include:**

- All engineering and development plans are reviewed for compliance with state and local fire laws and codes.
- Inspecting construction and development for all fire code enforcement issues.
- Inspection of all commercial, residential care homes and commercial tenant improvements and change of occupancy locations in addition to other state mandated inspections.
- Implementation of Title 19 regulations of California Building and Fire Code, including fire sprinkler and alarm system maintenance, appropriate addressing, and water requirements on new construction.
- Pre-plans for commercial buildings and annual fire code inspections for existing construction are also managed at the station level.

### Construction

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

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

## Defensible Space Inspection Program

Proper clearance and treatment of vegetative fuels enhances the protection of structures in the wildland. Public Resource Code 4291(PRC 4291) establishes mandates for the clearance of vegetative fuels within 100' of all structures in the wildland. Zone 1 the Lean, Clean and Green Zone, and Zone 2, the Reduce Fuel Zone currently make up the 100 feet of defensible space required by law. Assembly Bill 3074, passed into law in 2020, requires a third zone, Zone 0, or the Ember Resistant Zone for defensible space.

NEU defensible space inspectors visit residences each year to verify compliance with PRC 4291. Non-compliant landowners are provided an opportunity to perform necessary fuel treatment prior to re-inspection. Second and third inspections are performed to determine the need for law enforcement action. General guidelines for creating defensible space are available here:

<http://www.readyforwildfire.org/prepare-for-wildfire/get-ready/defensible-space/>

Assembly Bill 38 established that, as of July 1, 2021, California Civil Code Section 1102.19 requires a seller of real property located in a High or Very High Fire Hazard Severity Zone to provide the buyer with documentation stating the property is in compliance with defensible space requirements.

The law allows, that if documentation demonstrating compliance cannot be obtained by the close of escrow, the seller and buyer can enter into a written agreement showing that the buyer agrees to obtain documentation of compliance within one year of the close of escrow.

To request an AB 38 Inspection, click the following link:

<https://survey123.arcgis.com/share/e659f03a6e8447af8663e42cf48f60fd>

For additional AB 38 information follow the link below:

<https://storymaps.arcgis.com/stories/b2fc79e82aec4ecab4250987db7312cb>

Residence who live in the wildland can also complete a Self-Assessment of their home and gain a greater understanding of how Defensible Space and Home Hardening can help save their home from the effects of devastating wildfires. Follow the link below to assess your home:

<https://survey123.arcgis.com/share/77d52e2c982e480990320eb5bd53f5fc?portalUrl=https://CALFIRE-Forestry.maps.arcgis.com>

## Online Residential Burn Permits

During certain times of the year and in certain parts of the state, residential landscape debris burning of dead vegetation is allowed. However, homeowners should always check with their local fire station or CAL FIRE station, as well as local air quality management agency before burning. Burn permits may be required and during the dry months, CAL FIRE will suspend burning altogether. CAL FIRE Burn Permits are only for within the State Responsibility Area (SRA), or where CAL FIRE has jurisdictional authority. For information and permits required outside the SRA / CAL FIRE jurisdiction, contact your local City/County fire authority. For additional information on burning, to check current burn status or to apply for a permit follow the link below:

<https://burnpermit.fire.ca.gov/>

## Placer County Hazardous Vegetation Abatement Ordinance

CAL FIRE, fire protection planners within Placer County are also inspectors for the 2008 Placer County Hazardous Vegetation Abatement Ordinance (HVA). They work closely with County employed Defensible Space Inspector and provide oversight for the program. The ordinance was further updated on April 7, 2020 and extends the enforceability of PRC 4291 beyond the property line and to the parcel owner of adjoining parcels within 100' of structures creating a tool that can be applied to improved and unimproved parcels in the County. The ordinance exists only where a hazardous condition (as determined by the Fire Warden) exists. More information on this ordinance is available at:

<http://www.placer.ca.gov/1545/Hazardous-Vegetation-Abatement-Ordinance>

#### Nevada County Hazardous Vegetation Abatement Ordinance

Nevada County enacted an ordinance in 2014 that requires property owners of unimproved parcels to remove hazardous vegetation on their property if it is within 100' of a structure. If the owner does not mitigate the hazardous vegetation on their unimproved property, Nevada County now has the authority to mitigate the hazardous vegetation at the property owner's expense. This ordinance is to ensure that defensible space is maintained on unimproved parcels adjacent to improved parcels, along access and evacuation routes and fire access easements. This includes 10 feet of clearance along the shoulder of the roadway to a height of 15 feet along the boundary of the unimproved parcel.

The purpose of this ordinance is to help protect life, property, and the surrounding environment from the threat of a wildfire. The establishment of this ordinance benefits property owners, and the community by increasing survivability should a wildfire occur. It also aids in the safety of emergency personnel when a wildfire occurs.

The abatement of hazardous vegetation is an essential action that property owners should take to ensure increased survivability of their home, property, and the environment around them. Regular vegetation management on unimproved parcels, as well as improved, is essential to ensure adequate defensible space is maintained.

<https://www.mynevadacounty.com/2750/California-Local-Fire-Safety-Law>

#### City of Colfax Hazardous Vegetation Abatement Ordinance

On March 11, 2020 the City of Colfax adopted Ordinance No. 541 requiring hazardous vegetation abatement and establishment of defensible space regulations. The ordinance requires fuel modification along roadways, around structures and on vacant lots. For more information on the City of Colfax Hazardous Vegetation Abatement Ordinance follow the link below:

<https://colfax-ca.gov/forms-and-faqs/hazardous-vegetation-ordinance/>

#### Landscape Level Fuel Modification

Most landowners respond to the defensible space inspection program prior to LE action. Generally, a fire safe zone of 100' is familiar to the public and our efforts with the inspection program are continually educating the residents that are unaware. However, to accomplish a broader application of fuel treatments beyond the mandated 100' fire safe zone, NEU promotes a stewardship ethic for landowners with property that extends beyond the 100'

zone. Landscape level fuel modifications are promoted through cooperative efforts with local government partners, Resource Conservation Districts, Fire Safe Councils, and through efforts of the NEU Resource Management staff that assist landowners throughout NEU. NEU will continue to assist local government in developing standards, policies, and plans, which will result in a stewardship ethic and landscape level fuel modification.

### Public Outreach and Education

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

#### **School Programs:**

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

#### **Juvenile Fire Setter Intervention Program:**

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

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

Fairs continue to be an effective method of conveying fire prevention messages to the public. NEU personnel participate in the Nevada County Fair in Grass Valley and the Gold Country Fair in Auburn. We also encourage local agencies to participate in our booths to provide a broader means to promote fire safety. At least 5000 people annually pass-through Cal Fire Fair booths and receive fire prevention information, education, and materials.

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

### **Fuels Management**

#### Vegetation Management Program

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

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

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

- Fuel reduction
- Community defensible space
- Range improvement
- Weed management
- Wildlife habitat enhancement

VMP projects use various techniques to accomplish program goals:

- Broadcast burning
- Mosaic burning in chaparral
- Pile & burn using hand crews
- Chipping and commercial biomass
- Mitigation of insect infestation

#### Vegetation Treatment Program

The California Vegetation Treatment Program (CaVTTP), developed by the Board of Forestry and Fire Protection, is a critical component of the state's multi-faceted strategy to address California's wildfire crisis. The CaVTTP includes the use of prescribed burning, mechanical treatments, manual treatments, herbicides, and prescribed herbivory as tools to reduce hazardous vegetation around communities in the Wildland-Urban Interface (WUI), to construct fuel breaks, and to restore healthy ecological fire regimes. The CaVTTP Programmatic Environmental Impact Report (Programmatic EIR) provides a powerful tool to expedite the implementation of vegetation treatments to reduce wildfire risk while conserving natural resources.



## Prescribed Burning on Public Lands

NEU implements cooperative prescribed fire on federal, state, and local government jurisdictions. Using various CAL FIRE agreements, burn plans, and incident specific action plans, CAL FIRE performs prescribed fire operations on State and Federal lands. Both state and private resources assist in the preparation and implementation of broadcast and pile burning operations.

## New Expectations for Broadcast Burning

Fires have been a natural part of the California landscape for millennia. When prescribed fires are carefully planned and executed, they create forests that are healthy and resilient. Native Americans in California used fire as a tool that has had lasting effect on the ecology and evolution of California's forests. While many wildfires are destructive, proper prescribed fires during appropriate fuel and weather conditions, help protect our communities for future generations to safely live in the wildland and continue to enjoy the beauty that surrounds us.

In response to SB 901, the pace and scale of prescribed fire and fuels reduction efforts statewide have become a high priority for CAL FIRE. Through a cooperative agreement process NEU has authorized the research and development of a prescribed burning on private lands program with the goal of increasing agency burning on small private parcels less than 100 acres. Relying upon a technical assistance agreement with Natural Resource Conservation Service (NRCS) and local Resource Conservation Districts (RCD), landowners enter into an Environmental Quality Incentives Program (EQIP) contract for certain practices related to prescribed burn planning, preparation, and implementation. NRCS becomes the NEPA lead agency and achieves environmental protection requirements for the landowner. RCD and CAL FIRE provide the guidance and advice for the preparation of the burn units and plans. The landowner provides the smoke management permitting. Through a technical assistance agreement with RCD and NRCS, CAL FIRE performs ignition and holding operations as the experts in prescribed fire operations. RCD and the landowner work with various resources to mop up and patrol until CAL FIRE determines the fire is controlled.

## **Forest Practice Law Enforcement**

The primary role of the Forest Practice Program is to enforce California's Forestry and Fire Laws on privately-owned lands in California. These laws are found in the Public Resource Code and the California Forest Practice Rules.

<https://www.fire.ca.gov/programs/resource-management/forest-practice/>

NEU Forest Practice Inspectors ensure that private landowners abide by these laws when harvesting trees or conducting other timber operations. NEU Forest Practice Inspectors follow-up on approved THPs with site inspections and work with landowners to reduce environmental damage. Under this program, law enforcement and prevention work together to ensure fire prevention goals.

## Forestry and Landowner Assistance

NEU Foresters administer several state and federal forestry assistance programs as funding is available with the goal of reducing wildland fuel loads and improving the health and productivity of private forest lands. The most recent objective includes advising on insect infestation mitigation strategies, and tree mortality solutions. California's Forest Improvement Program (CFIP) and other state and federal programs that NEU Foresters administer, offer cost-share opportunities to assist individual landowners with land management planning, conservation practices to enhance wildlife habitat, and practices to enhance the productivity of the land. The cost share program encourages landowner participation and requires land uses to remain consistent with the goals of the program following implementation.

### Fire Weather and Fuels Data Collection

NEU maintains and monitors four NFDRS (National Fire Danger Rating System) RAWS stations. These include Lincoln, Secret Town, Reader Ranch and Tahoe Donner. NEU cooperatively maintains Homewood and Knox2 (Incline) RAWS with Placer County AQMD. Each station data posts hourly data via satellite to allow calculation of fire weather indices that can be utilized to guide staffing levels. Bi-monthly fuel moisture sampling throughout NEU, coupled with weather observations provide for fire behavior analysis and preparation for increased fire activity.

NEU maintains an annual Fire Weather Operating Plan (FWOP) for fire business decision support and fire threshold determination. A minimum of ten years of fire history and ignition data are aligned with weather data and fire environmental factors to create statistical relationships for prediction of fire growth and impact. The resulting analysis creates a statistically valid prediction model to establish dispatch levels given fuel and weather variables.

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

**FIRE PREVENTION**

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

**IGNITION MANAGEMENT**

To better address ignition management for NEU, a more detailed analysis of the fires in each major cause classification was conducted.

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

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

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

**4) Equipment** - Historically, this classification has been one of the top causes of wildfire starts in NEU. Through continuing displays and education programs (handouts and the 4291 Program), we hope to continue a downward trend. The main cause of equipment fires continues to be mower fires. These fires were due to mower blades striking rocks and friction belts igniting chaff collected around the belt. Ironically, most of the mower caused fires occurred because of residents trying to clear their property for fire safety but they were clearing during the hottest part of the day, usually between the hours of 10:00 AM and 6:00 PM.

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

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

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

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

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

**10) Smoking** – Many of the fires were carelessly discarded cigarettes along our roadways. However, several bark and planter box fires were directly attributed to smoking.

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

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

**13) Under Investigation** – This is a new cause as of 2019. Some fire causes require detailed investigation to finally establish the cause of the fire.

**14) Exposure - Structure** – This is a new cause as of 2019. Vegetation fires that originate at a structure fire do occur in NEU.

# Ignition Management Plan

## Battalion 11

### Battalion Description

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

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

Cooperators include Auburn City Fire, Bureau of Reclamation, California State Parks, CAL TRANS, Foresthill Fire District, Placer Fire Alliance, Placer County Resource Conservation District, Placer County Land Trust, Newcastle Fire District, South Placer Fire District, Penryn Fire, United States Forest Service, Tahoe National Forest, Eldorado National Forest, Union Pacific Railroad, Placer County Water Association, Pacific Gas and Electric and Kinder Morgan.

### Acreage Statistics

Responsibility Area and Direct Protection Area for Battalion 11-

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

### Battalion Fire History and Occurrence

Historically, large fires are known to occur within and adjacent to the Battalion. Notable in terms of size are the Volcano Fire (1960 – 44,386 acres), Roadside #51 (1964 – 3,545 acres), Ralston Fire (2006 – 8,300 acres), and American River Complex (2008 - 19,580

acres). Each of these fires consumed significant SRA acreage within the Federal DPA. Other significant fires include the Auburn Fire (1961 – 672 acres), Mammoth Fire (2009 - 643 acres), Applegate Fire (2014 – 459 acres), and Trailhead Fire (2016 – 5,646 acres).

## **Mitigation Strategy Action Plan**

### **1. Public Information and Outreach**

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

Burn permits are available online, however the Battalion will continue to issue burn permits at fire stations and events as necessary to promote fuels reduction and fire safety while burning.

#### **B. Public Education Forums –**

The Battalion will continue to implement the public education forums. Typical events throughout the year include:

- Meadow Vista Pioneer Day Parade
- Foresthill Fourth of July Parade
- Auburn City Fourth of July Parade
- Gold Country Fair: Maintain and staff the fair booth display.
- Fire Prevention week open house: Conduct open house tours of the CAL FIRE / Placer County Fire Facility, Auburn Headquarters.

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

Defensible space inspection activities will continue to take place throughout the Battalion, with a focus on the High Priority Target Areas. Battalion staff are working with Unit Prevention and Defensible Space Inspectors to provide inspections effectively and efficiently. Battalion staff is actively engaged with residents, providing them assistance, information, and guidance for effective defensible space.

### **2. Vegetation Management:**

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

The Battalion will encourage and support vegetation management programs within NEU, plus roadside chipping and community chipping programs provided by agency cooperators.

#### **B. Maintenance of Fire Road Access**

The following roads are deemed critical to provide fire equipment access and reduce the potential of a large costly and damaging fire which may originate in the American River Canyon:

- Drivers Flat to Long Point Fuel Break
- McKeon-Ponderosa
- Upper and Lower Lake Clementine

- Robie Point Fuel Break Maintenance
- Stagecoach Road

**C. Interagency Cooperation**

The Battalion will continue to work with Staff from the Auburn State Recreation Area to inform the public on Fire Danger and to work with State Park Staff to maintain and improve the fire road system within their recreation area. The Battalion will continue to work with Auburn City Fire Department shaded fuel break projects within Auburn City limits. The Battalion will continue to work with the USFS Tahoe NF and BLM to identify fuels reduction projects to reduce fire threat to communities.

**D. Vegetation Management / Fuels Modification Projects**

**Battalion 11 Fire Mitigation Projects, Type and Status**

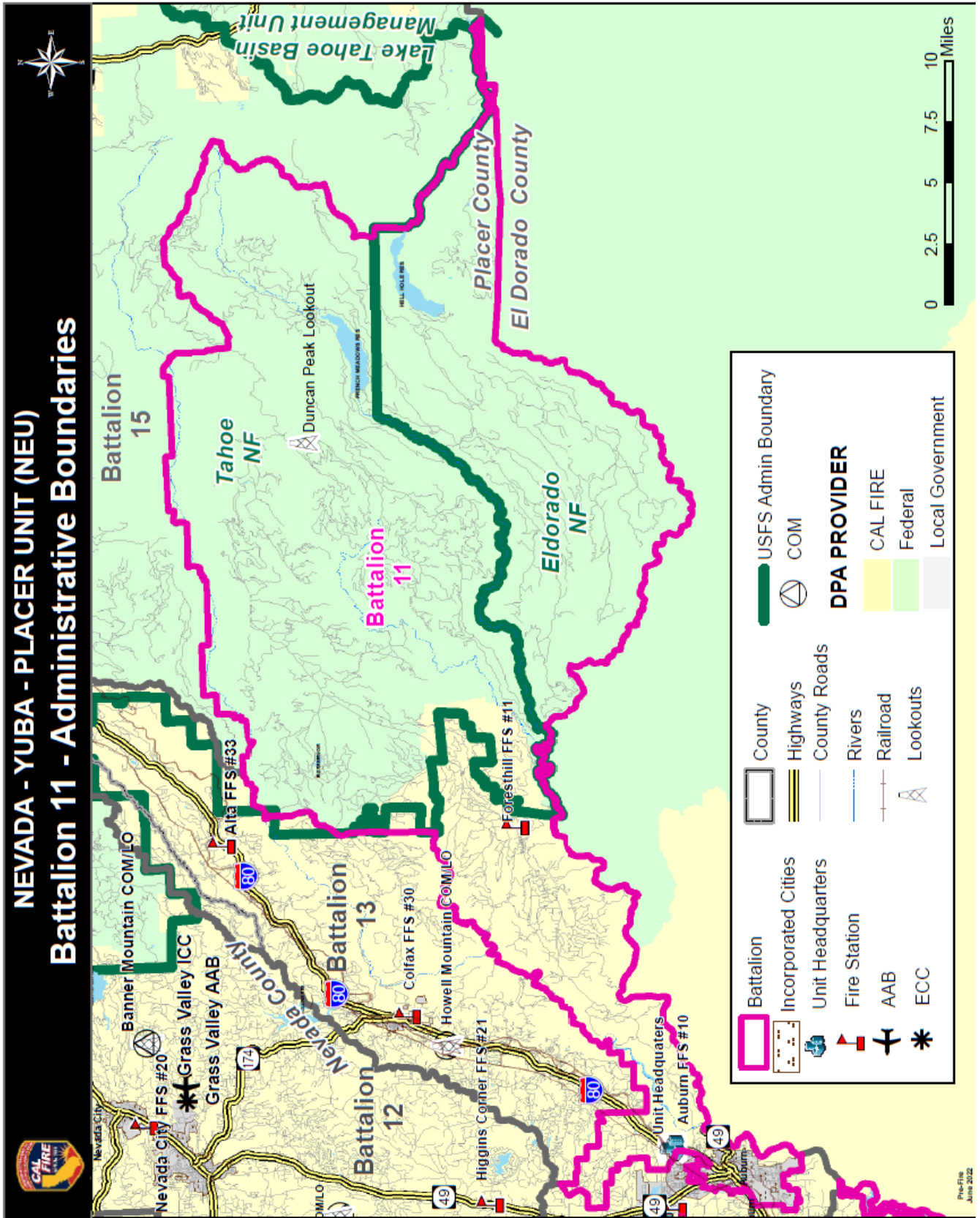
<b>Project Name</b>	<b>Status</b>	<b>Estimated Completion Year</b>	<b>Project Type</b>	<b>Net Acres</b>
North Fork American River SFB / Auburn Shaded Fuel Break / ASRA Critical Fuels Reduction Projects	P / O	2030	Fuel Break / Fuels Reduction	<b>±3500</b>
PCWA Lake Arthur	M	2020	Fuel Reduction	<b>25</b>
PCWA Lake Theodore	M	2020	Fuel Reduction	<b>30</b>
PG&E North Auburn VMP	P	2022	Prescribed Fire	<b>600</b>

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

**3. High Priority Target Areas:**

- **Auburn State Recreation Area WUI**
- **Christian Valley WUI**
- **Foresthill WUI**
- **Michigan Bluff WUI**
- **Todd Valley WUI**
- **Populated areas along canyon rim WUI**

4. Battalion 11 Map





# Ignition Management Plan

## Battalion 12

### ***Battalion Description***

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

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

Cooperators include Grass Valley City Fire Department, Nevada City Fire Department, Nevada County Consolidated Fire District, Higgins Fire District, California State Parks, CAL TRANS, United States Forest Service Tahoe National Forest, Nevada County Fire Safe Counsel, Pacific Gas and Electric and Nevada Irrigation District.

### **Statistics**

Responsibility Area and Direct Protection Area for Battalion 2312

<b>Responsibility Area (acres)</b>	FRA 35,824	LRA 5,155	SRA 174,505
<b>Direct Protection Area (acres)</b>	Federal 43,736	Local 5,043	State 166,992

### **Mitigation Strategy Action Plan**

#### **1. Public Information and Outreach**

##### **D. Burn Permit Administration-**

Burn permits are available online, however the Battalion will continue to issue burn permits at fire stations throughout the Battalion. Staff will work with local fire protection districts and the FSCNC to provide educational materials on safe burning practices to residents.

## **E. Public Education Forums –**

The Battalion will continue to implement the public education forums. Typical events throughout the year include:

- NCFSC Community Wildfire Awareness Day
- School Programs / Career Days (Bear River & Nevada Union H.S.)
- Home & Garden Shows / Fire Safe Work Shops
- Fire Prevention Week / KNCO Talk Radio Program on Wildfire Safety
- Lake Vera Campgrounds
- Nevada County Air Fest
- Nevada County Fair
- Higgins FPD Open House
- Community Wildfire Drills

## **F. PRC 4291 inspection**

The Battalion will continue to implement a defensible space enforcement program in conjunction with NEU Prevention Bureau and encourage landowners to remove hazardous vegetation adjacent to their structures and accomplish home hardening. Nevada County has also implemented Defensible Space Inspections in a cooperative effort with Nevada County Consolidated Fire District. Battalion staff will assist as available when directed by the NEU Prevention Bureau to support this program.

## **G. Education and Outreach**

Nevada County has several Firewise Communities. This program educates, unites, and assists homeowners to take personal responsibility of their own property when creating defensible space and hardening their homes throughout each community. Battalion staff will continue to be engaged and support the Nevada County Coalition of Firewise Communities and the parent organization, the Nevada County Fire Safe Council, in our common goals to reduce wildfire risk in the community.

Private Landowner VMP Program: The Battalion staff will assist Private Landowners with guidance and state regulated inspections to safely conduct multi-acre VMP fuel reduction and control burns, with their own personnel or hired crews.

Equipment Fires – Battalion staff will locate equipment rental yards and dealers to provide educational materials on fire safe equipment use. Battalion staff will also provide inspections of equipment to ensure fire safe operation. Unit PIO will provide radio interviews regarding safe use of equipment in the area.

## **2. Vegetation Management:**

### **E. Chipper Program / Residential Fuel Treatment**

The Battalion will encourage and support vegetation management programs within NEU, plus roadside chipping and community chipping programs provided by agency cooperators. Battalion staff will respond to citizen complaints regarding powerline right of way clearance, coordinate LE-100 inspections and provide necessary tree review to PG&E when questions arise during powerline inspections. Additionally, Battalion staff will engage with and consult local businesses providing fuel modification services to the public.

#### **F. Interagency Cooperation**

Transient Fires – The Battalion will continue to work with local cooperator fire departments and law enforcement to identify illegal transient camps, educate the transient population on fire safety while on suppression assignments in these areas and notify law enforcement of problem areas such as congested illegal camp site while citing illegal burning on private and public lands.

Illegal Marijuana Grows – The Battalion will work with the Nevada County Planning Department to ensure Code Enforcement of Illegal Marijuana grows. Legal grows meet safe ingress/egress requirements and are also required to take fire risk reduction measures thus lessening the chance for fires.

#### **G. Vegetation Management / Fuels Modification Projects**

##### **Battalion 12 Fire Mitigation Projects, Type and Status**

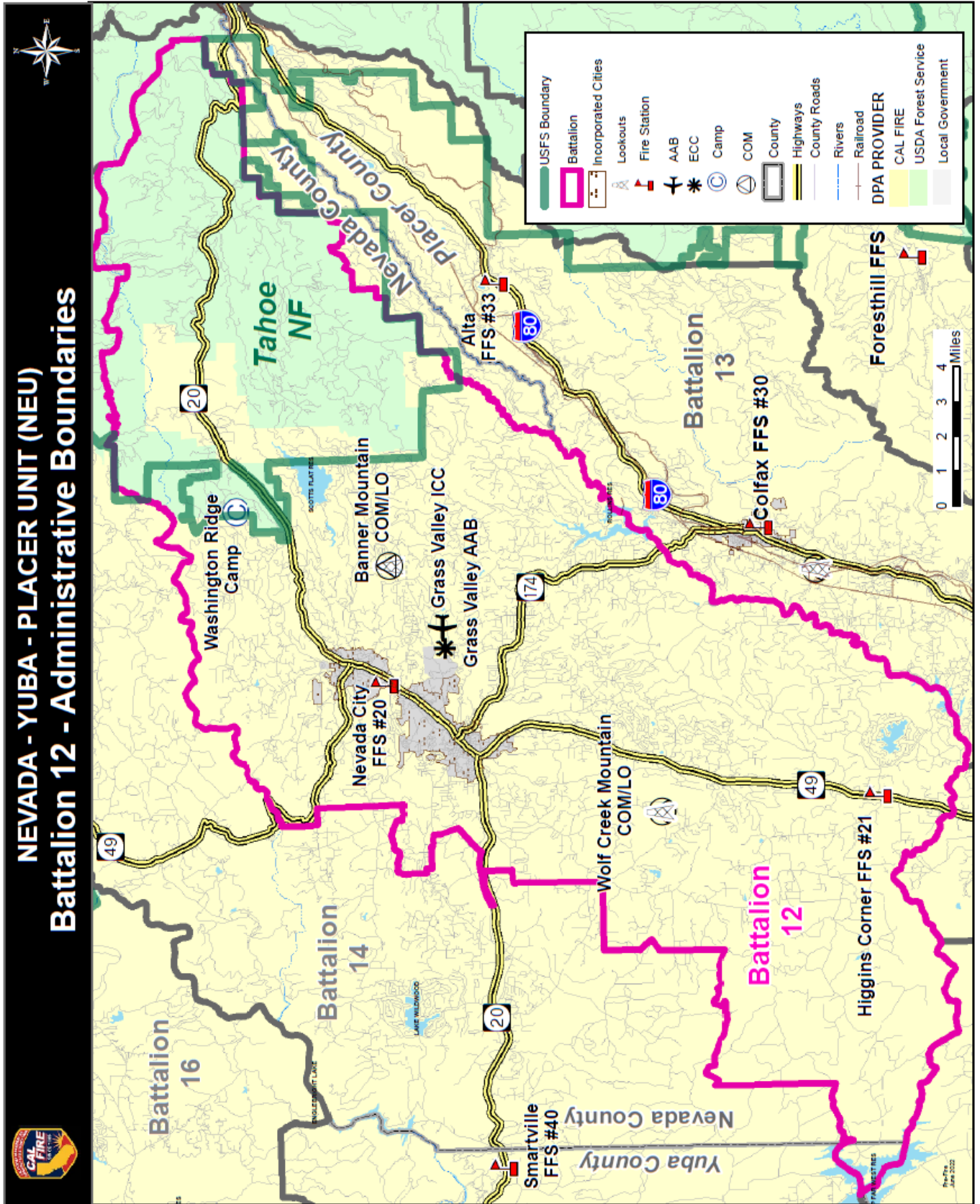
Project Name	Status	Estimated Completion Year	Project Type	Net Acres
South County Fuel Break Lode Star Alta-Sierra	P	2023	Shaded Fuel Break/ Community Protection	1200
Woodpecker Ravine	P	2025	Shaded Fuel Break/ Community Protection	754
Empire Mine Historic State Park	O	2022	Shaded Fuel Break/ Community Protection	300
Ponderosa West Grass Valley Defense Zone	M	2023	Fuel Reduction	1237
Ponderosa West Grass Valley Defense Zone Ext.	P	2025	Fuel Reduction	1000

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

### 3. High Priority Target Areas:

- **Alta Sierra Community**
- **Nevada City Western Deer Creek Watershed:  
Bitney Springs to Champion Mine Road, Slate  
Creek Road (highstructure loss potential)**
- **Rex Reservoir Road**
- **Grass Valley (historical value, high population)**
- **Banner Mountain Community**
- **Cascade Shores.**
- **Hudson Rd / Purdon Rd - Lake Vera Community**
- **Brewer Canyon, Alta Sierra**
- **Retrac Road / Stoneybrook Lane, Grass Valley**
- **Owl Creek Road-Jones Bar Community, Nevada City (LE-  
100 completed 2016-2017)**
- **Starduster Drive, Penn Valley**
- **Lone Valley Road, Penn Valley**
- **Dog Bar / Wolf Creek Communities**
- **South Yuba River Canyon**
- **Rough and Ready Road (Communities East of Lake Wildwood)**

4. Battalion 12 Map



# Ignition Management Plan

## Battalion 13

### Battalion Description

The Colfax/Alta Battalion covers an area of 155,046 acres in size within Placer County along Interstate 80 between Clipper Gap and the Hwy 20/80 interchange. The area varies from densely populated pockets to large unoccupied parcels and is interlaced with an extensive road system. The elevation ranges from 1600 feet in the drainage of the American River Canyon to 5300 feet around Emigrant Gap. The North Fork American River and Bear River form two distinct drainage systems with steep inner gorges and offers dense heavy fuels. The fuels within the Battalion vary as widely as the elevations, spanning an area that contains blue oak woodland where annual grasses and oaks are mixed with brush and landscape plantings to the prime timber bearing soils of the Sierra Nevada mixed conifer zone which are covered with large pine and fir timber. In between these fuel types is a range of chaparral, conifer / oak forest, and grass meadows, all containing light flashy fuels and mixed with residential development.

The population centers of Meadow Vista, Applegate, Weimar, Colfax, and Alta/Dutch Flat are surrounded by a scattered urban interface where parcels range from 2.5 to 20 acres in size, much of which contains residential and some light commercial development. This mix creates a true WUI problem where even the smallest fires without the promptest emergency response could be catastrophic and result in burned structures. While the Colfax/Alta Battalion is not highly populated as compared to other portions of Placer County, the day-to-day traffic flow from the major East/West Freeway (Interstate 80) continues to be a fire problem. In 2018, 9% of ignitions in the Battalion originate from vehicles.

Cooperators include Placer Sierra Firesafe Council, Iowa Hill Firesafe Council, Auburn Firesafe Council, Placer County Sheriff's Office, Foresthill Fire Department, Placer Hills Fire District, the City of Colfax, Iowa Hill Fire Company, Placer County Fire Department, Dutch Flat Company 32, Alta Company 98, Colfax Company 36, Bureau of Land Management, the United States Forest Service, Pacific Gas and Electric, Placer County Water Agency, Union Pacific Railroad and Kinder Morgan.

### Statistics

Responsibility Area and Direct Protection Area for Battalion 2313

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

### Mitigation Strategy Action Plan

#### 1. Public Information and Outreach

##### A. Burn Permit Administration-

Debris burn escapes accounted for numerous ignitions in the Battalion. The public underestimating fuel dryness, noncompliance with the terms of the permit, carelessness and to some degree a lack of permissible burn days in the wetter months of the year are direct causes to the high number of debris burn escapes. To reduce the number of escapes leading to vegetation fires, education at the time of permit issuance is critical so that residents know to review the restrictions and ensure that they comply before lighting their pile.

## **B. Public Education Forums –**

The Battalion will continue to implement the public education forums. Typical events throughout the year include:

- Colfax City Council meetings
- Placer Sierra Fire Safe Council meetings
- Weimar/Colfax MAC meetings
- Lions Club meetings
- Alpine Meadows Community meeting
- Meadow Vista Municipal Advisory Council meetings
- Fire Wise Community walkthroughs

## **C. PRC 4291 inspection**

Defensible space inspection activities will continue to take place throughout the Battalion, with a focus on the High Priority Target Areas. Battalion staff are working with Unit Prevention and Defensible Space Inspectors to provide inspections effectively and efficiently. Battalion staff is actively engaged with residents, providing them assistance, information, and guidance for effective defensible space.

## **D. Education and Outreach**

Recreational areas are frequently visited by CAL FIRE personnel to provide fire safe information and material. The local elementary schools are targeted for Smokey Bear programs. Staff participate in and support the July 3rd and 4th parades in both communities of Colfax & Dutch Flat. Fire prevention signage is used to convey fire prevention messaging to the public in a passive fashion.

## **2. Vegetation Management**

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

The Battalion will encourage and support vegetation management programs within NEU, plus roadside chipping and community chipping programs provided by agency cooperators. Also, working with the Colfax City Council, City Staff and our NEU Fire Planners the Battalion Chief developed a Hazardous Vegetation Ordinance in 2020. This ordinance ensures that (1) structures within city limits establish appropriate defensible space and minimize the risk posed by hazardous vegetation and combustible materials, (2) promote public safety by

mitigating the risk from wildfires, and (3) establish an enforcement process for

the City and procedure to reasonably maximize compliance with the requirements of this ordinance.

**B. Maintenance of Fire Road Access**

**C. The following roads are deemed critical to provide fire equipment access and reduce the potential of a large costly and damaging fire which may originate in the American River Canyon:**

- Drivers Flat to Long Point Fuel Break
- McKeon-Ponderosa
- Upper and Lower Lake Clementine
- Robie Point Fuel Break Maintenance
- Stagecoach Road

**D. Interagency Cooperation**

The Battalion will continue to work with local cooperators fire departments and law enforcement on various issues. The local battalion Chief works closely with the local Fire Safe Councils, up-dating pre-fire plans, and expand on WUI pre-plan guidelines and maps. Staff will continue conducting business inspections through-out the year as fiscal limitations and staff time allow. Annually the Battalion Chief meets with both the Colfax Elementary and Colfax High School staff to discuss defensible space, evacuation, and shelterin place processes.

**E. Vegetation Management / Fuels Modification Projects**

**Battalion 13 Fire Mitigation Projects, Type and Status**

<b>Project Name</b>	<b>Status</b>	<b>Estimated Completion Year</b>	<b>Project Type</b>	<b>Net Acres</b>
Mt. Howell VMP	A	Ongoing	Shaded Fuel Break	40
Alta Shaded Fuel Break Extension	A	Ongoing	Shaded Fuel Break	TBD
North Fork American River Shaded Fuel Break	A	Ongoing	Shaded Fuel Break	5100

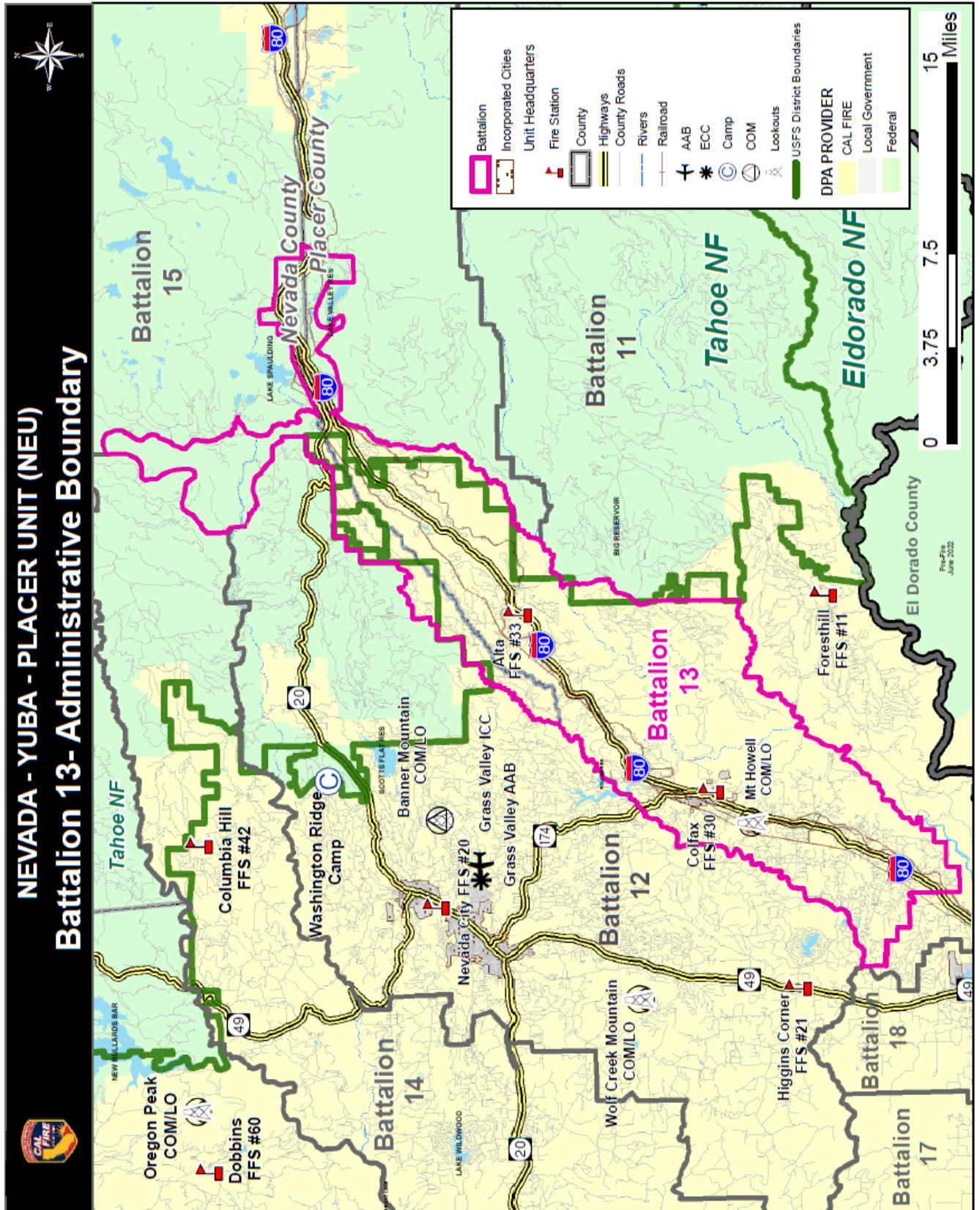
**Status Guide:** A = Active, P = Planning, C = Completed, O = Ongoing, M = Maintenance

**3. High Priority Target Areas:**

- **Colfax WUI**
- **Alta/Dutch Flat WUI**
- **Secret Town/Alpine Meadows WUI**
- **Weimar WUI**
- **Clipper Gap WUI**
- **Applegate WUI**
- **Meadow Vista WUI**



4. Battalion 13 Map



# Ignition Management Plan

## Battalion 14

### Battalion Description

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

Fire agency cooperators include Penn Valley Fire Protection District, Smartsville Fire District, North San Juan Fire District, Rough & Ready Fire District, Wheatland Fire Authority, Linda Fire District, the Bureau of Land Management (BLM), United States Forest Service Tahoe National Forest, and Beale Air Force Base. Non-fire agency cooperators include Pacific Gas and Electric and Nevada Irrigation District.

### Acreage Statistics

Responsibility Area and Direct Protection Area for Battalion 2314

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

### Discussion of fire occurrence within Battalion

Since 1980, there have been thirty-one fires over 100 acres within the Battalion. The most notable of those are the 49er Fire (1988 - 33,500 Ac.), the Oak Tree Fire (1978 – 1800 Ac.), the Lobo Fire (2017 - 821 Ac.), the Jones Fire (2020 – 705 Ac.), and the Trauner Fire (1994 – 536 Ac.).

NEU's most costly and damaging fire occurred entirely within the Smartsville – Columbia Hill Battalion. The 49er Fire began on Sunday, September 11<sup>th</sup>, 1988 near the intersection of Highway 49 and Birchville Rd. and was contained on Thursday September 15, 1988 about

five miles south of Highway 20 in the Smartsville area. Over the course of five days, the fire destroyed 148 homes, 358 other structures, 89 vehicles, and 17 boats. Suppression costs were estimated at 7.5 million dollars and the total dollar lost was estimated at 22.7 million dollars.

## **Mitigation Strategy Action Plan**

### **1. Public Information and Outreach**

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

Cooperators will issue LE-62's consistent with past practice. Issuing points will be CAL FIRE, Penn Valley Fire District, Rough & Ready Fire District, and the North San Juan Fire District. The Penn Valley Fire District will issue at Station #44 and at the administrative office for those areas within Penn Valley and Rough & Ready. The North San Juan Fire District will issue out of Station #3 on Tyler Foote Crossing Road.

#### **B. Public Education Forums –**

The Battalion will continue to implement the public education forums. Typical events throughout the year include:

- Penn Valley School Programs (K -12)
- Smartsville Pioneer Day
- Fourth of July Parade
- Beale AFB Fire Prevention Week
- Lake Englebright Campground fire line construction
- Malakoff State Park Campground – camper education

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

Defensible space inspection activities will continue to take place throughout the Battalion, with a focus on the High Priority Target Areas. The CAL FIRE stations, and Battalion Chief will continue working with Unit Prevention and Defensible Space Inspectors and support this activity with logistical support, inspections and citations if needed.

### **2. Vegetation Management:**

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

The Battalion will encourage and support vegetation management programs within NEU, plus roadside and community chipping programs provided by agency cooperators.

#### **B. Maintenance of Fire Road Access**

There are several roads in Battalion 14 that were maintained for fire access since the early 1950s. Due to years of neglect many of these roads have become nearly impassable for emergency vehicles. In several places changes in ownership have resulted in the new landowners being unaware of

the agreements to the point that North Ponderosa Way now has a home built in the original road prism. Over the next several years, efforts will be made by Battalion 14 personnel to identify the roads that will significantly improve the access into the back country within the battalion and work towards re-establishing as many of the original agreements as possible.

:

- North Ponderosa Way
- South Ponderosa Way
- Jackass Flats Rd. Hoyt's Crossing Rd.
- Murphy Rd.
- Hatchet Creek Rd.
- Big Oak area roads
- Point Defiance / Rice's Crossing Fire Access Roads
- Spenceville Road
- Waldo Low Water Crossing
- Scott Forbes Rd.
- High Prairie Rd.
- Wood's Creek Truck Trail

### C. Interagency Cooperation

Several cooperators provide opportunities for fuels reduction. The University of California Research and Cooperative Extension Center allows us to hold annual training burns at their facility. The California Department of Fish and Wildlife (CDF&W), provides us with areas to conduct wildland training exercises and fuel reduction projects. The Army Corps of Engineers provides water shuttle services for rescues and fire responses across and around Englebright Reservoir. The California State Parks have worked with us in the past to conduct several large Vegetation Management Program (VMP) burns on their lands expanding our fuel reduction efforts in the Yuba River Drainage. Battalion staff support Fire Safe Councils and encourage the establishment of Fire Wise Communities throughout the Battalion.

### D. Vegetation Management / Fuels Modification Projects

#### Battalion 14 Fire Mitigation Projects, Type and Status

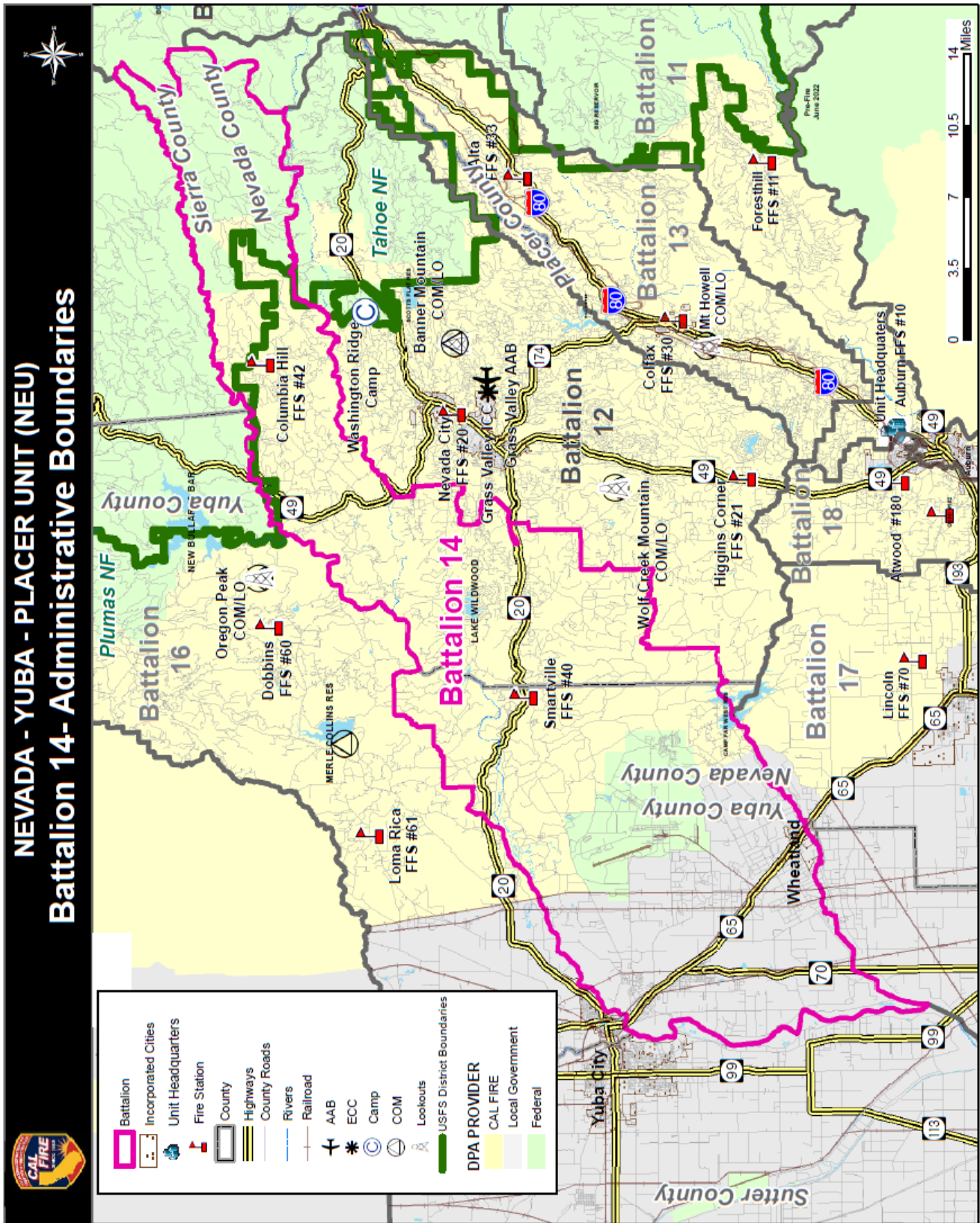
Project Name	Status	Estimated Completion Year	Project Type	Net Acres
UC Field Station VMP	O	2025	Prescribed Fire	6,231
Reader Ranch VMP	P	2025	Prescribed Fire	1500
Malakoff State Park VMP	P	2023	Prescribed Fire	2000
South Yuba Rim Fuel Break	P	2030	Combined Treatments	Pending

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

### **3. High Priority Target Areas:**

- **Lake Wildwood**
- **French Corral, Indian Springs, Spenceville Rd**
- **Tyler-Foote Crossing Rd**
- **Mooney Flat**
- **Pleasant Valley**
- **Jones Bar Ridge**
- **Ananda**
- **Starduster Rd.**
- **Long Valley Rd.**
- **Big Oak Valley**
- **Chuck Yeager**
- **Peoria Rd**
- **Cruzon Grade Ridge**
- **Spenceville Wildlife Area Shooting Range**

4. Battalion 14 Map



# Ignition Management Plan

## Battalion 15

### **Battalion Description**

Battalion 15 covers approximately 832,285 acres within Placer and Nevada counties, as well as portions of Sierra County. The primary population center is the Town of Truckee which is also the location of the Battalion Headquarters at 10277 Truckee Airport Road.

Fuel types vary from annual grasses and brush to timber in topography ranging from high desert and valley landscapes to mountain peaks climbing to over 9,000 feet. The fuel makeup is typical of this diverse high-altitude timber and meadow environment. The fuel loading varies from an average minimum of two (2) tons per acre to greater than twenty-five (25) tons per acre. Significant Wildland Urban Interface (WUI) challenges exist and increase annually with additional buildout of the local communities. The firefighting challenges posed by the expansive growth and development into the wildlands, changing weather dynamics and increasing permanent and transient populations are dynamic, and require constant engagement and response adaptations by CAL FIRE Battalion 15 responders year-round. Battalion 15 staffs a CAL FIRE engine company year-round at Fire Station 50 to ensure the all-risk service, safeguarding and protection of the community.

There has been a significant protection shift within the Tahoe Basin area of Battalion 15. Traditionally, the USDA - Forest Service (USFS) had been the dominant wildland protection provider within the basin; however, following the Blue-Ribbon Commission recommendations following the destructive Angora Fire of 2007, responsibility and protection changed. These changes were driven by clarified policies within the agency on Structure Defense Guidelines (WUI), expanding areas of privately-owned lands with structures, and areas that could not be adequately protected by the USDA – Forest Service. Areas that met these defined parameters were designated State Direct Protection Area (DPA). That translated to CAL FIRE having wildland fire protection and prevention responsibilities for populated areas and private property around the Tahoe Basin, including areas within the North Tahoe and Meeks Bay Fire Protection Districts. Battalion 15 acquired an additional 20,000 acres of State Direct Protection Area, encompassing the communities along the West Shore of Lake Tahoe, Highway 267 and the Highway 89 corridor including Squaw Valley and Alpine Meadows. These mountain communities have a combined population of 26,000 people which can more than quadruple on weekends and holidays, as up to half of the residential structures are vacation or second homes. This geographic area is also one of the most visited in the world.

Cooperators include Truckee Fire Protection District, Northstar Fire Department, North Tahoe / Meeks Bay Fire Protection District, North Lake Tahoe Fire Protection District, Olympic Valley Fire Department, California Highway Patrol, Cal Trans, Fire Safe Council of Nevada County, USDA- United States Forest Service including the Tahoe, Plumas, Humboldt-Toiyabe National Forests and the Tahoe Management Unit, Army Corp of Engineers, Union Pacific Railroad, Liberty Energy, Truckee-Donner Public Utility District, and Pacific Gas and Electric.

## **Acreage Statistics**

Responsibility Area and Direct Protection Area for Battalion 2315

<b>Responsibility Area (acres)</b>	FRA 450,664		LRA 94,858	SRA 266,763
<b>Direct Protection Area (acres)</b>	Federal 643,750	Local Wildland Contract 6,800	Local 37,483	State 123,171

## **Battalion Fire History and Occurrence**

Large damaging and costly fires do occur in Battalion 15. Significant, in terms of acreage are the Donner Ridge Fire (1960 – 44,812 acres), Cottonwood Fire (1994 - 46,800 acres), Martis Fire (2001 – 14,126 acres) and the Loyalton Fire (2020 – 47,029). Fire Hazard Severity data predicts a high likelihood that such fires will occur again.

Typically, Battalion 15 will receive 20-25 vegetation fires per year dependent upon the occurrence and frequency of lightning events, which routinely accounts for a significant ignition source (20% of ignitions) annually. In 2020, the Battalion responded to 39 fires. The fire activity was primarily unattended campfires (21%), Debris escapes (15%) and undermined causes (30%). Other historic problems include freeway related incidents and equipment related causes (15%). Battalion 15 resources routinely respond to mutual aid requests from the United States Forest Service and local fire districts, as well as to fires state-wide in support of the CAL FIRE mission

## **Mitigation Strategy Action Plan**

### **1. Public Information and Outreach**

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

About 2,000 door yard burn permits are issued annually in the battalion. The majority are issued by our local government cooperators. CAL FIRE requires permits from May 1 through December 1; however, our local fire districts enforce the permit requirement year-round. The CAL FIRE imposed burn ban is an important and necessary regulation to ensure the protection of life, property, and resources by minimizing the potential for escapes and fire starts. Burning on the Eastside is daylight hours only on approved burn days. Escapes are rare and usually insignificant due to the proactive measures, and strong community relationships maintained by Battalion 15 staff.

An authorized employee of CAL FIRE or USFS issues LE-5 (California Inter-Agency Burning Permit) and LE-7 (Project Type Burning Permit) on State Responsibility Area (SRA) lands after an inspection. These Project Burn Permits are typically used to dispose of larger piles of material, and typically require an inspection by agency personnel prior to authorization to burn.

The Battalion Chief issues an average of seven Project Burn Permits annually. An example of an annual project burn is Independence Lake,



which is owned and operated by The Nature Conservancy. This joint effort reduces fuel loading, improves forest health, and protects the watershed.

## **B. Public Education Forums –**

The Battalion will continue to implement the public education forums. Typical events throughout the year include:

- School Programs (K-12)
- Truckee Thursdays
- Fourth of July Parade
- Pre-School Programs, Smokey Bear in Day Care Centers
- Fuel Reduction Activities within the Tahoe Basin
- Tahoe Fire and Fuels Team – Fire Public Information Team

## **C. PRC 4291 inspection**

Battalion personnel will continue to collaboratively work with the Truckee Fire Protection District, North Tahoe/Meeks Bay Fire Protection Districts, Northstar Fire Department and Olympic Valley Fire Department with LE-100 Defensible Space Inspections (DSI). These collaborative efforts have proven, shared benefits during emergency and non-emergency responses in the area. Under an annual Wildland Fire Protection Agreement, NEU will provide seasonal Defensible Space Inspectors to assist the Truckee Fire Protection District with LE-100 inspections within the Truckee town limits, including State Responsibility Areas (SRA).

Northstar Fire Department has a comprehensive inspection program in Placer County within SRA that has achieved near 100 percent compliance annually. Tahoe Donner Association's Forestry Department also conducts inspections with a high rate of compliance, enforcement, and mitigation.

## **2. Vegetation Management:**

### **A. Community Fuels Reduction Programs**

CAL FIRE supports fuel treatments with forestry expertise from within the ranks of the department, combined with the fire suppression knowledge of the Battalion Chief. Through this combination of fire and forestry expertise, both large and small landowners can benefit from on-site appraisal of fuel treatment and forest health needs. It is the intent of the CAL FIRE Battalion Chief and CAL FIRE Foresters to encourage and assist landowners to actively manage their properties, and to proactively protect their homes through fuel reduction efforts, defensible space, and home hardening. Each of these actions also enhance natural resource values and help to protect the community.

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

Battalion 15 staff supports the acquisition of project funds that will achieve the installation and maintenance of fuel breaks. CAL FIRE Washington Ridge and Placer Center Fire Crews will continue to support the communities of Battalion 15 (Eastern Placer, Nevada, and Sierra Counties) with comprehensive fuel reduction and fuel break projects.

### **C. Interagency Cooperation**

A large portion of the Battalion lies within the boundaries of the Truckee Fire Protection District. In 1994, the Town of Truckee was incorporated, converting 21,000 acres of State Responsibility Area (SRA) to Local Responsibility Area (LRA). As the town continued to grow, and the demands on the Truckee Fire Protection District increased, in 2010, an agreement was initiated between the Town of Truckee and CAL FIRE for wildland fire protection on approximately 7,900 acres of wildland within Truckee Fire Protection District Boundaries. In 2017, this acreage was reduced to, and is maintained currently at 6800 acres. This protection agreement ensures the use of CAL FIRE's vast response arsenal in the protection of the community from wildland fires at no additional cost (outside of the annual agreement) to the Town of Truckee.

Battalion 15 staff fosters cooperative fire protection, prevention, and emergency response activities with all local, state, and federal agencies. The strong relationship between CAL FIRE, Truckee Fire Protection

District, North Tahoe/Meeks Bay Fire Protection District, Northstar Fire Department, Olympic Valley Fire Department, United States Forest Service, and others has provided for a professional and seamless response to both emergency and non-emergency calls for service. The limited number of fires, and their impacts can be directly tied to the proactive and cooperative daily efforts of Battalion 15 staff and our cooperators.

### **D. Vegetation Management / Fuels Modification Projects**

#### **Battalion 15 Fire Mitigation Projects, Type and Status**

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Brockway Shaded Fuel Break	C	2021	Thinning, chipping, and burning to create a shaded fuel break.	870
Waddle Ranch VMP	P	2022	Prescribed fire	60
Northstar Fire Fuel Reduction	O	2025	Fuel Treatments including thinning, pile burning, prescribed fire	150
SRA Fuel Reduction: Burton and Donner*	O	2025	Thinning, pile burning, hazard tree removal and prescribed fire	1500
Tahoe City Fuel Break	O	2023	A 40' wide fuel break including thinning, pile burning and hazard tree felling operations	225
Lakeview Canyon Fuel Break	O	2023	A 40'-50' wide fuel break including thinning, brushing, chipping, and hazard tree felling operations	200
California Tahoe Conservancy	O	2025	Pile burning and hazardous tree felling operations	50

**Status Guide:** A = Active, P = Planning, C = Completed, O = Ongoing, M = Maintenance. \*Support for some items in the table may be dependent upon SRA Fee/GHG dollars to treat the maximum number of acres shown. Also, the Glenshire projects could be supported by funding secured by the Nevada County Fire Safe Council

### 3. High Priority Target Areas:

CAL FIRE Battalion 15 staff works year-round to maintain, enhance, and improve our fuel reduction, defensible space, and hazard reduction efforts to ensure the service, safeguarding and protection of our communities. Our listed mitigation projects are current projects and are not our only efforts. We will strive to continually identify, initiate, and complete additional projects that will have tangible benefits to the communities that we so proudly serve.

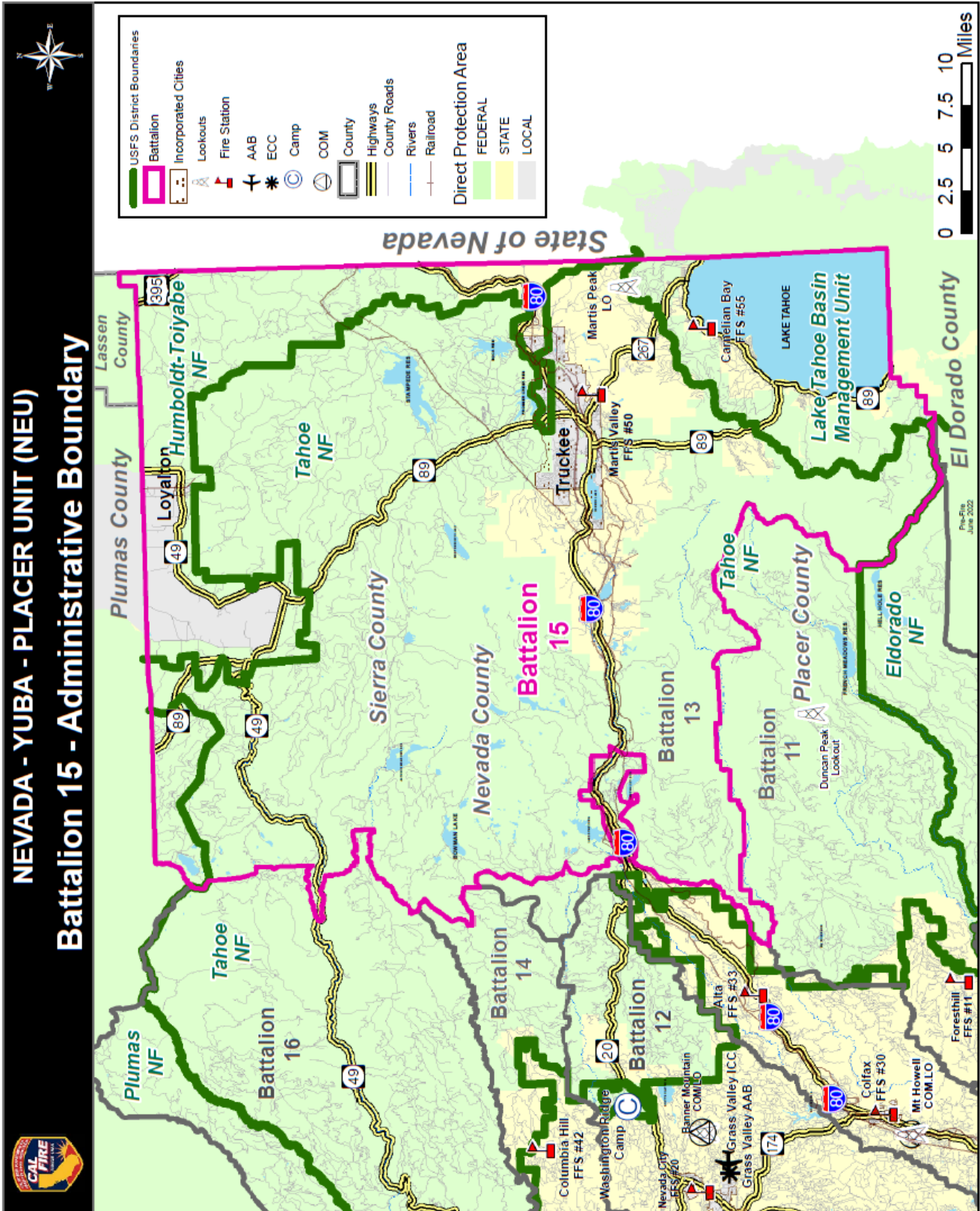
Below are areas that have been identified as High Priority Target Areas in Battalion 15. These areas are and will continue to be engaged to reduce the hazards they pose:

- **North side of Highway 80 (Tahoe Donner & Armstrong Tract)**
- **Glenshire**
- **Ponderosa Palisades**
- **Prosser Dam Road including Gray's Crossing**
- **Burton Creek State Park**
- **Donner Memorial State Park**
- **California Tahoe Conservancy Property**

- **Summit Canyon (Old Highway 40)**

\*These areas have had fuels work; however, they may need maintenance and or new project

#### 4. Battalion 15 Map



# Ignition Management Plan

## Battalion 16

### Battalion Description

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

Fuels are dominated by grasses, but dense brush is common along river bottoms and in non-agricultural areas. Agricultural crops comprise a significant portion of this response area.

The Local Responsibility area within the Battalion's Administrative area is commonly referred to as the Yuba-Sutter Area after the two counties. Cooperators in this area include Marysville Fire, Sutter County Fire, Yuba City Fire, Wheatland Fire Authority, Olivehurst Fire and Linda Fire.

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

### Acreage Statistics

Responsibility Area and Direct Protection Area for Battalion 2316

<b>Responsibility Area (acres)</b>	FRA 221,378	LRA 349,638	SRA 194,138
<b>Direct Protection Area (acres)</b>	Federal 283,587	Local 349,600	State 131,966

### Battalion Fire History and Occurrence

Large fire activity within the Battalion has been consistent over the past few years. Large fire events include the Pendola Fire (Oct 1999 – 11,725 acres), Cascade Fire (October 2017 – 9,989 acres), Williams fire (Sept 1997- 5,838 acres), Yuba Fire (Aug 2009 – 3,829 acres), Willow Fire (Sept 2020 – 1311 acres), Bullards Fire (Aug 2010 – 1,307 acres), Marysville Fire (Aug 2006 – 388 acres) Large damaging and costly fires are a regular occurrence in the Battalion. Fire Hazard Severity Zone mapping (2007 FHSZ) illustrates that there is a high hazard that large damaging and costly fires will occur in the future.

Debris burning escape caused fires remain a significant source of fire starts. The source of these fires relates to diligent fuels reduction efforts being conducted by residents, but the implementation of the burning proves to be risky. Public education is a key element in mitigating many of the fire causes as most fires are caused by human actions.

## **Mitigation Strategy Action Plan**

### **1. Public Information and Outreach**

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

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

April - Battalion staff will train the VIPs in burn permit issuance and ensure that CAL FIRE employees have reviewed the Yuba County Burning Permit Issuance Plan.

#### **B. Public Education Forums –**

Public relations and interaction between CAL FIRE and the community is a key factor in promoting a public understanding of fire prevention. Station 60 and 61 along with VIP's and the volunteers from the LR/BV C.S.D. will participate in local community activities including:

- Year-round coordination of address sign sales and installation
- Wild Hog Glory Daze – Loma Rica Lions Club in May
- Brownsville Mountain Fair – Foothill Fire Department in July
- Bok Kai Parade – Marysville in March,
- Beale Fire Prevention Week – Beale A.F.B. in November.

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

PRC 4291 inspections serve many purposes. One is as a vegetation management motivator. The other is as a public education tool. Inspections generally occur near high priority target areas identified by the Battalion Chief; however, all residential structures are required to comply.

### **3. Vegetation Management:**

#### **A. Community Fuels Reduction Programs**

CAL FIRE supports fuel treatments with forestry expertise from within the ranks of the department combined with the fire suppression knowledge of the Battalion Chief. Through this combination of fire and forestry advice, both large and small landowners can benefit from on-site appraisal of fuel treatment and forest health needs. It is the intent of the CAL FIRE Battalion Chief and CAL FIRE Foresters to encourage and assist landowners to actively manage their properties to protect their homes, reduce fuels and enhance natural resource values.

## **B. Maintenance of Fire Access Roads**

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

- Kane Ranch Rd
- Collins Lake/UC Field Station Access Rd
- Rice's Crossing Rd
- UC Field / Richard's Ranch Rd
- General Road Improvement in the Dobbins/Oregon House Area
- Daugherty Wildlife Area/White Oak

## **C. Interagency Cooperation**

Several cooperators assist CAL FIRE in implementing fire prevention objectives. Loma Rica/Browns Valley CSD personnel and incorporate fire prevention and burning permit issuance program to the local responsibility areas of the fire district. Volunteers in Prevention (VIP) conduct school programs each winter at Yuba Feather, Dobbins, Loma Rica, and Browns Valley Schools. Generally, Battalion staff meet all local cooperators covering fire prevention subjects specific to their needs and promoting the Camptonville Community Partnership Yuba County chipping program to encourage defensible space compliance.

The Battalion Chief remains an acting member on the Yuba Watershed Protection and Fire Safe Council. Working with the Yuba Fire Safe and Watershed Council, several roadside fuel breaks have been completed within the Battalion. The Council gets together annually to prioritize the roads needing work, then they work with the CAL FIRE staff to identify workdays when the crews will be able to clear the road right-of-way by cutting and chipping the brush.



## D. Vegetation Management / Fuels Modification Projects

### Battalion 16 Fire Mitigation Projects, Types and Status

Project Name	Status	Estimated Completion Year	Project Type	Net Acres
County Road 270	P	2021	Fire Road	50
Yuba County Fish and Wildlife Areas Fuel Breaks (Daugherty Hill, Stanfield Hill, Quail Valley)	O	2021	Fuel Break	1500
Rice's Crossing Rd	P	2021	Fire Road	50

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

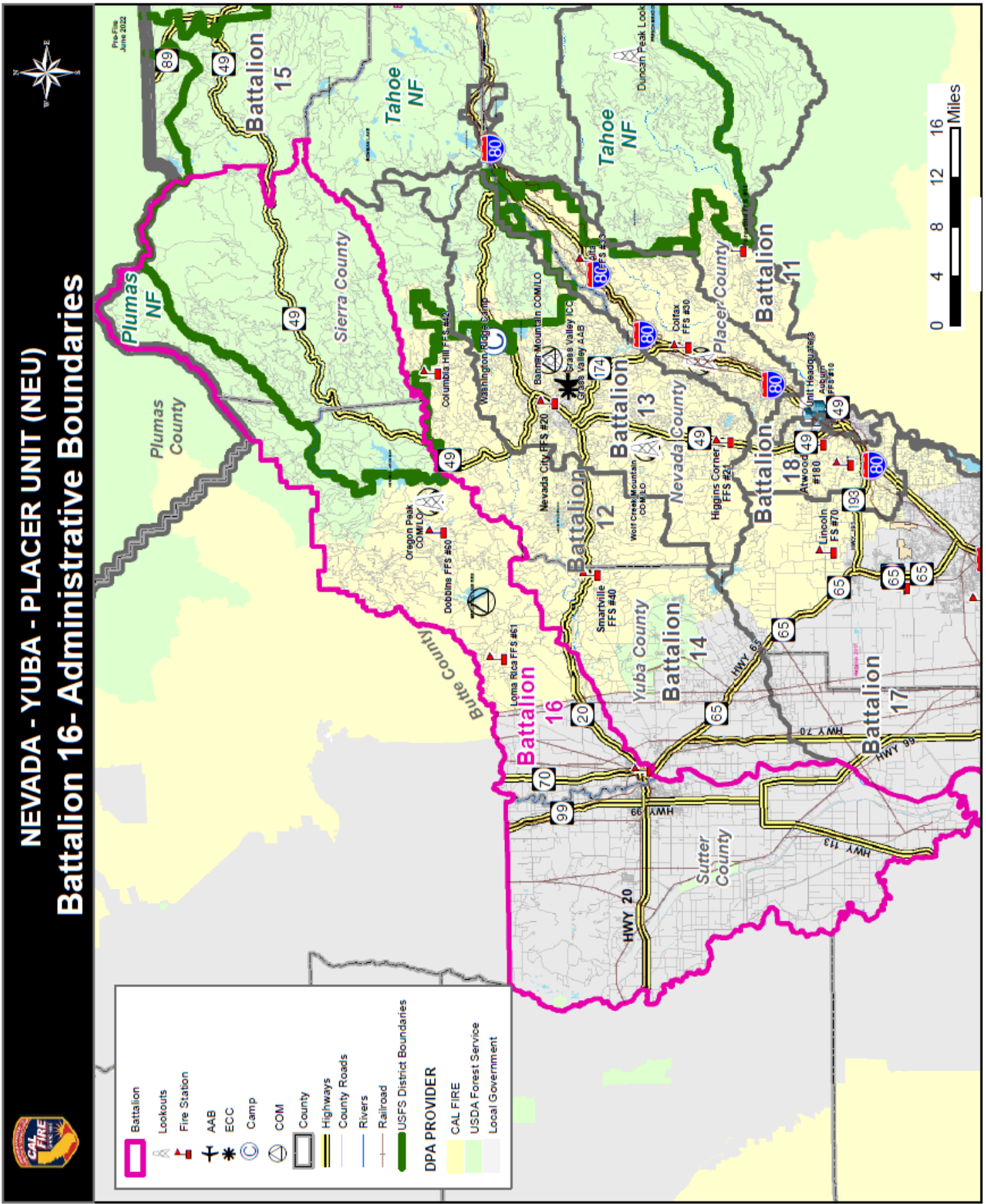
Below are areas that have been identified as High Priority Target Areas in Battalion 16.

These areas are and will continue to be engaged to reduce the hazards they pose:

### 3. High Priority Target Areas:

- **Watershed protection for water quality and clarity.**
- **High tension power lines in the Battalion.**
- **Yuba River Drainage due to high risk to WUI and control challenges.**
- **Dobbins Area WUI**
- **Daugherty Hill and Quail Valley Wildlife Area**
- **Fuel Reductions Along Rural Roads for ingress, egress, and evacuations**
- **Community of Brownsville**
- **Marysville Road**
- **Willow Glenn Road**

2. Battalion 16 Map



# Ignition Management Plan

## Battalion 17

### Battalion Description

The Lincoln Battalion serves portions of SRA and LRA covering approximately 300,000 acres. The battalion is dominated by grass fuel models in the lower valley area and oak woodlands and mixed brush at higher elevations. The topography is flat near the valley floor changing to gentle rolling slopes as one moves east toward the foothill areas. The area is populated with rural residential properties varying in size from 5-100 acres with some larger ownerships remaining. Located amongst these rural residential parcels are pockets of densely populated subdivisions where parcel size and spacing between homes is more indicative of rural development. The make-up of development and fuel types creates a true intermix condition. The battalion contains several areas where small wind-driven fires could likely become large and damaging events.

There are several cooperators within the battalion including the cities of Lincoln, Roseville, Wheatland, Rocklin, Sacramento Metro and Loomis Fire Departments, Pacific Gas and Electric and Placer County Water Agency.

### Statistics

Responsibility Area and Direct Protection Area for Battalion 17

<b>Responsibility Area (acres)</b>	FRA 5,196		LRA 218,360	SRA 72,239
<b>Direct Protection Area (acres)</b>	Federal 0	Local Wildland Contract 6,124	Local 212,457	State 79,707

### Battalion Fire History and Occurrence

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

A clear majority of fires within the Battalion occur as roadside starts. These fires are classified as arson, equipment, vehicle, smoking, or are undetermined as to specific ignition source. Most these fires are contained at less than 20 acres. Large costly and damaging fires are not a regular occurrence in the Battalion, although structure damage does occur. To mitigate the hazard from roadside starts, a fence line disc program is managed by

Battalion staff to provide a first line of defense. It is not uncommon, however, to have 300+ acre fires that require mutual aid request including state resources to assist with mitigation.

## **Mitigation Strategy Action Plan**

### **1. Public Information and Outreach**

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

Issuing points for LE-62's will be Cal Fire/Placer County Fire Station 70, Station 77 and Station 100 along with online. The local pollution control district determines burn hours. Pre-inspections will be provided on a requested or as needed basis. With each permit written, a Placer County Air Pollution Control District's Residential Open Burning informational sheet will be included. A copy of the permit will be filed at the respective station or on the online system.

Burn Permit LE 62's can also be issued online at <https://burnpermit.fire.ca.gov/> . Homeowners filing online burn permits will watch a short informational video that outlines safe burning procedures and rules.

#### **B. Public Education Forums –**

Public relations and interaction between CAL FIRE and the community is a key factor in promoting a public understanding of fire prevention.

- School programs- Station staff provide fire safe presentations to schools within the Battalion.
- Amoruso and City of Lincoln 4<sup>th</sup> of July Parade
- Placer County Fair and Sheridan Christmas Parade
- Business fire safety programs on request
- Fire Prevention Signs.
- Thunder Valley Casino - National Fire Prevention Week
- National Night Out
- Thermolands, Paige and Dry Creek Volunteer Company Pancake Breakfasts

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

A battalion goal is to target areas within the foothills that have a significant wildland fire threat or historical clearance problems and inspect homes using the PRC 4291 program. Campgrounds at Camp Far West Lake will be inspected prior to June 15<sup>th</sup> for compliance of related Forest and Fire Laws. Inspection of power lines will occur during the PRC 4291 inspections. Staff will advise the battalion chief of a violation; the battalion chief will coordinate an inspection by NEU's Fire Prevention Bureau.

## 2. Vegetation Management:

### A. Community Fuels Reduction Programs

CAL FIRE supports fuel treatments with forestry expertise from within the ranks of the department combined with the fire suppression knowledge of the Battalion Chief. Through this combination of fire and forestry advice, both large and small landowners can benefit from on-site appraisal of fuel treatment and forest health needs. It is the intent of the CAL FIRE Battalion Chief and CAL FIRE Foresters to encourage and assist landowners to actively manage their properties to protect their homes, reduce fuels and enhance natural resource values.

### B. Vegetation Management / Fuels Modification Projects

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

#### Battalion 17 Fire Mitigation Projects, Type and Status

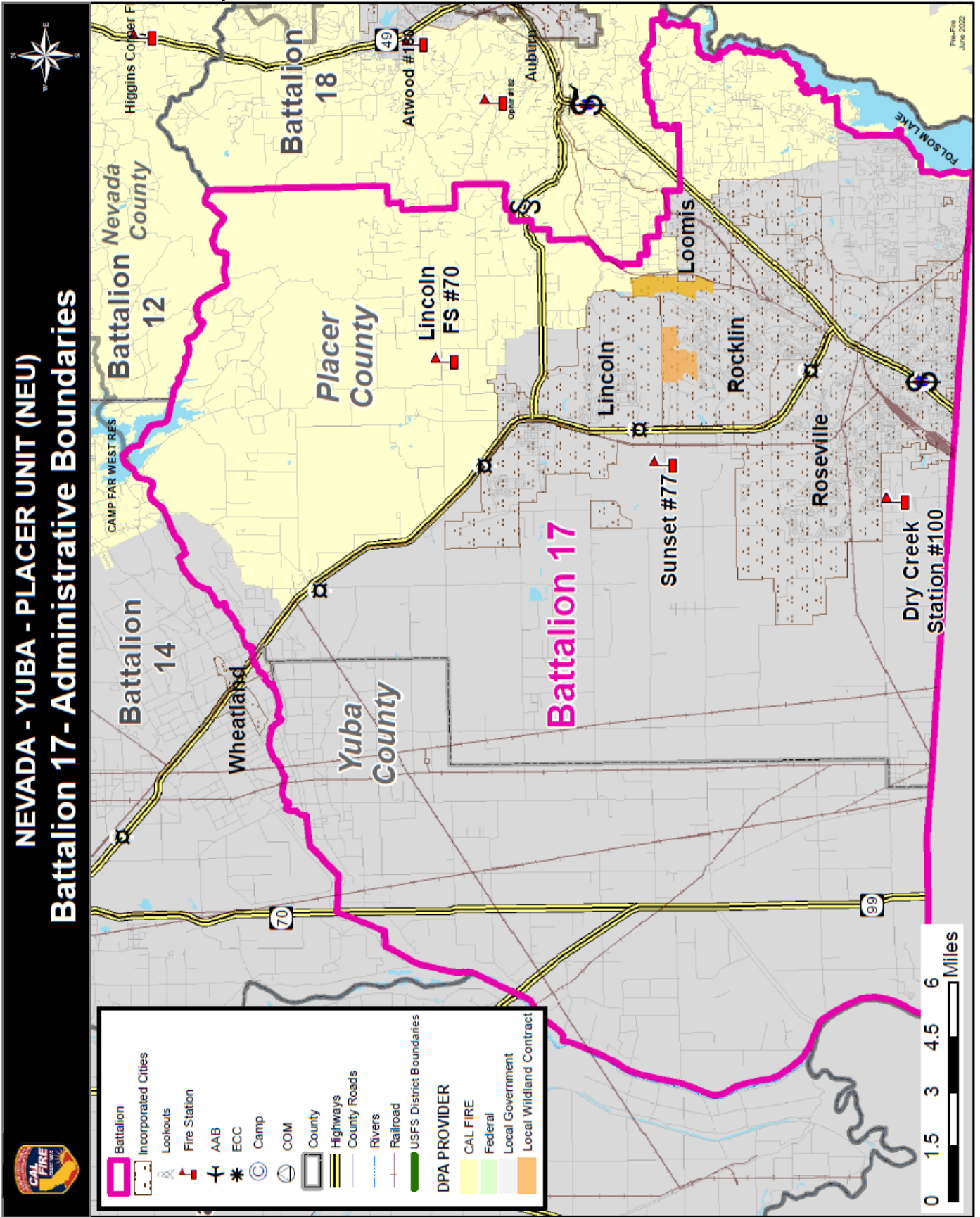
Project Name	Status	Estimated Completion Year	Project Type	Net Acres
Hidden Falls	A	Unknown	Fuel Reduction	
Fiddymont Training Area	O	Continuous	Firefighter Training Area	<b>154</b>
Clark Tunnel Rd-Bickford	P	Unknown	Fire Road/Shaded Fuel Break	
Battalion Disc Line Project	O	Continuous	Fuel reduction, Weed abatement	varies

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

## 3. High Priority Target Areas:

- **Lincoln City boundaries, Sheridan**
- **Open space areas surrounding dense populations and main roadways are included in the high priority areas.**
- **Areas surrounding the new residential building in the Battalion, which has significantly increased.**
- **Areas of medium to light density housing where backyards have little clearances**

4. Battalion 17 Map



# Ignition Management Plan

## Battalion 18

### Battalion Description

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

The Battalion contains several cooperators including Auburn City Fire, Newcastle Fire, Penryn Fire, Placer County, Placer County Fire Alliance, Placer County Resource Conservation District, United States Bureau of Reclamation, Pacific Gas and Electric and Placer County Water Agency.

### Statistics

Responsibility Area and Direct Protection Area for Battalion 2318

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

### Discussion of fire occurrence within Battalion

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

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

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

# **Mitigation Strategy Action Plan**

## **1. Public Information and Outreach**

### **A. Public Education Forums –**

Public relations and interaction between CAL FIRE and the community is a key factor in promoting a public understanding of fire prevention. Battalion staff will participate in local community activities including:

- Fairs and parades.
- Public education and outreach geared toward equipment use.
- Battalion staff will work with local cooperators to promote fuels reduction.
- Battalion personnel will support Firewise communities.

### **B. PRC 4291 inspection**

PRC 4291 inspections serve many purposes. One is as a vegetation management motivator. The other is as a public education tool. Inspections generally occur near high priority target areas identified by the Battalion Chief; however, all residential structures are required to comply. The Battalion will continue to support defensible space inspections and chipping services to reduce fuels within the defensible space zone.

## **1. Vegetation Management:**

### **A. Community Fuels Reduction Programs**

CAL FIRE supports fuel treatments with forestry expertise from within the ranks of the department combined with the fire suppression knowledge of the Battalion Chief. Through this combination of fire and forestry advice, both large and small landowners can benefit from on-site appraisal of fuel treatment and forest health needs. It is the intent of the CAL FIRE Battalion Chief and CAL FIRE Foresters to encourage and assist landowners to actively manage their properties to protect their homes, reduce fuels and enhance natural resource values.

### **B. Vegetation Management / Fuels Modification Projects**

**Battalion 18 Fire Mitigation Projects, Type and Status**

<b>Project Name</b>	<b>Status</b>	<b>Estimated Completion Year</b>	<b>Project Type</b>	<b>Net Acres</b>
Hidden Falls Park	O	2025	Fuel Reduction	
Auburn Airport	P	2025	Fuel Reduction	
Ophir Road Network Vegetation Management	P	2025	Ingress/ Egress Improvement/ Fuel Reduction	

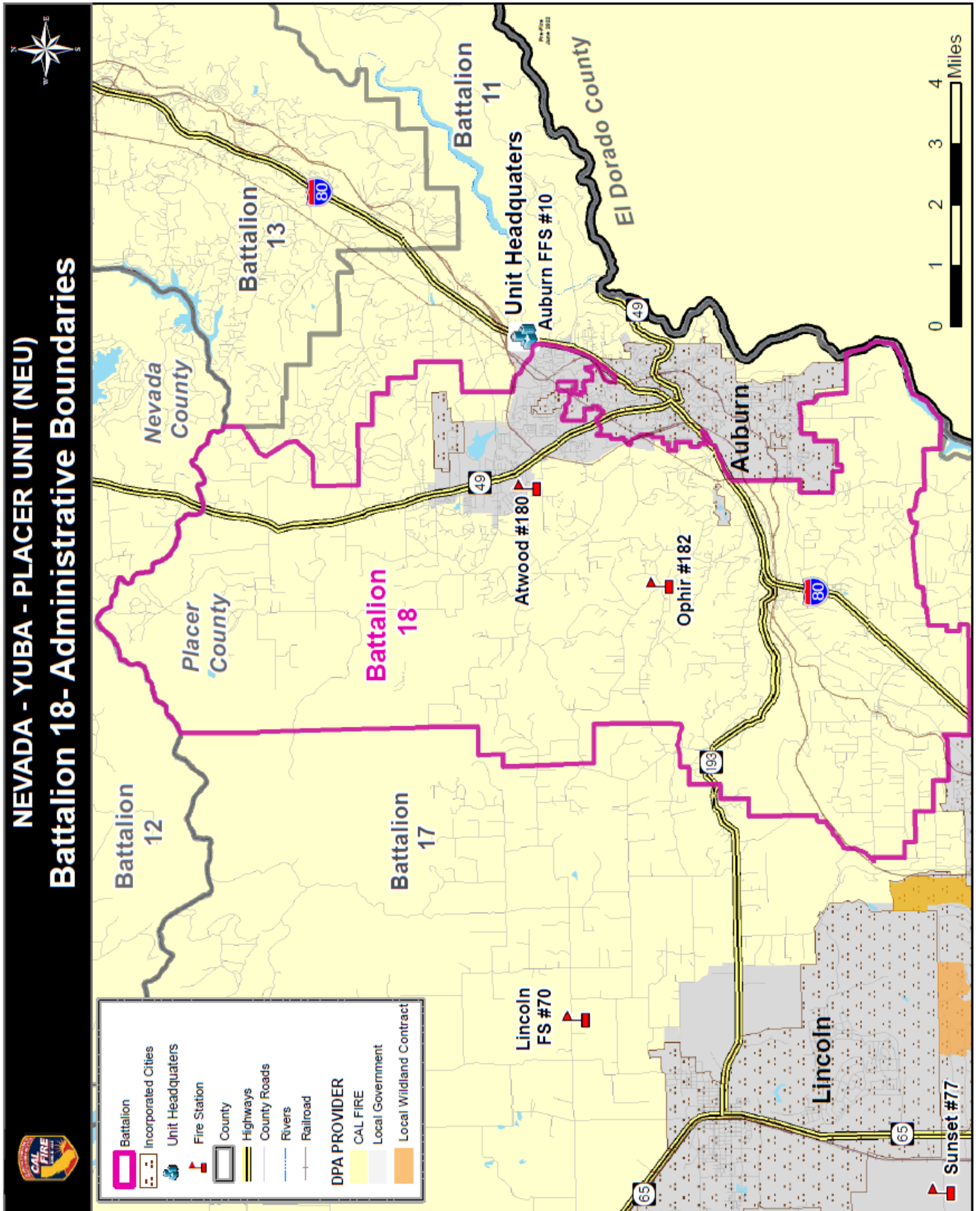
**Status Guide:** A = Active, P = Planning, C = Completed, O = Ongoing, M = Maintenance.



### **3. High Priority Target Areas:**

- **Due to the demand for water quantity and clarity, watershed protection is a high priority.**
- **High tension power lines in the Battalion.**
- **American River Drainage due to high risk to WUI and control challenges.**
- **High Target Communities of:**
  - 1. Ophir**
  - 2. Newcastle (South of I-80)**
  - 3. Jordon**
  - 4. Mt Vernon**
  - 5. Lonestar**
  - 6. Christian Valley**
  - 7. Penryn**

4. Battalion 18 Map



# Safety Bureau

## Battalion 2306

### I. Safety

NEU's Safety Officer oversees the Safety Committee meetings to discuss Safety issue; review personnel and vehicle accidents; recommend steps to prevent future mishaps; ensure the department's safety requirements and safety programs are being adhered to in the fire stations and on incidents.

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

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

### II. SAFETY MISSION STATEMENT

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

### III. RESPONSIBILITIES

The responsibilities of the safety committee are as follows:

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

- d) Mobile Equipment Safety Inspections
- e) Personal Protective Equipment
- f) Safety related training
- g) The California Code of Regulations, Title 8.

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

#### **IV. STRUCTURE/ORGANIZATION**

Committee make-up will consist of the follow members:

**Program / Function**

- Senior Staff: 1
- Resource Management: 1
- Fire Prevention: 1
- ECC / GVAAB: 1
- Administration Support Staff: 1
- Placer County Fire Volunteer Representatives: 1
- Training and Safety Bureau: 1
- Field Battalions (one each): 1
- Washington Ridge Camp: 1
- Placer Center: 1
- Fleet: 1

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

# Training Bureau Battalion 2307

## Training

NEU Training Bureau maintains a highly active and dynamic program.

### **TRAINING MISSION STATEMENT**

NEU is committed to a Training Bureau that will exemplify the values of **CAL FIRE** by creating a Training Program that supports the **CAL FIRE** Strategic Plan, Unit Strategic Plan, and Employee Excellence.

The Battalion Staff is comprised of one Battalion Chief and two Training Captains. The staff continually strive to provide creative, cost effective, innovative training, and always provide the highest commitment to safety. The state-funded training operations, which are divided into 18 separate program areas, are a seven-day a week operation and are listed below:

Administration and Office staff  
Pre-Fire Engineering  
Battalion Chiefs  
Joint Apprenticeship Program  
Company Officers  
Vegetation Management  
Firefighters  
Emergency Medical Services  
Training

Hazardous Materials Responses  
Emergency Command Center  
Volunteer Firefighters  
Air Attack  
Volunteers-in-Prevention  
Fire Prevention and Engineering  
Fire Safe Councils  
Automotive Fleet Maintenance  
Joint-Agency Operations

### **Strategies**

- Identify the legal state and federal requirements for training in each program area.
- Identify training requirements for contract programs within NEU.
- Meet or exceed training standard identified in the CAL FIRE State Training handbook.
- Identify training priorities set by Senior Staff.
- Identify the needs of each of the 18 program areas to meet the training requirements established by the program managers.
- Maintain and update the NEU's Emergency Resources Directory (ERD).
- Determine the training needs for the Northern Region Training allocations.
- Work towards enhancing the knowledge and skill levels necessary for safe and effective response to possible weapons of mass destruction incidents.
- Identify the training needs of cooperators.
- Identify CAL FIRE's new training programs in the early stages of development, project their impact and develop an implementation plan.

- Identify projected vacancies and the training requirements necessary to help those personnel filling vacancies to do so successfully.
- Identify the needs of each employee to help achieve career development goals.
- Seek alternative funding sources in the form of grants, participation with universities and course sharing with other agencies.
- Establish a training priority list and develop a Training Plan with achievable goals for the Training Battalion.
- Work with local colleges and other local cooperators to develop interagency training opportunities and strategies.

# Grass Valley Air Attack Base Battalion 2308



Grass Valley Air Attack Base (GVAAB) originated in 1958. Located in Grass Valley at the Nevada County Airport, GVAAB is one of thirteen CALFIRE Air Attack Bases in the state. The Base sits on three acres and is co-located with the CAL FIRE and USFS Grass Valley Emergency Command Center, and the Tahoe National Forest Service Center.

The Nevada County Airport is a general aviation airport situated at the 3,150-foot elevation. The airport can support CAL FIRE airtankers, large helicopter operations and air attack platforms.

## **Resources stationed at Grass Valley Air Attack Base:**

- **One CAL FIRE Air Tactical Aircraft (AA 230)**
  - **Type:** Rockwell OV-10A “Bronco”
  - **Max Speed:** 225 knots (258 mph)
  - **Crew:** Single Pilot, Single Air Tactical Group Supervisor (ATGS)
  - **Mission:** Tactical coordination of aircraft over a fire to achieve incident objectives.
  
- **Two CAL FIRE Airtankers (T88, T89)**
  - **Type:** Grumman S-2T
  - **Max Speed:** 235 knots (270 mph)
  - **Crew:** Single pilot
  - **Gallons carried:** 1,200

- **Mission:** Fast initial attack delivery of fire retardant or water on wildland fires.

CAL FIRE's fire protection goal is to contain 95% of all unwanted fires to 10 acres or less. Aviation assets are instrumental in meeting and maintaining this goal. Air attack and helitack base locations and aircraft deployment is designed to reduce the number of large fires through the capability of air tankers and helitack crews to place fire retardant and personnel at the fire scene before ground forces arrive and to support fire control objectives.

Aircraft initial response criteria have been established to have a state aircraft over fires on state responsibility lands within 20 minutes of dispatch and to provide follow-up aircraft as needed. This response criteria plan was developed to include the use of USFS and BLM aircraft on a closest forces concept. Air assets located at GVAAB can respond to a fire anywhere in California and even into Nevada should an unwanted fire threaten California.

In 2021 GVAAB was operational between June 1<sup>st</sup> and November 24<sup>th</sup>. Aircraft assigned to the Base flew 1091 flights in support of 247 incident (unwanted fire) responses. Pilots flew 989 hours in 2021, over 100 more hours than the average of 844 hours. 356,102 gallons of retardant were pumped from GVAAB.



### **CALFIRE NEU Fuel Moistures**

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

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

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

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

USBOR – Chamise, Nevada City – 1000 hr. fuels, Tyler Foote – Manzanita, Reader – Manzanita and Live Oak, Truckee – Ceanothus and Greenleaf Manzanita

### **Historical Fire Perimeters**

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

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

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

<http://frap.fire.ca.gov/mapping/gis-data/>

### **CALMAPPER**

Cal MAPPER is the department's forest improvement and fuel reduction project activity tracking database. Cal MAPPER is an acronym and stand for CAL FIRE Management Activity Project Planning and Event Reporter. The Cal MAPPER v3 contains GIS and tabular information that can be used in a web browser environment by non-GIS personnel for data entry, visualization, and reporting. This effort has been organized to bring the Department's records from various fuels reduction and forest improvement programs into a common database. The goal is to improve project tracking and fiscal reporting, and to support emergency response, planning, and assessment.

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

### **Fireplan**

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

The PFE works cooperatively with Unit/Region/ Sacramento Staff in developing and analyzing data for Pre-Fire Management Plans and for public stakeholder meetings.

They perform Level of Service (LOS) analysis, identify, and validate values-at-risk, collect and display fire history and fire weather on GIS maps, and develop high risk/high value maps of NEU.

### **Training**

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

### **GIS**

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

### **SRA / DPA Review**

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

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

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

### **Fire Hazard Severity Zones**

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

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

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

<https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>

### **CWPP Development**

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

### **RAWS Maintenance and Monitoring**

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

**APPENDIX B: VEGETATION MANAGEMENT PROJECT**

<b>Project Name</b>	<b>Status</b>	<b>County</b>
North Auburn / PGE VMP	Proposed	Placer
North Fork American River SFB VMP	Active	Placer
Bear Yuba Land Trust Garden Bar Reserve VMP	Proposed	Nevada
UC Field Station VMP	Active	Yuba
Bunker Hill VMP	Proposed	Nevada
Reader Ranch VMP	Active	Nevada
Spenceville VMP	Proposed	Yuba
Waddle Ranch VMP	Proposed	Nevada
Daugherty Hill and Stanfield VMP	Proposed	Yuba
Tahoe Donner	Proposed	Placer
Oest VMP	Proposed	Placer

Purpose/Overview

The purpose of the development, implementation, and maintenance of a project such as fuel modification can be considered a fire prevention/management tool that may promote awareness, mitigation, and assist in fire suppression activities in the event of a wildland fire situation in Interface Lands. The objective is to reduce, modify, and manage fuels within designated areas that may enhance mitigation efforts in the event of a wildland fire situation. The Shaded Fuel Break is an identified key component of any project and is a strategic location along a ridge, access road, or other location where fuels have been modified. The width of the fuel break is usually 100 to 300 feet depending on the site. This is a carefully planned thinning of dense vegetation, so fire does not easily move from the ground into the overhead tree canopy. A shaded fuel break is not the removal of all vegetation in each area. Fire suppression resources can utilize this location to suppress wildland fires due to the modification of fuels of which may increase the probability of success during fire suppression activities. Any fuel break by itself will not stop a wildland fire.

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

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

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

In previous Fire Plans, three separate fuel reduction prescriptions were described (Defensible Space, Defensible Landscape, and Modified Shaded Fuel Break). With the adoption of the new PRC 4291 standards, NEU is recommending landowners utilize the guidelines adopted statewide. Further, we recommend landowners utilize the "Defensible Space – Reduced Fuel Zone" guidelines for areas beyond the required 100 feet. These guidelines and other useful information can be downloaded from the Internet at:

<http://www.readyforwildfire.org/>

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

**Defensible Space (PRC 4291):** Defensible Space is your property's frontline defense against wildfire. Creating and maintaining defensible space around your home can dramatically increase your home's chance of surviving a wildfire and improves the safety of firefighters defending your property. 100 feet of defensible space is required by law.

**Defensible Landscape:** The area outside of the defensible space zone where additional fuel reduction is completed to enhance the protection value of the defensible space zone

around a structure. Increased aesthetics and habitat values are planned for in this prescription.

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

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

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

Includes all following:

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

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

Includes all the following:

1. Oak trees with trunks within 3 feet of each other, essentially making one canopy, may be considered one tree in the defensible landscape areas. Prune branches off all residual trees from 8 to 10 feet off the forest floor, not to reduce the live crown ratio below 1/2 of the height of the tree. **Adjacent trees shall be removed to create horizontal distances between residual trees from 20 feet between trunks up to 8 to 15 feet between tree crown drip lines.**
2. One clump of trees per lot or acre, where tree trunks are within 20 feet of each other, may also be retained in the defensible landscape areas providing spread of fire to or from this feature is adequately mitigated. Mitigation measures for this feature include:
  - a. Prune branches off all residual trees from 8 to 10 feet off the forest floor, not to reduce the live crown ratio below 1/2 of the height of the tree
  - b. Trees adjacent to this feature shall be removed to create horizontal distances **between residual trees from 20 feet between trunks up to 8 to 15 feet between tree crown drip lines.** No ground fuels shall exist within the drip line of the feature.
2. Except as noted in 1 and 2 above, the Modified Shaded Fuel Break prescription described listed below also applies.

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

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

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

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

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

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

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

**Trees shall be removed to create horizontal distances between residual trees from 20 feet between trunks up to 8 to 15 feet between tree crown drip lines. Larger overstory trees (> 10 inches dbh) do count as residual trees and, to reduce ladder fuels, shall have vegetation within their drip lines removed.** Prune branches off all residual trees from 8 to 10 feet off the forest floor, not to reduce the live crown ratio below 1/2 of the height of the tree.

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

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

**Conifers:**

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

Conifers - Leave tree species in descending order:

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

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

**Snags**

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

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

**Hardwood trees:**

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

Hardwoods -Leave tree species in descending order:

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

**Brush:**

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

Brush Species - Leave species in descending order:



Toyon – Less Common  
Buckeye – Less Common  
Dogwood – less common  
Lemmon Ceanothus - less common, less volatile  
Buck brush (Wedge leaf ceanothus) - smaller brush plant, less volatile  
Redbud - less common  
Coffeeberry - less common  
Whitethorn - lower lying plant  
Deer brush - larger plant, high leaf surface area, more volatile when burning  
Manzanita - larger plant, high leaf surface area, more volatile when burning  
Chamise - foliage contains highest number of flammable oils, most volatile when burning

**Wetlands:**

Functional wetlands will be avoided for treatment and ground operations.

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

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

**Maintenance Prescriptions**

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

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

**Hand Work:** Use of hand tools by crews or individuals. This technique is labor intensive and potentially expensive (>\$2000 per acre). Impacts to soils are negligible.

**Mechanical Work:** Use of heavy equipment such as masticators and/or bulldozers. This technique is moderately expensive (as low as \$600 per acre) but limited by topography (to slopes less than 50%) and not appropriate for most watercourse and lake-protection zones and excessively wet soils.

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

**Prescribed Browsing:** Use of goats in a controlled setting to browse within appropriate areas to reduce fuel levels. Browsing goats can be an effective tool to control grasses and low growing vegetation, when controlled properly, can have little impact to the environment. Costs may vary.

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

**APPENDIX D: BATTALION IGNITION MANAGEMENT STATISTICS**

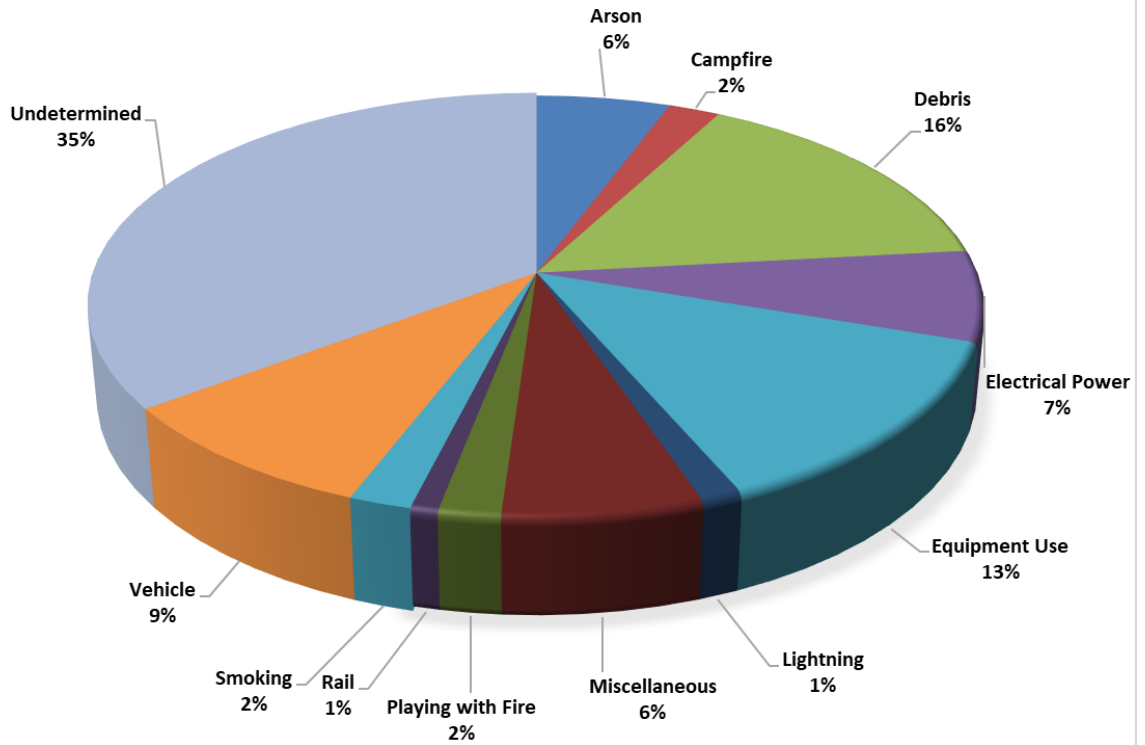
**NEU Unit Wide Fires by Cause 2017 – 2022 (NEU):**

	2017	2018	2019	2020	2021
<b>Undetermined</b>	114 (24%)	114 (27%)	45 (15%)	80 (18%)	162 (35%)
<b>Lightning</b>	10 (2%)	1 (.22%)	3 (1%)	13 (3%)	6 (1%)
<b>Campfire</b>	42 (9%)	18 (4%)	17 (6%)	14(3%)	10(2%)
<b>Smoking</b>	7 (1%)	10 (2%)	4 (1%)	2 (1%)	9 (2%)
<b>Equipment</b>	47 (10%)	41 (10%)	46 (15%)	40 (9%)	61 (13%)
<b>Vehicle</b>	35 (8%)	26 (6%)	24 (8%)	33 (8%)	41 (9%)
<b>Debris</b>	113 (24%)	119 (28%)	52 (17%)	119 (27%)	71 (15%)
<b>Arson</b>	12 (3%)	19 (4%)	14 (5%)	18 (4%)	26 (6%)
<b>Electrical Power</b>	40 (9%)	39 (9%)	27 (9%)	47 (11%)	32 (7%)
<b>Railroad</b>	0	0	1 (0%)	4 (1%)	4 (1%)
<b>Playing with Fire</b>	3 (1%)	5 (1%)	6 (2%)	11 (3%)	9 (2%)
<b>Miscellaneous</b>	45 (10%)	32 (8%)	27 (9%)	54 (12%)	29 (6%)
<b>Exposure – Structure *</b>	0	0	3 (1%)	0	0
<b>Under Investigation *</b>	0	0	35 (2%)	0	0
<b>Total</b>	468	424	304	435	460



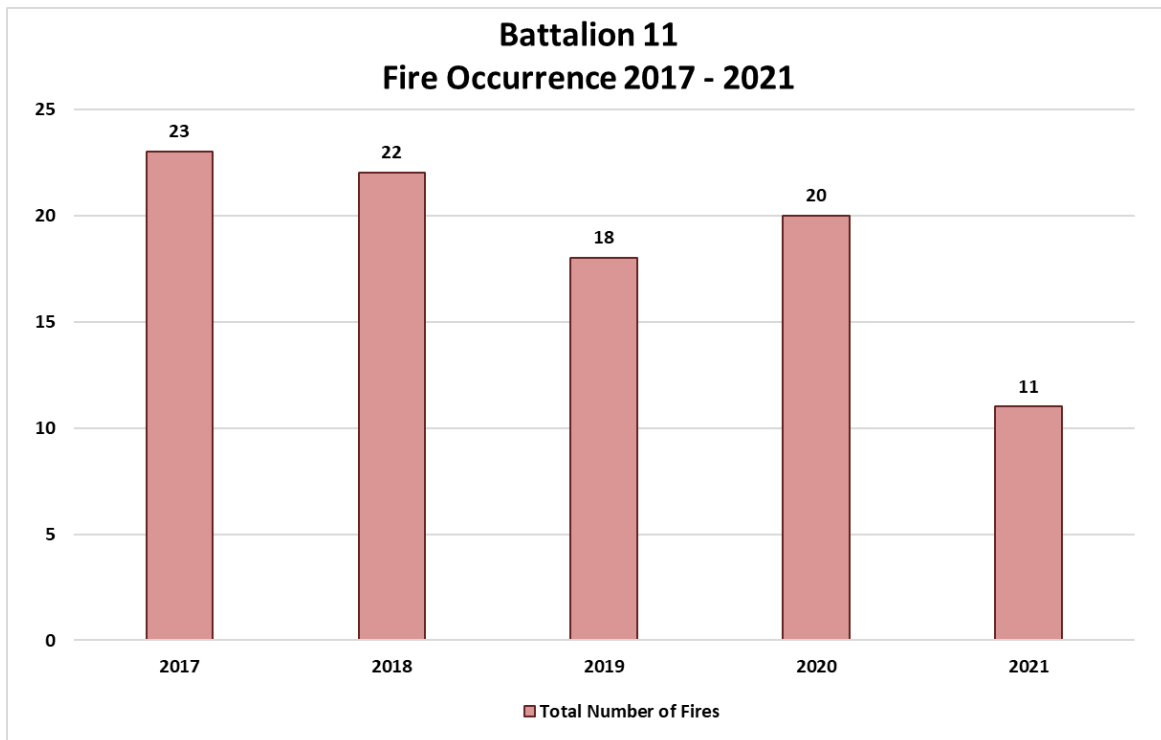
# NEVADA YUBA PLACER UNIT

## 2021 FIRE CAUSE STATISTICS - 460 FIRES



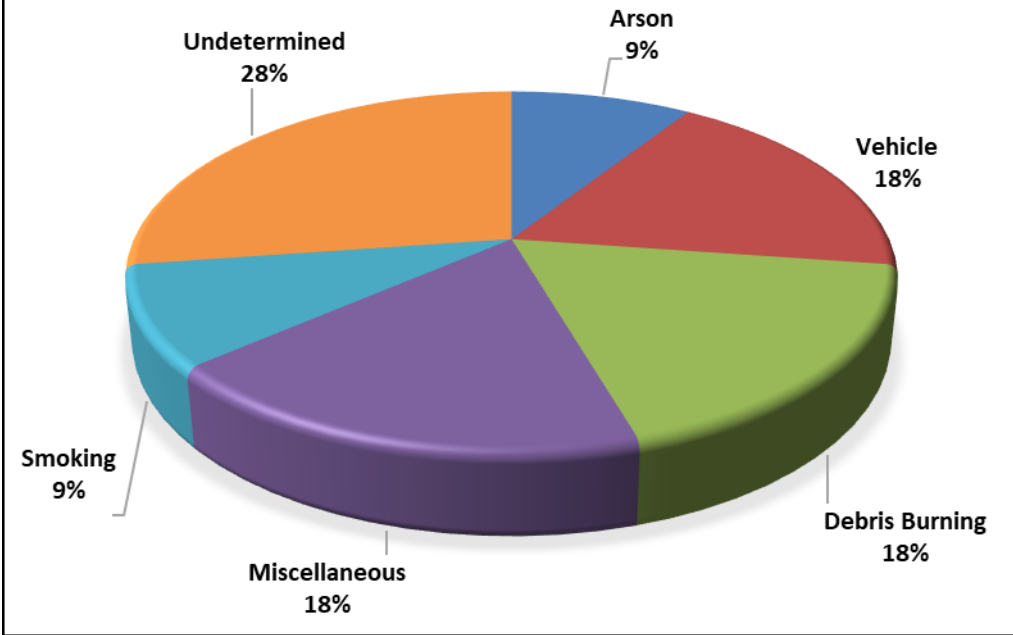
## Fire Cause Statistics Battalion 11

	2017	2018	2019	2020	2021
Undetermined	9 (39%)	11 (50%)	3 (17%)	5 (25%)	3 (27%)
Lightning	0	0	0	0	0
Campfire	1 (4%)	2 (9%)	1 (6%)	0 (0%)	0
Smoking	1 (4%)	0	0	0	1 (9%)
Equipment	2 (9%)	0	2 (11%)	0 (0%)	0
Vehicle	1 (4%)	1 (4%)	1 (6%)	1 (5%)	2 (18%)
Debris Burning	6 (26%)	6 (27%)	3 (17%)	4 (20%)	2 (18%)
Arson	0	0	1 (6%)	4 (20%)	1 (9%)
Electrical Power	1 (4%)	1 (4%)	1 (6%)	0	0
Railroad	0	0	0	0	0
Playing W Fire	0	0	2 (11%)	1 (5%)	0
Miscellaneous	2 (8.70%)	1 (4%)	1 (6%)	5 (25%)	2 (18%)
Exposure - Structure			0	0	0
Under Investigation			3 (17%)	0 (0%)	0 (0%)
<b>Total</b>	<b>23</b>	<b>22</b>	<b>18</b>	<b>20</b>	<b>11</b>



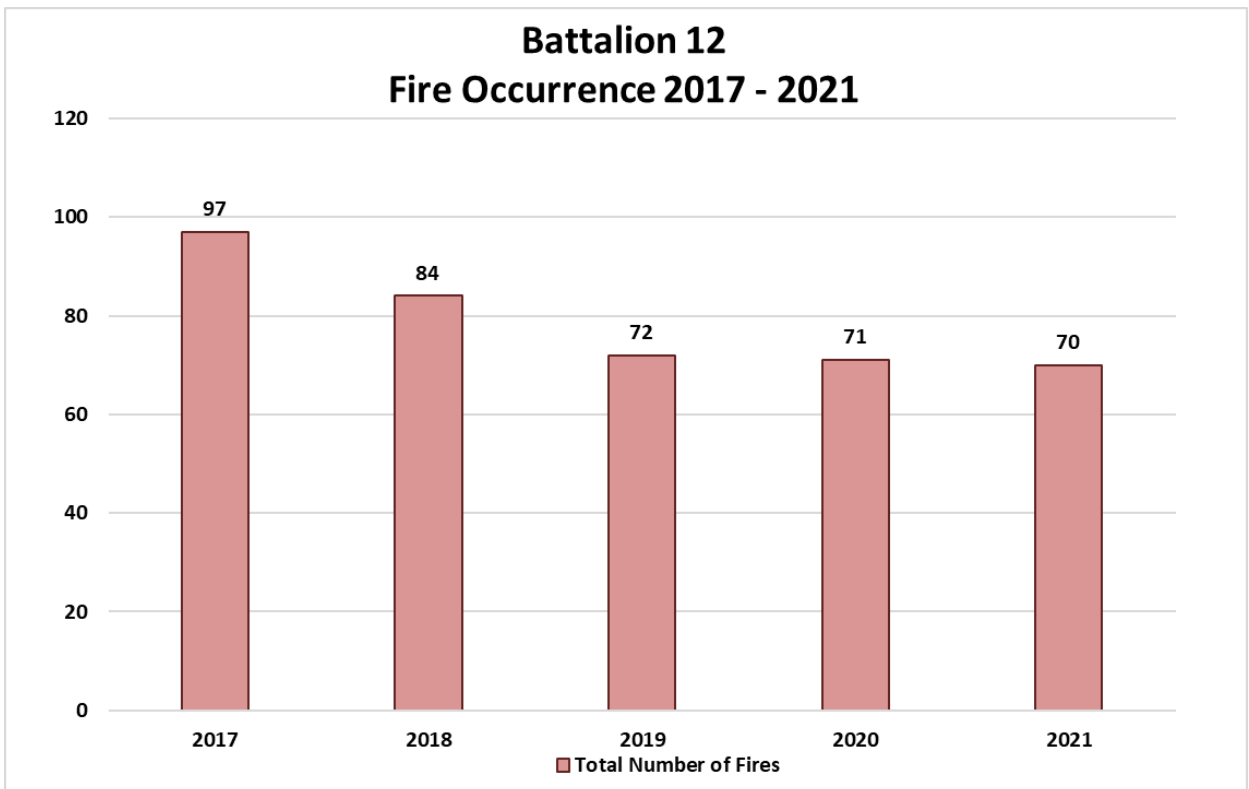
# BATTALION 11

## 2021 FIRE CAUSE STATISTICS - 11 FIRES



**Fire Cause Statistics Battalion 12:**

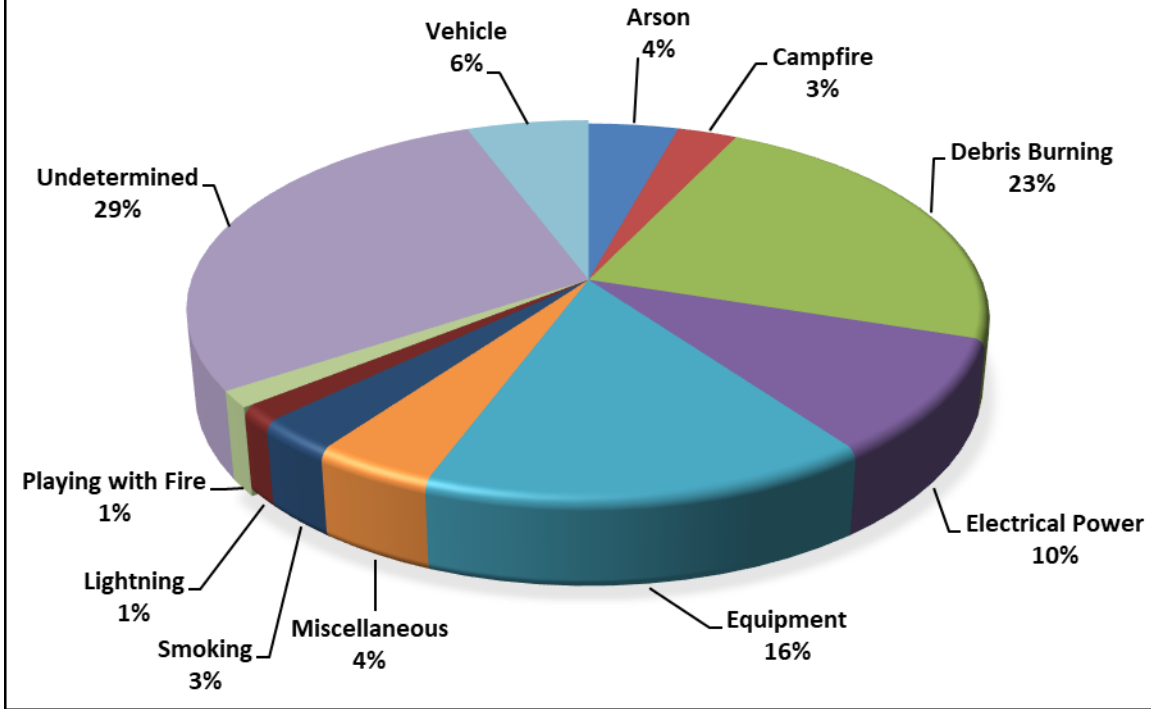
	2017	2018	2019	2020	2021
Undetermined	16 (16%)	21 (25%)	13 (18%)	7 (10%)	20 (29%)
Lightning	0	1 (1%)	0	3 (4%)	1 (1%)
Campfire	7 (7%)	3 (4%)	7 (10%)	1 (1%)	2 (3%)
Smoking	1 (1%)	0	1 (1%)	1 (1%)	2 (3%)
Equipment	10 (10%)	10 (12%)	9 (13%)	4 (6%)	11 (16%)
Vehicle	6 (6%)	3 (4%)	2 (3%)	3 (4%)	4 (6%)
Debris Burning	33 (34%)	27 (32%)	18 (25%)	36 (51%)	16 (23%)
Arson	0	0	1 (1%)	1 (1%)	3 (4%)
Electrical Power	10 (10%)	11 (13%)	9 (13%)	10 (14%)	7 (10%)
Railroad	0	0	0	0	0
Playing With Fire	0	0	0	0	1 (1%)
Miscellaneous	14 (14%)	8 (10%)	7 (10%)	5 (7%)	3 (4%)
Exposure - Structure			0	0	0
Under Investigation			5 (7%)	0 (0%)	0 (0%)
<b>Total</b>	<b>97</b>	<b>84</b>	<b>72</b>	<b>71</b>	<b>70</b>





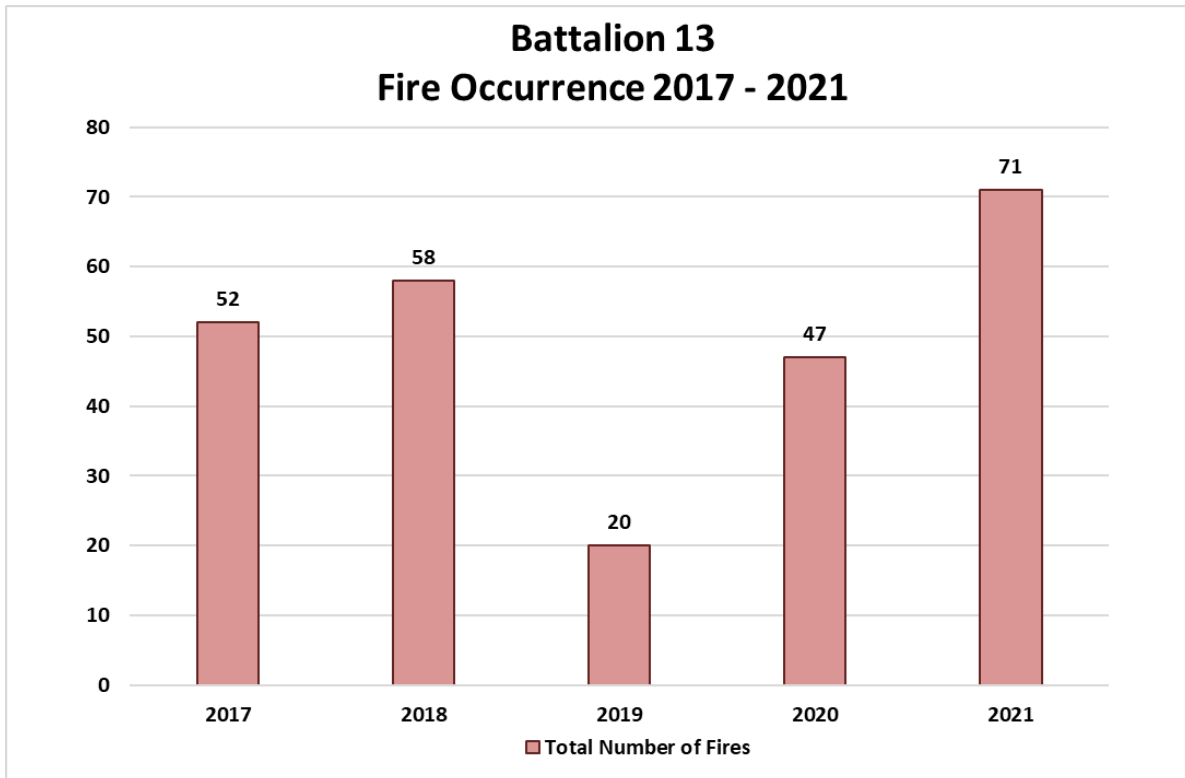
# BATTALION 12

## 2021 FIRE CAUSE STATISTICS - 70 FIRES

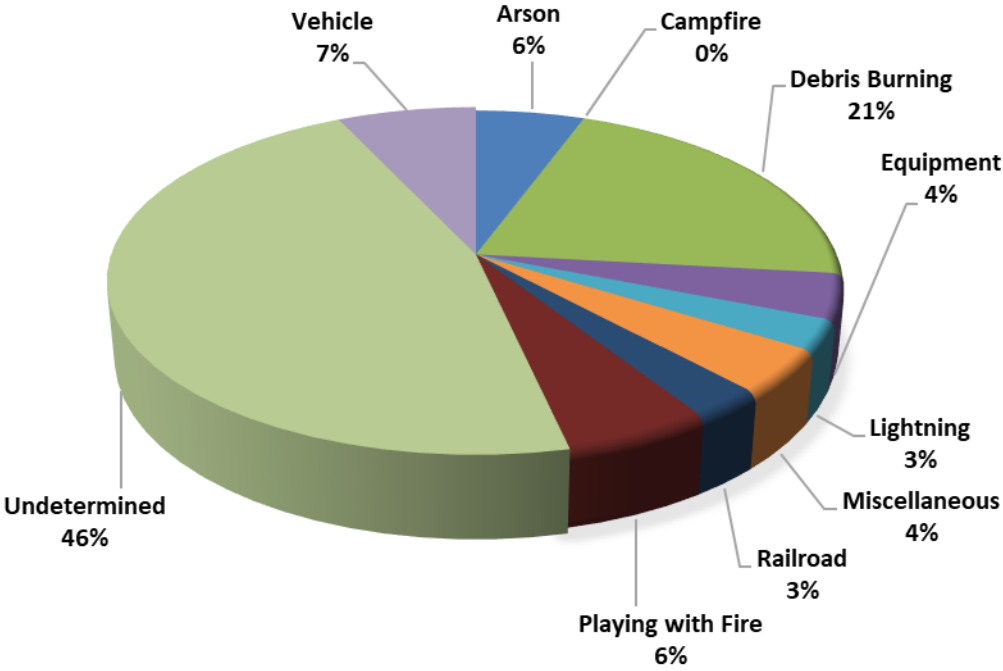


**Cause Statistics Battalion 13:**

	2017	2018	2019	2020	2021
Undetermined	11 (21%)	12 (21%)	0	6 (13%)	33 (46%)
Lightning	0	0	1 (5%)	1 (2%)	2 (3%)
Campfire	9 (17%)	3 (5%)	1 (5%)	1 (2%)	0
Smoking	0	1 (2%)	1 (5%)	1 (2%)	0
Equipment	1 (2%)	1 (2%)	2 (10%)	0 (0%)	3 (4%)
Vehicle	7 (13%)	5 (9%)	4 (20%)	7 (15%)	5 (7%)
Debris Burning	16 (31%)	20 (34%)	4 (20%)	17 (36%)	15 (21%)
Arson	2 (4%)	2 (3%)	1 (5%)	2 (4%)	4 (6%)
Electrical Power	2 (4%)	4 (7%)	2 (10%)	3 (6%)	0
Railroad	0	0	1 (5%)	4 (9%)	2 (3%)
Playing With Fire	1 (2%)	1 (2%)	0	0	4 (6%)
Miscellaneous	3 (6%)	4 (7%)	1 (5%)	5 (11%)	3 (4%)
Exposure - Structure		1	0	0	0
Under Investigation			2 (10%)	0 (0%)	0
<b>Total</b>	<b>52</b>	<b>58</b>	<b>20</b>	<b>47</b>	<b>71</b>

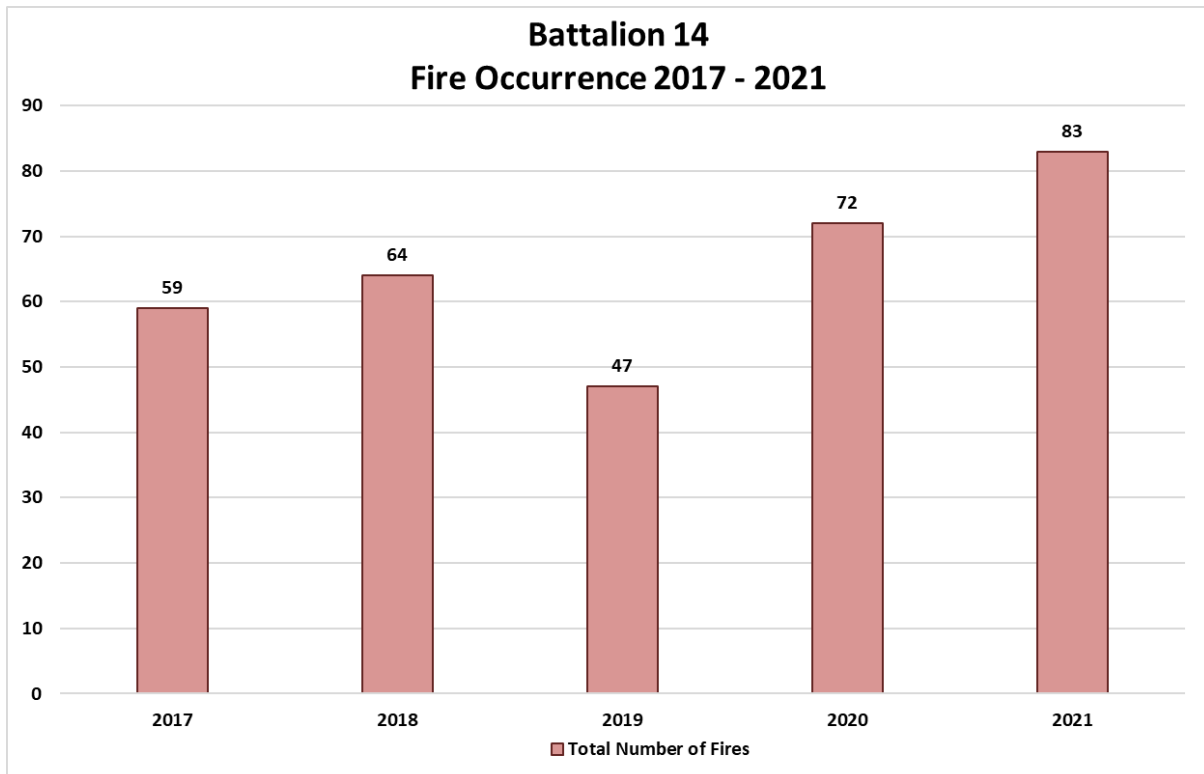


**BATTALION 13**  
**2021 FIRE CAUSE STATISTICS - 71 FIRES**



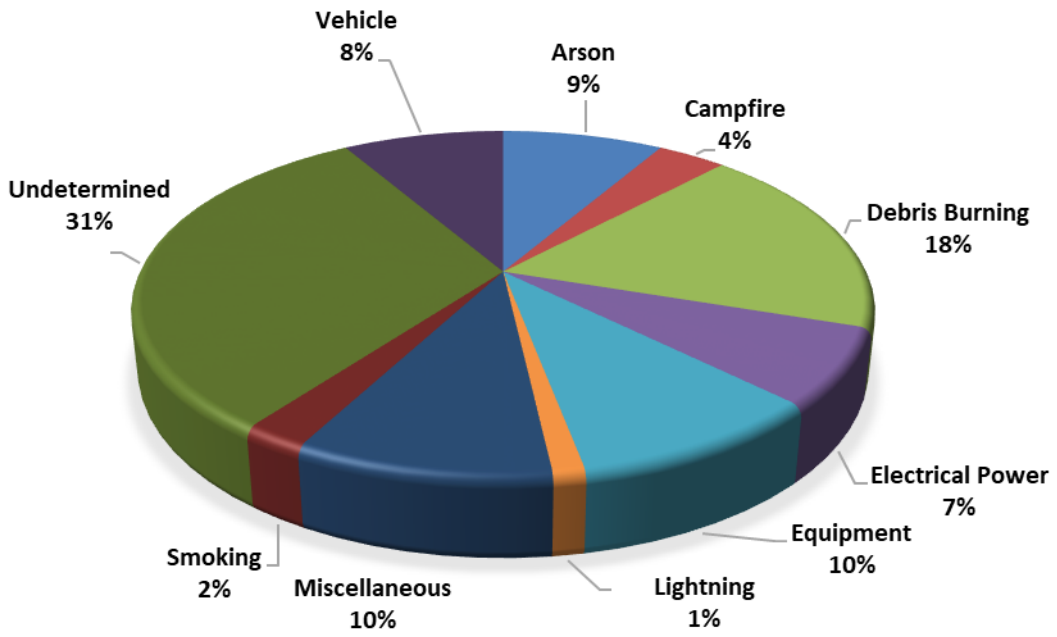
**Cause Statistics Battalion 14:**

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Undetermined	11 (19%)	16 (25%)	3 (6%)	9 (13%)	26 (31%)
Lightning	0	0	1 (2%)	2 (3%)	1 (1%)
Campfire	4 (7%)	4 (6%)	2 (4%)	2 (3%)	3 (4%)
Smoking	0	1 (2%)	1 (2%)	0	2 (2%)
Equipment	9 (15%)	4 (6%)	11 (23%)	8 (11%)	8 (10%)
Vehicle	8 (14%)	5 (8%)	4 (9%)	4 (6%)	7 (8%)
Debris Burning	11 (19%)	19 (30%)	6 (13%)	24 (33%)	15 (18%)
Arson	3 (5%)	3 (5%)	1 (2%)	3 (4%)	7 (8%)
Electrical Power	8 (14%)	8 (12%)	3 (6%)	6 (8%)	6 (7%)
Railroad	0	0	0	0	0
Playing with Fire	0	1 (1%)	2 (4%)	1 (1%)	0
Miscellaneous	5 (8%)	3 (5%)	6 (13%)	13 (18%)	8 (10%)
Exposure - Structure	0	0	2 (4%)	0	0
Under Investigation	0	0	5 (11%)	0	0
<b>Total</b>	<b>59</b>	<b>64</b>	<b>47</b>	<b>72</b>	<b>83</b>



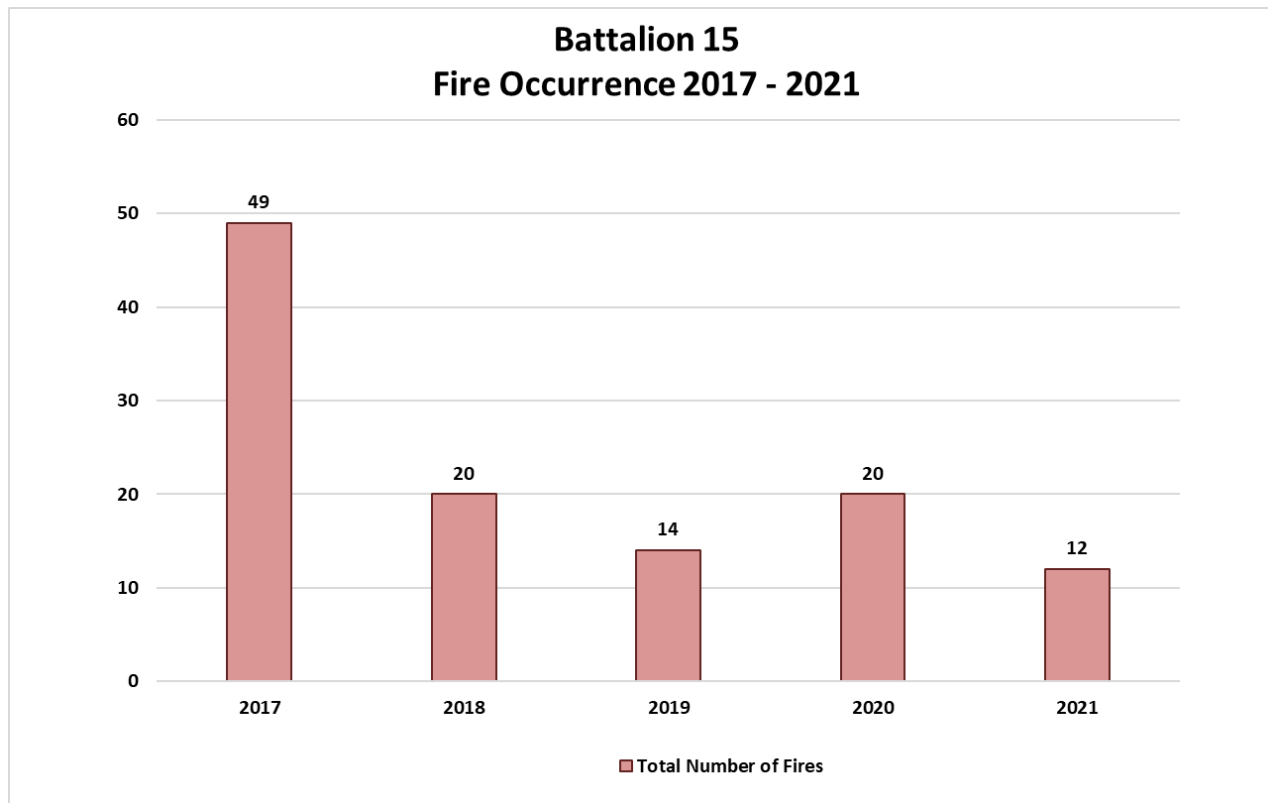
# BATTALION 14

## 2021 FIRE CAUSE STATISTICS - 83 FIRES



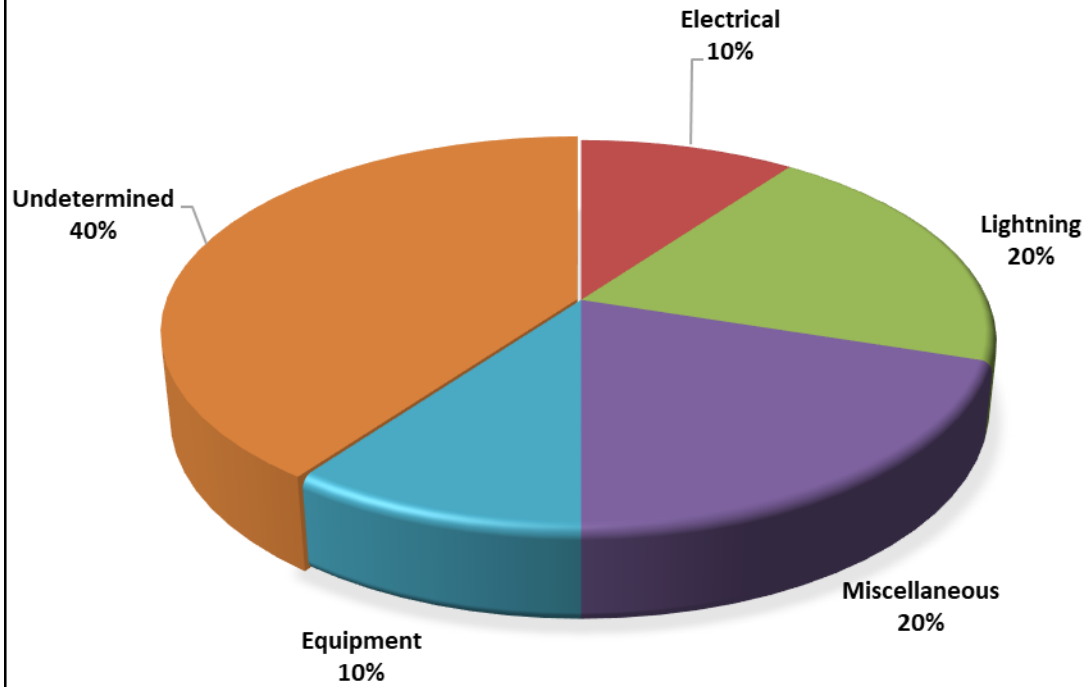
**Cause Statistics Battalion 15:**

	2017	2018	2019	2020	2021
Undetermined	7 (14%)	6 (30%)	1 (7%)	7 (35%)	4 (33%)
Lightning	10 (20%)	0	0	3 (15%)	2 (17%)
Campfire	10 (20%)	3 (15%)	3 (21%)	2 (10%)	0
Smoking	2 (4%)	2 (10%)	0	0	0
Equipment	2 (4%)	0	0	0	1 (8%)
Vehicle	1 (2%)	1 (5%)	0	1 (5%)	2 (17%)
Debris Burning	10 (20%)	5 (25%)	2 (14%)	1 (5%)	0
Arson	1 (2%)	0	0	2 (10%)	0
Electrical Power	1 (2%)	0	2 (14%)	0 (0%)	1 (8%)
Railroad	0	0	0	0	0
Playing With Fire	0	1 (5%)	0	2 (10%)	0
Miscellaneous	5 (10%)	2 (10%)	3 (21%)	2 (10%)	2 (17%)
Exposure - Structure	0	0	0	0	0
Under Investigation	0	0	3 (21%)	0	0
<b>Total</b>	<b>49</b>	<b>20</b>	<b>14</b>	<b>20</b>	<b>12</b>



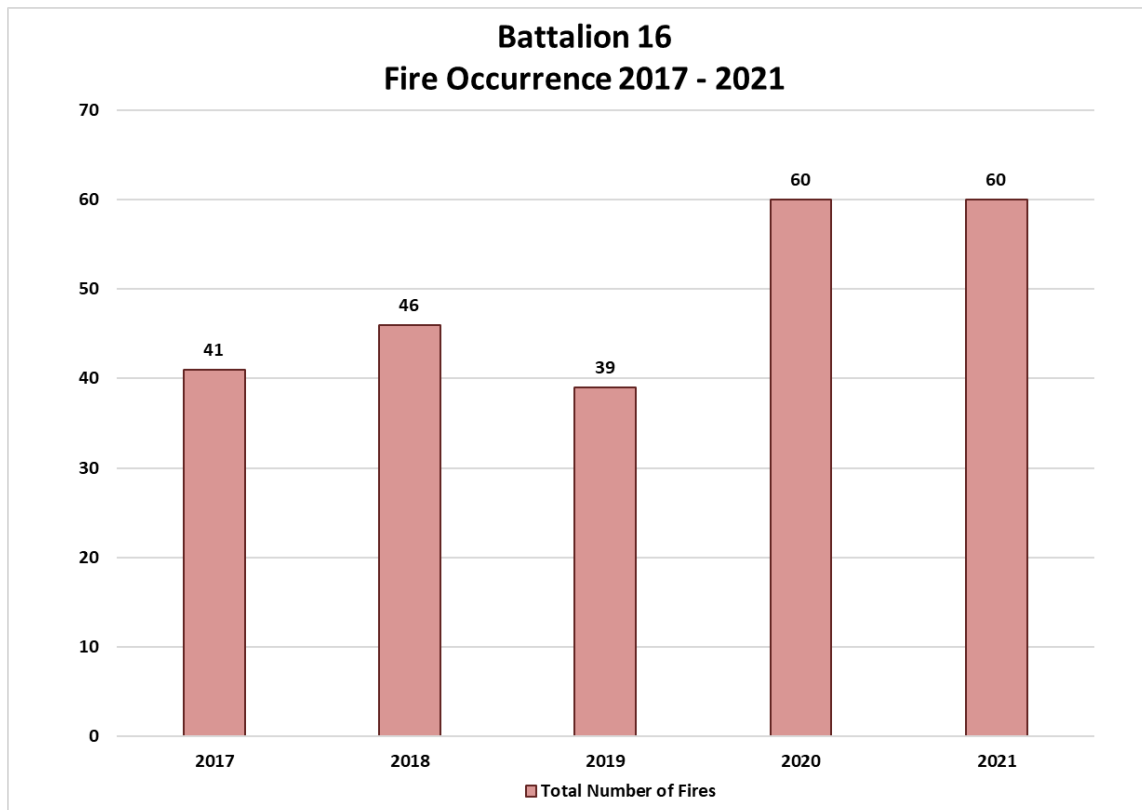
# BATTALION 15

## 2021 FIRE CAUSE STATISTICS - 12 FIRES



**Cause Statistics Battalion 16:**

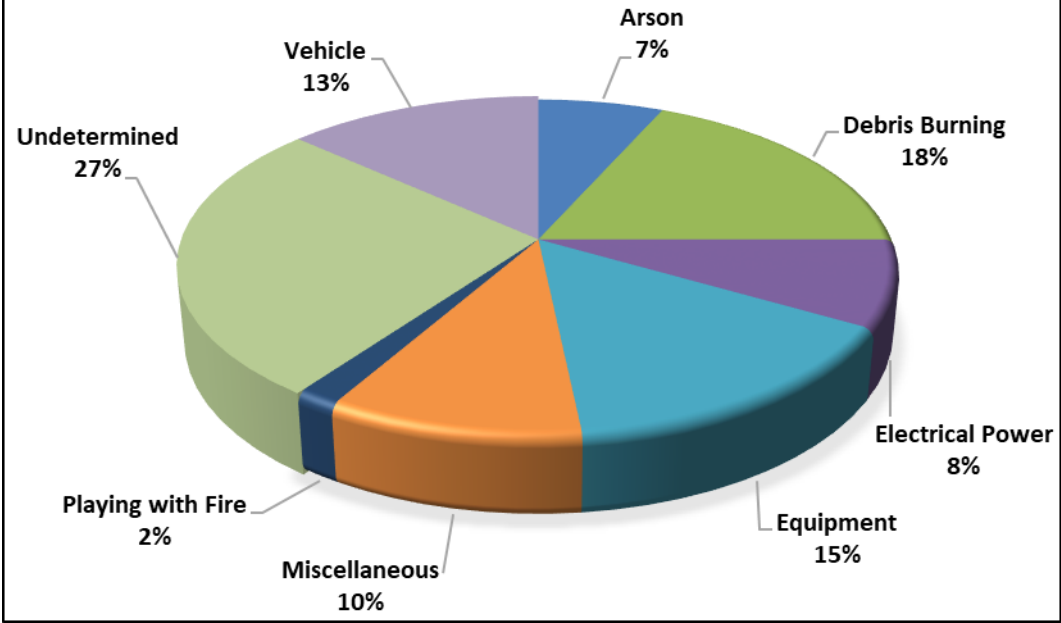
	2017	2018	2019	2020	2021
Undetermined	12 (29%)	13 (28%)	5 (13%)	1 (13%)	16 (27%)
Lightning	0	0	0	3 (5%)	0
Campfire	0	2 (4%)	1 (3%)	4 (7%)	4 (7%)
Smoking	1 (2%)	2 (4%)	0	0	0
Equipment	5 (12%)	7 (15%)	9 (23%)	10 (17%)	9 (15%)
Vehicle	3 (7%)	5 (11%)	3 (8%)	7 (12%)	8 (13%)
Debris Burning	14 (34%)	11 (24%)	4 (10%)	14 (23%)	11 (18%)
Arson	1 (2%)	0	9 (23%)	1 (2%)	4 (7%)
Electrical Power	2 (5%)	0	2 (5%)	6 (10%)	5 (8%)
Railroad	0	0	0	0	0
Playing with Fire	0	0	0	1 (2%)	1 (2%)
Miscellaneous	3 (7%)	6 (13%)	3 (8%)	6 (10%)	6 (10%)
Exposure - Structure	0	0	0	0	0
Under Investigation	0	0	3 (8%)	0	0
<b>Total</b>	<b>41</b>	<b>46</b>	<b>39</b>	<b>60</b>	<b>60</b>





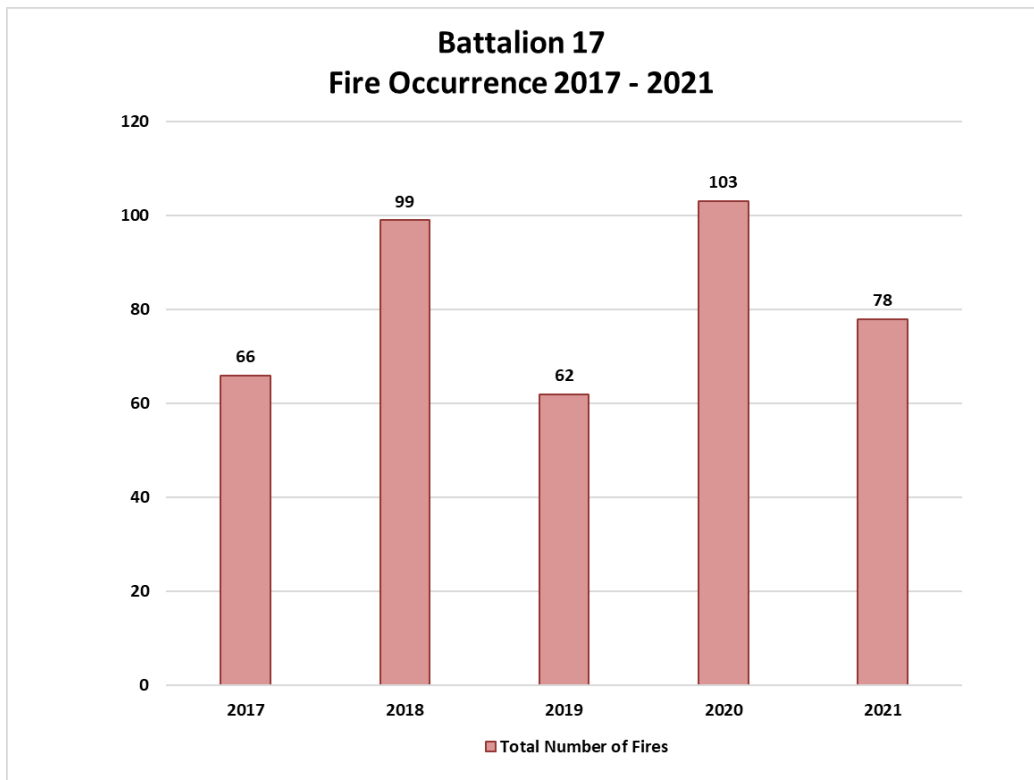
# BATTALION 16

## 2021 FIRE CAUSE STATISTICS - 60 FIRES



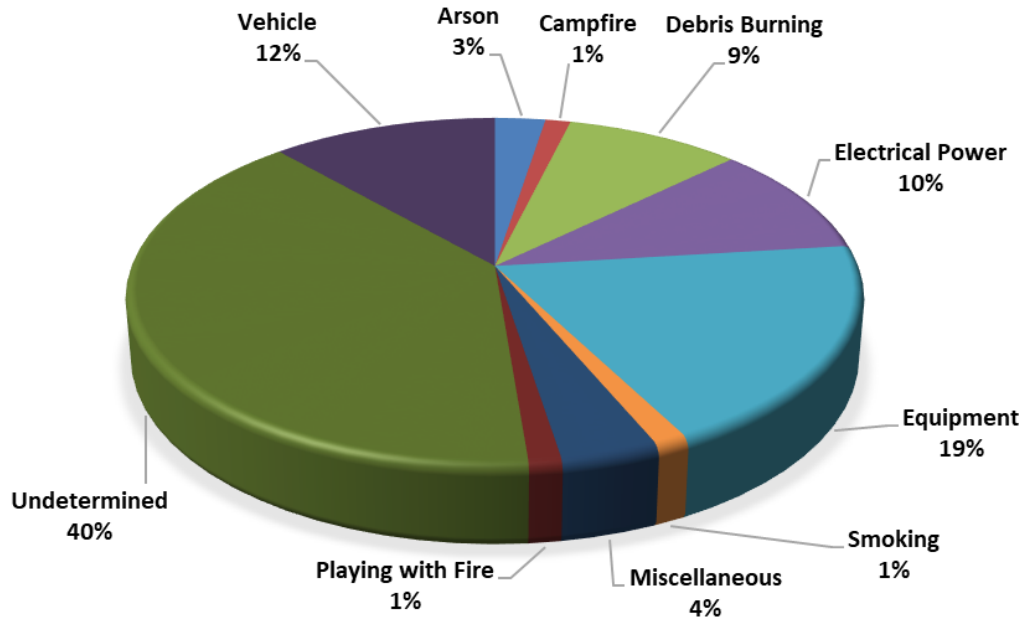
**Cause Statistics Battalion 17:**

	2017	2018	2019	2020	2021
Undetermined	22 (33%)	27 (27%)	10 (16%)	27 (26%)	31 (40%)
Lightning	0	0	1 (1%)	1 (1%)	0
Campfire	2 (3%)	0	0	2 (2%)	1 (1%)
Smoking	3 (5%)	1 (1%)	1 (1%)	0	1 (1%)
Equipment	11 (17%)	12 (12%)	8 (13%)	13 (13%)	15 (19%)
Vehicle	5 (8%)	5 (5%)	5 (8%)	6 (6%)	9 (12%)
Debris Burning	5 (8%)	22 (22%)	11 (18%)	13 (13%)	7 (9%)
Arson	3 (5%)	14 (14%)	1 (1%)	4 (4%)	2 (3%)
Electrical Power	11 (17%)	11 (11%)	6 (10%)	14 (14%)	8 (10%)
Railroad	0		0	0	0
Playing with Fire	1 (2%)	1 (1%)	2 (3%)	6 (6%)	1 (1%)
Miscellaneous	6 (9%)	6 (6%)	5 (8%)	17 (17%)	3 (4%)
Exposure - Structure	0	0	0	0	0
Under Investigation	0	0	12 (19%)	0	0
<b>Total</b>	<b>66</b>	<b>99</b>	<b>62</b>	<b>103</b>	<b>78</b>



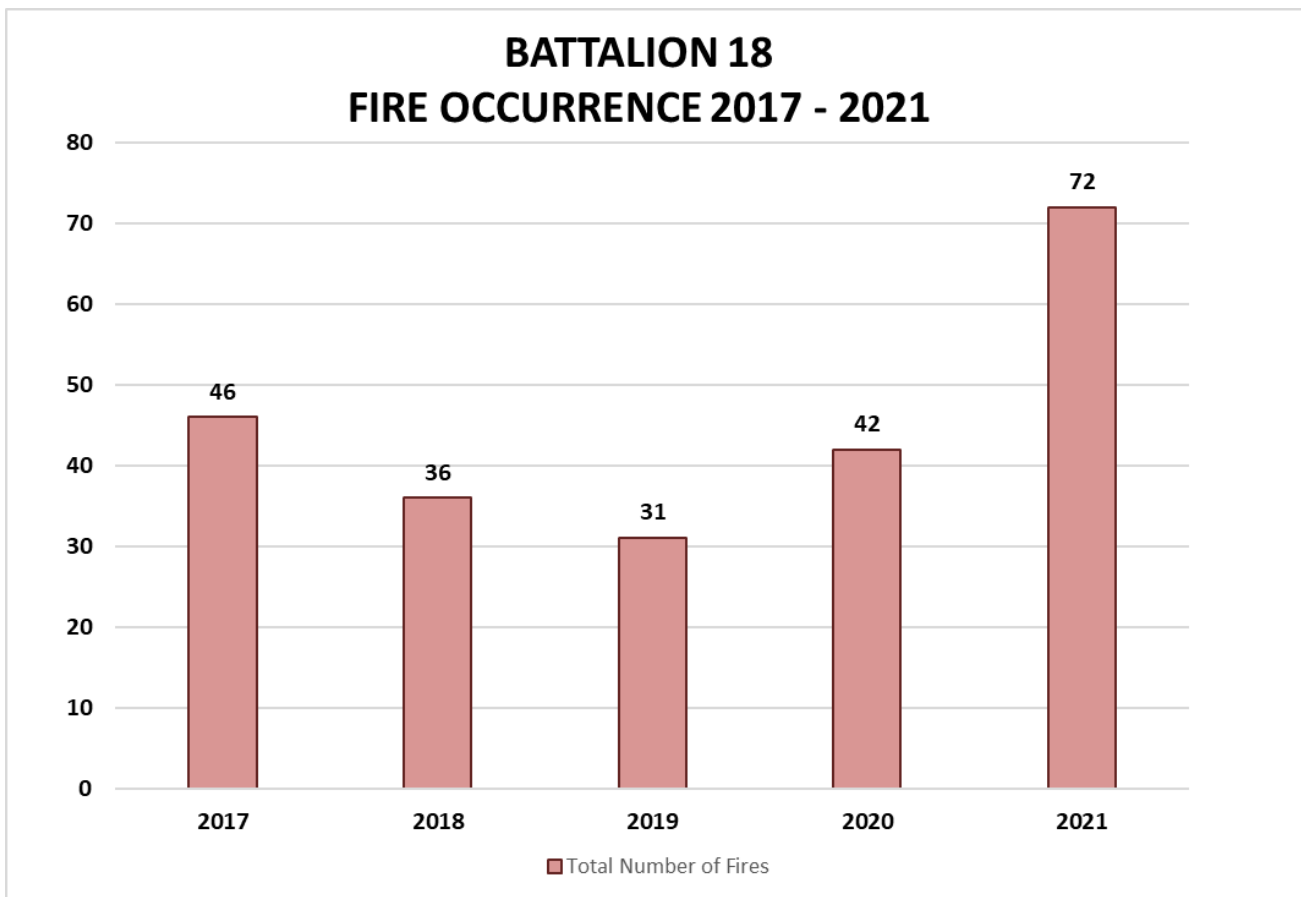
# BATTALION 17

## 2021 FIRE CAUSE STATISTICS - 78 FIRES



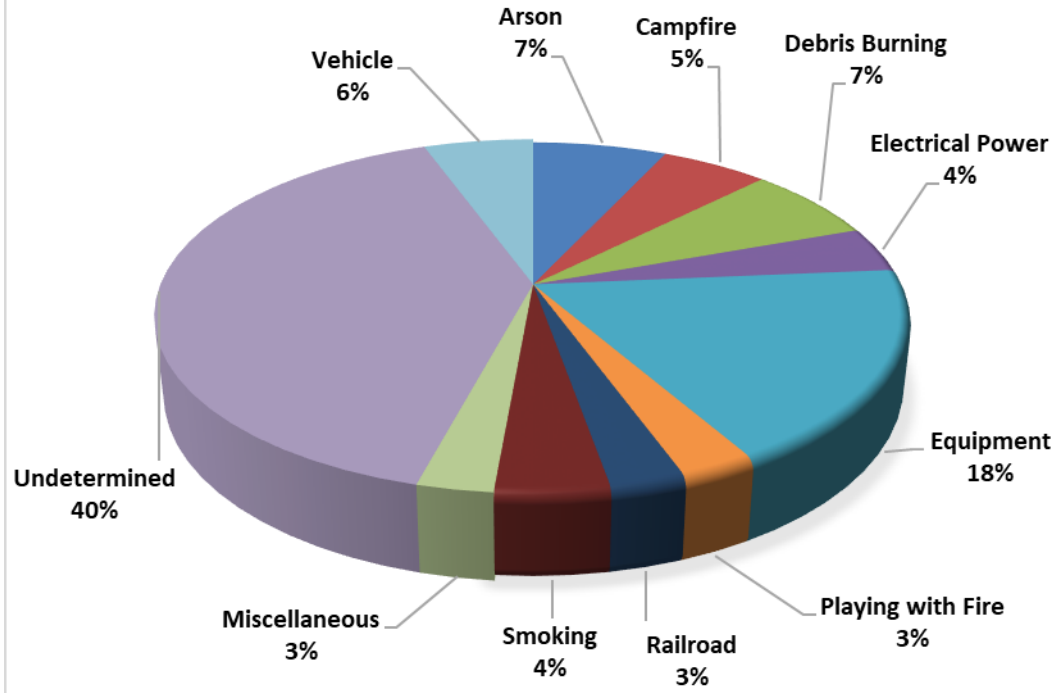
**Cause Statistics Battalion 18:**

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Undetermined	16 (35%)	8 (22%)	10 (32%)	11 (26%)	29 (40%)
Lightning	0	0	0	0	0
Campfire	2 (4%)	1 (3%)	2 (6%)	2 (5%)	4 (6%)
Smoking	2 (4%)	3 (8%)	0	0	3 (4%)
Equipment	4 (9%)	7 (19%)	4 (13%)	5 (12%)	13 (18%)
Vehicle	4 (9%)	0	5 (16%)	4 (10%)	4 (6%)
Debris Burning	10 (22%)	9 (25%)	4 (13%)	10 (24%)	5 (7%)
Arson	0	0	0	1 (2%)	5 (7%)
Electrical Power	2 (4%)	4 (11%)	2 (6%)	8 (19%)	3 (4%)
Railroad	0	0	0	0	2 (3%)
Playing With Fire (PWF)	1 (2%)	2 (6%)	0	0	2 (3%)
Miscellaneous	5 (11%)	2 (6%)	1 (3%)	1 (2%)	2 (3%)
Exposure - Structure			1 (3%)	0	0
Under Investigation			2 (6%)	0	0
<b>Total</b>	<b>46</b>	<b>36</b>	<b>31</b>	<b>42</b>	<b>72</b>



# BATTALION 18

## 2021 FIRE CAUSE STATISTICS - 72 FIRES



**See Appendix H Below**

**APPENDIX F: Unit Fuel Reduction Projects**

**NEU 2021/2022 External Grant Projects**

Project Name	Type	County	Grant ID
Headwaters Basin Forest Resilience	Forest Health	Placer	21-FH-NEU-012
French Meadows Ecological Restoration – Project Completion	Forest Health	Placer	21-FH-NEU-044

**NEU 2020/2021 External Grant Projects**

Project Name	Type	County	Grant ID
NFF-USFS Sierra Valley Fire Protection Project	Fire Prevention Grant	Sierra	20-FP-NEU-0140
North Fork American River Shaded Fuel Break Phase II	Fire Prevention Grant	Placer	20-FP-NEU-0216
South County Shaded Fuel Break	Fire Prevention Grant	Nevada	20-FP-NEU-0242
Olympic Valley Community Wildfire Prevention Plan	Fire Prevention Grant	Placer	20-FP-NEU-0254
Western Nevada County Forest Health Objectives	Forest Health Grant	Nevada	20-FH-NEU-079

**NEU 2019/2020 External Grant Projects**

Project Name	Type	County	Grant ID
Truckee Fuel Reduction	Fuel Reduction	Nevada	19-FP-NEU-1031
Egress/Ingress Fire Safety Project	Fuel Reduction	Nevada	19-FP-NEU-1131
Placer County Chipper Program	Fire Prevention	Placer	19-FP-NEU-1132
Climate Adaptive Forest Management	Forest Health Grant	Nevada	19-FH-NEU-028
Yuba Foothills Healthy Forests	Forest Health Grant	Yuba	19-FH-NEU-012
Forest Resilience Project – Tahoe Central Sierra Initiative	Forest Health Grant	Placer, Sierra, Nevada	19-FH-NEU-0051-AEU
Assessing smoke-plume injection height as a function of sub-canopy wind convergence of prescribed burns in the Central Sierra Nevada	Forest Health Research Grant	Nevada / Sierra	19-RP-NEU-092
Sierra Nevada-wide provenance trails to support climate-based seed zones and reforestation efforts	Forest Health Research Grant	Nevada	19-RP-SHU-025

**NEU 2018/2019 External Grant Projects**

Project Name	Type	County	Grant ID
Placer County Coordinated Fuel Break Phase I	Fuel Reduction	Placer	18-FP-NEU-1216
Ponderosa West Grass Valley Defense Zone	Fuel Reduction	Nevada	18-FP-NEU-1071

Firewise Update 2020	Fire Prevention	Nevada	18-FP-NEU-1150
Yuba County Foothills CWPP Funding & Implementation Project	Fire Prevention	Yuba	18-FP-NEU-1200
Butler Property Fee Title Acquisition and Conservation Easement	Forest Health and Forest Legacy Grant	Placer	18-FH-NEU-0041-NEU

### NEU 2017/2018 Active Internal Projects

Project Name	Type	County	CalMapper ID
Placer County Tree Mortality	Hazardous Tree Removal	Placer	2300-2017-FPL-051
Communication Towers Maintenance	Fuel Reduction	Placer	2300-2017-FPL-050
Glenshire Community	Fuel Reduction	Placer	2300-2017-FPL-054
Bear River Pines Association	Fuel Reduction	Nevada	2300-2017-FPL-055
Barrister Road	Shaded Fuel Break	Placer	2300-2017-FPL-053
Meadow Vista	Shaded Fuel Break	Placer	2300-2017-FPL-055

### NEU 2017/2018 External Grant Projects

Project Name	Type	County	Grant ID
Inimin Forest Restoration Project	Fuel Reduction	Yuba	17-FP-NEU-0027
Auburn Shaded Fuel Break	Shaded Fuel Break	Placer	17-FP-NEU-0090
Placer County Chipper Program	Chipping	Placer	17-FP-NEU-0091
Placer County Fire Prevention Program	Education	Placer	17-FP-NEU-0092
Encouraging the Use of Prescribed Fire in the Central Sierra Nevada	Education	Multi	17-FP-NEU-0095
2018 Northstar/USACE Fuels Reduction Partnership Project	Fuel Reduction	Placer	17-FP-NEU-0135
Glenshire Fuel Reduction	Fuel Reduction	Placer	17-FP-NEU-1009
Placer County Chipper Support	Fuel Reduction	Placer	17-FP-NEU-2067
North Fork American River	Shaded Fuel Break	Placer	17-FP-NEU-2068
Tahoe-Central Sierra Initiative (TCSI) – Lake Tahoe Basin SRA Lands	Forest Health Grant	Placer, El Dorado	17-CC1-FH-01-0051-AEU
Tahoe-Central Sierra Initiative (TCSI) – Tahoe National Forest, Lake Tahoe Basin Management Unit and SRA Lands	Forest Health Grant	Sierra, Nevada, Placer	17-CC1-FH-01-038-NEU
Tahoe-Central Sierra Initiative (TCSI) – American River Headwaters Restoration Project (ARHRP)	Forest Health Grant	Placer	17-CCI-FH-01-0003-NEU
Tahoe-Central Sierra Initiative (TCSI) All-Lands Regional Restoration Project – El Dorado Projects / French Meadows	Forest Health Grant	El Dorado, Placer	17-CCI-FH-01-0006-AEU
My Sierra Woods – Capturing Carbon on California’s Family Forest Lands	Forest Health Grant	Shasta, Yuba, Butte, Tehama, Lassen, Plumas, Sierra, Nevada, Placer	17-CCI-FH-01-0009-SHU



**NEU 2016/2017 Active Internal SRA Fee Projects**

<b>Project Name</b>	<b>Type</b>	<b>County</b>	<b>CalMapper ID</b>
Lake Theodore Fuel Reduction	Fuel Reduction	Placer	2300-2016-FPL-018
Reader Ranch	Fuel Reduction	Nevada	2300-2016-FPL-016
Oregon Peak	Fuel Reduction	Yuba	2300-2016-FPL-019
Evacuation Plans / TMOP	Planning	Placer / Nevada	2300-2016-FPL-021
Oest VMP	Fuel Reduction	Placer	2300-2016-FPL-020

**NEU 2016/2017 External SRA Fee Projects**

<b>Project Name</b>	<b>Type</b>	<b>County</b>	<b>Grant ID</b>
Placer County Tree Mortality Chipper Program	Tree Mortality	Placer	16-FP-NEU-0087
2017 Northstar Tree Mortality	Tree Mortality	Placer	16-FP-NEU-1070
Frost Hill Tree Mortality Tree Removal Area1	Tree Mortality	Placer	16-FP-NEU-0090
Frost Hill Tree Mortality Tree Removal Area2	Tree Mortality	Placer	16-FP-NEU-0091
Nevada City Tree Mortality	Tree Mortality	Nevada	16-FP-NEU-0049

**NEU 2015/2016 Internal SRA Fee Projects**

<b>Project Name</b>	<b>Type</b>	<b>County</b>	<b>CalMapper ID</b>
HQ Messaging	Education	Placer	2300-2016-PRV-001
Reflective Addressing	Planning	Placer / Nevada / Yuba	2300-2016-PRV-002
Mt Howell Maintenance	Fuel Reduction	Placer	2300-2016-FRP-001
PCWA Fuel Reduction	Fuel Reduction	Placer	2300-2016-FRP-004
Reader Ranch	Fuel Reduction	Nevada	2300-2016-FRP-003
Waddle Ranch	VMP	Placer / Nevada	2300-2016-FMP-001
Oregon Peak Maintenance	Fuel Reduction	Yuba	2300-2016-FRP002
Alta Shaded Fuel Break	Fuel Reduction	Placer	2300-2016-FRP-006

**NEU 2015/2016 External SRA Fee Projects**

<b>Project Name</b>	<b>Type</b>	<b>County</b>	<b>Grant ID</b>
Hazard Tree Removal and Senior Firewood Cooperative	Fuel Reduction	Nevada	15-SRA-NEU-0038
Special Needs Assistance Program	PRC 4291 Assistance	Nevada	15-SRA-NEU-0039
Ponderosa West Grass Valley Defense Zone Project	Fuel Reduction	Nevada	15-SRA-NEU-0040
Monte Verde Fuel Break Extension	Fuel Reduction	Placer	15-SRA-NEU-0067
2016 Northstar Community Pest Reduction Program	Fuel Reduction	Placer	15-SRA-NEU-1016
2016 Northstar Fuels Buffer Program	Fuel Reduction	Placer	15-SRA-NEU-1018

### NEU 2014/2015 Internal SRA Fee Projects

Project Name	Type	County	CalMapper ID
Fire Prevention Road Signs	Education	NEU	2300-2015-PRV-001
PSA'S/SRA Education	Education	NEU	2300-2015-PRV-002
Fire Prevention Education Pubs	Education	NEU	2300-2015-PRV-003
Bunker Hill VMP - Mastication	Fuel Reduction	Nevada	2300-2015-VMP-001
Reader Ranch VMP - Mastication	Fuel Reduction	Nevada	2300-2015-VMP-002
Loyalton Mastication – Senior Center	Fuel Reduction	Sierra	2300-2015-VMP-003
Bug Killed Tree Removal – Placer East	Fuel Reduction	Placer	2300-2015-VMP-004
Bug Killed Tree Removal – Placer West	Fuel Reduction	Placer	2300-2015-VMP-005
Placer County Mastication	Fuel Reduction	Placer	2300-2015-VMP-012

### NEU 2014/2015 External SRA Fee Projects

Project Name	Type	County	Grant ID
North Tahoe Multi-Jurisdictional Request for Emergency Evacuation Planning Materials	Education	Placer	14-SRA-HF-01-0112
Sierra County Residential Chipping Program	Fuel Reduction	Sierra	14-SRA-HF-01-0137
Sierra City SC1 SC3 Fuels Reduction	Fuel Reduction	Sierra	14-SRA-HF-01-0139
Alpine Meadows Subdivision Roadside Clearing	Roadside Clearing	Placer	14-SRA-HF-01-0156
Truckee Fire Protection District CWPP	Outreach	Nevada	14-SRA-HF-01-0186
Yuba County Service Area 2 Shaded Fuel Break	Shaded Fuel Break	Yuba	14-SRA-HF-01-0188
Special Needs Defensible Space Assistance Program	Defensible Space	Yuba	14-SRA-HF-01-0268
Nevada County Chipping Program	Fuel Reduction	Nevada	14-SRA-HF-01-0269
Soper Company Shakespeare Mastication	Fuel Reduction	Yuba	14-SRA-HF-01-0273
Yuba County Residential Chipping Program	Fuel Reduction	Yuba	14-SRA-HF-01-0277
Bear River Pines Fuels Reduction	Fuel Reduction	Nevada	14-SRA-HF-01-0304
Placer County Chipper Program – Track Chipper Acquisition	Equipment	Placer	14-SRA-HF-01-0340
North Fork American River Fuel Break – CEQA	CEQA	Placer	14-SRA-HF-01-0344
Nevada County Landfill Site Fuel Modification	Fuel Reduction	Nevada	14-SRA-HF-01-0345
Placer County Residential Chipper Program	Fuel Reduction	Placer	14-SRA-HF-01-0346

### NEU 2013/2014 Internal SRA Fee Projects

<b>Project Name</b>	<b>Type</b>	<b>County</b>	<b>CalMapper ID</b>
Drought Outreach	Education	NEU	2300-2014-FAS-001
McElroy Rd / Shaded Fuel Break	Fuel Break	Placer	2300-2014-FPL-001
Mt. Howell Maintenance	Fuel Reduction	Placer	2300-2014-FPL-002
Ben Taylor	Fuel Reduction	Placer	2300-2014-FPL-003
Applegate	Fuel Reduction	Placer	2300-2014-FPL-004
Battalion 14 Fire Roads	Roadside Clearance	Nevada / Yuba	2300-2014-FPL-005
Porcupine Hill Maintenance	Fuel Reduction	Placer	2300-2014-FPL-006
Burton Creek State Park	Fuel Reduction	Placer	2300-2014-FPL-007
Fuel Break Maintenance	Maintenance	Placer	2300-2014-FPL-008
North Fork American Shaded Fuel Break	Outreach	Placer	2300-2014-FPL-009
McCourtney Rd Landfill	Fuel Reduction	Nevada	2300-2014-FPL-010
PRC 4291 Signage	Prevention	NEU	2300-2014-PRE-001
Smokey Program	Prevention	NEU	2300-2014-PRE-002
Gold Country Fairground	Outreach	NEU	2300-2014-PRE-003
East Side Outreach	Outreach	Tahoe Basin	2300-2014-PRE-004
UC Field Station VMP	Prescribed Fire	Yuba	2300-2014-VMP-001
Reader Ranch VMP	Prescribed Fire	Yuba	2300-2014-VMP-002
Bunker Hill VMP	Prescribed Fire	Yuba	2300-2014-VMP-003

**APPENDIX G: COOPERATOR PROJECTS**

Placer County

**Foresthill / Iowa Hill Fire Safe Council & Foresthill Fire Protection District**

See link for list of current projects:

<https://www.placer.ca.gov/5721/Fire-Safe-Alliance>

**Greater Lincoln Fire Safe Council**

See link for list of current projects:

<https://www.placer.ca.gov/5721/Fire-Safe-Alliance>

**Northstar Fire Department**

See link for list of current projects:

<https://www.northstarcsd.org/departments/fire/forestry>

**Placer Sierra Fire Safe Council**

See link for list for current projects:

<https://www.placer.ca.gov/5721/Fire-Safe-Alliance>

**Tahoe Basin Fire Safe Council**

See link for list for current projects:

[http://www.tahoelivingwithfire.com/wp-content/uploads/2018/11/LakeTahoeBasinCommunityWildfireProtectionPlan\\_ReducedQuality.pdf](http://www.tahoelivingwithfire.com/wp-content/uploads/2018/11/LakeTahoeBasinCommunityWildfireProtectionPlan_ReducedQuality.pdf)

Nevada County

**Fire Safe Council of Nevada County**

See link for the current project list:

[https://static.s123-cdn.com/uploads/2149934/normal\\_5fbd6d4a57909.pdf](https://static.s123-cdn.com/uploads/2149934/normal_5fbd6d4a57909.pdf)

Yuba County

**Yuba County Fire Safe Council**

See link for the current project list:

[http://www.deercreekgis.com/files/Yuba\\_CWPP/20140819\\_FINAL\\_Yuba\\_CWPP\\_web.pdf](http://www.deercreekgis.com/files/Yuba_CWPP/20140819_FINAL_Yuba_CWPP_web.pdf)

Sierra County

**Sierra County Fire Safe Council**

See link for the current project list:

<https://cafiresafecouncil.org/fsc-location/sierra-county-fire-safe-watershed-council/>

## **APPENDIX H: BATTALION PRIORITY PROJECT DESCRIPTIONS**

### **Alta Shaded Fuel Break Extension (Battalion 13):**

The Alta shaded fuel break extension begins at CAL FIRE/PCFD Station 33 in Alta on the north side of Interstate 80 at the Alta undercrossing for Alta Bonnie Nook Rd. This project connects the Alta Shaded Fuel Break on the south side of Interstate 80 with other private shaded fuel breaks to the north which surround Lake Alta, Frost Hill, Dutch. The project is defined as a shaded fuel break and demonstration for the public to see as an example to follow.

### **American River Canyon “Auburn Shaded Fuel Break” (Battalion 11)**

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

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

The purpose of the Shaded Fuel Break is to minimize destruction to the City of Auburn from wildfire and to protect and enhance natural resources, watershed and habitat of the pristine American River Canyon and Auburn State Recreation Area. The goal is to treat these lands using the prescribed fuels application with the desired outcome of manageable lands for future fire prevention projects.

### **Auburn Airport (Battalion 18):**

The Auburn Municipal Airport is strategically located east of North Auburn, west and north of Bowman, south of Christian Valley and is a Mutual Threat Zone with the City of Auburn. By intensifying the vegetation management efforts of this area, it could result in a of reduction in fire potential and intensity and could therefore significantly reduce the loss or damage to homes and property in a wildfire event.

### **Battalion 14 Fire Roads – Nevada and Yuba County**

Battalion 14 contains several historical un-maintained fire roads that NEU has traditionally maintained to a standard that will allow fire and emergency apparatus access and could be utilized for ingress/egress for evacuees. Each year the battalion works with private landowners to improve these roads. All work is done within the existing road prism. Road surface, road drainage and site line distance are all maintained. This includes grading with a road grader or dozer, cutting and removal of vegetation along the road edge and chipping if necessary.

CEQA: NOE

### **Brockway Shaded Fuel Break (Battalion 15):**

Is a cooperative project that involves multiple agencies and entities working toward a single goal of hazardous fuels reduction in the form of a shaded fuel break that runs from the top of Brockway Summit downslope to the Glenshire neighborhoods in Truckee.

This project is funded by a CAL FIRE grant and partners with the affected private and federal landowners to meet the intended objectives. This project, when complete, will improve the survivability, containment, and control capabilities in the event of a catastrophic wildland fire.

**Bug Killed Tree Removal-Placer East and Placer West:**

This project aims to mitigate insect induced tree mortality within the SRA of Placer County. Drought has caused the endemic levels of insect mortality to rise. The impact primarily occurs between 500' and 3000' MSL. This zone aligns with the WUI zone where wildfire risk is increased due to dispersed residential development. The result of expanding mortality is an increase in fire risk directly to structures in the SRA. This project reduces tree mortality by cutting of infested stems and onsite mechanical treatment of hazardous vegetative fuels and brood material. The project aims to treat sites that are not sufficient commercial opportunities due to market, size, deterioration, and topographic constraints. This project will not resemble commercial timber operations and will not generate commercial products.

**Bug Killed Tree Removal-Yuba/Nevada County:**

This project aims to mitigate insect induced tree mortality within the SRA of Placer County. Drought has caused the endemic levels of insect mortality to rise. The impact primarily occurs between 500' and 3000' MSL. This zone aligns with the WUI zone where wildfire risk is increased due to dispersed residential development. The result of expanding mortality is an increase in fire risk directly to structures in the SRA. This project reduces tree mortality by cutting of infested stems and onsite mechanical treatment of hazardous vegetative fuels and brood material. The project aims to treat sites that are not sufficient commercial opportunities due to market, size, deterioration, and topographic constraints. This project will not resemble commercial timber operations and will not generate commercial products.

**Burton Creek State Park Hazardous Fuel Reduction (Battalion 15)**

The project area is 20 acres of upland mixed conifer forest in Burton Creek State Park on the north shore of Lake Tahoe. Under prevailing southwesterly pre-frontal winds, the project area is downwind of multiple ignition sources in Tahoe City, and upwind of the North Tahoe Intermediate School and High School.

Commercial thinning of intermediate and overstory trees was implemented over the snow during the winter of 2000. Surface fuels and understory ladder fuels were not treated during that entry. Hazardous fuel reduction treating the surface fuels and ladder fuels is needed to reduce potential wildfire intensity and fire behavior in this critical area. CEQA: California State Parks NOE

**California Tahoe Conservancy (Battalion 15)**

CAL FIRE assists the California Tahoe Conservancy with pile burning and hazardous tree felling operations on State lands to improve forest health, enhance wildland urban interface threats from wildfire and to protect watershed. CAL FIRE assists with projects that are funded by sources other than CAL FIRE Grants.

**The Cedar's Structure Defense and Evacuation Plan (Battalion 15):**

The Cedars Community is many remote residential structures located in the area at the top of the North Fork American River Canyon on the Tahoe National Forest (TNF). These dwellings have very limited ingress and egress and are routinely threatened by fire on the TNF. CAL FIRE has and will continue to assist the residents and property owners in establishing a viable evacuation plan, as well as assisting with hazardous

fuels reduction recommendations and advice including structure hardening, defensible space, and fuels reduction. This will serve to help in safeguarding both the residents and dwellings from the threat of wildland fires.

**Clark Tunnel/Bickford VMP (Battalion 17):**

This is a priority project as it relates to our future, our growth, and our assets at risk. With large development in the SRA the threat of a devastating WUI wildland fire increase.

The Clark Tunnel/Bickford VMP is in the planning stages of fuels reduction and shaded fuel breaks along with the ability to implement prescribed fire to reduce the threat of conflagration fires while improving the watershed as well as habitat and brows for local wildlife.

**County Road 270 (Battalion 16):**

This is a proposed fuel clearing to improve access to 7 miles of existing fire roads. There is a significant increase in population to the Collins lake campground during the summer months. This increases the potential number of fire starts and would create significant challenges to evacuations and access. Having CR270 clear would create a fuel break between the Collins Lake camping areas and the more populated Dobbins/Oregon House communities, as well as improving access for fire equipment. The general area is Yuba County Road 270, North and West of Collins Lake. The location of, and the vegetation management within the project make it ideal to be utilized as an area which can assist with the protection of homes and property, by slowing the spread of fire within the area.

**Disc Line Projects (Battalion 17):**

It has been identified that the most effective way to confine limit these roadside vegetation fires is to create fire breaks along the roads where they start. In recent years, roadside fires have burned thousands of acres in the LRA of Battalion 17. If property boundaries close to public accesses were disked, this may have significantly reduced the acres and property lost. These fire breaks can be created by diskings the vegetation along the property boundary or along the property adjacent to the roadside.

**Empire Mine Historic State Park (Battalion 12):**

This project is being conducted in cooperation with the California State Parks. The project includes three phases and is currently under way through the cooperation of State Parks for oversight and management and the CAL FIRE resources working to provide the labor force and equipment. Phase One includes clearing around the buildings in the park and has been completed in the initial phase but will need maintenance. Phase Two will be to improve the trail system in the park and reduce the general fuel loading. This phase is ongoing. Phase Three will be to complete a fuel break between the State Park and most or all the private lands on the perimeter. This phase has begun and is in progress. Adding to the current plan are proposed fuel breaks from Osborne Hill to the Penn Gate off Empire Street in Grass Valley and Highway 174 along Empire Cross Road to Empire Street near the Park entrance. Additional work being conducted includes removing dead and dying trees on the Park property.

**Fiddymont VMP/Training burn (Battalion 17):**

The vegetation management programs are directed at reducing the potential of a large fire and reducing the damage from a large fire. There is currently one VMP in progress, Fiddymont Training Area VMP, totaling over 154 acres. This area provides an ideal location for wildland fire ignition, suppression, and fire behavior training. It is also a venue that exhibits what Range Improvement burning can do. The collaboration and coordination between agencies, groups and landowners is far reaching with this project.

### **Fire Prevention Road Signs**

NEU will construct wood sign holders for them and strategically place them within communities at risk of wildfire, within the SRA, to educate the highest number of community members that we can. The fire prevention education outreach message will be “One Less Spark” and “Are You Ready.”

### **Fire Safe Councils in the Granite Bay – and Greater Truckee Area**

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

### **Foresthill Divide Fuel Break Maintenance – Placer County (Battalion 11)**

The communities of Foresthill, Iowa Hill, Todd Valley and Michigan Bluff have had extensive fuel break work completed in the past 5-10 years, primarily driven by Foresthill Fire Department and Fire Safe Council grant success. These communities also have many masticated fuel breaks completed through CFIP program participation and on the Robbers Fire – during suppression repair. Several these fuel breaks are reaching their 5-year maintenance date.

CEQA: NOE

### **Gold Country Fairgrounds**

This is a high visibility public education project. The Gold Country fairgrounds lies at the intersection of Hwy 49 and I-80 and hosts visitors from Placer, Sacramento, El Dorado, and Nevada Counties annually for numerous events, the largest being the Gold Country Fair and the Auburn Home show (Spring/Fall). The Home Show is the largest in northern California and attracts approximately 35,000 homeowners and the Gold Country Fair attendance is about 45,000.

In 1982, the California Department of Forestry and Fire Protection designed and built approximate 25 ft. x 25 ft. gazebo at the front entrance gate which was used until 2014 as the fire prevention host facility at all major events. In August 2014, NEU personnel along with many volunteers built a Wildland Urban Interface (WUI) Demonstration Building, in place of the gazebo, that is compliant with California Building Code Chapter 7A Standards for exterior building materials. The new site presents an opportunity for CAL FIRE, USFS, BLM and local fire safe councils to interact with the public on current topics of fire prevention, building construction standards, defensible space requirements and other topics related to building a fire-resistant community. In addition, the message will be supported by new educational displays illustrating the influence of building materials on fire spread, emphasizing the role they played in the 2009 49 Fire that spread through North Auburn, destroying 65 residential and commercial structures. For the Gold Country Fair, Station 10 personnel maintain a constant presence to support fair public safety and response.

### **Hidden Falls (Battalion 17&18)**

The location of, and the vegetation management within the Hidden Falls Regional Park makes it ideal to be utilized as an area which can assist with the protection of homes and property, by slowing the spread of fire within the area. This project is ongoing and will remain so for the life of the park.

### **Lakeview Canyon Fuel Break (Battalion 15)**

CAL FIRE and State Parks are working jointly to complete a 40'-50' wide fuel break



from the old Union Pacific Railroad right of way near Donner Summit in Truckee down to the South shore of Donner Lake. This project incorporates fire road improvements, felling operations and brushing/thinning of the fire road up to 15' on each side. When completed, the fuel break will provide improved wildland urban interface protection from wildfires for Truckee in the area of Donner Lake, as well as enhancing watershed protection and forest health.

**Loyalton Mastication Senior Center (Completed 2015):**

This project will reduce the horizontal and vertical continuity of the sage and bitter brush on the South and West sides of the Senior Center. The fuel ladders are present that affect scattered overstory pine will be eliminated. Torching of the pine trees will be mitigated. Thus, ember dispersal will be prevented. This project provides direct protection of structures within the SRA adjacent to and within the Town of Loyalton.

**Malakoff State Park VMP (Battalion 14):**

Within the boundaries of the Malakoff State Park are over 3,700 acres in the North Bloomfield area. In 2007, approximately 1,000 of those acres were burned under VMP through a cooperative between CAL FIRE and California State Parks. This project will continue the effort along the north side of the South Fork of the Yuba River. It will retreat much of the original footprint along with some adjoining lands. In the original effort, the State Parks completed the environmental compliance documentation along with some pre-treatments; while, CAL FIRE provided the resources and command of the prescribed fire treatment, followed up by additional post fire work. The project will restore native forest composition, structure, and function while reducing the risk of a catastrophic wildfire.

**Meadow Vista / Applegate Pre-Fire Project (Battalion 13)**

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

**Meadow Vista Roadside Clearing and Shaded Fuel Break (Battalion 13)**

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

**Mt Howell VMP (Battalion 13):**

Located on the top 40 acres of Mt Howell which sits between west bound side of Interstate 80 and Placer Hills Road south/west of Colfax. Mt Howell is owned by the State of California and has both a seasonal fire lookout tower and State and private telecommunications infrastructure located on it. This project is a shaded fuel break which provides direct defensible space to both the lookout tower and telecommunication infrastructure. The project started in the early 2000s and has an annual continued maintenance cycle for the treatment of 2 plots a year.

**NEU Fire Prevention Education Publications:**

The project will deliver a comprehensive educational messaging focused on educating individual homeowners on Fire Prevention and Emergency Preparedness. The publications will focus on pre-fire planning and preparation, defensible space, emergency evacuations plan, and other current fire prevention topics. Publications may be purchased by cooperators under an interagency agreement or directly by CAL FIRE if necessary.

**NEU PSA's/SRA Education:**

The project will deliver a comprehensive media campaign focused on educating the public on Fire Prevention and Emergency Preparedness. The PSA's will focus on pre-fire planning and preparation, defensible space, emergency evacuation plans, and other current fire prevention topics.

**Nevada County Senior and Disabled Assistance Program**

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

**North Fork American River Shaded Fuel Break "NFARSFB" Phase One (Battalion 13):**

The North Fork of the American River Shaded Fuel Break is located on the north rim of the North Fork of the American River starting near NEU Headquarters facility and ending at Cape Horn in Colfax. Phase One is the first 850 acres completed by CAL FIRE which started in 2019 and spans from Cape Horn west to the eastern edge of the Gillis Hill Fuel Break. This section provides direct protection of the City of Colfax and surroundings communities from fires originating out of the North Fork Drainage. The entire project is an ongoing project slated for a ten-year completion schedule and Phase One is in the second year of maintenance. This project is one of the 45 designated Priority Projects of Executive Order N-05-19.

**North Fork American River Shaded Fuel Break "NFARSFB" Phase Two (Battalion 11&13):**

The North Fork of the American River Shaded Fuel Break is located on the north rim of the North Fork of the American River starting near NEU Headquarters facility and ending at Cape Horn in Colfax. Phase two is a 1900-acre grant proposal developed by Placer Resource Conservation District. The Phase 2 project extends the Phase 1 project area southward and establishes treatment units toward Auburn. This section provides direct protection to residential structures and commerce along the Interstate 80 corridor from fires originating out of the North Fork Drainage. The entire NFARFB project is an ongoing project slated for a ten-year completion schedule and Phase One is in the second year of maintenance.

**Northstar SRA Fuel Reduction (Battalion 15):**

The North Star Fire Department's district lies within CAL FIRE State Responsibility Area (SRA), so we work cooperatively on hazardous fuels reduction projects which include thinning, tree felling, pile burning and chipping. These are on-going projects that are funded through both annual budgets and special grants.

**Ophir Road Network Ingress/ Egress-Fuel Reduction (Battalion 18):**

The County Road network within the community of Ophir requires vegetation management along the roadways to provide adequate egress for homeowners and ingress for emergency responders in the event of a wildfire. The project is in the planning stage and would require continual maintenance.

**PCWA Lake Arthur (Battalion 11):**

The project area consists of 30 acres of brush covered timberland between 1600' and 1900' elevation. The project is limited to mastication of brush and small trees with follow-up hand work using chainsaws and hand tools. Brush chipping of isolated sites that are above 40% will occur to tie mastication units together. The intent is to install a perimeter of masticated shaded fuel break around the entire parcel from 50' to 100' wide. An additional line will be masticated on the north side of the canal as an intermediate shaded fuel break. Trees greater than 6" diameter will be left uncut unless infested with insects and a likely threat to the remaining trees. An RPF shall identify any trees over 6" that shall be removed. The final phase of treatment will be the use of prescribed fire to maintain the fire resiliency of the forest.

**PCWA Lake Theodore (Battalion 11):**

The proposed project area consists of 69 acres of brush covered timberland between 1600' and 2000' elevation. The aspect faces south, and slopes range from 5-40% which lead into tributaries of Dry Creek and Lake Theodore, a fish bearing watercourse, tributary to the Bear River. The property is bisected by Dry Creek and Lake Theodore and is owned and operated by Placer County Water Agency. Applegate Road, a county-owned and maintained road also splits the property. Interstate 80 bounds the project to the north. Project work would be limited to hand-cutting and chipping of brush and small trees using chainsaws, hand tools, a diesel-powered chipper, and pole saws for pruning. The intent is to install a wide linear shaded fuel break along the eastern and northern boundaries of the project area, as well as to treat the area between Lake Theodore and Applegate Road. Material shall be chipped using a tow behind or tracked chipper. Where fuels are unfeasible to chip, piling and burning will be used to reduce the fuel loading. Less than 10 percent of material generated will be burned in small piles. Trees greater than 6" diameter will be left uncut unless the trees are found to be infested with insects and deemed a threat to the remaining trees, the public, or fire personnel. An RPF shall identify and mark any trees over 6" that shall be removed prior to cutting. Roadside chipping along Applegate Road may be used where access is best suited for roadside work. The roadside work will be sponsored by Placer County Public Works to coordinate traffic controls if deemed necessary. The final phase of treatment will be the use of prescribed fire to maintain the fire resiliency of the forest.

**PG&E North Auburn VMP (Battalion 11):**

The PGE Cooperative North Auburn VMP Project is located between Highway 49 and Interstate 80 along Dry Creek Road. The project protects approximately 5,000 residences in heavily developed and densely populated WUI communities of North Auburn, Christian Valley, Meadow Vista, Clipper Gap, and Bowman as well as the Auburn Airport and Pacific Gas and Electric power and water infrastructure including the Boardman Canal and Halsey Powerhouse. Fire history demonstrates the potential for severe losses as was seen during the 2009 "49" Fire which burned 65 homes, several businesses and tore through several commercial buildings within a 3-hour period. This fire was an immediate threat to over 5,000 improved parcels from North Auburn to Meadow Vista.

### **Porcupine Hill Maintenance (Battalion 15)**

The Porcupine Hill Maintenance Project is a multi-year project that has a focus of fuels reduction by creating a fuel break within the Community of Northstar, above U.S. Highway 267 leading into the Northstar Community Services District. The project area is an open common space area that is used for recreational hikers and mountain bikers. A road exists through the project area that is used by the Northstar Community Services District Utilities Department and it acts as an emergency road for fire suppression. The project area is susceptible to fire originating off the highway and or from neighboring land across the highway. The site currently contains dense brush and tree fields acting as a corridor for fire to travel aggressively into the community. Project work will break up the continuity of fuels and help protect cultural and historical sites.

CEQA: NOE the Northstar Fire Department has a CEQA Exemption document on file and the landowner has an annual Forest Practice Exemption in place.

### **Ponderosa West Grass Valley Defense Zone (Battalion 12):**

The Ponderosa West Grass Valley Defense Zone Project protects approximately 3,000 residences in the Wildland Urban Interface communities of Lake Wildwood, Penn Valley, Rough & Ready, and The City of Grass Valley. The area carries critical infrastructure for state commerce such as State Highway 20, PG&E power and water infrastructure, and Nevada County Facilities. The total values at risk for this area exceed \$600 million. The area has not burned in over 100 years and fuels have reached unmanaged and risky proportions. Phase I of the project is 300 acres, of which almost 500 acres are completed as of September 2020.

### **Ponderosa West Grass Valley Defense Zone Extension (Battalion 12):**

The project is to create a fuel break consisting of fire roads 20' wide minimum and shaded fuel break up to of 200' wide with hazardous tree removal and fuels thinning to promote forest health. The project will encompass multiple existing roadways and historical fire breaks stretching along the current footprint of Ponderosa Way from Ponderosa West Grass Valley Defense Zone project North to French Corral. Vegetative materials created will during the removal will be disposed of by either burning, mastication, or chipping. Larger woody material will be removed to reduce fuel loading. Tree removal work will be completed by CAL FIRE employees, Conservation Crews, cooperators, and contract workers. Ownership within the project area is federal, state, and private

### **Reader Ranch / Birchville Rd VMP (Battalion 14):**

Located approximately 5 miles northwest of the town of Nevada City. The proposed project consists of approximately 2,300 acres of mixed brush, primarily on west, south and east facing slopes. There are currently twenty-two landowners involved including the Bureau of Land Management. The project is bordered on the south by the South Fork of the Yuba River, on the north by Birchville Rd, on the east by the Bunker Hill VMP and on the west, non-participatory properties. This proposed project will entail the pre-treatment of the brush fuel by creating hand piles with crews and/or piling, crushing, or masticating with machinery. Control lines will also be re-established by dozers and/or hand crews. Burn piles are to be treated early fall to spring, however, other conditions may occur that will allow burn treatment at other times of the year. Some areas may be broadcast burned. The project objective is to reduce the potential of a costly and damaging fire within the treated and surrounding area.

### **Rice's Crossing Road (Battalion 16):**

This project will improve a badly damaged fire access roadway that can serve as an evacuation route if needed. This is the access through the Richard's Ranch to the north side of Englebright Reservoir. This road was last graded by CALFIRE personnel in 2008 and surveyed for repairs in 2017. The road will require major work to create a reliable Fire Access Road. Improvements will also require fuels reduction along the roadway of up to a 200' width.

**Sierraville Defense Zone (Proposed Grant 2020):**

This project will reduce the horizontal and vertical continuity of forest vegetative fuels on the western edge of Sierraville. The USFS has treated portions of the land near the project, but these lands did not fit within the project funding requirements, so now a grant is proposed for the purpose of direct protection of life and property. This project provides direct protection of structures within the LRA adjacent to and within the Town of Sierraville.

**South County Fuel Break Lodestar Alta Sierra (Battalion 12):**

This project will be providing a shaded fuel break, utilizing existing road systems to stop or slow a wildfire and support firefighter access and community escape routes in the canyon communities between Alta Sierra and Lake of the Pines, east of Highway 49. Details of the project include: Up to a 150' depth brush removal and small tree thinning (handcrew cut and burn and mechanical mastication). The work will be on permission approved privately owned properties, on both the north and south sides of Loadstar and Buck Mountain roads, between Dog Bar and Hwy 49.

**South Yuba Rim Fuel Break (Battalion 14):**

The South Yuba Rim Fuel Break is a landscape scale fuel break consisting of several smaller scale projects to create a contiguous area of hazardous fuel reduction from Bridgeport extending east up the San Juan Ridge to North Bloomfield. The fuel break includes the completed Bridgeport State Park prescribed VMP burns, the completed VMP prescribed burn at French Corral, Browning property, the completed Malakoff Diggins VMP project, and the completed Montezuma Fuel Break. This landscape scale project also includes the proposed Bunker Hill VMP, Bunker Hill Fuel Break, Shady Creek Fuel Break, Columbia Hill Fuel Break, Jackass Flat/Montezuma Ridge Fuel Break, Reader Ranch Fuel Break, and the Reader Ranch/Birchville VMP. These projects have been developed to create strategic locations where firefighting resources may more effectively attempt fire suppression activities to stop a costly and damaging fire such as the 49'er fire of 1988.

**State Park Fuel Reduction, Burton, and Donner (Battalion 15):**

CAL FIRE and California State Parks have on-going cooperative, productive, and engaged hazardous fuels reduction efforts. These efforts include thinning, piling, pile, and understory (VMP) burns, hazardous tree felling, road brushing and training. These cooperative efforts are on-going, and continue through shared funding, priorities, and workforces

**Structure Ignitability Education**

A cooperative project focused on creating and providing educational materials to the public on upgrading their homes to meet current fire resistive construction code.

**Tahoe City Fuel Break (Battalion 15)**

CAL FIRE and State Parks are working jointly to complete a 40' wide fuel break from Tahoe City upslope tying into Burton Creek State Park. This project incorporates felling operations, brushing and pile burning. This fuel break, at its completion will support a public trail system in addition to the benefits of fire protection and defense. The fuel

break will provide improved wildland urban interface protection from wildfires, as well as enhancing watershed protection and forest health.

**UC Field Station VMP (Battalion 14):**

The VMP area encompasses treating approximately 1,040 acres in 7 units of the UC field station, approximately 12 miles west of Grass Valley, 7 miles southeast of Loma Rica, and 9 miles southwest of Dobbins. The UC Research Station VMP is an ongoing project to help manage and study means of managing and controlling noxious weeds and fire impacts on water quality. The weeds that are attempting to be controlled are Yellow Star Thistle, Barbed Goat

Grass, and Medusa Head. These burns allow the field station to scientifically evaluate the effectiveness of burning in a control program. The effect of a controlled, cool to moderate temperature burn on blue oaks will also be studied. This treatment also includes reduction of unwanted and downed trees on the UC Field Station.

**Waddle Ranch VMP (Battalion 15):**

Is an area South of the airport that is a high public use area and is under the stewardship of the Truckee-Tahoe Airport District. This area has been thinned and masticated. It is also included as part of the Brockway Project and has been selectively logged. To complete the shaded fuel break, an understory (VMP) burn is needed to improve the effectiveness of the fuel break, and to improve forest health and watershed protection.

**Yuba County Fish and Wildlife Areas Fuel Breaks, Daugherty Hill, Stanfield Hill, Quail Valley (Battalion 16):**

This is an annual dozer line that is created between Marysville Rd and California Department of Fish and Wildlife (CDF&W) lands at Daugherty, Quail Valley and Stanfield Hill. Historically, these areas experience roadside fires that have the potential to become costly and damaging, however, they are generally held in check by the dozer lines. The fuel breaks near Loma Rica and Los Verjales Rds. provide protection to the structures and residents in the area. These fuel breaks provided critical access points and contingency lines during the 2020 Willow fire.

**Yuba County Public Works Roadside Clearing Plan**

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

**APPENDIX I: PAST AND PROPOSED BATTALION PROJECTS**

<b>Project Name</b>	<b>Battalion</b>	<b>County</b>	<b>Status</b>	<b>Estimated Completion Year</b>	<b>Project Type</b>	<b>Net Acres</b>
Alta Dutch Flat Elementary School	2313	Placer	A	Ongoing	Public Education/ Evacuation/ Shelter in Place	-
Alta Shaded Fuel Break	2313	Placer	A	Ongoing	Shaded Fuel Break	203
Beaver Pond Fuels Treatment at Northstar	2315	Placer	O	2021	Thinning, chipping, mastication, and piling and burning	40
Burton State Park Fuel Reduction Program*	2315	Placer	O	Ongoing	Thinning and prescribed fire	448
Chaparral Lane/ Newcastle	2318	Placer	A	2019	Firewise Community	
Colfax Elementary School	2313	Placer	A	Ongoing	Public Education/ Evacuation/ Shelter in Place	-
Colfax High School	2313	Placer	A	Ongoing	Public Education/ Evacuation/ Shelter in Place	-
Colfax Pre-Attack Plan	2313	Placer	A	2021	Pre-Fire Planning	-
Coon Creek Fire Break	2317	Placer	P	Ongoing	Shaded Fuel Break	
Get Ready Evacuation Flyer	2317	Placer	O	2021	Evacuation Brochure	
I-80 Fuel Reduction Project	2313	Placer	O	Ongoing	Roadside Fuel Reduction	70
Newcastle School Neighborhood	2318	Placer	P	2020	Firewise Community	
North Tahoe Fire Defensible Space Inspections	2315	Placer	O	Ongoing	Approx. 1400 Structures Alpine M, Ward CYN and Dollar Point	N/A
North Tahoe Fire Evacuation Information Packet	2315	Placer	C	2018	Maps for best egress given large fire disaster planning	N/A
Northstar Fire Fuel Reduction	2315	Placer	O	2025	Fire Safe Grant for existing treated	90

Project Name	Battalion	County	Status	Estimated Completion Year	Project Type	Net Acres
					acres	
Northstar Fire Fuel Reduction Western Fuel Break	2315	Placer	P	2021	Fuel Treatment near the Ritz Carlton running north to south	<b>49</b>
Oest VMP	2311	Placer	P	2022	Fuels Reduction and Prescribed Fire	<b>780</b>
Placer County Roads	2317	Placer	O	Ongoing	Fuel Reduction	
Porcupine Hill Fuels Treatment at Northstar	2315	Placer	O	2021	Chipping, mastication, piling and burning	<b>66</b>
Saddleback Estates	2318	Placer	P	2020	Firewise Community	
Shockley Road	2318	Placer	A	2019	Fuel Reduction	<b>40</b>
Soda Springs Road Fuels Reduction	2315	Placer	P	2021	Fuels reduction along Soda Springs Rd	<b>Approx. 291</b>
Sugar Pine View Community	2318	Placer	C	2017	Firewise Community	
Sugarbowl Shaded Fuel Break	2315	Placer	P	2021	Fuels reduction, thinning, chipping and mastication.	<b>50</b>
Trail Corridors	2317	Placer	O	Ongoing	Fuel Reduction	
WUI Preplan Christian Valley	2318	Placer	P	2021	Planning	
WUI Preplan Mt. Vernon	2318	Placer	P	2021	Planning	
WUI Preplan Wise Road Area	2318	Placer	P	2021	Planning	
Alder Hill Fuel Reduction	2315	Nevada	P	2021	Thinning, brushing and mastication	<b>100</b>
Banner Mtn. CAL FIRE Lookout	2312	Nevada	O	Ongoing	Active Fire Lookout	<b>6</b>
Bear River Pines	2312	Nevada	M	2021	Fuel Reduction	<b>50</b>
Bear Yuba Land Trust VMP	2312	Nevada	P	2025	Prescribed Fire	<b>700</b>



Project Name	Battalion	County	Status	Estimated Completion Year	Project Type	Net Acres
Bunker Hill Fuel Break	2314	Nevada	P	2024	Fuel Treatments	
Bunker Hill VMP	2314	Nevada	P		Prescribed Fire	
Camp Bountiful	2314	Nevada	C	2016	Fuel Treatments	<b>20</b>
Columbia Hill Fuel Break	2314	Nevada	C	2024	Fuel Treatments	
Deer Creek Park	2312	Nevada	P	2022	Fuel treatment & Prescribed Fire	<b>570</b>
Glenshire Ridge Fuel Break and Strand Fuel Treatment*	2315	Nevada	Phase 1, C Phase 2, O	2018 2021	Thinning, chipping, mastication and piling and burning, egress/ingress	<b>250</b>
Inimim Forest Landscape Resilience Project	2314	Nevada	O	Ongoing	Fuel Treatments	<b>1218</b>
Jack Ass Flats Rd / Montezuma Ridge Fuel Break	2314	Nevada	P	2024	Fuel Treatment and Fire Access Road Improvement	
Lake Wildwood Fuels Reduction	2314	Nevada	P	2024	Fuel Treatment	
Little Deer Creek Landscape Resilience	2312	Nevada	P	2025	Fuel Reduction	<b>260</b>
Malakoff Diggins State Park VMP	2314	Nevada	P	2024	Prescribed Fire	<b>1000</b>
Nevada County Landfill	2312	Nevada	C	2017	Fuel Reduction Project	<b>40</b>
Ponderosa Way Fuel Break Phase II	2314	Nevada	P	2024	Fuel Treatment and Fire Access Road Improvement	
Prosser Dam Road	2315	Nevada	P	2021	Fuels reduction	<b>64</b>
Reader Ranch / Birchville VMP	2314	Nevada	P	2023	Prescribed Fire	
Reader Ranch Fuel Break	2314	Nevada	O	2024	Fuel Treatments	<b>200</b>
Round Mountain Landscape Resilience	2312	Nevada	P	2325	Fuel Reduction	<b>1230</b>

Project Name	Battalion	County	Status	Estimated Completion Year	Project Type	Net Acres
Sages Road Fuel Break	2314	Nevada	P	2022	Fuel Treatment and Fire Access Road Improvement	
Shady Creek Fuel Break	2314	Nevada	P	2024	Fuel Treatments	
Tahoe Donner Association VMP	2315	Nevada	C	2021	Prescribed Fire, thinning and mastication	<b>10-20</b>
Tahoe Donner Fuel Reduction Program*	2315	Nevada	A	2021	Thinning, chipping, mastication ,and piling RX	<b>100</b>
Truckee Air Show	2315	Nevada	O	On	Community Education	<b>N/A</b>
Truckee Fire CWPP	2315	Nevada	A	2021	Community Wildfire Protection Plan	<b>300</b>
Western Deer Creek	2312	Nevada	P	2325	Fuel Reduction	<b>3,000</b>
Wolf Mtn. CAL FIRE Lookout	2312	Nevada	O	2015	Active Fire Lookout	<b>11</b>
Wood-pecker Ravine / Rattle-snake SFB	2312	Nevada	P	2022	Fuel Reduction project	<b>2124</b>
Daugherty Hill Wildlife Area Fuel Breaks	2316	Yuba	O	Ongoing	Fuel Break	<b>500</b>
Indiana School and Indiana Ranch Roads	2316	Yuba	P	2021	Fire Road	<b>50</b>
Fountain House Road	2316	Yuba	P	2021	Fire Road	<b>50</b>
Kane Ranch Rd	2316	Yuba	P	2021	Fire Road	<b>50</b>
Oregon Hill Road	2316	Yuba	P	2021	Fire Road	<b>50</b>
Oregon Peak Lookout Fuel Reduction	2316	Yuba	P	2021	Fuel Modification	<b>25</b>
Selby Ranch	2314	Yuba	O	Ongoing	Roadside Clearing	
Stanfield Hill Wildlife Area Fuel Breaks	2316	Yuba	O	Ongoing	Fuel Break	<b>500</b>
Stanfield Hill Wildlife Area VMP	2316	Yuba	P	2021	Prescribed Fire	<b>3,000</b>

<b>Project Name</b>	<b>Battalion</b>	<b>County</b>	<b>Status</b>	<b>Estimated Completion Year</b>	<b>Project Type</b>	<b>Net Acres</b>
Quail Valley Wildlife Area Fuel Breaks	2316	Yuba	O	Ongoing	Fuel Break	<b>500</b>
Quail Valley Wildlife Area VMP	2316	Yuba	P	2021	Prescribed Fire	<b>4,000</b>
UC Field / Richard's Ranch Rd	2314	Yuba	P	2021	Fire Road	<b>50</b>
Yuba County Chipper	2314/16	Yuba	A	Ongoing	Fuel Reduction	<b>500</b>
Yuba County Roads	2314/16	Yuba	A	Continuous	Fuel Treatments	
Yuba County Roadside Clearing	2314/16	Yuba	A	Ongoing	Fuel Reduction	<b>500</b>
Yuba Fire Safe Council	2314/16	Yuba	O	Ongoing	Planning/ Education	
Yuba Narrows F&W Property	2314	Yuba	P	2024	Fuel Treatments	
Sierra County Roadside Fuel Reduction Sierra City	2315	Sierra	P	2024	100-foot-wide fuel reduction near the Sierra Buttes RD	<b>Approx. 40</b>

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

**EXHIBITS: UNIT MAP**

This QR code provides backup information Unit Maps, Fire History, and other information.



## **SUPPLEMENT: 2021**

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

#### **CAL FIRE NEU Law Enforcement - Investigations and Enforcement**

Upon successful completion of a 22-week Law Enforcement Academy and over 440-hours of mandated Field Training, CAL FIRE NEU Law Enforcement welcomed two new Fire Captain Specialists into the Bureau in September 2021. Our current Law Enforcement staff consists of one Battalion Chief and three Fire Captain Specialists.

In 2021, CAL FIRE NEU Law Enforcement reviewed and investigated hundreds of fires within the unit. We continued to provide investigation support to various federal, state, and local cooperators throughout the year, as well as contribute to the Sacramento-Sierra Regional Arson Task Force. CAL FIRE Law Enforcement Officers conducted origin and cause investigations, gathered evidence, documented scenes, interviewed suspects and witnesses, and conducted follow up investigations. Criminal cases were filed with the local District Attorney's Office's for prosecution, while cost recovery for negligently caused fires was obtained through our departments civil cost recovery program. CAL FIRE Law Enforcement Officers provided direct support and assistance to multiple federal, state, and local law enforcement agencies in response to dangerous and life-threatening emergencies, the apprehension of major crimes offenders, patrol, and general law enforcement.

In 2021, CAL FIRE NEU Law Enforcement had three felony arson arrests. One each in Nevada, Yuba, and Placer Counties. One arrest led Officers to CAL FIRE southern region for the apprehension of a suspect. We conducted origin and cause investigations as an assist to local law enforcement for two felony arson cases, one in Nevada and one in Placer County. We assisted Sierra County with a follow-up in custody interview for an arson case. Many of these cases are still in process within the judicial system. One case was referred to the local Juvenile Fire Setter Program to help educate and rehabilitate youth.

CAL FIRE NEU Law Enforcement focused on education to property owners regarding defensible space and safe burning practice. With the assistance of engine companies and field Battalion Chief's, education ultimately led to the issuance of multiple legal notices to the public, in lieu of citations. Additionally, 11 misdemeanor citations were issued for Public Resource Code and Health & Safety Code violations related to either negligently causing a fire or allowing it to escape control.

Additionally, CAL FIRE NEU Law Enforcement assisted local government cooperators on six complex fire investigations, many having serious injuries or fatalities at the scene. These investigations involve multiple agencies, take a great deal of collaboration and cooperation, and can be extensive in the overall investigation process.

CAL FIRE NEU Law Enforcement, with the assistance of local, region, and Sacramento office staff, recovered \$32,383.53 in civil cost cases.

During the Fourth of July weekend, CAL FIRE NEU Law Enforcement worked closely with local Sheriffs and Police Departments while patrolling heavy populated areas during

fireworks celebrations. Multiple citations were issued, and illegal fireworks were confiscated and ultimately destroyed. Multiple arrests were made for Driving Under the Influence. A felony arrest warrant was issued after termination of a vehicle pursuit.

CAL FIRE Law Enforcement assisted in the training of new Law Enforcement Officers at the CAL FIRE Law Enforcement Academy in Lone. Locally, our Law Enforcement documented over

520 hours of “on the job” field training of new Law Enforcement Officers. Our firearms instructors train monthly and have expanded our training to our local cooperators to assist in their mandated qualification needs. This is a great cooperative effort to train our new officers and work alongside our allied agencies.

### **Wildland Fire Prevention**

In 2021, CAL FIRE NEU Defensible Space Inspectors, CAL FIRE NEU engine companies, and Truckee Fire District Inspectors in collaboration with CAL FIRE NEU staff, conducted approximately 14,505 defensible space inspections throughout the Unit. Violations were found to be present in 997 of the inspections conducted while 13,359 had no violations. In addition to the completed inspections, there were 149 attempted inspections that could not be completed due to locked gates or denied access.

With the passing of Assembly Bill 38, effective July 1, 2021, many requirements were added to the inspection process of real property within High and Very High Fire Hazard Severity Zones (HFHSZ and VHFHSZ), in addition to annual property inspections pursuant to Public Recourse Code Section 4291. Therefore, in December 2021, we expanded our Defensible Space program to include one full time Forestry Technician, and we restructured our six seasonal Forestry Aide personnel to ensure year-round staff to conduct defensible space inspections throughout Nevada, Yuba, and Placer Counties.

CAL FIRE NEU Prevention coordinates all defensible space inspections, as requested for AB38 purposes, within the HFHSZ and VHFHSZ in Nevada, Yuba, and Placer Counties. In doing so, we work with multiple cooperators throughout the three counties. CAL FIRE NEU Prevention staff was a leader in educating the local counties California Association of Realtors (CAR) and local title companies. We spoke at multiple in person and online venues, presenting educational material on defensible space inspections and the processes throughout Nevada, Yuba, and Placer Counties. CAL FIRE NEU Prevention is a true leader in the implementation of the defensible space inspections pursuant to Assembly Bill 38.

## **A. Drought**

Recent data shows January, February, and March of 2022 as the driest winter months in 100 years resulting in a third year of drought. Early 2022 had the least rain and snow on record for any of these months in California's recorded history. Despite ample rainfall and snow during late 2021, these recent warm, dry months overshadowed precipitation gains during the water year which began October 1, 2021. Snow melted faster than expected, reducing snowpack to just 38% of average by April 1.

California has experienced numerous multiyear droughts. Aside from one wet winter in 2015/16 California has been in drought for 10 years now. The current period of drought is the second extreme drought in the last decade. The water year that ended September 30 was the second driest on record, due to extreme heat and lack of precipitation. All 58 counties in California are now under a drought emergency proclamation.

Most rain and snow fall in California from November through April. It fills the reservoirs and aquifers that we use to supply homes, businesses, and farms. It also supports fish and wildlife that depend on our rivers and wetlands. Warm temperatures in California this April and early May have made 2022 a critically dry year. Snow melted and runoff evaporated at a faster rate in the Sacramento, Feather, and American River watersheds.

### **Drought Related Tree Mortality**

Droughts broad impacts extend across the entire social spectrum in California. Environmentally, ecologically, and pyro logically the bleakest example of drought impacts is the epidemic tree mortality throughout the Sierra Nevada mountains and foothills. Estimates vary, but at least 100 million trees have died in the last 5 to 6 years throughout the Sierra Nevada range. Local efforts to mitigate the hazards of large-scale tree mortality have been ongoing, the effects of which will likely have negligible impact on the landscape level but are helpful in protection of infrastructure and public safety should a wildland fire occur.

## **B. Winter Storm Damage**

In December of 2021 the Nevada Yuba Placer Unit received an abundance of moisture after a very dry November. Heavy rain was followed by a low snowstorm the day after Christmas. The accumulation of snow up to 14 inches in depth at the 2500-foot level coupled with tree stress due to drought, cause a massive snow break in the conifer and hardwood tree canopy. Thousands of tons of treetops, limbs, and entire trees fell haphazardly, impacting powerlines, roadways, homes, businesses, and water infrastructure. As the snows melted away, the range and scale of the impacts became evident and a Local as well as a State emergency were declared to allow the mitigation of these impacts. As this biomass cures, it becomes insect brood material and fuels for wildfire. Early 2022, NEU staff acquired \$950,000 each for Nevada and Placer Counties as direct funded grants to cooperators specifically to mitigate the impacts from storm damage. At the time of this report on the groundwork was occurring with a goal of full expenditure before peak fire season 2022.

## **SECTION VII: Conclusion**

The 2022 NEU Fire Plan is developed as a collaborative effort between CAL FIRE NEU personnel and agency cooperators. It is a comprehensive document that sets the Unit priorities and direction for fuel reduction efforts and aims to reduce wildland fire ignitions. The plan is reviewed and endorsed by NEU Executive Chiefs and Chief Officers that participated in the development of the plan.

The strategies proposed in this fire plan are aimed at mitigating the risk and impacts from wildland fire with focus on the priorities of Life, Property, and Resources in that order. Extreme fire conditions of the past decade are sure to continue. Fuels reduction is only one mitigation strategy, and this plan should be viewed with the context that a robust emergency response system with ample firefighting resources is in place and available to ensure the plans effectiveness.

The Nevada Yuba Placer Unit is proud to present the 2022 Nevada Yuba Placer Unit Fire Plan and we look forward to the process of developing the plan for 2023 and into the future.