

# ***Unit Strategic Fire Plan*** ***SISKIYOU UNIT***



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**SIGNATURE PAGE**

**Unit Strategic Fire Plan developed for Siskiyou Unit**

This Plan:

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



**Unit Chief**

Darryl Laws

**Date: 5/5/2023**



**Fire Captain/ Pre-Fire Engineer**

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**Date: 5/5/2023**



## EXECUTIVE SUMMARY

The 2022 Fire Plan reflects CAL FIRE Siskiyou Unit's focus on fire prevention and suppression activities to protect lives, property, and natural resources. Through collaboration among local, state, federal, tribal, and private partners we will progress towards a more fire resilient wildland-urban interface and natural environment. This may include working together to implement a single fuel break and/or a large landscape level fuel reduction project and/or working together to develop a Community Wildfire Protection Plan (CWPP). Community protection includes promoting the safety of the public and emergency responders as well as protection of property and other improvements.

The Siskiyou Unit Fire Plan will be successful by meeting the following goals:

1. Identify and evaluate wildland fire hazards and recognize life, property, and natural resource assets at risk, including watershed, habitat, social, and other values of functioning ecosystems.
2. Facilitate the collaborative development and sharing of all analyses and data collection across all ownerships for consistency in type and kind.
3. Promote and support local land use planning processes as they relate to:
  - a) protection of life, property, and natural resources from risks associated with wildland fire.
  - b) individual landowner objectives and responsibilities.
4. Support and participate in the collaborative development and implementation of local, county, and regional plans that address fire protection and landowner objectives.
5. Increase fire prevention awareness, knowledge, and actions implemented by individuals and communities to reduce human loss, property damage, and impacts to natural resources from wildland fires.
6. Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.
7. Determine the level of resources necessary to effectively identify, plan, and implement fire prevention using adaptive management strategies.
8. Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.
9. Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.

Through collaborative efforts and hard-work the Siskiyou Unit Fire Plan will guide us towards a more fire resilient future using pre-fire efforts.

## SECTION I: UNIT OVERVIEW

### UNIT DESCRIPTION

The Siskiyou Unit (SKU) is in Northern California along the Oregon border. The Siskiyou Unit encompasses 1.4 million acres of ecologically diverse State Responsibility Area (SRA). Eco-types range from high desert in the east, to the magnificent coniferous forests of the Klamath River drainage to the lush ranch lands carpeting the interior valleys. Magnificent Mt. Shasta serves as the Units geographical centerpiece rising abruptly to an astonishing 14,179 feet in elevation. The County is drained by the Sacramento River in the south, the Klamath River in the north, and the Salmon River in the west.

The weather patterns in Siskiyou County are as diverse as its ecology. Summer temperatures may climb into the 100's, while winter temperatures may drop well below freezing with significant snowstorms common throughout the winter months. Fuel types in the unit include timber, timber with a grass understory, grass, brush, oak woodland, desert sage and western juniper stands. Like most mountainous areas, Siskiyou County may experience a high occurrence of lightning activity during the summer months. Ranching, recreation, and the timber industry fuel Siskiyou County's economy. The summer months see a large influx of tourists who take advantage of the County's wide-open spaces for outdoor recreation including hunting, fishing, white-water rafting, mountain climbing, and camping.

Most of the large fires in the Siskiyou Unit over the past 50 years have been wind driven fires. Lightning, equipment-use, and debris burning have historically been the determined lead ignition sources for these large fires.

The Klamath National Forest, Shasta-Trinity National Forest, and the Bureau of Land Management are the largest public land ownerships adjacent to the unit. Other public lands include the Shasta Valley, Horseshoe Ranch, Butte Valley, Lower Klamath, and Tulelake Wildlife Refuge Areas.

In June of 2010, the Fire and Resource Assessment Program (FRAP) released *California's Forest and Rangelands: 2010 Assessment*. As part of the assessment, states were required to identify key issues and define the status and trends throughout the forests. Furthermore, states were asked to identify specific geographic areas, called "priority landscapes". The intent of identifying "priority landscapes" was to assist investment and other programs focusing on the issue areas. The assessment identifies forest and rangeland issues throughout the state including Siskiyou County. The assessment also identifies strategies to address these issues. The complete assessment can be found on the CAL FIRE FRAP website. The "priority landscapes" identified within the Siskiyou Unit will be considered during the planning phase of future projects within the unit. The following "priority landscapes" and strategies have been identified within the Siskiyou Unit:

#### *Wildfire Threats to Ecosystem Health and Community Safety*

Developing coherent strategies involves collaborative planning, given the unique and disparate audience for dealing with the threat (i.e., numerous individual landowners. In terms of protecting communities, this is discussed in detail in Chapter 3.3: Planning for and Reducing Wildfire Risks to Communities.

### *Sustainable Working Forests and Rangelands*

Opportunities exist for landowner assistance to enhance productivity and health of working landscapes. Risk Reduction on Forestlands: Identifies areas with timber and biomass energy assets that are threatened by wildfire and forest pests. Risk Reduction on Rangelands: identifies areas where rangeland productivity is threatened by wildfire. Restoring Impacted Timberlands: identifies areas with timber and biomass energy assets that have been impacted by past wildfires or forest pest outbreaks.

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

Forest management tools include the removal of dead, dying, and diseased trees, thinning of small and medium live trees, replanting multiple species, and other techniques used to remove hazards and improve ecosystem health. In California, responsibility for the control of forest pest outbreaks often falls to the California Department of Forestry and Fire Protection (CAL FIRE) on state and privately owned lands, and the U.S. Forest Service on federal lands. CAL FIRE, with the approval of the California Board of Forestry and Fire Protection (BOF), can declare a zone of infestation for native and exotic insect and disease pests. Within a zone of infestation CAL FIRE employees may go on private lands to attempt eradication or control in a manner approved by the Board of Forestry.

### *Water Quality and Quantity Protection and Enhancement*

Protecting and managing forests in source watersheds is an essential part of future strategies for providing a sustainable supply of clean water for a broad range of beneficial uses. Tools to address threats to water supplies include water conservation, restoration of riparian forests, restoration of mountain meadows, and protection of groundwater. Tools to address water quality concerns include reduction of soil erosion through Best Management Practices for forest roads and timber harvesting, additional protection for riparian areas in salmonid watersheds, road maintenance, and fuel reduction treatments designed to reduce high severity wildfires.

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

In California, community involvement in wildfire planning is extensive, as evidenced for example, by CWPP (as defined under the Healthy Forests Restoration Act of 2003), local and regional Fire Safe Councils, Resource Conservation Districts, and community participation in the federal Fire Wise Communities/USA program. State laws requiring “defensible space” around structures, building codes, and other responsibilities are aimed at helping communities reduce their risk of loss when wildfire strikes. Federal programs such as the National Fire Plan also help with funding for fire hazard reduction.

### *Emerging Markets for Forests and Rangeland Products and Services*

Strengthen and develop new market opportunities for forest products and benefits provide incentives for forest stewardship and conservation. Emerging markets for renewable energy, ecosystem services, and niche product areas impact how forest and rangelands are managed. Developing appropriate policies will require a better understanding of the benefits and environmental impacts of these emerging markets and how society values the various market and non-market products and services provided by forests and rangelands.



### *Plant, Wildlife, and Fish Habitat Protection, Conservation and Enhancement*

Numerous efforts in California are working towards identifying and protecting important wildlife, plant, and fish habitat. Tools for addressing wildlife habitat needs include the purchase of land and conservation easements, development planning, zoning, habitat mitigation banking and restoration, policy, regulations, and funding mechanisms that support these efforts.

### *Climate Change: Threats and Opportunities*

The California Department of Forestry and Fire Protection (CAL FIRE) has identified five strategies to mitigate against greenhouse gas (GHG) emissions: reforestation, forestland conservation, fuels reduction, urban forestry, and forest management to improve carbon sequestration.

## **UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES**

At the peak of firefighting preparedness, Siskiyou Unit suppression resources include approximately 92 career personnel and 120 seasonal personnel. The Siskiyou Unit is geographically divided into four fire battalions. Within these battalions the Siskiyou Unit has resources and facilities strategically located. These include: seven fire stations, one conservation camp, one fire center, and a headquarters facility. During summer months, thirteen schedule "B" engines, two bulldozers, up to four inmate fire crews, up to three firefighter 1 hand crews, and up to three fire lookouts are staffed. Through augmentation funding the unit will staff an additional bulldozer. The fire lookouts are staffed based upon fire, weather, and lightning activity levels. In the winter months, the Hornbrook Forest Fire Station (FFS) is committed to a year-round fire protection contract with the Siskiyou County as part of the Amador Plan, and is staffed with one engine. Additionally, the Yreka FFS and the Weed FFS are staffed year-round with one engine each.

The Siskiyou Unit has an Emergency Command Center known as the Yreka Interagency Command Center (YICC). The YICC is located at the Siskiyou Unit Headquarters in Yreka and is a collaboration of CAL FIRE, United States Forest Service (USFS) and County of Siskiyou staff. The YICC provides dispatching services for CAL FIRE, USFS, 30 local government fire departments, and 6 ambulance companies. The YICC is responsible for emergency call taking, dispatching, and tracking of resources. The YICC has an Emergency Dispatcher at the console 24 hours a day. The goal of the YICC is to meet and exceed the standards set in NFPA 1221 section 6.4.2. These standards specify that 95 percent of all alarms be answered within 15 seconds and 99 percent answered within 40 seconds. In addition, Section 6.4.3 specifies that 95 percent of all dispatching be completed within 60 seconds.

Battalion I (Scott Valley Battalion) is located in the northwest portion of the unit and includes the Fort Jones FFS. This station is located in the city of Fort Jones and houses three type III fire engines and one type II fire bulldozer. Deadwood Conservation Camp is located north of Fort Jones along McAdams Creek. Deadwood is an 80-man camp and is capable of providing four type I hand crews. There are two fire lookouts located within the Scott Valley Battalion, Quartz Hill, and Duzel Rock.

Battalion II (Shasta Valley Battalion) is centrally located in the northern portion of the unit. Within the Shasta Valley Battalion there are two CAL FIRE stations. One station is in Yreka, and one is in Hornbrook. Yreka FFS is considered the headquarters station and houses three type III fire engines and one type II bulldozer. Hornbrook FFS is located along Interstate 5 near the California and Oregon border in the town of Hornbrook. This station houses two type III fire engines. There is one fire lookout within the Shasta Valley Battalion, Paradise Craggy. The battalion also houses the three firefighter I hand crews located at the Siskiyou County Golden Fairgrounds.

Battalion III (Butte Valley Battalion) can be identified on a map as two distinct geographical areas separated by Federal Direct Protection Area. One portion of the Butte Valley Battalion is in the central portion of the unit near the City of Weed. The other is in the Northeast portion of the unit and includes the Butte Valley and extends north to the Oregon border. Within the Butte Valley Battalion there are two CAL FIRE stations. One station is in the City of Weed. Weed FFS houses two type III fire engines and serves as the battalion headquarters. Macdoel FFS is in the town of Macdoel and houses one type III engine.

Battalion IV (McCloud Battalion) is in the southern portion of the unit. Within the McCloud Battalion there are two CAL FIRE stations. One is in McCloud and the other is in Pondosa. McCloud FFS houses two type III fire engines. Pondosa FFS is located within Shasta County but is staffed and administered by the Siskiyou Unit and houses two type III fire engines.

## LOCAL FIRE DEPARTMENTS



The Siskiyou Unit is very appreciative of its local fire departments. Many of these departments are staffed completely by volunteers whose personnel are often the first to arrive at fires, medical aids, and other types of emergencies. These departments are often located within Fire Protection Districts (FPD) or Community Services Districts (CSD) which are typically governed by elected boards of directors and have authority to levy taxes to support their work. Within the Siskiyou Unit, CAL FIRE reciprocates emergency services using Mutual Aid and Automatic Aid Agreements.

The following local fire departments exist within the Siskiyou Unit:

Etna City Fire Department	South Yreka Fire Protection District
Fort Jones City Fire Department	Yreka City Fire Department
Scott Valley Fire Protection District	Butte Valley Fire Protection District
Happy Camp Fire District	Dorris City Fire Department
Copco Lake Fire Protection District	Seiad Valley Fire Company
Gazelle Fire Protection District	Tennant Community Services District
Grenada Fire Protection District	Tulelake Fire Department
Hammond Ranch Fire Zone	Weed City Fire Department
Hilt Fire Protection District	Lake Shastina Community Service District
Hornbrook Fire Protection District	Castella Fire Protection District
Klamath River Fire Company	Dunsmuir City Fire Department
Mayten Fire Protection District	McCloud Community Services District
Montague Fire Protection District	Mt Shasta City Fire Department
Mt. Shasta Vista Fire Zone	Mount Shasta Fire Protection District
Salmon River Fire Company	Pleasant Valley Fire Zone



## SECTION II: COLLABORATION

### COMMUNITY / AGENCIES / FIRE SAFE COUNCILS

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

#### Plan Development Team:

<b>Organization</b>	<b>Title</b>
Fire Safe Council of Siskiyou County	Fire Safe Council Members
Lower Scott River FSC/Northern California Resource Center	Fire Safe Council Members
French Creek FSC/Northern California Resource Center	Fire Safe Council Members
Scott Valley FSC/Northern California Resource Center	Fire Safe Council Members
Yreka Area FSC/ Northern California Resource Center	Fire Safe Council Members
Juniper Flat FSC/Northern California Resource Center	Fire Safe Council Members
Rattlesnake Creek FSC/Northern California Resource Center	Fire Safe Council Members
Upper Mid Klamath Watershed Council/ Northern California Resource Center	Fire Safe Council Members
Scott Bar FSC/ Northern California Resource Center	Fire Safe Council Members
Seiad Creek FSC/ Northern California Resource Center	Fire Safe Council Members
Happy Camp Fire Safe Council	Fire Safe Council Members
Greater Weed Fire Safe Council	Fire Safe Council Members
Dunsmuir Fire Safe Council	Fire Safe Council Members
Mt. Shasta Fire Safe Council	Fire Safe Council Members
Weed City Fire Department	Fire Chief
Etna City Fire Department	Fire Chief
Fort Jones City	Elected Officials
Siskiyou County Board of Supervisors	Elected Officials

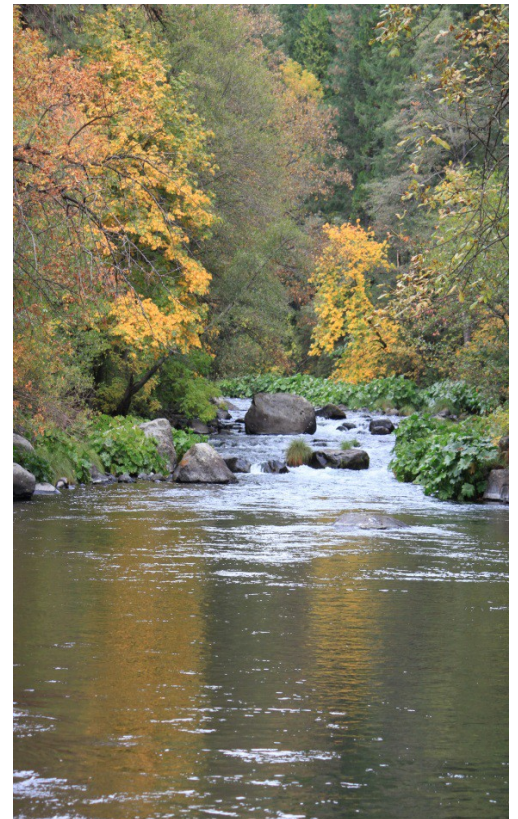
## SECTION III: VALUES

### A: VALUES

It is the goal of the Siskiyou Unit to protect life and property from the devastating effects of wildfire and other natural disasters. The Siskiyou Unit is vast in size and varied in its makeup of both natural and man-made assets at risk to wildfires.

The following are values identified at risk in the Siskiyou Unit:

- Citizen and firefighter safety
- Infrastructure
- Structures, residential and commercial
- Watershed and water
- Timber
- Rangelands
- Wildlife and associated habitat
- Air quality
- Unique areas (scenic, cultural, and historic)
- Recreation
- Soil erosion
- Hydroelectric power



## B: COMMUNITIES

To help protect people and their property from potential catastrophic wildfire, the National Fire Plan directs funding to be provided for projects designed to reduce the fire risks to communities. A fundamental step in achieving this goal was the identification of communities that are at high risk of damage from wildfire. These high-risk communities identified within the Wildland-Urban Interface (WUI), where homes and wildlands intermix, were published in the Federal Register in 2001. At the request of Congress, the Federal Register notice only listed those communities neighboring federal lands. The list represents the collaborative work of the 50 states and five federal agencies using a standardized process, whereby states were asked to submit all communities within their borders that met the criteria of a structure at high risk from wildfire.

The “Communities at Risk” in Siskiyou County listed in the table below are on the National Registry available at the following site: <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/fire-plan/communities-at-risk/>

Community	Federal Threat	Community	Federal Threat
Big Springs		Lower Scott River	F
Callahan	F	Macdoel	
Cecilville	F	McCloud	F
Dorris	F	Montague	
Dunsmuir	F	Mount Shasta	F
Etna	F	Quartz Valley Indian Reservation	F
Forks of Salmon	F	Sawyers Bar	F
Fort Jones	F	Scott Bar	F
Gazelle		Seiad Valley	F
Greenview	F	Somes Bar	F
Grenada		Tennant	F
Hamburg	F	Tulelake	F
Happy Camp	F	Weed	F
Hornbrook	F	Yreka	F
Horse Creek	F	*Hammond Ranch*	
Klamath River	F	**Mt. Shasta Forest**	
**Mt. Shasta Vista**		**Klamath River Country Estates**	

1. Federal Threat code of **F** indicates some or all the wildland fire threat to that community comes from federal (e.g., US Forest Service, BLM,) lands.
2. \* Indicates a community that is not yet designated as a Community at Risk by the State but is in the application process.
3. \*\* Identifies proposed Communities at Risk.



## FIRE HAZARD SEVERITY ZONES

While the entire County of Siskiyou is subject to varying degrees of fire hazard, there are specific features that make some areas more hazardous than others. CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather and other relevant factors. These maps were developed using science-based and field-tested computer models that assign a hazard score based on factors that influence fire likelihood and fire behavior. Many factors are considered such as fire history, existing and potential fuel (natural vegetation), flame length, blowing embers, terrain, and typical weather for the area. There are three hazard zones in state responsibility areas: moderate, high and very high. These maps identify fire hazard and not fire risk. "Hazard" is based on the physical conditions that give a likelihood that an area will burn over a 30 to 50-year period without considering modifications such as fuel reduction efforts. "Risk" is the potential damage a fire can do to the area under existing conditions, including any modifications such as defensible space, irrigation and sprinklers, and ignition resistant building construction which can reduce fire risk. Risk considers the susceptibility of what is being protected.

These maps are intended to be used for:

- Implementing wildland-urban interface building standards for new construction.
- Natural hazard real estate disclosure at time of sale.
- Defensible Space/Home Hardening Disclosure (AB38) at time of sale.
- 100-foot defensible space clearance requirements around buildings.
- Property development standards such as road widths, water supply and signage.
- Consideration in city and county general plans.

Visit the CAL FIRE Website at <https://egis.fire.ca.gov/FHSZ/> to determine the fire hazard severity in a specific area.



## SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES

### A: FIRE PREVENTION / LAW ENFORCEMENT



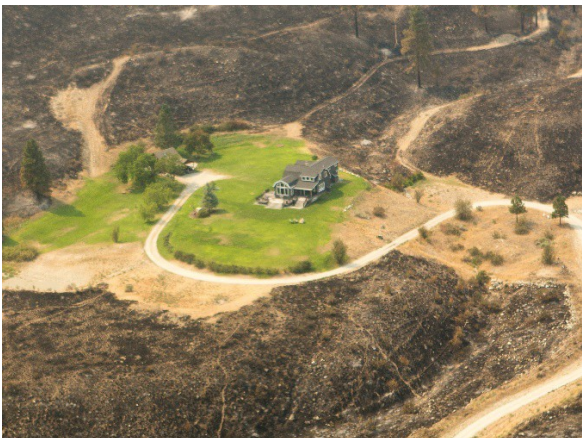
Fire Prevention activities in the Siskiyou Unit include, but are not limited to, the following: fire prevention education, hazardous fuel reduction and vegetation management, civil cost recovery, forest and fire law enforcement, fire prevention engineering, pre-fire planning, risk analysis, and Volunteers in Prevention (VIP) programs. In general, these programs have been shown to be highly effective at reducing the incidence of fire ignitions. The Siskiyou Unit contributes its success to the utilization of these main fire prevention components. In addition, the Prevention Bureau prides itself on providing quality public service in a timely, accurate, and courteous manner.



**ENGINEERING & STRUCTURE IGNITABILITY**

**Public Resources Code 4290**

These regulations have been prepared and adopted for establishing minimum wildfire protection standards in conjunction with building, construction, and development in State Responsibility Areas (SRA). These regulations became effective September 1, 1991. The future design and construction of structures, subdivisions, and developments in SRA shall provide for basic emergency access and perimeter wildfire protection measures as specified in Public Resources Code (PRC 4290). These measures shall provide for emergency access, signing and building numbering, private water supply reserves for emergency fire use, and vegetation modification. The fire protection standards contained within PRC 4290 shall specify the minimums for such measures. The unit enforces PRC 4290 in its original form. The County of Siskiyou has not yet increased these standards.



## Public Resources Code 4291

One of the main objectives of the Siskiyou Unit is to ensure residents comply with the provisions set forth within California Public Resources Code 4291. This is accomplished through education and enforcement. It is important residents recognize that their first defense against wildfire is to create and maintain defensible space around their homes.

California Public Resources Code 4291 requires property owners in mountainous areas, forest-covered lands, or any land that is covered with flammable material to create at a minimum a 100-foot defensible space (or to the property line) around their homes and other structures. In addition, after July 1, 2021, when you sell property that is located in a high or very high fire hazard severity zone you'll need documentation of a compliant Defensible Space Inspection that complies with Section 4291 of the Public Resources Code.

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

- 0–5 feet ember resistant zone
- 5-30 feet lean, clean and green zone
- 30-100 feet reduced fuel zone

Zones 1 and 2 currently make up the 100 feet of defensible space required by law. Assembly Bill 3074, passed into law in 2020, requires a third zone for defensible space. This law requires the Board of Forestry and Fire Protection to develop the regulation for a new ember-resistant zone (Zone 0) within 0 to 5 feet of the home by winter 2024.

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



## **FIRE SAFE COUNCILS**

Fire Safe Councils were developed with the mission to preserve California's natural and manmade resources by enlisting all Californians to make their homes, neighborhoods, and communities fire safe. Siskiyou County is fortunate to have many active Fire Safe Councils. The Siskiyou Unit is very appreciative of the tremendous efforts these Fire Safe Councils have made in attempting to make Siskiyou County fire safe. Fire Safe Councils are predominantly volunteer based organizations and are continually looking for new community members to join in their efforts. Fire Safe Councils in Siskiyou County are identified in the battalion program section of this plan.

## **SISKIYOU PRESCRIBED BURN ASSOCIATION (SPBA)**

The Siskiyou Prescribed Burn Association includes landowners, tribes, and local organizations and agencies that work together to safely conduct burns in the interest of restoring historic roles of fire, using fire as a management tool, and reducing wildfire hazard to communities and watersheds throughout the diverse fire-adapted landscapes of Siskiyou County.

## **SISKIYOU COUNTY FUELS REDUCTION AND FOREST MANAGEMENT PLANNING TOOL**

The Siskiyou County Fuels Reduction and Forest Management Planning Tool is a Grant funded online GIS planning tool that is in development for collaborative county-wide pre fire planning and mapping. The planning tool will allow a common operating picture between agencies and stake holders to reduce duplication of effort and allow for more efficient fuel reduction planning. It will also give local entities the ability to create and edit their own GIS data to produce maps and info for future funding opportunities. The Shasta Valley Resource Conservation District is the lead agency working closely with CAL FIRE.



## INFORMATION AND EDUCATION



Information and education are an extremely important component of the Siskiyou Unit. Each year the unit participates and promotes many Fire Safety Education Programs throughout the county.

Captain CAL, Smokey Bear and Sparky the Fire Dog are commonly called to service to introduce and instill fire prevention and life safety messages in both children and adults. Our fire prevention messages are presented to the public by the Siskiyou Unit participating in numerous outreaches each year which include exhibits at the Siskiyou County Fair, Sportsmen's Expo, poster contests, living with fire flyers, prevention road signs, rodeos, parades, classrooms, printed materials, radio, television spots, community meetings, Fire Safe Councils events and meetings, one-on-one contact with homeowners, and up-keeping of the unit's social media accounts. Our educational programs are informative and are provided to all ages.

Siskiyou Unit has a dedicated Volunteer in Prevention (VIP) Program that utilizes the citizens of our community who graciously volunteer their time to increase awareness, knowledge and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires. VIPs assist in accomplishing these goals by conducting defensible space inspections required by Public Resource Code 4291. VIPs in the Siskiyou Unit educate thousands of people of all ages about fire prevention by participating in events and outreaches throughout Siskiyou County and other counties of California as well. Within the Siskiyou Unit, VIPs have also been trained to be fire lookouts, to inspect power lines, and to educate homeowners on how to keep their home fire safe. Furthermore, VIPs are trained to assist CAL FIRE's efforts in providing information to the media and public during wildland fires and other emergencies.

## **B. VEGETATION MANAGEMENT**

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



### **Fuels Modification**

Forest Practice – Siskiyou Unit Resource Management staff is responsible for enforcing the California Forest Practice Act and Forest Practice Rules for timber operations on private timberlands. This enforcement starts with the review of the initial project and continues through the harvesting of timber to completion. During the review of commercial timber harvesting plans, unit staff has opportunities to provide written recommendations to project proponents designed to facilitate a positive change in the methods in which timber operations are conducted. The unit continually looks for ways to improve forest health, fire safety, hazard reduction, public safety, vehicular access, water sources, timing of operations, wildlife benefits, and other site-specific mitigating measures necessary to support the California’s Strategic Fire Plan. The treatment of logging slash to reduce the overall fuel hazard must comply with the rules and regulations, which generally apply around structures and along roads.

### **Vegetation Management Program (VMP)**

The VMP program is a cost-sharing program utilizing prescribed fire and mechanical means to address wildland fire fuel hazards and other resource management issues on SRA lands. The use of prescribed fire mimics the natural process, restores fire to its historic role in wildland ecosystems, and provides significant fire hazard reduction benefits that enhance public and firefighter safety. VMP allows private landowners to enter a contract with CAL FIRE to use prescribed fire to accomplish a combination of fire protection and resource management goals. The unit will support projects that are of the most value to the citizens and resources.

### **California Vegetation Treatment Program (CaIVTP)**

The California Vegetation Treatment Program, 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 CaIVTP includes the use of prescribed burning, mechanical treatments, manual treatments, herbicides, and prescribed herbivory as tools to reduce hazardous vegetation around communities in the WUI. The CaIVTP Program Environmental Impact Report (Program EIR) provides a powerful tool to expedite the implementation of vegetation treatments to reduce wildfire risk while conserving natural resources.

### **California Forest Improvement Program (CFIP)**

A state cost share program to assist private timberland owners in the management of their lands. Eligible practices include site preparation, reforestation, pre-commercial thinning, pruning, release, slash disposal, and land conservation projects. Funding assistance to landowners is up to 90% for projects on lands damaged by wildfire.



## **Grant funded fuel treatments**

These projects generally involve the construction or maintenance of fuel breaks in the WUI.

## ***Environmental Review***

### ***Fire Suppression Repair/Post Fire Assessment***

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

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

Resource Management staff provides suppression repair duties in the unit. Their natural resource background, along with training and knowledge of both fire control issues and methods of addressing complex environmental issues allows them to assess the effects of pre and post fire treatments to refine best practices. This overall experience, knowledge and training greatly support the California's Strategic Fire Plan. They work with landowners and other stakeholders to provide a rapid post-fire assessment of the burned area, utilizing after-action reports to implement the most current technologies and practices. They have many private and agency cooperator contacts, and effectively utilize available resources, including CAL FIRE hand crews to accomplish the restoration and protection activities.

## ***Forest and Range Health***

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

## SECTION V: PRE- FIRE MANAGEMENT TACTICS

### DIVISION / BATTALION / PROGRAM PLANS



# CAL FIRE



### SISKIYOU UNIT PREVENTION BUREAU

#### Overview

The Siskiyou Unit Fire Prevention Bureau Consists of the following staffing:

- (1) Fire Prevention Battalion Chief/ Peace Officer
- (1) Fire Prevention Specialist II/ PIO
- (2) Fire Captain Specialist/ Peace Officers
- (1) Fire Captain/ Pre-Fire Engineer
- (2) Forestry Technician/ AB 38 Inspectors
- (4) Forestry Aid/ Defensible Space Inspectors

The Siskiyou Unit Prevention Bureau covers approximately 1.4 million acres in Siskiyou County. Fuel types within the unit include timber, brush, oak woodland, grasses, desert sage and juniper.

Due to the vast size of the county and the diverse landscapes contained within it, the weather in Siskiyou County can vary greatly from one location to the next. However, weather in Siskiyou County can be generally characterized as having hot, dry summers followed by cool, wet winters. Temperatures in the summer can soar above the 100-degree mark and dip below freezing in the winter. Windy conditions are consistently common in several geographical areas of the county. Historically, most of the large fires within the unit have been wind driven. The mountain ranges and the local weather patterns support a natural mixture for severe lightning storms throughout most of the summer months. Often these storms are accompanied with strong winds and can have little to no precipitation associated with them.

Historically, lightning has been the number one cause of ignitions within the unit with debris burning being the second leading cause of ignitions. Analysis of the debris burn incidents has concluded that most debris burns are not debris burn escapes, but rather enforcement issues (i.e., burning out of hours, burning on non-burn days). These incidents typically do not require full suppression efforts from responding firefighting resources. Often, actions taken by firefighting resources have included having the responsible person extinguish the fire. Subsequently, the responsible person was then counseled and educated on the permit requirements of debris burning.

Ranching, recreation, and the timber industry fuel the county economy. The summer months see a large influx of tourists who take advantage of the wide range of outdoor activities in the county. Activities include hiking, fishing, hunting, mountain climbing, white water rafting, mountain biking and camping. At times, these activities result in both authorized and unauthorized fires. To reduce the total number of negligent fires, the Prevention Bureau takes the lead role in informing, educating, and enforcing forest and fire laws.

Personnel within the Prevention Bureau work seamlessly with county government to ensure public safety with development of initial site plans for commercial and residential development. The bureau vigorously and consistently pursues prompt enforcement of all forest and fire laws and when appropriate, seeks cost recovery for fire suppression. Bureau personnel are active members on the Siskiyou County Arson Team (SCAT) and collaborate with other law enforcement agencies as needed or requested.

The Pre-Fire Engineer is an integral part of the bureau and is responsible for the accurate documentation and thorough examination of the Fire Plan and statistical data, with the aim of facilitating effective pre-fire planning.

The bureau works with each battalion towards accomplishing goals and objectives to reduce the ignition problems throughout the unit. Mapping in a GIS environment is a large component of the Pre-Fire Engineering duties. It is imperative that the bureau assures that all maps are complete and accurate, and the most current methodologies are being used to capture data.

The bureau continues to provide education and information through social media platforms, school programs, out-reaches, and one-on-one contact with the public. The bureau generates press releases and public service announcements on a regular basis, to inform and educate as many residents as possible. Members actively participates in an inter-agency Fire Prevention Co-op. The cooperative is between local, state, and federal agencies, and is an ongoing effort to spread fire prevention messages to the communities we serve.

The bureau continues to use Forestry Aids and two Forestry Technicians to provide defensible space inspections in the SRA, public education, post fire damage inspections (DINS) and power line inspections.

VIP's help the prevention bureau by educating the public on defensible space inspections around residences and also assist with campfire permits, power line inspections, and other educational opportunities.

## **FIRE PREVENTION GOALS**

### **GOAL # 1**

#### **Reduce the total number and severity of fires throughout the unit.**

- a. Prioritize projects, education, and community involvement in target areas based on analyzed ignition data.
- b. Reduce the total number of illegal debris burning fires through education and enforcement efforts.
- c. Work closely with state, federal, and local governments to cooperatively reduce ignitions across jurisdictional boundaries.
- d. Actively patrol on high fire danger days and provide education on potential fire hazards, proper fire use, and fire safety.
- e. Actively patrol in areas with high ignitions and vigorously pursue prompt enforcement action of forest and fire laws when necessary.

### **GOAL # 2**

#### **Increase the total number of defensible homes within the unit.**

- a. Educate residents on the proper care, maintenance, and benefits of a “defensible space” home.
- b. Analyze data to identify areas with large concentrations of homes that do not meet the defensible space requirements and target these areas for inspections.
- c. Provide training to Siskiyou Unit on PRC 4291 (LE-100) to use as an educational tool with any public contact.
- d. When necessary, pursue enforcement actions to gain “defensible space” compliance.
- e. Collaborate with county and local governments and Fire Safe Councils to identify and prioritize planning and fuel reduction projects that will increase a community’s defense in the event of wildfire.

### **GOAL # 3**

#### **Reduce the total number of undetermined fires within the unit.**

- a. Provide further training and education to field personnel in proper origin and cause investigation.
- b. Analyze investigation reports from the field for accuracy and completeness.
- c. Provide direction to field personnel on proper reporting techniques.

## **GOAL # 4**

### **Enhance education and training for bureau personnel.**

- a. Provide bureau personnel with training in Juvenile Fire Setter Program.
- b. Provide bureau personnel with training in Field Training Officer (FTO).
- c. Provide bureau personnel with training in Public Information.
- d. Provide bureau personnel with training in Firearms Instruction.
- e. Provide bureau personnel with advanced training in GIS.
- f. Provide bureau personnel with advanced training in Fire Investigation.



# ***CAL FIRE***

## **Siskiyou Training Battalion**



The Siskiyou Unit Training Bureau provides on-going training, education and certification to all CAL FIRE personnel assigned to the Siskiyou Unit. The Training Bureau also provides training and education support for several local government volunteer fire departments throughout Siskiyou County. The Training Bureau is currently state funded for one Battalion Chief.

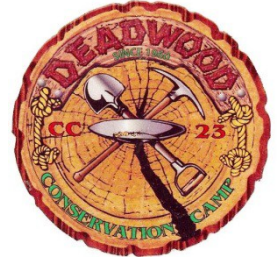
The priority of the Training Bureau is to provide the overall safety of permanent, seasonal, and volunteer personnel through proper training. Training is conducted through instructional programs that target operational efficiency with emphasis on safe operating procedures in all aspects of fire and emergency operations. All training is focused on providing and maintaining the highest quality emergency services at both fire and medical responses to the citizens of California. Instructional programs target operational efficiency with emphasis on safety and cost effectiveness in all aspects of fire and emergency operations. The Siskiyou Unit requires all employees to spend at least 15 percent of their time in training. This training can range from informal routine station training to formal web-based or classroom environment training. The Siskiyou Unit has implemented an online training program (Vector Solutions) which has streamlined the delivery of emergency operational training. All training is based on defined, measurable objectives and delivered in the most effective and cost-efficient manner.

The Siskiyou Unit is heavily involved with cooperative relationships, which include involvement with the College of the Siskiyou's (COS) Fire Program and training grounds. This cooperation leads to outstanding opportunities that allow quality and cost-efficient professional training using one of the best fire training facilities on the West Coast. The Siskiyou Unit, in cooperation with the Klamath National Forest, Shasta-Trinity National Forest and many local government fire departments, conducts an annual multi-agency drill (Siskiyou County Interagency Hall Drills) each year to provide annual re-certification for wildland fire training for the Siskiyou County fire services. Local, state and federal wildland firefighters who participate in the drill can improve their skills, as well as create cooperative working relationships in an interagency environment.



# ***CAL FIRE***

## **Deadwood Camp**



Deadwood Camp houses up to 80 inmates and is capable of staffing up to four fire-suppression hand crews. The camp is located within Siskiyou County approximately five miles from the City of Fort Jones. Opened in 1962, Deadwood is jointly operated by the California Department of Forestry and Fire Protection and the California Department of Corrections and Rehabilitation. Deadwood Camp is staffed by one Division Chief, eight Fire Captains, two Heavy Fire Equipment Operators, one Heavy Equipment Mechanic, and and Stationary Engineer. Correctional staff consists of six Correctional Officers, one Sergeant and one Lieutenant. The primary mission of the camp is to provide fire crews for fire suppression within the State of California. In addition to fire suppression, inmate hand crews provide a work force for flood control, conservation projects and community service.

Daily work assignments include fuel reduction projects for fire safe councils, schools, and local, state, and federal agencies. Acres treated vary by project and stakeholder needs. The fire plan acknowledges that using inmate labor for fuel reduction projects not only helps to create defensible space around valuable assets and infrastructure, but also provides valuable training for fire crews, all while being a cost-effective solution for the taxpayer. In addition, Deadwood Camp provides opportunities for inmates to learn skills in many different aspects including kitchen work, auto repair, cabinet making and basic facility maintenance.





# ***CAL FIRE***



## **Siskiyou Fire Center**

The Siskiyou Fire Center is a 40-person firefighter center with permanent funding for one Battalion Chief, four Fire Captains, and three Fire Apparatus Engineers. The facility is centrally located in the unit, off the I-5 corridor, at the Siskiyou County Golden Fairgrounds in Yreka.

The fire center started with augmented funding in 2020 and became permanently funded in July of 2022. Due to the program's early success, when permanent funding became available, the unit was able to fill the camp with four Captain and three Engineer positions from within the unit. Many of the returning firefighter I's will be starting their fourth season as hand crew members.

The firefighter hand crews provide 24-hour coverage, seven days a week, for nine months out of the year. Additionally, the crews are heavily involved with multiple fuel reduction projects and assist other programs and agencies with prescribed fire and pile burning. The crews also have the capability and training to respond to all-risk emergencies.



# ***CAL FIRE***

## **Yreka Interagency Command Center**



The Siskiyou Unit has an Emergency Command Center known as the Yreka Interagency Command Center (YICC). The YICC is located at the Siskiyou Unit Headquarters in Yreka and is a collaboration of CAL FIRE, County of Siskiyou staff, and the United States Forest Service (USFS). The YICC provides dispatching services for CAL FIRE, USFS, 30 local government fire departments and 6 ambulance companies.

The YICC is responsible for emergency call taking, dispatching, and tracking of resources. The YICC dispatches approximately 10,000 calls per year to all EMS and Fire agencies within Siskiyou County. The YICC is also the EMS Medical Helicopter Coordination Center for Siskiyou County. This involves requesting and coordinating medical helicopters from both within California and from out of state.

In addition to receiving and dispatching emergencies, personnel in the YICC receive and order Agency resources and equipment in the Interagency Resource Ordering Capability (IROC). They also request and hire private resources and equipment in the Hired Equipment Management System (HEMS). Additionally, they track weather trends and the burn index in the Weather Information Management System (WIMS).

CAL FIRE and Siskiyou County staffing includes one Battalion Chief, five Fire Captains and four Communications Operators. The Klamath National Forest staffing includes one center manager, two assistant center managers and seven dispatchers. All personnel in the YICC are Emergency Medical Dispatch (EMD) qualified to provide medical instructions to 9-1-1 callers for medical emergencies. The Command Center is staffed 24 hours a day, 365 days a year.

The goal of the YICC is to meet and exceed the standards set in NFPA 1221 section 6.4.2. These standards specify that 95 percent of all alarms be answered within 15 seconds and 99 percent answered within 40 seconds. In addition, Section 6.4.3 specifies that 95 percent of all dispatching be completed within 60 seconds.



# **CAL FIRE**

## **Scott Valley Battalion**



### **EXECUTIVE SUMMARY:**

The Scott Valley Battalion (Battalion 1) is located within the northwestern portion of the Siskiyou Unit. The battalion is bordered to the east by the Siskiyou Units Shasta Valley Battalion and bordered to the north, west and south by the Klamath National Forest. The Scott Valley Battalion consists of approximately 294,463 acres of State DPA. The majority of the SRA lands are in the foothills surrounding the Local Responsibility Area (LRA) lands located on the valley floor and are bordered by federal Responsibility Area (FRA) in the high mountainous areas. Approximately 56,000 acres of the battalion's DPA are federal lands belonging to the United States Forest Service and Bureau of Land Management.

The battalion's infrastructure includes the Fort Jones FFS, Duzel Rock Lookout, Quartz Hill Lookout, as well as numerous seasonal water tanks located throughout the battalion for fire suppression. The Battalion's assigned fire suppression equipment includes one Battalion Chief vehicle (B-2611), two front line engines (E-2665 & E-2675), one reserve engine (E-2695), as well as a transport and bulldozer (TD-2642). Assigned personnel include one Battalion Chief (BC), two Fire Captains (FC), four Fire Apparatus Engineers (FAE), and three Heavy Fire Equipment Operators (HFEO). During fire season staffing also includes approximately 10 to 14 seasonal firefighters. Lookouts are staffed during high fire danger or when severe lightning storms are predicted.

Within the Scott Valley Battalion the Scott Valley Volunteer Fire Protection District, Etna City Volunteer Fire Department, Fort Jones Volunteer Fire Department, and the United States Forest Service (USFS) support and enhance responses to emergencies with Automatic and Mutual Aid Agreements. Collaboration and coordination between agencies and the public is crucial to enhance emergency response within the battalion.

There is a significant number of residences within the Wildland Urban Interface (WUI) in Scott Valley. Mitigation strategies to reduce the threat of catastrophic wildfires should start at the community level and work outward with an emphasis on routes of ingress and egress. As mitigation strategies work away from communities, the focus should then go to landscape level projects that build continuity with previously completed work. The areas of Fort Jones, Etna, Greenview, Quartz Valley, and Callahan are the most populated areas within the battalion. State Highway 3 runs through the middle of the battalion with moderate traffic during the daylight hours. Vegetation types within the battalion include seasonal grasses, oak woodland, brush, and timber. Fire history in the Scott Valley is extensive in some areas and infrequent in others. Timber mortality and fuel conditions due to drought, combined with lack of fire history has increased the possibility for large catastrophic wildfires to occur within recent years.

Decreased timber harvesting and increased number of individuals living and recreating within the battalion also contribute to this potential.

Weather patterns in the battalion throughout the spring and summer months consist of warm and dry days with moderate to strong afternoon winds. During the nighttime hours temperatures usually drop with some relative humidity recovery. Snowpack from the surrounding mountains contribute to the area's available water and vegetation moisture content. The valley's surrounding seasonal snowpack has seen a significant reduction in recent years due to drought.

The topography of the battalion includes portions of the lush, agricultural lands of the Scott Valley floor, and extends upward into the timberland of the steep and rugged mountains. The mountain ranges, and the local weather patterns support a natural mixture for severe electrical storms throughout most of the summer months. Often, these storms are accompanied with strong winds, and can have little to no precipitation associated with them.

The Scott Valley Battalion has several productive Fire Safe Councils (FSC). Fire Safe Councils are non-profit community led organizations that work with communities and other cooperators to increase fire resilience over the landscape. One goal moving forward is to consolidate the various councils into one or two main groups with several smaller groups under them. Over the past several years these councils have evolved into a vital part of the hazard mitigation and emergency response planning within the battalion. Collectively, these fires safe councils have planned and completed several million dollars' worth of fuels modification projects, reducing the fire threat in target areas surrounding the foothills of the Scott Valley (see the attached spreadsheet of projected and completed projects within the battalion). These projects include fuel breaks and hazardous fuels reduction along routes of ingress and egress. These Fire Safe councils include:

- Lower Scott River FSC
- French Creek FSC
- Quartz Valley Area FSC
- Rattlesnake Creek FSC
- Scott Bar FSC
- Scott Valley FSC
- Seiad Valley FSC

## **FIRE PREVENTION GOALS**

### **GOAL # 1**

#### **Reduce the total fires in the battalion.**

- a. Advertise fire prevention messages with fire prevention signs along major roadways.
- b. Provide public training through one-on-one public contact and web-based applications.
- c. Educate the public with news releases and radio messages.
- d. Train with local fire departments and fire agencies to achieve common goals.
- e. Participate in local events for educational purposes.
- f. Increase the total number and effectiveness of defensible space inspections and promote an increasing level of compliance with defensible space laws (PRC4291).

- g. Increase the total number of power line inspections and promote increasing level of compliance with power line laws and regulations (PRC4293).
- h. Analyze trends in fire cause and focus prevention and education efforts to modify behavior and effect change.

## **GOAL # 2**

### **Minimize fire size and reduce overall damage and costs associated with wildfires.**

- a. Support and assist Fire Safe Councils in identifying, obtaining, and executing strategically placed fuel reduction projects along ingress and egress routes and fuel breaks around communities that are located throughout the battalion.
- b. Work with landowners to maintain access roads into remote fire prone areas and give direction on Defensible Space options for their infrastructure.
- c. Interact with private timberland owners, local timber operators, and resource management staff to identify active timber operations, where education can reduce the threat of fire from their operations.
- d. Support projects with the availability and utilization of CAL FIRE hand crews and other CAL FIRE resources for fuel management activities including new projects and ongoing maintenance of existing fuels modification projects.

## **GOAL # 3**

### **Identify high hazard areas and plan for defending assets at risk.**

- a. Support projects with the availability and utilization of CAL FIRE hand crews and other CAL FIRE resources for fuel management activities including new projects and ongoing maintenance of existing fuels modification projects.
- b. Open and maintain existing roads that lead into high fire prone areas.
- c. Preplan with collaborators to identify primary travel routes and safe refuge areas within the battalion.
- d. Facilitate activities with individuals and organizations, as appropriate, to assist individual property owners in complying with fire safe regulations and fuel reduction.
- e. Provide a direct community presence in high fire prone areas. Articulate and promote the concept of land use planning to homeowners and landowners, as it relates to fire risk and living within the WUI.
- f. Develop a wildland fire pre-plan for the Scott Valley Battalion.

## **GOAL # 4**

### **Continue to Foster Cooperation with allied agencies.**

- a. Host and attend multi agency trainings.
- b. Attend Scott Valley Fire Chiefs and Scott Valley Consolidation meetings.
- c. Communicate with and involve allied agencies at all levels.
- d. Participate in and host cooperative fuel reduction and prescribed fire projects.

### **List of Stakeholders**

- Residents within the battalion
- Property owners within the battalion

- Timber Landowners
  - FWS Forestry
  - EFM
  - Michigan California
  - Shasta Cascade
- City of Etna
- City of Fort Jones
- Town of Greenview
- Town of Callahan
- CAL-TRANS Highway 3
- Pacific Power & Light (PacifiCorp)
- Siskiyou County Road Department

**List of Cooperators**

- Various Fire Safe Councils
- Siskiyou Prescribed Burn Association (PBA)
- Mid Klamath Watershed Council
- Scott River Watershed Council
- Karuk Tribe
- Shasta Valley Resource Conservation District
- Fire Departments
  - Scott Valley FPD
  - Etna FD
  - Fort Jones FD
  - Happy Camp FD
  - Seiad Valley Fire Company
  - Klamath River Fire Company
  - Salmon River Fire Company
  - CAL FIRE
  - USFS Klamath National Forest

**Pre-Fire Management Solutions**

**General description of the agreed-on target areas:**

Target areas within the Scott Valley Battalion include communities and populated areas, infrastructure, and timber lands. Targeted areas include the west side of Scott Valley from Etna through Quartz Valley; the Fort Jones area from Scott River Road to Mineral Range Road; and the French Creek road area and the community of Callahan. All target areas should begin around communities and work outward including routes of ingress and egress. Beyond communities, target areas should be addressed at the landscape level and should build continuity with other work that is completed or planned.

**Key points of the local fire problem:**

The Scott Valley Battalion is an extremely large area (387,000 acres). The battalion contains only one CAL FIRE station. Response times can be extended due to long travel times. Inaccessible terrain also creates extended time frames in locating and suppressing fires. The high occurrence of lightning activity and lightning caused fires can sometimes overwhelm available resources within the battalion.

**General description of the desired future condition:**

Continued improvement and maintenance to existing fuel breaks and fuel reduction projects to include ingress and egress is vital in protecting the battalion from catastrophic wildfires. Strategically located fuel breaks and fuel reduction work should be completed near communities, critical infrastructure, and timber lands. Prescribed fire projects should be conducted to reduce fuels and provide a fire resilient landscape. Maintenance and reclamation of access roads, water storage tanks for fire suppression, as well as placement of further storage tanks in fire prone area should continue. Staffing and maintenance of fire lookouts as well as the implementation of technological resources for early fire detection should be utilized. Public contact and fire prevention efforts should work towards ensuring a fire adaptive community. A fire adaptive community combined with early ignition detection within a fire resilient landscape will provide a safer fire environment for the battalion's communities, residents, cooperators, stakeholders, and first responders.

Refer to the Siskiyou Unit's Fire Plan for a detailed list of pre-fire projects within the Scott Valley Battalion.



# **CAL FIRE**

## **Shasta Valley Battalion**



### **EXECUTIVE SUMMARY:**

The Shasta Valley Battalion (Battalion II) is centrally located in the northern part of Siskiyou County with the north end bordering the State of Oregon, the Scott Valley Battalion to the west, and Weed Battalion to the south. The Klamath National Forest (KNF) borders the east and west with several thousand acres of State Responsibility Area (SRA) extending into the KNF DPA. The battalion is approximately 389,049 acres designated as State DPA. It is comprised of the Siskiyou Unit Headquarters Station (Yreka FFS) which houses two fire engines (E2664 & E2669) and one bulldozer (D2640), the Hornbrook FFS which houses two fire engines (E2666 & E2668), and Paradise Craggy Lookout. Hornbrook FFS is committed to year-round fire protection due to a contract with Siskiyou County as part of the Amador Plan. Both stations are open year-round for fire permit issuance and other public services. Paradise Craggy Lookout is only staffed with emergency workers during high fire danger days as well as during and after lightning storms.

Fuel types consist of grass, brush, and timber that cover flat, rolling hills, and mountainous terrain. Much of the timberlands are fueled with medium to heavy slash from past logging operations. Interstate 5 and Highway's 3, 96, 99, 263, as well as the Central Oregon and Pacific Railroad (CORP) railroad line run through the center of the battalion. There are several major electrical transmission lines running north-south through the battalion. The battalion has a significant wildland urban interface (WUI) problem with many houses dispersed amongst the wildland areas. Due to the significant WUI problem, the lack of immediate water sources, and long travel times, much of the prevention efforts have been focused on reducing the potential for large fire losses by public education and enforcement of the California Public Resource Code Section 4291, which requires up to one hundred feet of fuel reduction/clearance around structures.

The weather patterns in the battalion throughout the spring and summer months consist of warm and dry days with moderate to strong afternoon winds. The Shasta Valley is very prone to steady strong north winds in the summer and very strong south wind in the winter months. During the nighttime hours, the temperature usually drops with some relative humidity recovery.

The Siskiyou Unit is active in local community outreach programs such as food / toy drives, school programs, fire prevention week programs, and public safety messages. Several fire prevention signs are displayed throughout the battalion along major roadways in support of these programs.



Existing Prevention Sign Locations:

- Copco Road near railroad tracks.
- Ager-Beswick Road at Omega Road.
- Ager Road at Yreka-Ager Road.
- Old Hwy. 99, south of Yreka near South Yreka FD (Also visible from Interstate 5).
- Hwy. A-12, east of Grenada.
- Hwy. 263, north of Yreka.

## **FIRE PREVENTION GOALS**

### **Goal #1**

#### **Reduce the total number of fires in the battalion.**

- a. Advertise fire prevention messages with fire prevention signs along major roadways.
- b. Educate children utilizing school programs.
- c. Public education through public participation in local events and fire safe councils.
- d. Public education through news releases.
- e. Public education during burn permits issuance on proper and legal burning techniques.

### **Goal # 2**

#### **Reduce the impact of large, damaging fires in the battalion.**

- a. Educate and enforce on proper clearances around structures, per PRC 4291.
- b. California Public Resources Code Section 4291 using the LE-100 inspection program.
- c. Support county and battalion fire safe councils.
- d. Assist with fuel reduction programs and fuel break projects.
- e. Support the California Public Resources Code Section 4290 program, which applies to new construction, to develop safer ingress and egress by establishing road and address standards, develop water supplies for emergency use, and delineate setbacks for fuel break / greenbelt development.

### **Goal # 3**

#### **Reduce the number of intentionally caused fires.**

- a. Train with state and local fire personnel on fire scene preservation.
- b. Reduce the number of undetermined fires.

## List of Stakeholders

- Residents within the battalion
- Property owners within the battalion
- Timber owners
  - FWS Forestry
  - Timber Products
- U.S. Forest Service, Klamath National Forest
- BLM Medford
- BLM Redding
- County of Siskiyou
- CAL-TRANS: Highways 3,96,263, and Interstate 5
- Pacific Power & Light (PacifiCorp)
- Central Oregon and Pacific Railroad (CORP)
- Fire Safe Councils
  - Fire Safe Council of Siskiyou County
  - Copco/Bogus
  - Yreka Area Fire Safe Council
    - Guys Gulch Working Group
    - Shamrock Working Group
    - Greenhorn Working Group
    - Rolling Hills Working Group
    - Hawkinsville Working Group
    - Yreka Working Group
  - Black Mountain Fire Safe Council
- Siskiyou County Fire Departments within or bordering the Shasta Valley Battalion
  - Hilt Fire Hose Company
  - Hornbrook Fire Department
  - Copco Fire Department
  - Mayten Fire Department
  - Yreka Fire Department
  - South Yreka Fire Department
  - Montague Fire Department
  - Grenada Fire Department
  - Klamath River Fire Hose Company
  - Klamath National Forest
  - Oregon Department of Forestry
- Cities and Communities within the Shasta Valley Battalion
  - City of Yreka
  - City of Montague
  - Town of Grenada
  - Town of Hornbrook
  - Community of Klamath River Country Estates
  - Community of Copco
  - Community of Klamath River
  - Community of Big Springs
  - Community of Little Shasta
  - Community of Hilt
  - Community of Colestine

## **Pre-Fire Management Solutions**

General description of the agreed-on target areas:

Target areas within the Shasta Valley Battalion include all populated areas and communities, critical infrastructure, and natural resource assets at risk. Identifying and treating target areas should be a collaborative effort between stakeholders and cooperators to maximize effectiveness and efficiency.

### **Key points of the local fire problem:**

The Shasta Valley Battalion covers a large area (484,018 acres) with only two CAL FIRE stations. Response times can be extended due to long travel times to incidents. Inaccessible terrain also creates extended time frames in locating and extinguishing ignitions. Receptive fuels, local weather patterns, and major highways running through the battalion contribute to the potential for a high frequency of fires along with rapid fire growth. The high occurrence of lightning activity and lightning caused fires can sometimes overwhelm available resources within the battalion.

### **General description of the desired future condition:**

The future desired condition for the Shasta Valley Battalion is to reduce the total number and size of fires within the battalion by creating a fire resilient landscape through pre-fire planning, pre-fire engineering, fire prevention information, and fuel reduction work in addition to maintaining early detection and aggressive initial attack.

To accomplish this the battalion will continue educating the public through fire prevention messages via signs, school programs, news releases, meetings, and local events while maintaining a positive presence within the community using these programs.

Pre-fire planning and engineering will include developing pre-plans, completing defensible space inspections, conducting post fire damage inspections, issuing burn permits, and ensuring compliance with burning regulations.

Fuel reduction efforts will seek to improve and maintain existing fuel breaks concentrating on areas that provide ingress and egress into and around communities. Also, improve and maintain fuel breaks that are strategically advantageous for fire suppression and are close to communities and residences. Treatments will be geared towards modifying and connecting fuel breaks to completely envelope these areas.

Work will continue towards maintaining and reclaiming forest access roads to areas that are prone to high lightning activity with a focus on clearing and repairing roads and water crossings. Continue to assess the need for water sources in areas of the battalion where water is scarce. Maintenance and staffing of lookouts should continue to be a focus to aid in early fire detection.

Refer to the Siskiyou Unit's Fire Plan for a detailed list of pre-fire projects within the Shasta Valley Battalion.



# **CAL FIRE**

## **Butte Valley / Weed Battalion**



### **EXECUTIVE SUMMARY:**

The Butte Valley / Weed Battalion (Battalion III) includes the southern end of Shasta Valley, most of Butte Valley, and has about 333,494 acres of State DPA. The battalion has two state fire stations. The staffing for the battalion is as follows: One Battalion Chief (Battalion 2613), *Weed FFS*: Two permanent Fire Captains and four permanent Fire Apparatus Engineers. Approximately 10 to 14 seasonal firefighters complete the peak summer staffing. The fire apparatus assigned to Weed FFS are Engine 2663 and Engine 2677. *Macdoel FFS*: Staffed during fire season with two permanent Fire Captains and one Limited Term Relief Fire Captain. Approximately five to nine seasonal firefighters complete the station summer staffing. The fire apparatus assigned to Macdoel FFS is Engine 2660.

There are approximately 364,000 acres of DPA in the battalion. The fuel types include timber, juniper, desert sage, and grassland. Most areas are arid with minimal surface water available for firefighting. There are many areas with poor access due to volcanic geographic features. Most of the vegetation cover needs windy and dry conditions to burn intensely. The weather presents this condition many days throughout the year.

Most of the residents live within the communities of Weed, Dorris, Tulelake, Macdoel, Gazelle, Lake Shastina, Hammond Ranch, Mount Shasta Vista Subdivision, and Carrick Subdivision. Interstate 5 and State Highway 97 run through the battalion with heavy traffic during most times of the day. The Union Pacific Railroad (UP) has tracks through the Weed area and through the Butte Valley. The Central Oregon and Pacific Railroad (CORP) has tracks from Weed heading north through the Shasta Valley. There are several sets of major electrical transmission lines that run north-south through the battalion.

## **FIRE PREVENTION GOALS**

### **GOAL # 1**

#### **To reduce the total fires in the battalion:**

- a. Advertise fire prevention messages with fire prevention signs along major roadways.
- b. LE-100 Inspections.
- c. Educate children utilizing school programs.
- d. Public education through public contact and Fire Safe Council outreach.
- e. Participation in local events.
- f. News releases.

### **GOAL # 2**

#### **Reduce the impact of a large fire in the battalion:**

- a. LE-100 inspections.
- b. Fire Safe training to home-owner groups and other community groups.
- c. Assist with fuel reduction programs and fuel break projects.
- d. Obtain funding to perform or contract the work done for fuels projects.
- e. Support the PRC 4290 and 4291 Program.
- f. Support Fire Safe Councils.
- g. Improve and develop water storage for fire suppression.

### **GOAL # 3**

#### **Instill Fire Prevention Goals and State Regulations to local Government Fire Depts.**

- a. Jointly train and help local government fire departments.
- b. Assist in prevention and planning with local government.
- c. Assist with media handouts and information material.

### **List of Stakeholders**

- Residents within the battalion
- Property owners within the battalion
- Timber owners:
  - Roseburg Forest Products
  - Sierra Pacific Industry
  - FWS Forestry
  - Hearst Corporation
  - Hancock/Olympic Forests
  - Land Vest
  - Timber Products
  - U.S. Forest Service, Klamath National Forest
  - U.S. Forest Service, Shasta-Trinity National Forest
  - Bureau of Land Management
  - Michigan California Timber Company

Siskiyou County Fire Departments  
(Auto/Mutual Aid Agreements)

- Weed FD
- Lake Shastina CSD
- Gazelle FD
- Butte Valley FD
- Dorris FD
- Hammond Ranch FZ
- Mount Shasta Vista FZ
- Pleasant Valley FZ
- Tulelake FD
- Tennant CSD
- USFS (KNF and SHF)
- CAL FIRE
- Oregon Department of Forestry

Cities and Communities

- City of Weed
- City of Dorris
- City of Tulelake
- College of the Siskiyous
- Town of Gazelle
- Town of Macdoel
- Town of Tennant
- Town of Edgewood
- Mount Shasta Vista Subdivision
- Carrick Addition Subdivision
- Pleasant Valley Subdivision
- Lake Shastina CSD
- Hammond Ranch

Additional Cooperators

- CAL-TRANS
- California Department of Fish and Game
- Pacific Power & Light (Pacific Corp)
- County of Siskiyou
- Union Pacific Railroad (UP)
- Lake Shastina CSD/ Rancho Hills Subdivision
- Boyd Farms
- Shasta Valley Farms
- Lassen Canyon Nursery
- Red Rock Ranch
- Sierra Pacific Ranches
- Rocky Mountain Elk Foundation

Fire Safe Councils

- Butte Valley FSC
- Greater Lake Shastina FSC
- Greater Weed Area FSC
- Juniper Flat FSC
- Hammond Ranch FSC

## **PRE-FIRE MANAGEMENT SOLUTIONS**

### **General description of the agreed-on target areas:**

Target areas within the Butte Valley/ Weed Battalion include all populated areas and communities, critical infrastructure, and natural resource assets at risk. Identifying and treating target areas should be a collaborative effort between stakeholders and cooperators to maximize effectiveness and efficiency. One of the major local fire problems the battalion is encountering is the Mount Shasta Vista Subdivision. The area that is east of Big Springs Road, west of highway 97 and north and south of County Road A-12 has seen a major influx in population. It is estimated that the population in that area has increased by 10,000+ in 2021. The main issues associated with this influx are the possible increase in ignition sources, additional building issues, and unpermitted buildings. The battalion will continue to provide public education in different languages to reach as many people as possible regarding fire safety. This area has caused a spike in the battalion's responses to nuisance fires, vegetation fires, structure fires and illegal burning. The density of the population, compounded with the narrow roads, language barriers, and an inability to do LE-100 inspections for safety concerns, make this area a high priority for fire and emergency planning.

### **Key points of the local fire problem:**

Extremely large area (364,000 acres), only two CAL FIRE stations in the battalion, inaccessible terrain, and/or long travel times. High occurrence of lightning activity and lightning caused fires. Area is subject to high winds creating fast moving fires with long range spotting potential. Major highways and populated communities present the potential for a high frequency of fires with potential for rapid fire growth through wildland urban interface areas.

### **General description of the future condition:**

The future desired condition for the Butte Valley/Weed Battalion is to reduce the total number and size of fires within the battalion by creating a fire resilient landscape through pre-fire planning, pre-fire engineering, fire prevention information, and fuel reduction work in addition to maintaining early detection and aggressive initial attack.

To accomplish this, the battalion will continue educating the public through fire prevention messages via signs, school programs, news releases, meetings, and local events while maintaining a positive presence within the community using these programs.

Pre-fire planning and engineering will include developing pre-plans, completing defensible space inspections, conducting damage inspections post fire, issuing burn permits, and ensuring compliance with burning regulations.

Fuel reduction efforts will aim to both enhance and maintain existing fuel breaks in areas that provide critical access to and from communities, as well as concentrate on strategically advantageous fuel breaks that are in proximity to communities and residences. The treatments will be designed to modify and connect these fuel breaks to create a continuous barrier that completely envelops these areas.



Work will continue towards maintaining and reclaiming forest access roads to areas that are prone to high lightning activity with a focus on clearing and repairing roads and water crossings. Continue to assess the need for water sources in areas of the battalion where water is scarce.

Refer to the Siskiyou Unit's Fire Plan for a detailed list of pre-fire projects within the Butte Valley / Weed Battalion.



# ***CAL FIRE***

## **McCloud Battalion**



### **Executive Summary:**

The McCloud Battalion (Battalion IV) is in Southern Siskiyou County and parts of Northern Shasta County. The battalion has approximately 272,886 acres of State DPA. McCloud and Pondosa are the two CAL FIRE stations staffed in McCloud Battalion. McCloud FFS provides fire protection to the SRA during non fire season with personnel from both stations. Pondosa FFS is a seasonal station located on Highway 89, four miles from the old logging mill town Pondosa. During fire season, both stations are equipped with two fire engines. McCloud FFS operates E2662 and E2679, and Pondosa FFS operates E2661 and E2667.

A Battalion Chief (B2614), four Fire Captains, and eight Fire Apparatus Engineers staff battalion IV. During the summer months, the staffing is augmented by seasonal employees including up to twenty-two seasonal Firefighters.

The SRA within the battalion is made up of both private and federal lands, almost entirely timber. The Fire Hazard Ranking for battalion IV is high and very high. Battalion IV faces challenges with the Wildland Urban Interface (WUI) in the areas surrounding Dunsmuir, Mt. Shasta, and McCloud. Particularly, the rural regions on the eastern side of Mt. Shasta City and the Mount Shasta Forest and Wilderness Estate subdivisions located east of McCloud are of significant concern. The City of Dunsmuir, which is in the Sacramento River drainage along Interstate 5, is another area of major concern. Interstate 5 and State Highway 89 are the major routes that run through the battalion, with heavy traffic during most times of the day. The Union Pacific Railroad (UP) has tracks that run north-south through the city of Dunsmuir and Mt. Shasta. Additionally, several major electrical transmission lines and a natural gas pipeline also run north-south through the eastern portion of the battalion.

## ***Fire Prevention Goals***

### **GOAL #1**

#### **Prevent loss of life and property within the battalion.**

- Actively seek opportunities to provide fire safety information to the public.
- Continue participation in programs that are already established.
- LE-100 inspections.
- Update maps with water sources and fuel breaks.

### **GOAL #2**

#### **Prevent human caused fires by providing homeowners and stakeholders with information about safe burning practices and current burn regulations.**

- All employees will be well versed in current burn policies.
- Collect all fire plans from timber companies and ensure employees are familiar with locations of logging operations and access.
- Public education through interaction with community members.
- Distribute wildfire safety brochures.

### **GOAL #3**

#### **Reduce the impact of large fires in the battalion.**

- Assist and participate with fuel reduction programs and fuel break projects.
- Work with cooperators to improve access via road systems in the battalion.
- Support and assist the Fire Safe Councils in Mt. Shasta, Dunsmuir, and McCloud.
- Continue to collaborate with local, federal, and private landowners to promote training and establish connections that ensure a proactive initial fire response.

### **List of Stakeholders**

- Residents
- Property owners
- Timber owners
  - Hancock Forest Management
  - Hearst Corporation
  - Campbell Timberland Management
  - Land Vest
  - Schrool Timberland
  - Sierra Pacific Industry
  - W.M. Beatty and Associates

- USFS Shasta Trinity National Forest
- BLM
- Cal Trans Interstate 5 and Highway 89
- County of Siskiyou
- Greater McCloud Fire and Emergency Response Zone
- Mt. Shasta Forest Property Owners Association
- McCloud River Railroad
- Willow Creek Ranch
- City of Dunsmuir and the Dunsmuir Disaster Planning Advisory Committee (DPAC)
- City of Mt. Shasta
- McCloud Community Service District
- Fire Departments
  - McCloud Fire Department
  - Mt. Shasta City Fire Department
  - Mt. Shasta Fire Protection District
  - Dunsmuir Fire Department
  - Mt. Shasta Forest Volunteers
  - Solider Mountain Fire Department (Shasta County)
- Fire Safe Councils
  - McCloud Fire Safe Council
  - Mt. Shasta Area Fire Safe Council
  - Dunsmuir Fire Safe Council
  - Siskiyou County Fire Safe Council

## **Pre-Fire Management Solutions**

### **General description of the agreed-on target areas:**

Target areas within the McCloud Battalion include all populated areas and communities, critical infrastructure, and natural resource assets at risk. Identifying and treating target areas should be a collaborative effort between stakeholders and cooperators to maximize effectiveness and efficiency.

### **Key points of the local fire problem:**

The McCloud Battalion covers a large area with only two CAL FIRE stations with three of the larger communities in the unit. Response times can be extended due to long travel times to incidents. Inaccessible terrain also creates extended time frames in locating and extinguishing ignitions. Remote housing developments, major highways, major railroad, logging, and tourism in the battalion contribute to the potential for a high frequency of fires along with rapid fire growth. The high occurrence of lightning activity and lightning caused fires can sometimes overwhelm available resources within the battalion.

### **General description of the desired future condition:**

The McCloud Battalion aims to decrease the frequency and magnitude of fires by creating a fire-resilient landscape through pre-fire planning and engineering, fire prevention education, fuel reduction projects, maintaining early detection capabilities, and executing aggressive initial attack strategies.

To accomplish this the battalion will continue educating the public through fire prevention messages via signs, school programs, news releases, meetings and local events while maintaining a positive presence within the community using these programs. The battalion will also continue to encourage early notifications through multiple communication channels, such as the Code Red alert system and the Zone Haven EVAC system.

Pre-fire planning and engineering will include developing pre-plans, completing defensible space inspections, conducting post fire damage inspections, issuing burn permits, performing origin and cause investigations, and ensuring compliance with burning regulations.

Fuel reduction efforts will seek to improve and maintain existing fuel breaks concentrating on areas that provide ingress and egress into and around communities. Also, fuel breaks that are strategically advantageous for fire suppression and are in close to communities and residences. Treatments will be geared towards modifying and connecting fuel breaks to completely envelope these areas.

Work will continue towards maintaining and reclaiming forest access roads to areas that are prone to high lightning activity with a focus on clearing and repairing roads and water crossings. Continue to assess the need for water sources in areas of the battalion where water is scarce. Battalion personnel will ensure two-way communication with logging companies and the railroad to ensure notifications are given and received regarding current logging operations and maintenance of the railroad right-of-way.

Refer to the Siskiyou Unit's Fire Plan for a detailed list of pre-fire projects within the McCloud Battalion.

# APPENDIX A: PRE- FIRE PROJECTS



## PRE-FIRE PROJECTS

### Siskiyou Unit (SKU)

01/01/2022 thru 12/31/2022

#### Siskiyou Unit (SKU)

PROGRAM	PROJECT NAME	Project Status	Treatment Footprint Acres	
Fire Plan	8CA05919 GNA-Yreka/Craggy Mountain	Active	1,005.93	SKU
Fire Plan	Azalea Fuel Break	Active	119.57	SKU
CFIP	B & C Living Trust CFIP 2020	Complete	629.59	SKU
Fire Plan	Baird Ranch	Complete in Maintenance	73.27	SKU
Fire Plan	BLM Humbug	Active	42.10	SKU
VMP	Bogus Creek VMP 2019	Active	945.14	SKU
Fire Plan	Bray Underburn KNF	Active	1,474.92	SKU
Fire Plan	Butte Valey Wildlife Refuge	Active	788.70	SKU
Fire Plan	Butte Valley Rx	Active	453.91	SKU
Fire Plan	Castle Crags	Active	116.67	SKU
Fire Plan	Craggy GNA	Active	3,161.12	SKU
Forest Health	Craggy Vegetation Management Project	Active	9,764.68	SKU
Fire Plan	Crechriou Pile Burning	Complete	12.91	SKU
Fire Plan	Crystal Creek PBA	Active	33.99	SKU
Fire Plan	Deadwood Defensible Space	Active	99.09	SKU
Fire Plan	Deetz Rd	Active	11.02	SKU
Fire Plan	Dunsmuir RGC	Active	19.80	SKU
Forest Health	East Fork Scott	Active	5,147.95	SKU
Fire Plan	Erickson	Cancelled	296.79	SKU
Fire Plan	Esperanza Rd	Active	12.60	SKU
Fire Plan	Etna HS	Complete in Maintenance	34.50	SKU
CFIP	Frances J. Belden Trust	Active	159.96	SKU
Fire Plan	Fredrickson Rx	Active	5.17	SKU
CFIP	Frontgate CFIP 2020	Active	557.31	SKU
Fire Plan	Good Neighbor (GNA)-Yreka/Craggy Mountain	Active		SKU
Fire Plan	Grass Lake Cal Trans	Active	1,330.30	SKU
Fire Plan	Greenhorn KNF	Active	78.09	SKU
Fire Plan	Greenhorn Park	Active	42.56	SKU
Fire Plan	Hammond Ranch Area Hazardous Fuels Reduction Program	Active		SKU

CFIP	Handley Family Trust	Complete	1,920.46	SKU
Fire Plan	Highway 89 Fuel Break and Safety Project	Active	1.02	SKU
Fire Plan	Hornbrook Station	Active	12.86	SKU
Fire Plan	I-5 Fuels Treatment (Azalea Phase II)	Active	56.37	SKU
Fire Plan	I-5 Mount Shasta Project	Active	295.62	SKU
Forest Health	Implementing Landscape-Scale Restoration and Reforestation in Klamath National Forest	Active	3,950.09	SKU
Fire Plan	Island	Cancelled		SKU
CFIP	Jones CFIP 2020	Active	178.06	SKU
Fire Plan	Juniper Flat Comprehensive Fuel Reduction Project	Active	116.69	SKU
Fire Plan	KNF Badger	Active	25.88	SKU
Fire Plan	KNF McBaldy	Active	143.24	SKU
Fire Plan	KNF Scott Bar Mtn. Rx	Active	25.12	SKU
Fire Plan	KNF Steamboat	Active	78.74	SKU
Fire Plan	Lower Klamath RX	Active	3,577.97	SKU
CFIP	Maskill CFIP 2022	Active	10.17	SKU
Fire Plan	McCloud Community Perimeter Shaded Fuel Break	Active	21.15	SKU
CFIP	McKernon CFIP 2020	Active	59.66	SKU
Forest Health	McKinley Scott Fuel Reduction Partnership	Active	3,225.64	SKU
Fire Plan	Meiss Lake Road	Planned	54.82	SKU
CFIP	Mills Ranch CFIP 2020	Active	180.77	SKU
Fire Plan	Mt Hebron	Cancelled	36.43	SKU
Fire Plan	Mt Shasta Cal Trans	Active	476.15	SKU
Fire Plan	MT Shasta Fish Hatchery	Active	40.97	SKU
Fire Plan	Mt. Shasta Transfer	Active	58.38	SKU
Fire Plan	Newton Rx	Active	89.70	SKU
Fire Plan	Pondosa Station	Active	6.04	SKU
CFIP	Presley CFIP 2022	Complete	15.47	SKU
Fire Plan	Quartz Valley Pile Burning	Active	63.57	SKU
CFIP	Raitz Trust CFIP 2020	Complete	4,881.53	SKU
Fire Plan	Rancho Chipping	Active	28.94	SKU
Forest Health	Restoring Forest Health...Klamath National Forest and the Butte Valley	Active	8,250.09	SKU
VMP	Scott River Ranch VMP 2020	Active	675.54	SKU
Forest Health	Scott Valley/Callahan Fuels Reduction and Forest Resiliency Project	Active	2,968.57	SKU
Forest Health	Scott Valley/Etna Fuel Reduction and Forest Resiliency Project	Active	3,259.39	SKU

Fire Plan	<b>Shastice Park</b>	Active	8.89	SKU
Fire Plan	<b>SHF Bike</b>	Active	367.28	SKU
Fire Plan	<b>SHF Old McCloud</b>	Active	18.10	SKU
Fire Plan	<b>Siskiyou 89</b>	Active	26.22	SKU
Fire Plan	<b>Siskiyou Co Flood</b>	Active	286.02	SKU
Fire Plan	<b>Siskiyou County Fuel Reduction Collaborative Planning Project</b>	Active	2.11	SKU
Fire Plan	<b>Siskiyou Fairgrounds</b>	Active	2.32	SKU
Fire Plan	<b>South Dunsmuir Fuel Break</b>	Active	27.47	SKU
Fire Plan	<b>Spring Meadwos</b>	Complete in Maintenance	3.32	SKU
Fire Plan	<b>Squaw Valley Fuel Break</b>	Active	212.45	SKU
Fire Plan	<b>Stone Rx</b>	Active	6.12	SKU
Fire Plan	<b>Sweezy Rx</b>	Active	84.16	SKU
Fire Plan	<b>Tule Lake Rx 1A</b>	Active	2,664.54	SKU
Fire Plan	<b>Weed City FD</b>	Planned		SKU
Forest Health	<b>Western Klamath Landscape Fuels Reduction and Forest Health Project</b>	Active	7,135.87	SKU
Fire Plan	<b>Whiskey PBA</b>	Active	38.38	SKU
Fire Plan	<b>White Rock</b>	Active	31.79	SKU
Fire Plan	<b>Yreka Cal Trans</b>	Active	191.59	SKU
Fire Plan	<b>Yreka Ridge Fuel Break</b>	Active	206.52	SKU
		<b>Totals</b>	<b>72,515.89</b>	

**\*TOTALS REPRESENT PROJECT BOUNDARY ACRES, NOT ACRES TREATED.**



## APPENDIX B: UNIT GOALS AND OBJECTIVES

- Identify and evaluate assets at risk while collaboratively developing and sharing common data sets.
  - Develop streamlined data collection tools within the unit to present consistent data sets for timely analysis and reporting.
  - Collect and create updated maps and GIS data layers within the unit for ownership, assets at risk, operations, hazards, fire history, ignitions, and any other pertinent data as needed.
  - Evaluate and protect against emerging threats such as climate change, insect and disease outbreaks, and hazardous fuel conditions.
  - Engage with local groups (e.g., Fire Safe Councils, Tribes) to prioritize assets at risk and mitigating factors.
- Support local land use planning and the development of local plans within the unit that pertain to wildland fire protection.
  - Collaborate with local agencies to ensure current and future land use planning identifies strategies to ensure communities are fire safe.
  - Ensure compliance with fire safe regulations through all stages of land use planning.
  - Support and participate in development of local fire plans and CWPPs ensuring common goals and objectives as it relates to the Unit Fire Plan.
  - Support community-based efforts to mitigate the risks and effects of wildland fires.
- Reduce risk to lives, property, and natural resources through increased fire prevention efforts.
  - Continue to grow fire prevention awareness and planning through expanded education efforts utilizing public out-reach, community events, social media, and new technology as applicable.
  - Expand the number of defensible space inspections within the unit and promote an increasing level of compliance.
  - Expand educational efforts to not only include defensible space, but also fire safe building materials, structure hardening, and improved building design to withstand wildland fires.
  - Investigate all wildland fires and pursue appropriate mitigating action.
  - Utilize trends in fire cause to focus fire prevention efforts.

- Increase fuels reduction scope by integrating fire and fuels management practices with stake-holder priorities.
  - Support landowner-initiated fuels reduction at the unit level.
  - Ensure a collaborative approach to local fuel reduction and prescribed fire projects within the unit by partnering with local stake holders to develop common priorities and objectives.
  - Support local partners in securing grant funding for collaboratively planned fuel reduction work within the unit.
  - Promote the use of vegetation management, prescribed fire, grazing, forest thinning, hazardous fuels removal, sustainable commercial forest management and other fuels treatment projects.
  
- Identify the level of prevention and firefighting resources needed at the unit level to implement pre-fire strategies and protect assets at risk.
  - Conduct analysis based on data collected to determine effectiveness of current resources and need for additional future resources and equipment.
  - Expand efforts to enable personnel to understand and participate in pre-fire activities.
  - Maintain an aggressive initial attack policy prioritizing life, property, natural resources while considering values at risk.
  - Ensure that personnel receive appropriate training and equipment to meet the increasingly challenging response environment safely and successfully.
  - Evaluate and implement new technologies to improve efficiency, safety, and situational awareness.
  
- Develop post-fire assessment strategies and tactics to protect life, property, and natural resources.
  - Implement rapid post-fire analysis, when appropriate, to determine values at risk and implement mitigation measures in a timely manner.
  - Utilize appropriate resources to accomplish restoration and protection activities.
  - Assess pre- and post-fire treatments to refine best management practices.
  - Assist stakeholders and landowners in burned areas to develop vegetation treatment plans and promote native species for restoration.

## **APPENDIX C: UNIT PRIORITY PROJECTS**

### **Priority Projects:**

For 2023 the Siskiyou Unit has identified the following Priority Projects:

1. Yreka Area Fuel Reduction
2. Truck Village (Phase 2 of Interstate 5 Fuels Reduction)
3. Edgewood (Phase 3 of Interstate 5 Fuels Reduction)
4. Fort Jones Fire Safety & Hazardous Fuels Reduction
5. Outsen Road Fuels Reduction

## **Appendix D: Proposed/ planned fire safe council and other entity fuel reduction/ planning projects supported by the unit:**

- **Abner Weed Heritage Fuels Reduction and Forest Resiliency Project-** Weed: Treating 1146 acres and reforesting 555 acres.
- **Antelope Chipping/Mastication-** Butte Valley (Antelope Fire): Treating 417 acres and reforesting 1028 acres.
- **Black Mountain Fuel Reduction-** Hornbrook area: Treating 200 Acres and protecting 200 structures.
- **Boles Creek-N. Rays Fuel Reduction Project-** Weed: Treating 100 acres and protecting the town of Weed.
- **Bray II Fuel Reduction-** Bray: Treating 110 acres and protecting 100 structures.
- **Butte Valley Headwaters Fire Restoration Project-** Butte Valley: Treating 549 acres and reforesting 844 acres.
- **Community Wildfire Defense Grant-** 500 homes hardened, defensible space created, and 300 acres of fuel reduction for ingress and egress
- **Deetz-Eddy-Luginbuhl Fuel Reduction-** Mount Shasta: Treating 150 acres and protecting 100 structures.
- **Dunsmuir Fuels Mitigation-** Dunsmuir: Treating 334 acres.
- **Dunsmuir Hazardous Fuel Reduction-** Dunsmuir: Treating 500 acres.
- **East Weed Fuel Reduction Project-** Treating 100 acres and protecting South Weed infrastructure.
- **Highland Drive Fuel Reduction-** Mount Shasta: Treating 100 acres and protecting 100 structures.
- **Hidden Meadow Fuel Reduction-** Weed: Treating 140 acres protecting 3000 structures.
- **Horse Creek Fuel Reduction-** Horse Creek: Treating 200 acres.
- **Implementing Landscape Scale Restoration/ Reforestation in Klamath National Forest-** Klamath National Forest: Treating 6450 acres and reforesting 450 acres.
- **Interstate 5 Fuel Treatment-** South Mt. Shasta: Treating 50 acres.
- **Juniper Flat Comprehensive Fuel Reduction-** Juniper Flat: Treating 425 acres.
- **Kilgore Hills Fuel Reduction-** Protecting southeast side of Yreka area.
- **Klamath River Fuel Reduction-** Klamath River: Treating 200 acres.
- **Lake Shastina CEQA Fuel Reduction-** Lake Shastina: Treating 185 acres and protecting 2300 structures.
- **Lower McCloud Fuels Treatment-** South of McCloud in portions of Shasta and Siskiyou Counties: Treating up to 12,000 acres and protecting private timber land/private property. Multiple treatments and treatment types including prescribed fire and fuel modification.

- **Lower Scott River Water Tanks-** Multiple locations off of Scott River Road, west of Meamber Creek Schoolhouse.
- **North Mount Shasta Fuel Reduction-** Mount Shasta: Treating 1000-1400 acres and protecting 500-1000 structures.
- **North Old Stage Road Fuel Reduction-** Mount Shasta: Treating 100 acres.
- **Partridge Pines Community Hazardous Fuel Reduction-** Scott Valley: Treating 200 acres.
- **Pleasant Valley Fuel Reduction-** Dorris/Butte Valley: Treating 100 acres and protecting 100 structures and the town of Dorris.
- **Scott Bar Mountain Fuel Reduction-** Klamath National Forest: Treating up to 560 acres.
- **Scott Valley WUI-** Scott Valley: Treating up to 1500 acres.
- **Scott Valley/ Callahan Fuels Reduction and Forest Resiliency Project-** Callahan: Treating 2553 acres and reforesting 123 acres.
- **Seiad Creek Ingress/Egress-** Seiad: Treating 70 acres.
- **Siskiyou Prescribed Burn Project-** Siskiyou Prescribed Burn Association planning and implementation.
- **Siskiyou Prescribed Fire Capacity Project-** Planning and training for prescribed fire.
- **South Mount Shasta Fuel Reduction-** Mount Shasta: Treating 500-1200 acres and protecting 500 structures.
- **South Old Stage-Hwy. 89 Fuel Reduction-** Mount Shasta: Treating 220 acres and protecting 2000 structures.
- **Timber Hills-Rainbow Ridge Fuel Reduction Project-** Mount Shasta: Treating 150 acres and protecting 500 structures.
- **Wallow Fire Fuel Reduction-** Fort Jones: Treating 200 acres.
- **Westside Fuel Reduction-** Protecting southwest side of Yreka area.

## **APPENDICES E-Z**

These Appendices are reserved for future use if necessary.

# EXHIBITS: MAPS

## Figure A: Unit Map

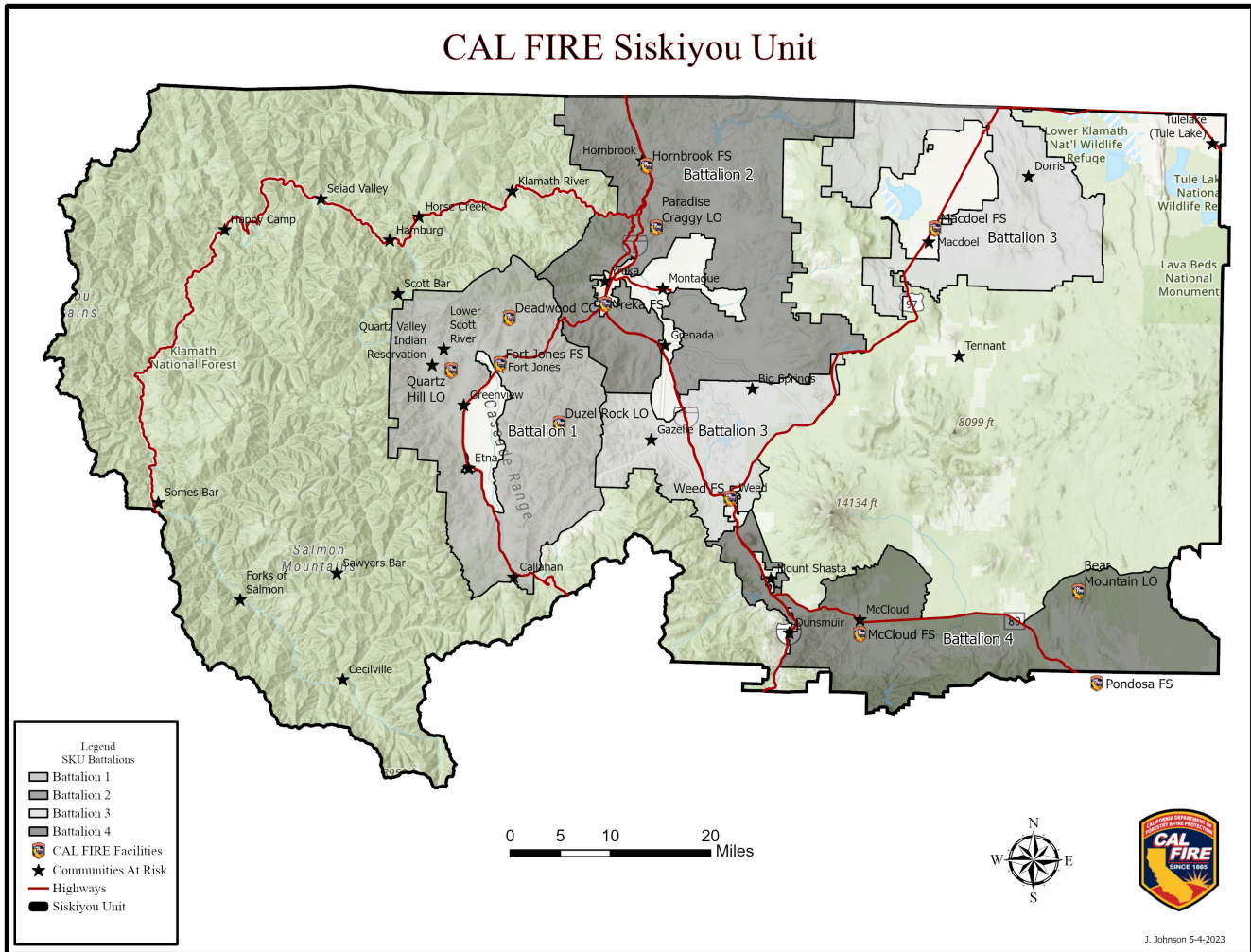


Figure B: 2022 Ignitions Map

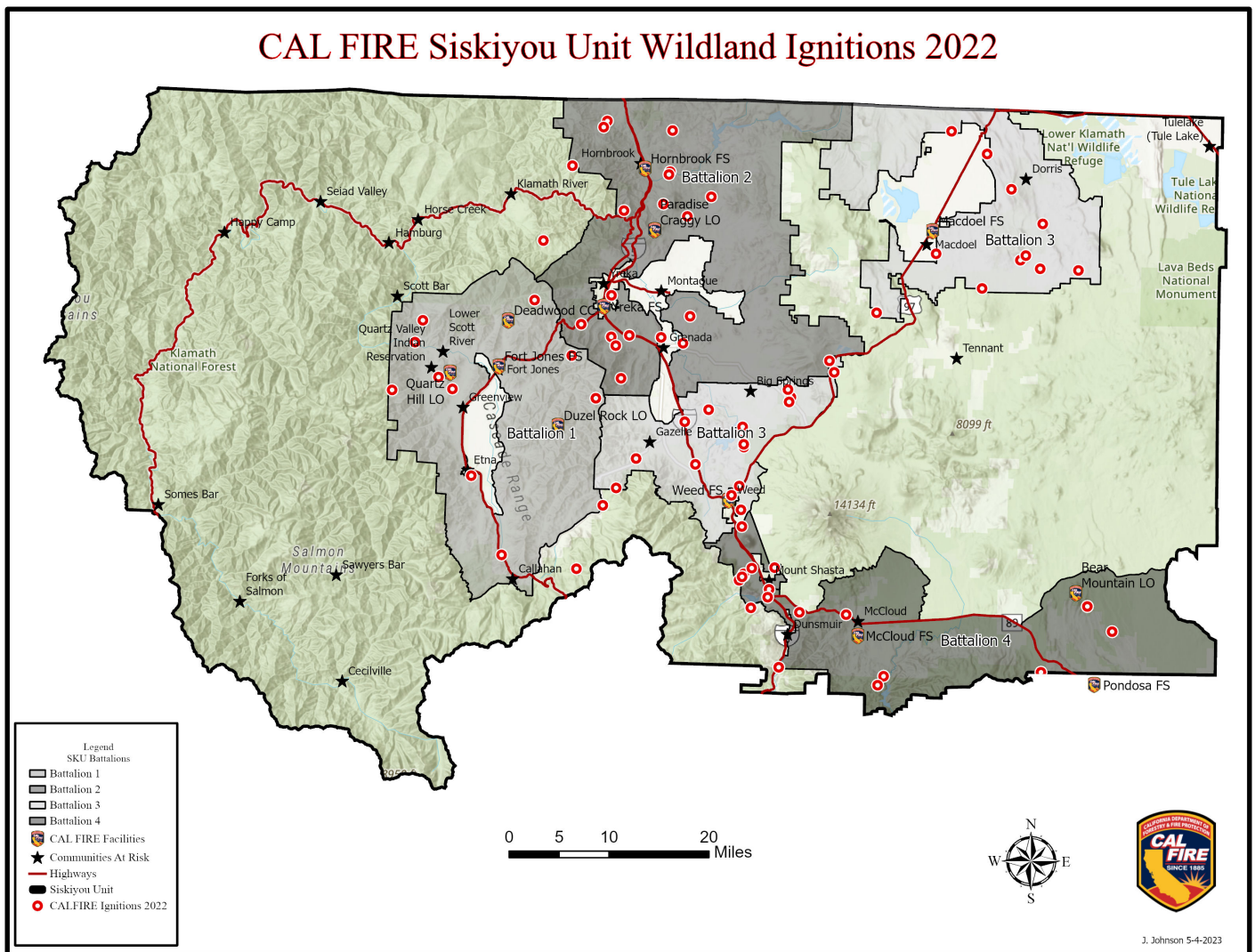
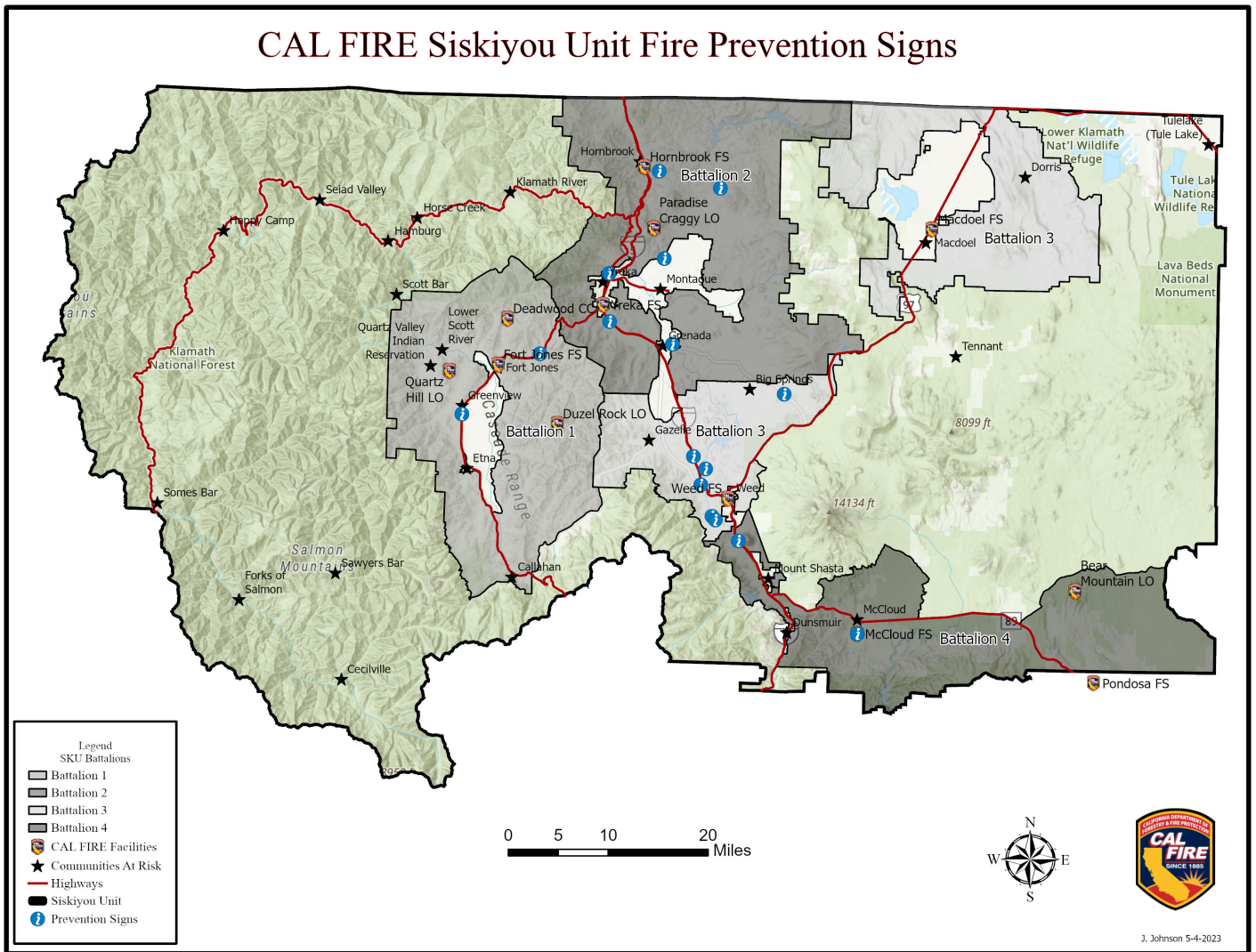




Figure C: Fire Prevention Signs

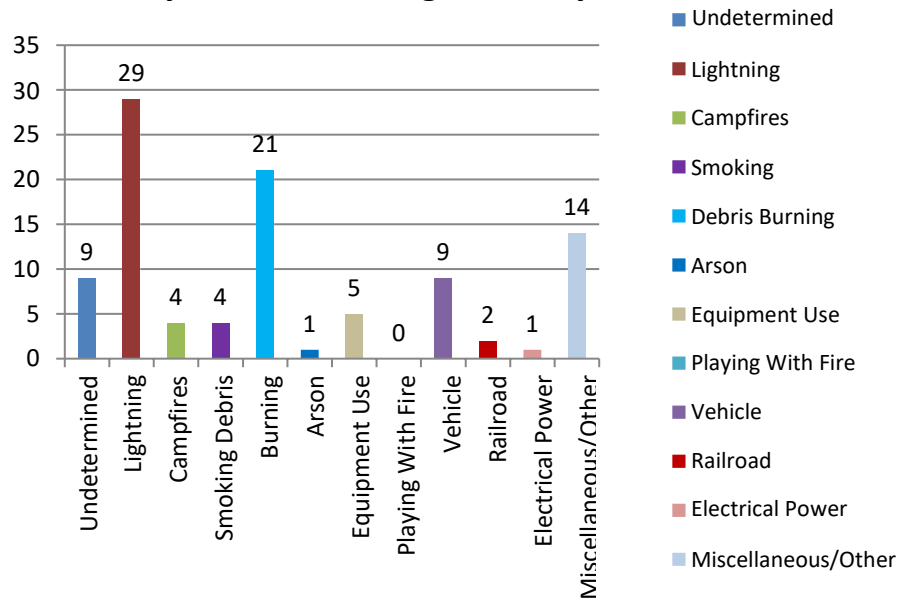


## 2018 Siskiyou Unit Ignition Analysis

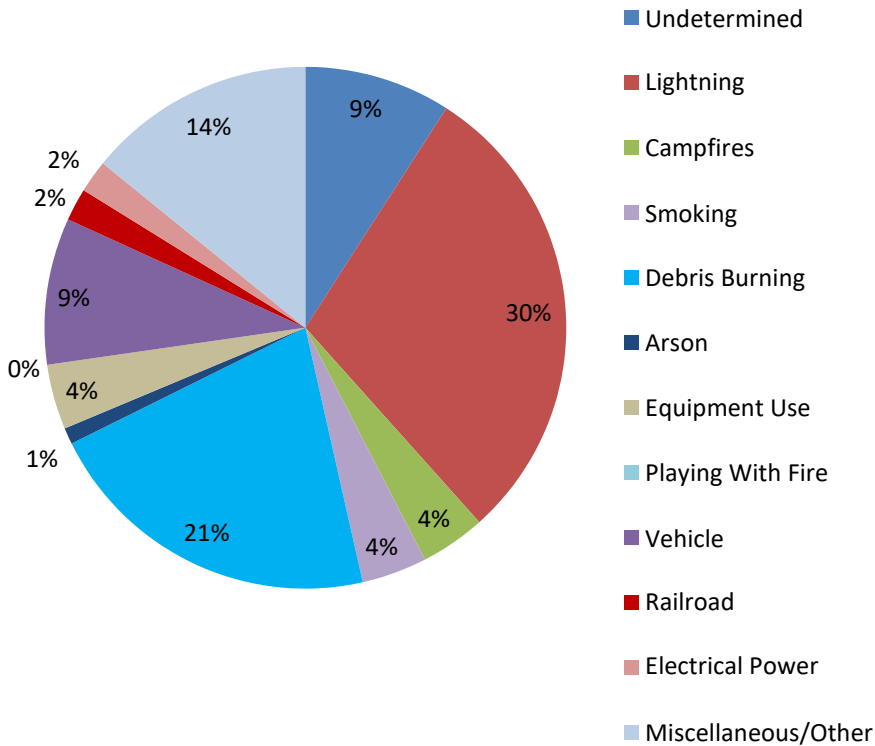
In 2018 the Siskiyou Unit investigated 150 total fires with various causes, of which 99 were vegetation fires within the state responsibility area. This was down by 53 fires from the previous year. Lightning was the number one cause of ignitions within the unit at 29. The ignition analysis showed that debris burn escapes were the major preventable cause of fires last year. In addition to debris burn escapes, investigating illegal burning was a main activity for unit personnel and prevention investigators. The number of undetermined fires in the unit was down by 19 fires, which indicates that efforts by Prevention staff to train and assist the field staff with investigations was very successful. Only one fire within the unit was determined to be caused by arson which was down significantly from 12 last year. GIS mapping data was collected for 20 SRA vegetation fires within the unit and submitted to the Fire and Resource Assessment Program.

2018 Causes	Number by Causes	Acres Burned
Undetermined	9	22.81
Lightning	29	386.27
Campfires	4	2.34
Smoking	4	6.77
Debris Burning	21	38118.27
Arson	1	26
Equipment Use	4	8.61
Playing With Fire	0	0
Vehicle	9	1.42
Railroad	2	3.1
Electrical Power	2	0.6
Miscellaneous/Other	14	17.55
<b>Total:</b>	<b>99</b>	<b>38593.74</b>

### 2018 Siskiyou Unit - Total Ignitions by Cause



### 2018 Siskiyou Unit Ignitions - Cause



## **Scott Valley Battalion 2018 Ignition Analysis and Achievements**

### **Achievements:**

In 2018, battalion personnel worked with The U.S. Forest Service, fire safe councils and local landowners to complete over 500 acres of fuel reduction work within the battalion. The utilization of CAL FIRE hand crews from Deadwood Camp and other CAL FIRE resources attributed to the success of these fuel treatment projects. Opening fire access roads continued to be a priority in the battalion. Work continued through cooperation with private timber companies to open fire access roads that were previously impassable.

CAL FIRE Community Wildfire Protection Grants were submitted by the Salmon River Restoration Council for implementation of a Community Wildfire Protection Plan in the community of Salmon River. The Lower Scott River Fire Safe Council obtained grant funding to install two skid mounted water tanks for fire suppression in remote locations in the battalion and are continuing to work with landowners for their placement. The Scott River Ranch VMP Project has continued to move forward. The unit is receiving assistance from CAL FIRE Northern Region staff in completing CEQUA documents to implement the work on this important project.

Battalion personnel continued to foster cooperative relationships with local agencies and participated in multi-agency training exercises. The battalion worked with the Fire Prevention Bureau participating in local events for public education, as well as creating public education social media posts regarding the leading causes of fires within the battalion and unit.

Total fire ignitions and burned acres were down slightly from previous years and historical averages.

### **Ignition Analysis:**

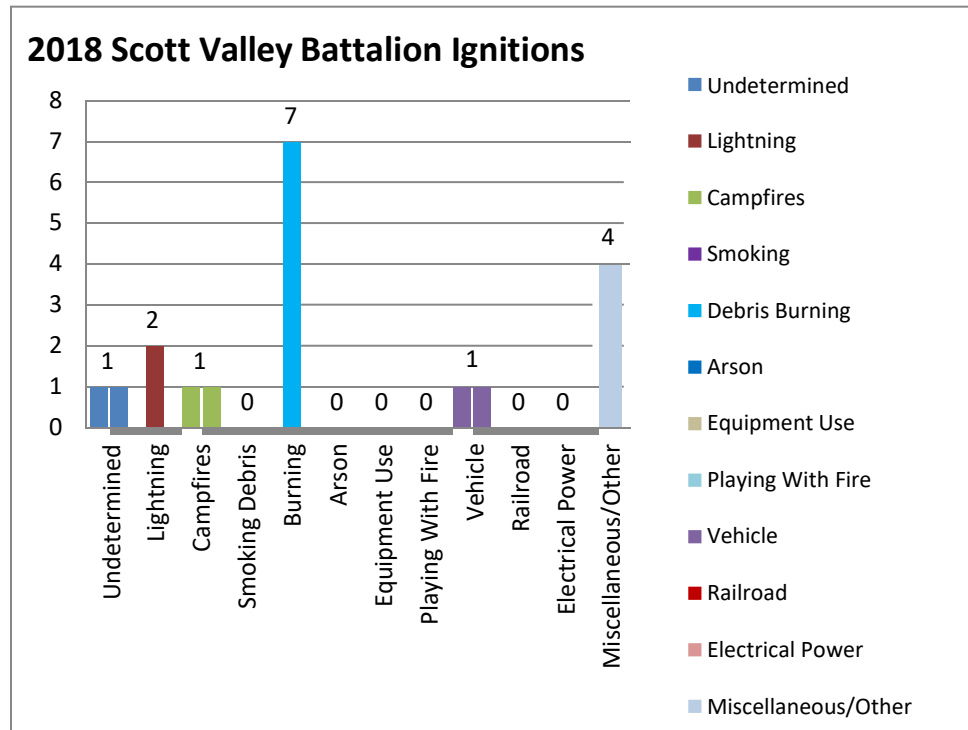
In 2018, the Scott Valley Battalion had 16 ignitions totaling 18.47 acres, which was lower than historical trends. Escaped debris burns was the leading fire cause in the battalion. The Scott Valley Battalion had 7 fires caused by debris burn escapes and was the second leading number of acres burned. This was up slightly from last year and historical norms. Additional prevention signs were ordered as well increasing efforts in posting social media content to assist with public education regarding fire safety when burning. Fire personnel will continue to personally educate the public while issuing burn permits at the fire station, during burn pile inspections and at local events like the Etna Rodeo.

For the past two years, the battalion has had no electrical power caused fires. The prevention education and enforcement efforts from the previous year appear to have made an impact in these ignitions. The battalion did not receive significant lightning caused fires in 2018 which contributed to the reduction in ignitions and burned acres within the battalion. All other fire ignitions remain within historical averages.

In 2018 the battalion will continue to look for opportunities to work with the community on fuel breaks in and around populated areas. The focus of these fuel breaks will be to improve ingress and egress routes for communities within the battalion. The battalion will also continue to work to identifying locations for the implementation and completion of fuel reduction projects that will help to reduce the ignition and spread of wildland fires.

## 2018 Scott Valley Battalion Ignitions

2018 Batt I	Number by Causes	Acres Burned
Undetermined	1	0.1
Lightning	2	0.11
Campfires	1	0.13
Smoking	0	0
Debris Burning	7	5.65
Arson	0	0
Equipment Use	0	0
Playing With Fire	0	0
Vehicle	1	0.1
Railroad	0	0
Electrical Power	0	0
Miscellaneous/Other	4	12.38
<b>Total:</b>	<b>16</b>	<b>18.47</b>



## **Shasta Valley Battalion 2018- Achievements and Ignition Analysis**

### **Achievements**

In 2018, the Shasta Valley Battalion's greatest accomplishment was a significant reduction in fire starts. In 2017 the battalion recorded 62 ignitions with only 25 ignitions listed in 2018. This was over a 50% decrease in fire ignitions. Battalion personnel continued attending community outreach programs providing education through public contact and participation at local events.

The Yreka Fire Safe council continued its efforts to educate the public in the area and sought more citizen involvement along with identifying funding for additional Fire Safe projects. They also submitted a grant for State funding to analyze fire behavior in the Yreka area. The Fire Safe Council hopes to utilize existing projects and tie these together with the USFS Craggy Fuel Break project. The Craggy project will provide a fuel break on Humbug and Gunsight ridges helping to protect the city of Yreka.

CALFIRE partnered with TREX last year assisting with a fuel reduction and modification project on the Bogus Creek Ranch near Copco Lake. The Nature Conservancy also partnered with CALFIRE on their property in the Shasta Valley in hopes of improving range through burning approximately 1400 acres of non-native grasses and juniper.

### **Ignition Analysis**

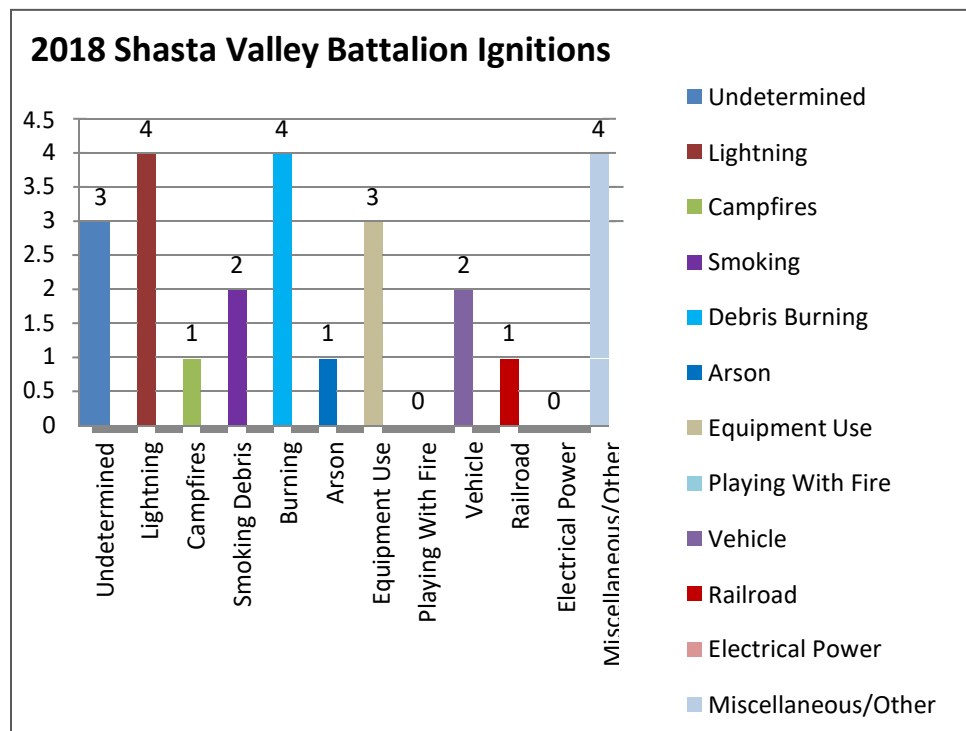
In 2018, the Shasta Valley Battalion saw a significant reduction in total ignitions. Lightning was one of the top ignition sources which was consistent with historical trends. The battalion recorded four debris burn escapes which equaled the number of lightning fires and other miscellaneous fire causes. Debris burn escapes accounted for over 20% of the total ignitions in the battalion. The battalion personnel will continue to educate the public through the burn permit process to ensure the burning rules are followed.

The largest fire in the Shasta Valley was the Klamathon fire. The fire grew to approximately 38,000 acres. The Klamathon fire was a wind driven fire that burned through the Hornbrook community. The fire damaged or destroyed 96 structures. The focus this year in the battalion will be to staff lookouts and augment initial attack resources during times of predicted red flag conditions based on wind.

Large fast-moving fires are becoming more of a trend throughout the state. These fires are showing limited success by traditional fuel breaks. Therefore, the fuel breaks focus, within the Shasta Valley Battalion, will lie along routs of ingress and egress.

## 2018 Shasta Valley Battalion Ignitions

2018 Batt II	Number by Causes	Acres Burned
Undetermined	3	0.77
Lightning	4	251.49
Campfires	1	2.1
Smoking	2	6.66
Debris Burning	4	38016.4
Arson	1	26
Equipment Use	3	4.9
Playing With Fire	0	0
Vehicle	2	0.1
Railroad	1	2.9
Electrical Power	0	0
Miscellaneous/Other	4	0.84
<b>Total:</b>	<b>25</b>	<b>38312.16</b>





## **Butte Valley / Weed Battalion 2018- Ignition Analysis and Achievements**

### *Achievements*

2018 was an extraordinarily challenging year with high fire activity which impacted the ability to focus on new and continuing battalion fuels reduction projects. Despite the local and statewide fire activity, Butte Valley / Weed Battalion continued its efforts on the 496-acre Shasta “O” Ranch Vegetation Management Program (VMP). Approved in 2017, the mechanical thinning phase has been completed and focus is now on fuel reduction through pile and broadcast burning as weather, fuels, and resource availability permit. The Shasta “O” Ranch VMP is located just north of Weed City and southwest of the Lake Shastina community and has a strategic objective to tie into Greater Lake Shastina Fire Safe Council’s completed fuel reduction project along Ordway Road. The combination of these two projects sharing a common boundary increases the overall fire protection for Lake Shastina of fire advancing from the south-southwest. In addition, it is helping to reduce the dead and down fuel load from past historical fires in the area including the Hoy fire which left thousands of dead and downed Juniper trees.

The Butte Valley Wildlife Refuge proposed a fuel reduction project which was completed with broadcast burning of standing dead grass and tulles. Approximately 394 acres were burned to remove tulles which impede water fowl’s access and prepare for over seeding of winter oat grass.

Battalion personnel assisted The Klamath National Forest with prescribed burns in the Tennant area as well as the Bureau of Land Management with a 591-acre prescribed burn in the Dorris / Modoc Gulch area. Participating in these prescribed burns encourages interagency cooperation, area orientation and provides valuable training and experience.

In lieu of any active grant awards, the Butte Valley / Weed Battalion continues to focus on emergency ingress and egress of at-risk communities. Weed and Macdoel station personnel continued with local chipping projects in coordination with the Juniper Flat Fire Safe Council in Mt Shasta Vista and the Hammond Ranch Fire Safe Council. The focus of the chipping projects is to improve ingress and egress of easements in subdivisions where vegetation has built up and impedes civilian evacuation and emergency responder access. The Mt Shasta Vista subdivision continues to be an area of concern for fuels reduction and civilian safety, which is at high risk due to local wind patterns, extended response times, narrow winding roads and a high concentration of non-English speaking population involved in the marijuana industry. Additional chipping projects will continue to be coordinated and evaluated within communities in the Butte Valley / Weed Battalion.

Close coordination between Butte Valley / Weed Battalion and Fire Safe Councils continued through 2018 with five very active Fire Safe Councils either applying for grants or contributing to grants to reduce fuels and improve ingress and egress. The Fire Safe Council of Siskiyou County submitted a “Siskiyou County Multi-Communities Fuels Reduction Project” grant via CAL FIRE’s California Climate Investments Fire Prevention Grant Program that would include the Greater Lake Shastina area, Mt. Shasta Vista subdivision and the Hidden Meadow subdivision. Additionally, the Hammond Ranch Fire Safe Council applied for a “Hammond

Ranch Area Hazardous Fuels Reduction Program”. These grants, if awarded in 2019, encompass entire subdivisions and reduce fuels along main roads that are overgrown with vegetation and pose a threat to resident evacuation and firefighter access.

The battalion staff continuously attends and/or participates in community events. In 2018 a community pre-fire season awareness and fire safety discussion was presented to a local Hmong community using a language interpreter.

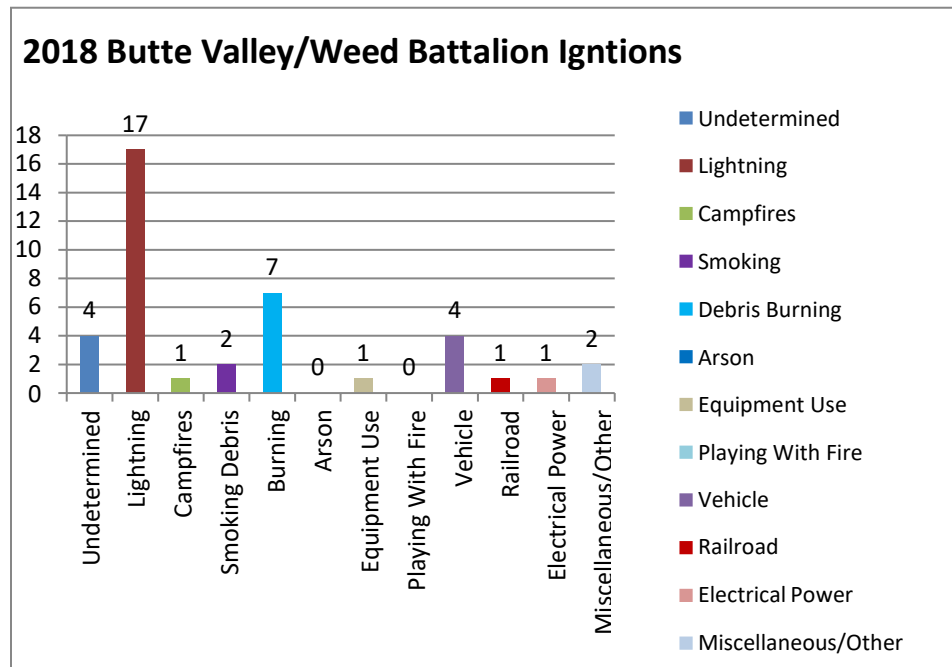
Battalion personnel continue to deliver educational and fire prevention out-reach programs to the elementary schools in the battalion.

### Ignition Analysis

In 2018, there were 40 ignitions in the battalion, compared to 38 ignitions in 2017. In 2018 the total acreage burned in the battalion was 254.68 acres, compared to the final 250.82 acres burned in 2017. The battalion experienced 17 lightning fires, up from 10 in 2017, making lightning the highest cause of ignitions in the battalion for two years in a row. In 2018, debris burning continued to be the battalion’s second highest number of fires caused with 7 fires burning 94.62 acres. Debris burning will be the focus for fire prevention efforts for 2019. Equipment use was determined as the cause of 1 fire which burned 3.7 acres. Equipment use fires decreased dramatically from 2017 which may be a result of focused fire prevention education and widespread media coverage of large fires and fire safety. There was 1 railroad ignition in the battalion, continuing the trend of very low railroad caused ignitions. All other ignitions are within historical averages.

## 2018 Butte Valley/ Weed Battalion Ignitions

2018 Batt III	Number by Causes	Acres Burned
Undetermined	4	21.93
Lightning	17	129.17
Campfires	1	0.01
Smoking	2	0.11
Debris Burning	7	94.62
Arson	0	0
Equipment Use	1	3.7
Playing With Fire	0	0
Vehicle	4	1.14
Railroad	1	0.2
Electrical Power	1	0.6
Miscellaneous/Other	2	3.2
<b>Total:</b>	<b>40</b>	<b>254.68</b>



## **McCloud Battalion 2018-Ignition Analysis and Achievements**

### **Achievements**

2018 saw many accomplishments in the McCloud Battalion highlighted by the restarting of the McCloud and the Dunsmuir Fire Safe Councils. Fuel reduction work continued through the Fire Safe Council of Siskiyou County around the City of Mount Shasta, with fuel break projects initiated, completed, and maintained utilizing chipper days, Deadwood Crews and Engine Companies within the battalion. Working with local Fire Safe Councils, timber companies and the United States Forest Service, through continued education efforts, helped avert any large fire ignitions within the battalion. Fuel breaks and broadcast burning were concentrated in the areas on the east side of Dunsmuir, the north, west and east side of Mt Shasta and the Highway 89 corridor which included widening of an existing fuel break on Squaw Valley Road. Work continues at Spring Hill Road to Rainbow Ridge area. Battalion personnel and equipment also contributed to cooperator fuel reduction projects with the Shasta Trinity National Forest with the Algoma and Pilgrim projects. The number of defensible space inspections in the battalion increased dramatically with an emphasis on public education contacts. Timber companies continue to add fuel breaks while also maintaining existing fuel breaks and roadways. These cooperators continue to be an asset to firefighting resources in the area. McCloud Battalion personnel are involved in the local Fire Safe Council and School programs in addition to outreach events designed to educate the public of the importance of wildfire awareness through various means such as the Ready, Set, Go, Code Red and defensible space program.

The McCloud Fire Safe Council submitted a grant through CAL FIRE's California Climate Investments Fire Prevention Grant Program that will establish a shaded fuel break around the town of McCloud which was awarded in 2019 for \$775,066.00.

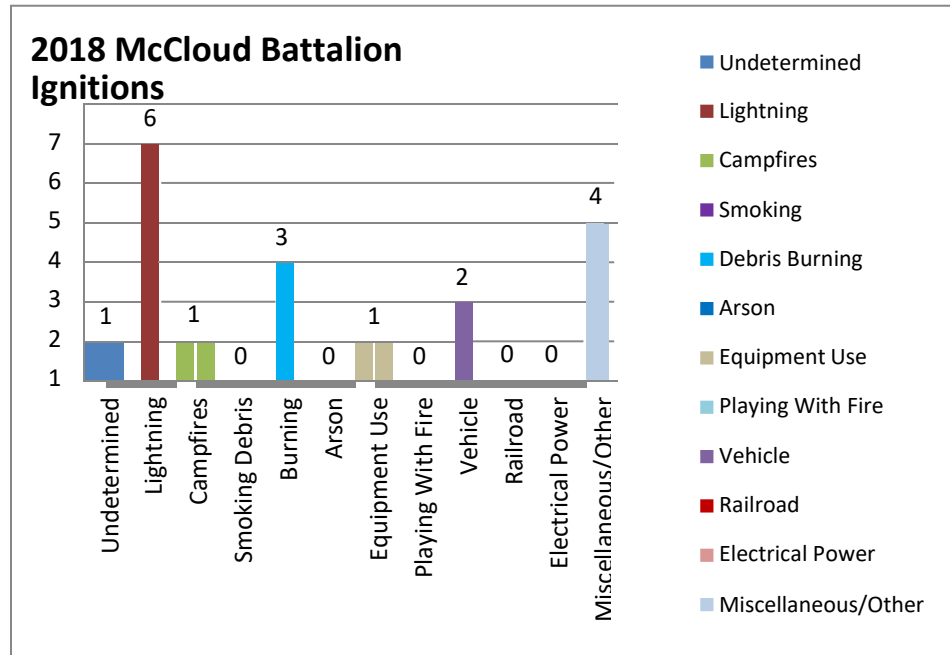
### **Ignition analysis**

In 2018 there were a total of 18 ignitions, which were down from 21 ignitions the previous year. Causes varied from abandoned campfires, lightning caused fires, illegal burns and equipment fires. The remaining ignitions fell within historical averages. Early detection and aggressive initial attack contained all fires to less than 6 acres total, up by one acre from the year prior.

Due to previous years of severe drought conditions and the Bark Beetle infestation California has experienced, tree mortality continues to expand throughout the McCloud Battalion. The added threat posed by dead fuels is a concern for potential rapid-fire growth, compromised ingress and egress for the safety of the community and emergency personnel. As this mortality continues to expand, the Siskiyou County Tree Mortality Task Force will help prioritize the growing need for fuel reduction work throughout the battalion. Working with landowners and stakeholders to limit the potential for ignitions along with early detection, augmented response and well-planned fuel reduction work will aid in suppression efforts.

## 2018 McCloud Battalion Ignitions

2018 Batt IV	Number by Causes	Acres Burned
Undetermined	1	0.01
Lightning	6	5.5
Campfires	1	0.1
Smoking	0	0
Debris Burning	3	1.6
Arson	0	0
Equipment Use	1	0.01
Playing With Fire	0	0
Vehicle	2	0.08
Railroad	0	0
Electrical Power	0	0
Miscellaneous/Other	4	1.13
<b>Total:</b>	<b>18</b>	<b>8.43</b>



## ***ANNUAL ACCOMPLISHMENTS REPORTING 2018***

### **Fire Planning:**

In 2018 fuel reduction work continued to be a priority on multiple CAL FIRE and Fire Safe Council projects. These projects included Butte Valley Wildlife Refuge, Soap Creek Ridge North Fuel Break, Shasta Valley Wildlife Area, South Mount Shasta Fuel Break, Squaw Valley Fuel Break, Big Springs Fuel Break, Ordway VMP, Deadwood Defensible Space, Weed City Water Tanks, along with many other projects. The California Conservation Corps (CCC) assisted CAL FIRE on the Thamar and Soap Creek Ridge North projects. The Siskiyou Unit continues to plan fuel reduction projects for 2019.

Construction was started on a fire suppression water storage tank in 2017 for the Hammond Ranch Subdivision which was completed in 2018. A second water tank is planned for the Lower Scott Valley area.

Siskiyou Unit Personnel participated in the review and editing of various Community Wildfire Protection Plans including the Siskiyou County CWPP Update.

The Siskiyou Unit recognizes the necessity for maintenance to be completed on multiple fuel breaks within the unit. Maintenance grants have been challenging to obtain by Siskiyou County Fire Safe Councils. The unit would be more fire resilient by maintaining and constructing strategically located fuel breaks rather than completing fuel breaks in non-strategic areas.

### **Investigations and Enforcement:**

In 2018 the Siskiyou Unit investigated 158 total SRA fires with various causes, 99 of which were vegetation fires. The ignition analysis shows that debris burn escapes were the major preventable causes of fires last year. In addition to debris burn escapes, investigating illegal burning was a main activity for unit personnel and prevention investigators. Illegal burn investigations associated with marijuana cultivation continues to steadily increase. Only one fire within the unit was determined to be caused by arson which was down significantly from 12 last year.

During the year, the Prevention Bureau took the following enforcement actions: 3 custodial fire related arrests, 19 citations, 5 District Attorney Complaints, and 8 assists to other law enforcement agencies. 38 LE-38 notice of fire hazard inspections were issued due to illegal burning within the unit.

### **Wildland Fire Prevention Engineering:**

The Siskiyou Unit processed a total of 142 building permit applications and conducted 27 plan reviews in 2018.

**Education and Information:**

Fire prevention and education programs were conducted throughout the year. These accomplishments included: 25 fire prevention displays/presentations, over 35,000 public contacts, 7,160 contacts with students through school programs and maintenance of 21 fire prevention signs. The Prevention Bureau processed 3468 defensible space inspections, an increase of 809 from the previous year. Unit Forestry aids were instrumental in completing these inspections, while also completing 3414 powerline Inspections for the year. There were 167 media contacts made for fire information and/or prevention education. Numerous hours of staff time were spent with outreaches to local and federal government cooperators and fire safe councils in aiding them in fire prevention efforts.

**Vegetation Management:**

Fuel reduction work continues to be a priority within the Siskiyou Unit. In 2018 many fuel reduction projects were completed as well as new projects planned for 2019. Fuel reduction work started on the 500-acre Vegetation Management Program (VMP) contract on the Ordway Ranch in Weed. Treatments include a combination of hand piling and burning, tractor piling and burning and prescribed burning. Fuel Work was Planning continues various VMP projects including a 1,000-acre VMP on the Scott River Ranch located in Scott Valley, Bogus Creek VMP and numerous other fuel reduction projects throughout Siskiyou County.

**Volunteerism:**

Volunteers in Prevention put in 2,985 hours of Fire Prevention activity within the unit. Volunteer hours were combined from Honor Guard, Lookouts, Siskiyou Golden Fair, Fire Pals, School programs and training.

**Fire Hazard Severity Mapping and Mitigation:**

No Fire Hazard Mapping was conducted in 2018. Fuel reduction projects to be conducted throughout Siskiyou County continue to be considered short term mitigations for fire hazard severity.

**Other Fire Prevention Projects in SRA:**

Numerous hours of staff time were spent in with Local and Federal government cooperators assisting them in combined fire prevention efforts. Staff hours were also spent aiding Fire Safe Councils in their fuel reduction and fire prevention education efforts.

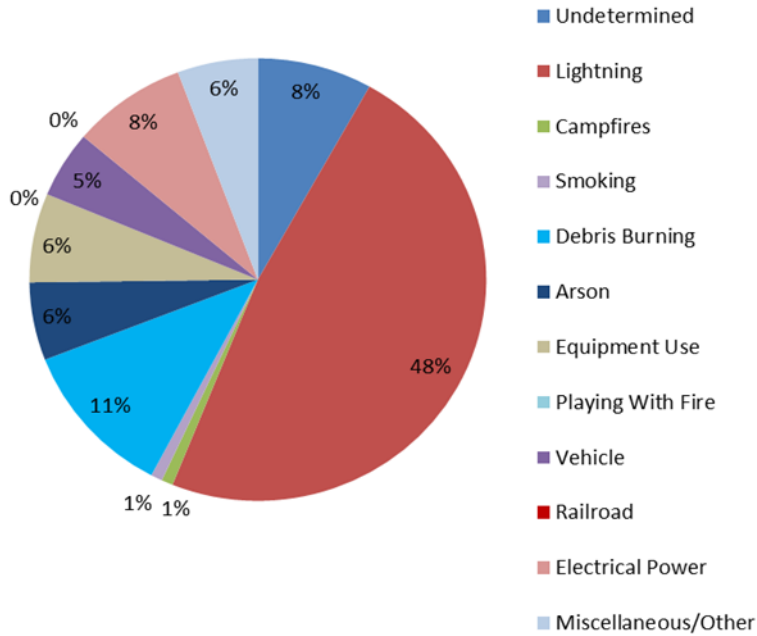
## 2019 Siskiyou Unit Ignition Analysis

In 2019 the Siskiyou Unit had 123 vegetation fires burning 146.45 acres within the State Direct Protection Area. This was up by 24 fires from the previous year and up about 16 from the 10-year average. Lightning was the number one cause of ignitions within the unit at 59 which is 34 more than the 10-year average and is the main reason for an above average number of ignitions in the unit. The ignition analysis showed that debris burn escapes were the major preventable cause of fires last year but was within the 10-year average. The number of undetermined fires in the unit was up by 1 fire from last year but was still about 40 percent lower than the 10-year average, which indicates that efforts by Prevention staff to train and assist field staff with investigations continues to be successful. 7 fires within the unit were determined to be caused by arson which is up from only 1 last year. Electrical caused fires were up from 2 last year to 10 this year which is about 50 percent more than the 10-year average. All other ignitions in the unit were near or below the 10-year average. GIS mapping data was collected for 9 SRA vegetation fires within the unit and submitted to the Fire and Resource Assessment Program.

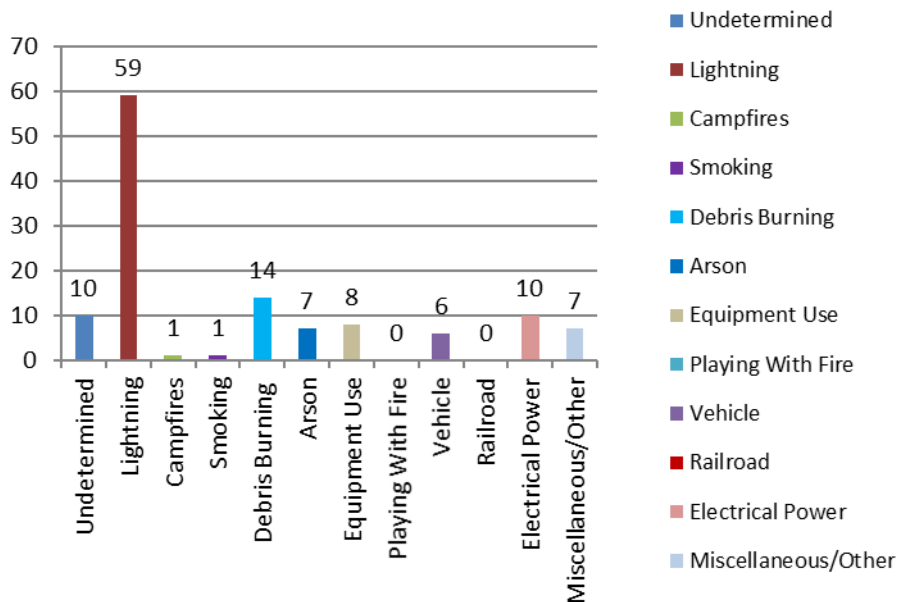
2019 Causes	Number by Causes	Acres Burned
Undetermined	10	5.95
Lightning	59	53.8
Campfires	1	0.1
Smoking	1	9.69
Debris Burning	14	20.78
Arson	7	.68
Equipment Use	8	6.78
Playing with Fire	0	0
Vehicle	6	3.99
Railroad	0	0
Electrical Power	10	37.9
Miscellaneous/Other	7	6.78
<b>Total:</b>	<b>123</b>	<b>146.45</b>



### 2019 Siskiyou Unit Ignitons - Cause Percentages



### 2019 Siskiyou Unit - Total Ignitons By Cause



## Scott Valley Battalion 2019 Ignition Analysis and Achievements

### Achievements:

In 2019, battalion personnel worked throughout Siskiyou County on unit fuel reduction projects. The Battalions personnel and equipment attributed to the Units successful completion of these critical projects. These projects will help protect Siskiyou County communities and first responders from the damaging effects of catastrophic wildfires. Battalion personnel worked with local landowners within Scott Valley to educate and assist them with fuel reduction projects, utilizing broadcast burning to enhance agriculture production and fire safe landscapes. Opening and maintaining fire access roads continued to be a priority in the Battalion. Work continued through cooperation with private timber companies and landowners to open fire access roads that were previously impassable.

One of Scott Valleys large timber landowners, Eco Trust, received grant funding for a local project. The project includes fuel reduction as well as access and egress improvement on their lands in the Crystal creek area. This project builds on the maintenance and future continuation of Etna Fuel Break. The project also contributes to the protection of citizens and landowners from wildfires on the west side of Scott Valley. The Lower Scott River Fire Safe Council was successful in contacting and obtaining permission to place a water storage tank at the desired project location. The council is moving forward with the purchase and installation of a skid mounted water tank for fire suppression use in the lower Scott River Road area. The Scott River Ranch VMP Project in the McConaughy Gulch area has been approved. This project is a 10-year project to improve habitat and range land as well as reducing potential ignition and spread of catastrophic wildfires in the area. The project consists of utilizing CAL FIRE personnel and equipment to conduct pile and broadcast burning. By reducing fuel loading and reintroducing controlled fire to the landscape, the area will be more resilient to the damaging effects of potential wildfires upon completion. The unit received assistance from CAL FIRE Northern Region staff in completing environmental compliance documents and other important portions of the project to ensure the successful approval of the VMP project. Battalion personnel also assisted residents and landowners with fuel reduction, focused on ingress and egress, along Mill Creek Road. This project will continue and is anticipated to be completed in 2020. The project enhances the safety of residences and property owners the area as well as first responders.

Battalion personnel continued to foster cooperative relationships with local and federal counterparts, participating in local and multi-agency training exercises. The battalion worked with the Units Fire Prevention Bureau participating in local events. This created direct contact with community members for public education. Fire Prevention education topics included the leading causes of fires within the battalion and unit. Scott Valley Battalion personnel alone completed over

150 LE-100 fire safety inspections within Scott Valley in 2019 to help ensure the safety of residents and first responders.

In 2019 the total number of fire ignitions and burned acres within the Scott Valley Battalion were down slightly from historical averages.

#### Ignition Analysis:

In 2019, the Scott Valley Battalion had 25 ignitions totaling 22.68 acres, which was higher than the previous year. This increase can be attributed to the number of lightning caused fires. Lightning was the leading cause of fires within the battalion with 15 ignitions totaling 10.76 acres burned. Aggressive fire suppression, lookout staffing, landowner relationships and available suppression resources contributed to the quick containment and minimal acres burned in these ignitions. Battalion personnel will continue to work with landowners to keep access roads open and foster cooperative relationships to aid in the suppression of these ignitions.

The battalion had 3 debris burn and equipment caused fires which were the second leading causes of fire ignitions. This was down slightly from last year and historical averages. Additional prevention signs, as well as increasing efforts in posting social media content to assist with public education regarding fire safety when burning seems to have decreased these ignitions. Fire personnel will continue to educate the public while issuing LE-5 burn permits at the fire station. Battalion personnel will conduct random burn pile inspections when burning is observed and continue education efforts at local events like the Etna Rodeo.

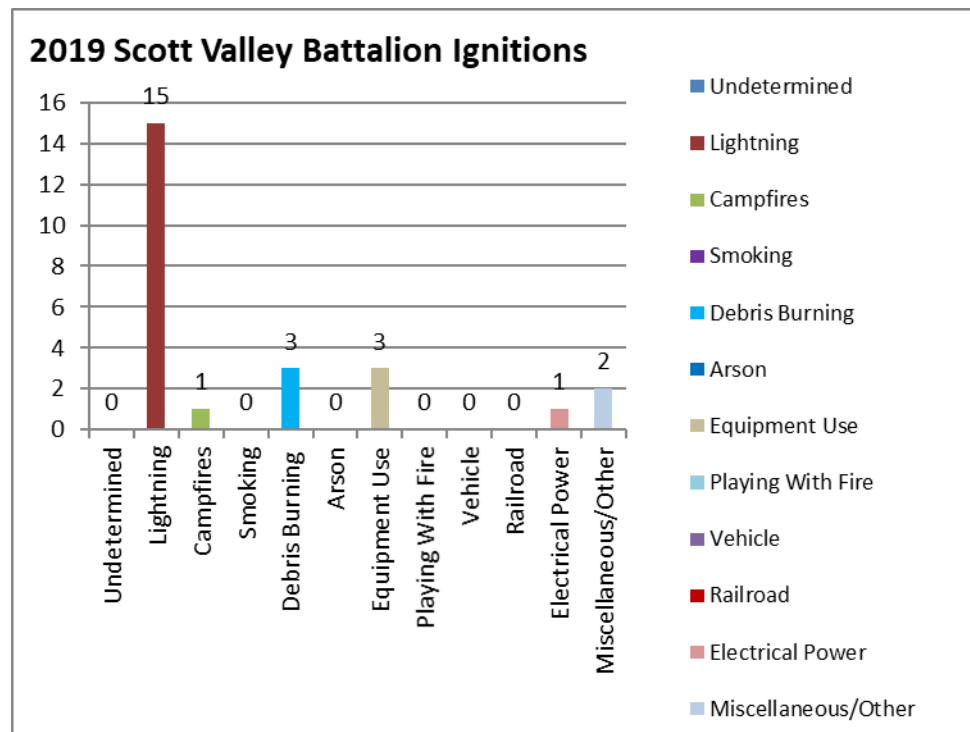
Increased training and education for battalion personnel related to fire investigation and scene preservation has also reduced the number of undetermined caused fires in the battalion from previous years.

All other fire ignitions remain within historical average.

In 2020 the Scott Valley Battalion will continue to look for opportunities to work with the community on fuel breaks in and around populated areas. The focus of these fuel breaks will be to improve ingress and egress routes for communities within the battalion as well as protecting communities, critical infrastructure, and timber lands. The battalion will also continue to work to identifying locations for the implementation and completion of fuel reduction projects within these strategic locations. The goal for these projects will be to reduce available fuel for fire ignitions and reduce the spread of wildland fires within Scott Valley.

## 2019 Scott Valley Battalion Ignitions

2019 Batt I	Number by Causes	Acres Burned
Undetermined	0	0
Lightning	15	10.76
Campfires	1	0.1
Smoking	0	0
Debris Burning	3	9.57
Arson	0	0
Equipment Use	3	1.12
Playing With Fire	0	0
Vehicle	0	0
Railroad	0	0
Electrical Power	1	1
Miscellaneous/Other	2	0.13
<b>Total:</b>	<b>25</b>	<b>22.68</b>



## Shasta Valley Battalion 2019- Achievements and Ignition Analysis

### Achievements

In 2019, the Shasta Valley Battalion's greatest accomplishment was limiting all but one vegetation fire to less than 10 acres in size. In 2019, the battalion recorded 56 ignitions with a total acreage burned of only 99.32 acres. This computes to an average of 1.77 acres per ignition. This puts the battalion well under the State goal of 90% of the fires controlled at 10 acres or less.

The Yreka Fire Safe council continued its efforts to educate the public in the area and sought more citizen involvement along with identifying funding for additional Fire Safe projects. They received a grant for State funding, to analyze fire behavior in the Yreka area. The Fire Safe Council hopes to utilize existing projects and tie these together with the USFS Craggy Fuel Break project. The Craggy project will provide a fuel break on Humbug and Gunsight ridges helping to protect the city of Yreka.

CALFIRE partnered with TREX two years ago, assisting with a fuel reduction and modification project on the Bogus Creek Ranch near Copco Lake. The 1400-acre Bogus Creek VMP ties into the work completed with TREX. Battalion personnel continued site preparation for prescribed burning, which the unit hopes to begin in 2020. The Nature Conservancy also partnered with CALFIRE on their property in the Shasta Valley in hopes of improving range through burning approximately 1400 acres of non-native grasses and juniper. This property was purchased by the Department of Fish and Wildlife and future fire management cooperation is expected. Shasta Valley Battalion personnel in conjunction with other CAL FIRE Siskiyou Unit personnel completed the White Rock prescribed fire project and will revisit maintenance in the future. Other fuel reduction projects completed in 2019 include the Baird Ranch, Baird Ranch Phase 2, Hornbrook Station Klamathon Fire Cleanup and multiple projects assisting the Klamath National Forest.

Currently, CALFIRE is in the early planning phases with several fuel reduction projects around the Yreka area. Most of these projects are expected to tie into the current USFS Craggy Fuel project and past Fire Safe Council fuel reduction efforts.

## Ignition Analysis

In 2019, the Shasta Valley Battalion saw a significant increase in total ignitions. Lightning was the driving force behind the ignition increase and was the top ignition source which was consistent with historical trends. Early augmentation of suppression resources and early detection efforts during lightning activity, helped keep all fires small. The second leading cause of fires in the battalion was debris burn escapes and power line caused fires with 6 each. Undetermined fires were down about 70 percent from historical averages.

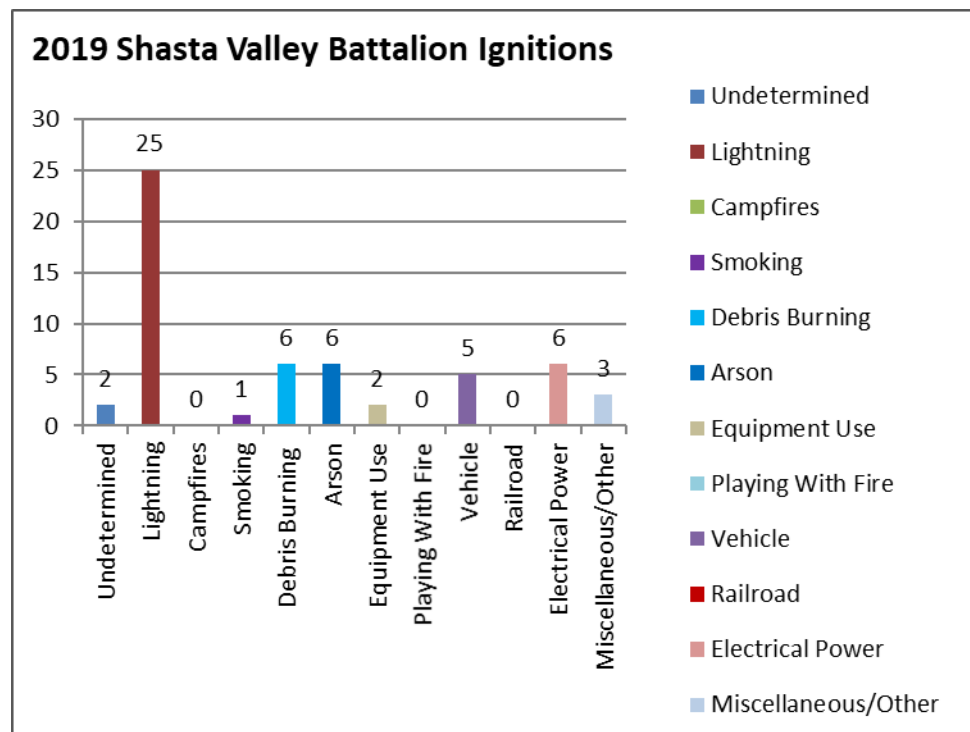
Battalion personnel will continue to educate the public through the burn permit process including burning regulations, site inspections and public outreach in conjunction with the Prevention Bureau. Battalion personnel will work with pre-fire to complete power line inspections in State Responsibility Areas within the Shasta Valley Battalion. Battalion personnel have worked closely with the Prevention Bureau to gain more education and experience in conducting origin and cause investigations which resulted in less fire caused being undetermined.

The largest fire in the Shasta Valley was the Rocky fire. The fire grew to approximately 16 acres. The Rocky fire was an electrical caused fire. All other fires were kept to less than 10 acres and were near or below historical averages.

Large fast-moving fires are becoming more of a trend throughout the state. Traditional fuel breaks have shown to be less effective when suppressing these types of fires. Therefore, fuel reduction efforts within the Shasta Valley Battalion, will focus on improving ingress and egress for communities, protecting critical infrastructure and creating a fire resilient environment while protecting natural resources.

## 2019 Shasta Valley Battalion Ignitions

2019 Batt II	Number by Causes	Acres Burned
Undetermined	2	0.44
Lightning	25	32.96
Campfires	0	0
Smoking	1	9.69
Debris Burning	6	10.58
Arson	6	0.43
Equipment Use	2	1.1
Playing With Fire	0	0
Vehicle	5	3.89
Railroad	0	0
Electrical Power	6	33.73
Miscellaneous/Other	3	6.5
<b>Total:</b>	<b>56</b>	<b>99.32</b>



## **Butte Valley / Weed Battalion 2019 - Ignition Analysis and Achievements**

### *Achievements*

2019 was a slower year for fire activity in the battalion which allowed personnel to focus on new and continuing fuels reduction projects. Butte Valley / Weed Battalion completed the 496-acre Shasta "O" Ranch Vegetation Management Program (VMP). The project was approved in 2017 and was completed using mechanical thinning and pile and broadcast burning as weather, fuels and resource availability allowed. The Shasta "O" Ranch VMP is located just north of Weed City and southwest of the Lake Shastina community and ties into Greater Lake Shastina Fire Safe Council's completed fuel reduction project along Ordway Road. In December of 2019 Butte Valley / Weed Battalion completed the Lake Shastina Fuels Treatment Project. This project was completed using mastication and chipper/chainsaw work treating one hundred feet on both sides of the roads for ingress/egress and community protection. The project treated 389 acres on Highway 97 north from Big Springs Road to Highway A12, Big Springs Road from Highway 97 to Seldom Seen Ranch Road, and Jackson Ranch Road two miles west to the Shasta "O" Ranch. This project connected multiple other projects sharing a common boundary increasing fire resiliency and ingress/egress for Lake Shastina. The fuel break will help protect the community from fire advancing from the south, east and west. In addition, helping to reduce the dead and down fuel load from past historical fires in the area including the Hoy and Hotlum Fires.

Battalion personnel assisted The Klamath National Forest with prescribed burns in the Tennant area with a 500-acre prescribed burn on the Klamath National Forest as well as the Bureau of Land Management with pile burning in Butte Valley. Participating in these prescribed burns encourages interagency cooperation, area orientation and provides valuable training and experience to battalion and unit personnel.

The Butte Valley / Weed Battalion continues to focus on improving emergency ingress and egress routes for at-risk communities. Weed and Macdoel station personnel continued with local chipping projects in coordination with the Juniper Flat Fire Safe Council in Mt Shasta Vista and the Hammond Ranch Fire Safe Council. The focus of the chipping projects is to improve ingress and egress of easements in subdivisions where vegetation has built up and impedes civilian evacuation and emergency responder access. The Mt Shasta Vista subdivision continues to be an area of concern for fuels reduction and civilian safety, which is at high risk due to local wind patterns, extended response times, narrow winding roads, and a high concentration of non-English speaking population involved in the marijuana industry. February of 2020, Juniper Flat Fire Safe Council received a CAL FIRE CCI Fire Prevention Grant for \$812,000 to complete 433 acres of fuel reduction (100ft each side) along the roads in the Mount Shasta Vista Sub-Division. The project will utilize mastication and chipper/chainsaw work to provide valuable ingress, egress, and defensible space for the citizens in that area. The project is scheduled to begin in September of 2020. Additional fuel reduction projects will continue to be evaluated and planned to protect communities, critical infrastructure, and natural resources in the Butte Valley / Weed Battalion.



Close coordination between Butte Valley / Weed Battalion and Fire Safe Councils continued through 2019 with five active Fire Safe Councils either applying for grants or contributing to grants to reduce fuels and improve ingress and egress. The Fire Safe Council of Siskiyou County submitted a “Siskiyou County Multi-Communities Fuels Reduction Project” grant via CAL FIRE’s California Climate Investments Fire Prevention Grant Program that would include the Greater Lake Shastina area, Mt. Shasta Vista subdivision and the Hidden Meadow subdivision. Additionally, the Hammond Ranch Fire Safe Council applied for a “Hammond Ranch Area Hazardous Fuels Reduction Program”. These grants, if awarded in 2020, encompass entire subdivisions and reduce fuels along main roads that are overgrown with vegetation and pose a threat to evacuation routes and firefighter access.

The battalion staff continuously attends and/or participates in community events. In 2019 a community pre-fire season awareness and fire safety discussion was presented to a local Hmong community using a language interpreter. Battalion personnel continue to deliver educational and fire prevention out-reach programs to schools in the battalion.

### Ignition Analysis

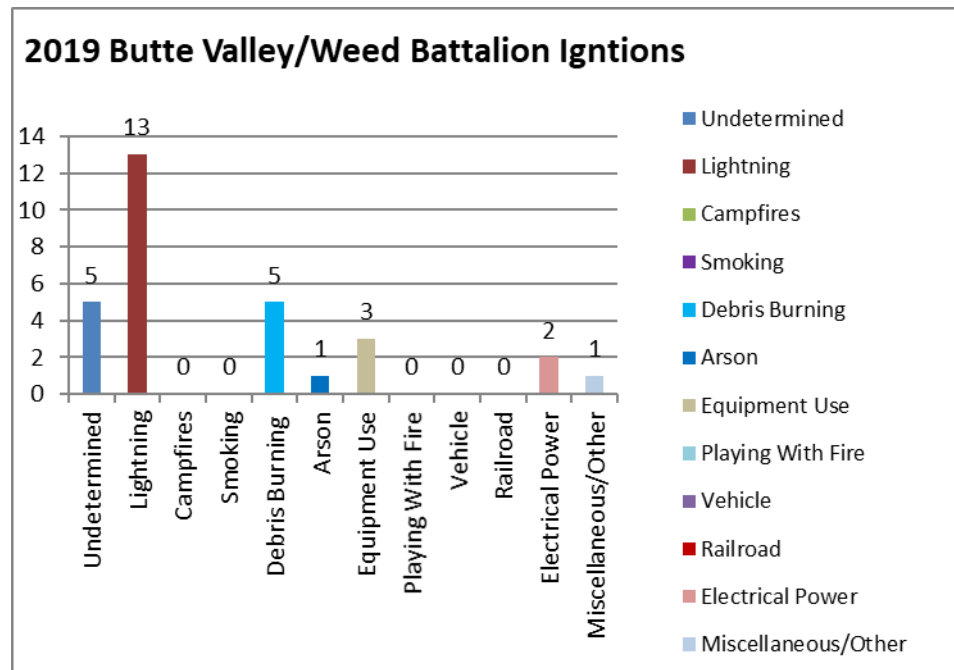
In 2019, there were 30 ignitions in the battalion, compared to 40 ignitions in 2018. This is down 10 from last year which may be a result of focused fire prevention education, widespread media coverage of large fires and an unusually wet winter. In 2019 the total acreage burned in the battalion was 18.53 acres, compared to 254.68 acres burned in 2018. Resource availability and early detection aided in quick fire suppression keeping all fires within the battalion less than 10 acres.

The battalion experienced 13 lightning fires, down from 17 in 2018, making lightning the highest cause of ignitions in the battalion for two years in a row. Work will continue with landowners and cooperating agencies to improve ingress and egress for areas with high lightning occurrence to aid in quick fire detection and suppression. In 2019, debris burning continued to be the battalion’s second highest number of fires caused with 5 fires burning 0.63 acres. Battalion personnel will focus on increasing public education on safe residential and agricultural burning in 2020 working with the Public Information Officer to increase prevention efforts. The battalion had 5 fires that were undetermined which was up by 1 from last year and was also the second leading cause of fires. To better understand the fire problem in the battalion, it is important to reduce the number of undetermined fires to better target prevention efforts. Battalion personnel will work with the Prevention Bureau to get additional training and experience with cause and origin investigations. Equipment use was determined as the cause of 3 fires which burned 4.56 acres. Equipment use fires increased from 2018 which will also be a focus of fire prevention in 2020.

The Butte Valley/ Weed Battalion will continue to focus on preventing and reducing the number of all vegetation fires through public education events, media, fuel reduction, pre-planning and any other means that are feasible. All other ignitions were near or below historical averages.

## 2019 Butte Valley/ Weed Battalion Ignitions

2019 Batt III	Number by Causes	Acres Burned
Undetermined	5	0.81
Lightning	13	9.07
Campfires	0	0
Smoking	0	0
Debris Burning	5	0.63
Arson	1	0.25
Equipment Use	3	4.56
Playing With Fire	0	0
Vehicle	0	0
Railroad	0	0
Electrical Power	2	3.16
Miscellaneous/Other	1	0.05
<b>Total:</b>	<b>30</b>	<b>18.53</b>



## **McCloud Battalion 2019-Ignition Analysis and Achievements**

### **Achievements**

2019 saw many accomplishments in the McCloud Battalion highlighted by the restarting of the McCloud and the Dunsmuir Fire Safe Councils. Fuel reduction work continued through the Fire Safe Council of Siskiyou County around the City of Mount Shasta, with fuel break projects initiated, completed, and maintained utilizing chipper days, Deadwood Crews and Engine Companies within the battalion. Completed projects included the Shasta Acres community chipping project and phase 1 and 2 of the South Mt. Shasta Fuel Break. Maintenance work continues for fuel reduction projects at Mt. Shasta Fish Hatchery and at the Mt. Shasta sewer ponds. Collaboration between CAL FIRE, the United States Forest Service, local Timber Companies, Fire Safe Councils and local Fire Departments for pre-fire planning and fire prevention will continue to be a priority in the battalion. The McCloud Battalion assisted the Shasta Trinity National Forest with prescribed burning on the Pilgrim Creek and Elk projects. Battalion personnel assisted with the Governors 45-day fuels project, the Lake Shastina Fuels Treatment. The number of defensible space inspections in the battalion continued with an emphasis on compliance and public education. Timber companies continue to add fuel breaks while also maintaining existing fuel breaks and roadways. Collaboration with cooperators continues to be a critical asset in pre planning and fire suppression.

McCloud Battalion personnel are involved in the local Fire Safe Council and School programs in addition to outreach events designed to educate the public on the importance of wildfire awareness through various means such as the Ready, Set, Go, Code Red and defensible space programs. The McCloud Fire Safe Council was awarded a grant through CAL FIRE's California Climate Investments Fire Prevention Grant Program that will establish a shaded fuel break around the town of McCloud for \$775,066.00 with work beginning in 2020.

The Siskiyou Unit is working with CAL TRANS on the reentry and maintenance of the Azalea Fuel break on Interstate 5 from Dunsmuir to Azalea Rd. This project will treat both sides of Interstate 5 within the CAL TRANS right-of-way. This is the first of three phases to treat fuels along the Interstate 5 Right-of-Way from Dunsmuir to Edgewood Rd. The unit is has also began maintenance of the Squaw Valley fuel break.

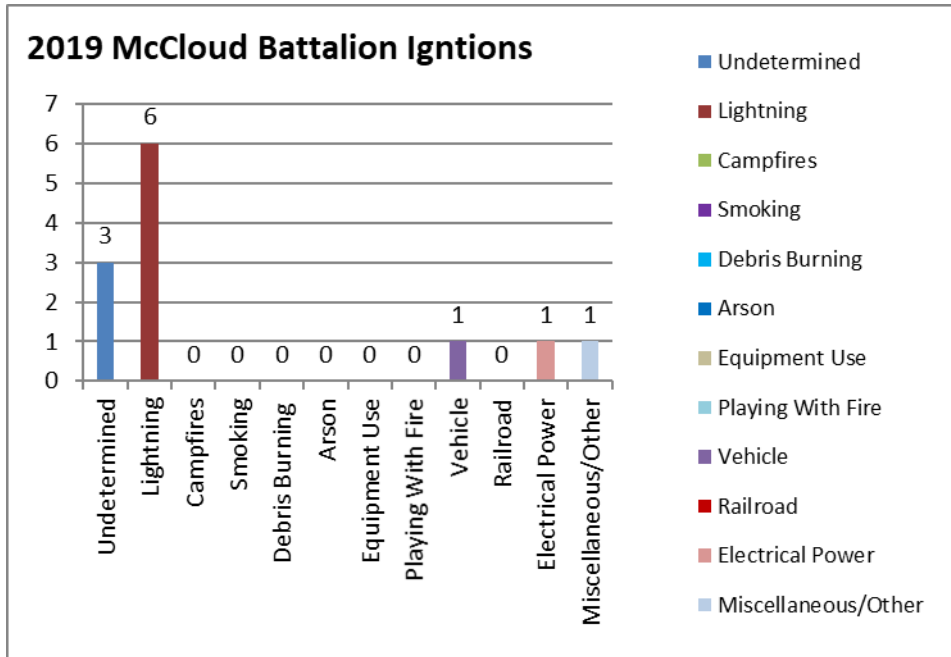
## **Ignition analysis**

In 2019, the McCloud Battalion had 12 ignitions totaling 5.92 acres, which was down 33 percent from the previous year. This overall decrease can be attributed to fewer human caused fires as lightning caused fires were the same as in 2018. Lightning, which is historically the number one cause of wildland fires in the unit and battalion, was the leading cause of fires within the battalion for 2019 with 6 ignitions totaling 1.01 acres burned. Resource availability, quick suppression, and cooperative efforts aided in keeping all fires to a minimum. Battalion personnel will continue to foster cooperation with local landowners, Fire Safe Councils, and other fire agencies to seek opportunities to improve access to aid in the quick response and suppression of lightning caused fires.

The battalion had 3 undetermined caused fires which was the second leading causes of fire ignitions. This was up slightly from last year. Battalion personnel will work with the Prevention Bureau to increase proficiency in wildfire origin and cause investigations. Reducing the number of undetermined fires is critical to better understand the prevention needs of the battalion. The number of escaped debris burns fell to zero in 2019, down from 3 in 2018. Historically this is the second leading cause of fires in the unit and battalion. Increased efforts in posting fire prevention education messages on social media and public outreach on fire safety when burning seems to have decreased these ignitions. Fire personnel will continue to personally educate the public while issuing LE-5 burn permits at the fire station and while conducting burn pile and defensible space inspections. Station personnel will continue education efforts at local events in the battalion. All other wildland fire ignitions were near or below historical trends.

In 2020 the McCloud Battalion will work with cooperators and the public to plan and execute fuel reduction projects that protect communities and strengthen ingress and egress on major routes of travel. Fuel reduction work will focus on protecting communities, improving ingress and egress, protecting critical infrastructure, and enhancing natural resources. The battalion will also look to identify other areas that fit these criteria for future projects with the goal being to reduce the number and size of wildland fires in the battalion.

2019 Batt IV	Number by Causes	Acres Burned
Undetermined	3	4.7
Lightning	6	1.01
Campfires	0	0
Smoking	0	0
Debris Burning	0	0
Arson	0	0
Equipment Use	0	0
Playing With Fire	0	0
Vehicle	1	0.1
Railroad	0	0
Electrical Power	1	0.01
Miscellaneous/Other	1	0.1
<b>Total:</b>	<b>12</b>	<b>5.92</b>



## ***ANNUAL ACCOMPLISHMENTS REPORTING 2019***

### **Fire Planning:**

In 2019 fuel reduction work continued to be a priority on multiple CAL FIRE and Fire Safe Council projects. These projects included the Lake Shastina Fuel Treatment, Shasta Valley Wildlife Area, South Mount Shasta Fuel Break, Squaw Valley Fuel Break, Ordway VMP, Bogus Creek VMP, White Rock broadcast burn, Castle Crags Project, Siskiyou County Flood Control, Deadwood Defensible Space, Weed City Water Tanks, along with many other projects.

Siskiyou Unit Personnel participated in the review and editing of various Community Wildfire Protection Plans including the Siskiyou County CWPP Update.

The Siskiyou Unit recognizes the necessity for maintenance to be completed on multiple fuel breaks within the unit. Maintenance grants have been challenging to obtain by Siskiyou County Fire Safe Councils. The unit would be more fire resilient by maintaining and constructing strategically located fuel breaks rather than completing fuel breaks in non-strategic areas.

### **Investigations and Enforcement:**

In 2019 the Siskiyou Unit investigated 187 total SRA fires with various causes, 123 of which were vegetation fires. The ignition analysis shows that debris burn escapes was the major preventable cause of fires last year. In addition to debris burn escapes, investigating illegal burning was a main activity for unit personnel and prevention investigators. Illegal burn investigations associated with marijuana cultivation continues to steadily increase. Seven fires within the unit were determined to be caused by arson which was up from 1 last year and was up from the 10-year average.

During the year, the Prevention Bureau took the following enforcement actions: 3 custodial fire related arrests, 33 citations, 3 District Attorney Complaints, and multiple assists to other law enforcement agencies. 25 LE-38 notices of fire hazard inspection were issued due to illegal burning within the unit.

### **Wildland Fire Prevention Engineering:**

The Siskiyou Unit processed a total of 120 building permit applications and conducted 30 plan reviews in 2019.

### **Education and Information:**

Fire prevention and education programs were conducted throughout the year. These accomplishments included: 20 fire prevention displays/presentations, over 38,500 public contacts, 8000 contacts with students through school programs and maintenance of 21 fire prevention signs. The Prevention Bureau processed 5855 defensible space inspections, an increase of 2387 from the previous year. Unit Forestry aids were instrumental in completing these inspections, while also being instrumental in supporting the Lake Shastina Fuels Treatment Project. There were 167 media contacts made for fire information and/or prevention education. Numerous hours of staff time were spent with outreaches to local and federal government cooperators and fire safe councils in aiding them in fire prevention efforts.

### **Vegetation Management:**

Fuel reduction work continues to be a priority within the Siskiyou unit. In 2019 many fuel reduction projects were completed as well as new projects planned. Fuel reduction work was completed on the 500-acre Vegetation Management Program (VMP) contract on the Ordway Ranch in Weed. Treatments included a hand and tractor piling, pile burning and prescribed burning. Prescribed fire burn preparation began on the 1400-acre Bogus Creek VMP in anticipation of burning in 2020. The Scott River Ranch VMP located in Scott Valley was approved in 2019 with preparation work beginning in 2020. Planning has begun for several other VMP and fuel reduction projects including the Golden Gate Flat VMP, several smaller VMPs in the Yreka area, the Azalea Fuel Break in Dunsmuir and the Squaw Valley Fuel Break in McCloud.

### **Volunteerism:**

Volunteers in Prevention put in 3000 hours of Fire Prevention activity within the unit. Volunteer hours were combined from Honor Guard, Lookouts, Siskiyou Golden Fair, Fire Pals, School programs and training.

### **Fire Hazard Severity Mapping and Mitigation:**

No Fire Hazard Mapping was conducted in 2019. Fuel reduction projects to be conducted throughout Siskiyou County continue to be considered short term mitigations for fire hazard severity.

### **Other Fire Prevention Projects in SRA:**

Numerous hours of staff time were spent in with Local and Federal government cooperators assisting them in combined fire prevention efforts. Staff hours were also spent aiding Fire Safe Councils in their fuel reduction and fire prevention education efforts.

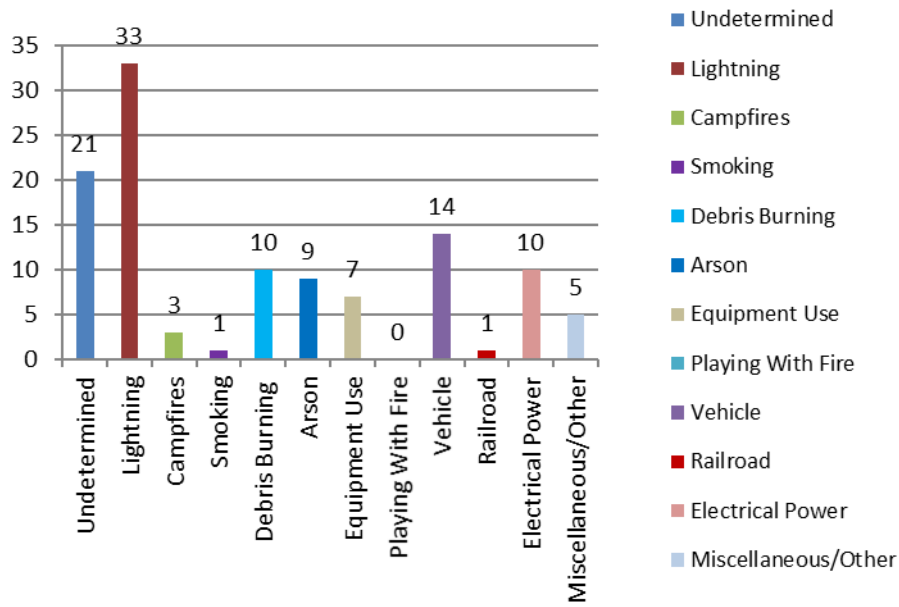
## 2020 Siskiyou Unit Ignition Analysis

In 2020 the Siskiyou Unit had 114 vegetation fires burning 747.22 acres within the State Direct Protection Area. This was down by 9 fires from the previous year and up about 7 from the average. Lightning was the number one cause of ignitions within the unit at 33 which is near average. The ignition analysis showed that vehicle caused fires were the major preventable cause of fires last year, almost three times the 11-year average. The number of undetermined fires in the unit was up by 11 fires from last year and was above the 11-year average. The unit had 9 Arson fires which is up from 7 last year and is nearly twice the 11-year average. Debris burning caused fires were 33 percent below the unit average which is likely a direct result of focused fire prevention education and enforcement. All other ignitions in the unit were near or below the 10-year average. GIS mapping data was collected for 17 SRA vegetation fires within the unit and submitted to the Fire and Resource Assessment Program.

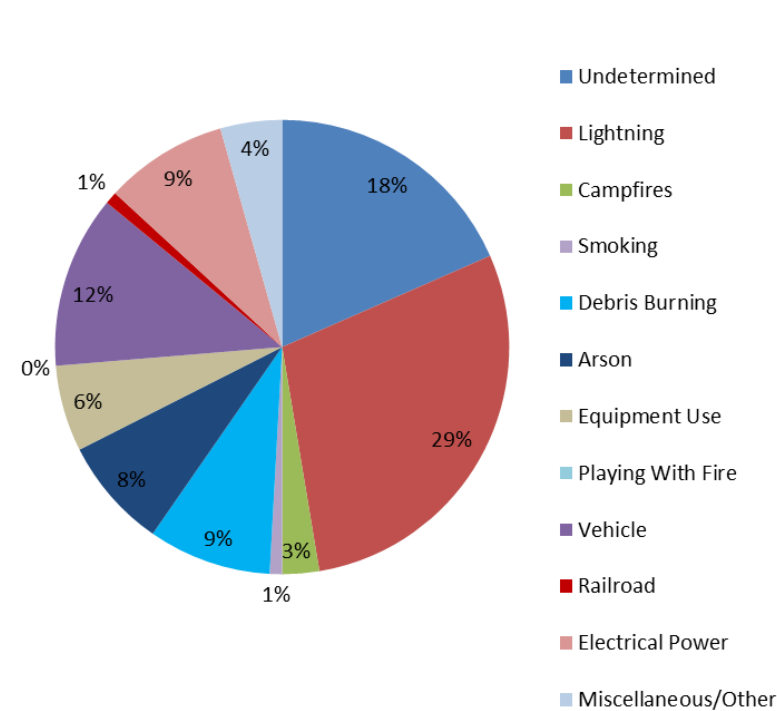
SKU 2020	Number by Causes	Acres Burned	2010 to 2020 Causes	Number by Causes	Yearly Average
Undetermined	21	112.2	Undetermined	185	17
Lightning	33	30.81	Lightning	383	35
Campfires	3	1.2	Campfires	63	6
Smoking	1	0.9	Smoking	17	1.5
Debris Burning	10	21.14	Debris Burning	164	15
Arson	9	0.27	Arson	50	5
Equipment Use	7	9.6	Equipment Use	80	7
Playing With Fire	0	0	Playing With Fire	14	1.3
Vehicle	14	560.94	Vehicle	54	5
Railroad	1	0.2	Railroad	10	0.9
Electrical Power	10	8.6	Electrical Power	58	5
Miscellaneous/Other	5	1.36	Miscellaneous/Other	103	9
<b>Total:</b>	<b>114</b>	<b>747.22</b>	<b>Total:</b>	<b>1181</b>	<b>107.3</b>



### 2020 Siskiyou Unit - Total Ignitions By Cause



### 2020 Siskiyou Unit Ignitions - Cause Percentages



## Scott Valley Battalion 2020 Ignition Analysis and Achievements

### Achievements:

In 2020, battalion personnel worked throughout Siskiyou County on unit fuel reduction projects. The Battalion's personnel and equipment attributed to the Units successful completion of these critical projects. These projects will help protect Siskiyou County communities and first responders from the damaging effects of catastrophic wildfires. Battalion personnel worked with local landowners within Scott Valley to educate and assist them with fuel reduction projects, utilizing broadcast burning to enhance agriculture production and fire safe landscapes. Opening and maintaining fire access roads continued to be a priority in the battalion. Work continued through cooperation with private timber companies and landowners to open fire access roads that were previously impassable.

Eco Trust received grant funding for a local project and continues with fuel reduction as well as access and egress improvement on their lands in the Crystal creek area. This project builds on the maintenance and future continuation of Etna Fuel Break. The project also contributes to the protection of citizens and landowners from wildfires on the west side of Scott Valley. The Lower Scott River Fire Safe Council (LSRFSC) has made progress on a water tank project. The tanks are in place and work continues with the plumbing. The LSRFSC is currently working on grant proposals for both fuel breaks and pre-fire planning. These proposals include creating maps and GIS databases to utilize in pre-plans as well as fuel breaks along Scott River Road that will increase ingress and egress for the public and first responders. The French Creek, Quartz Valley area, Rattlesnake Creek, Scott Bar, Seiad and Scott Valley Fire Safe Councils will be cooperatively applying for three grants to include fuel reduction around the Partridge Pine Community, Defensible Space for disabled and elderly in the Scott Valley area, and ingress and egress in the Seiad Creek Community.

The Scott River Water Shed Council will also submit grants for fuels reduction projects in Scott Valley that will tie into previous completed fuel breaks and proposed Fire Safe Council grant fuel breaks.

The Scott River Ranch VMP Project in the McConaughey Gulch area continues to move forward. This project is in year 2 of 10-year contract and will improve habitat and range land as well as reducing potential ignition and spread of catastrophic wildfires in the area. CAL FIRE personnel and equipment were able to conduct pile and broadcast burning this winter and will continue with mechanical treatment and plan for a broadcast burn at the end of this year. By reducing fuel loading and reintroducing controlled fire to the landscape, the area will be more resilient to the damaging effects of potential wildfires upon completion. The unit received assistance from CAL FIRE Northern Region staff in completing environmental compliance documents and other important portions of the project to ensure the successful approval of the VMP project. Battalion personnel also assisted residents and landowners with fuel reduction, focused on ingress and egress, along Mill Creek Road. This project will continue and is anticipated to be completed in

2020. The project enhances the safety of residences and property owners the area as well as first responders.

Battalion personnel continued to foster cooperative relationships with local and federal counterparts, participating in local and multi-agency training exercises. The battalion worked with the Units Fire Prevention Bureau participating in local events. This created direct contact with community members for public education. Fire Prevention education topics included the leading causes of fires within the battalion and unit. Scott Valley Battalion personnel alone completed over 150 LE-100 fire safety inspections within Scott Valley in 2020 to help ensure the safety of residents and first responders.

In 2020 the total number of fire ignitions and burned acres within the Scott Valley Battalion slightly increased from historical averages.

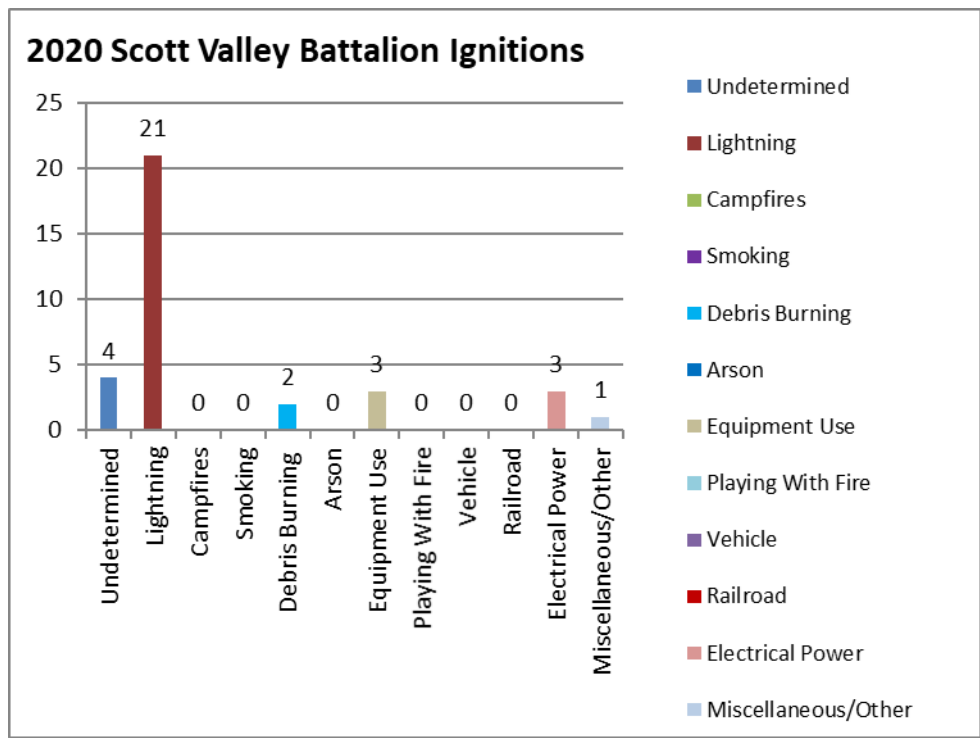
#### Ignition Analysis:

In 2020, the Scott Valley Battalion had 34 ignitions totaling 111.82 acres, which was higher than the previous year. This increase can be attributed to 6 additional lightning caused fires. Lightning was the leading cause of fires within the battalion with 21 ignitions totaling 13.11 acres burned. Aggressive fire suppression, lookout staffing, landowner relationships and available suppression resources contributed to the quick containment and minimal acres burned in these ignitions. Battalion personnel will continue to work with landowners to keep access roads open and foster cooperative relationships to aid in the suppression of these ignitions.

The battalion had 4 undetermined fires which was the second leading causes of fire ignitions. Debris burning caused fires were down from last year and about half of the historical average. Electrical and equipment caused fires were tied for the third leading cause of fire ignitions with 3 each. Additional prevention signs and increasing efforts in posting social media content to assist with public education regarding fire safety when burning seems to have decreased these ignitions. Fire personnel will continue to educate the public while issuing LE-5 burn permits at the fire station. Battalion personnel will conduct random burn pile inspections when burning is observed and continue education efforts at local events like the Etna Rodeo.

In 2021 the Scott Valley Battalion will continue to look for opportunities to work with the community on fuel breaks in and around populated areas. The focus of these fuel breaks will be to improve ingress and egress routes for communities within the battalion as well as protecting communities, critical infrastructure, and timber lands. The battalion will also continue to work to identifying locations for the implementation and completion of fuel reduction projects within these strategic locations. The goal for these projects will be to reduce available fuel for fire ignitions and reduce the spread of wildland fires within Scott Valley.

Batt I	Number	Acres
2020	by	Burned
	Causes	
Undetermined	4	95.1
Lightning	21	13.11
Campfires	0	0
Smoking	0	0
Debris Burning	2	1.01
Arson	0	0
Equipment Use	3	2.1
Playing With Fire	0	0
Vehicle	0	0
Railroad	0	0
Electrical Power	3	0.4
Miscellaneous/Other	1	0.1
<b>Total:</b>	<b>34</b>	<b>111.82</b>



## **Shasta Valley Battalion 2020 - Achievements and Ignition Analysis**

### **Achievements:**

In 2020, the Shasta Valley Battalion was successful in keeping 95% of our fires to less than 10 acres. A decrease in lightning activity had a part in this. Another contributing factor was the successful use of hired equipment for initial attack during resource drawdown. This augmentation included engines, bulldozers, and helicopters.

The Yreka Fire Safe council continued its efforts to educate the public in the area and sought more citizen involvement along with identifying funding for additional Fire Safe projects. They received a grant for state funding, to analyze fire behavior in the Yreka area. This data is being used to update the Yreka Area Community Wildfire Protection Plan (CWPP). The Fire Safe Council hopes to tie in past and current projects with the USFS Craggy Fuel Break project. The Craggy project will provide a fuel break on Humbug and Gunsight ridges helping to protect the city of Yreka and surrounding communities.

Shasta Valley Battalion personnel in conjunction with other CAL FIRE Siskiyou Unit personnel completed the Newton prescribed fire project, located on the southern edge of Yreka City. This was an 83-acre broadcast burn project with an additional 6 acres of manual fuel treatment. The battalion has plans to complete phase two of this project in 2021. Other fuel reduction projects completed in 2020 include the KNF Greenhorn, BLM Humbug, and multiple other projects assisting the Klamath National Forest.

Currently, CALFIRE is in the early planning phases with several fuel reduction projects around the Yreka area. Most of these projects are expected to tie into the current USFS Craggy Fuel project and past Fire Safe Council fuel reduction efforts.

## Ignition Analysis:

In 2020, the Shasta Valley Battalion saw a decrease in total ignitions. This reduction in total number of fires can most directly be associated with a below average amount of lighting caused fires.

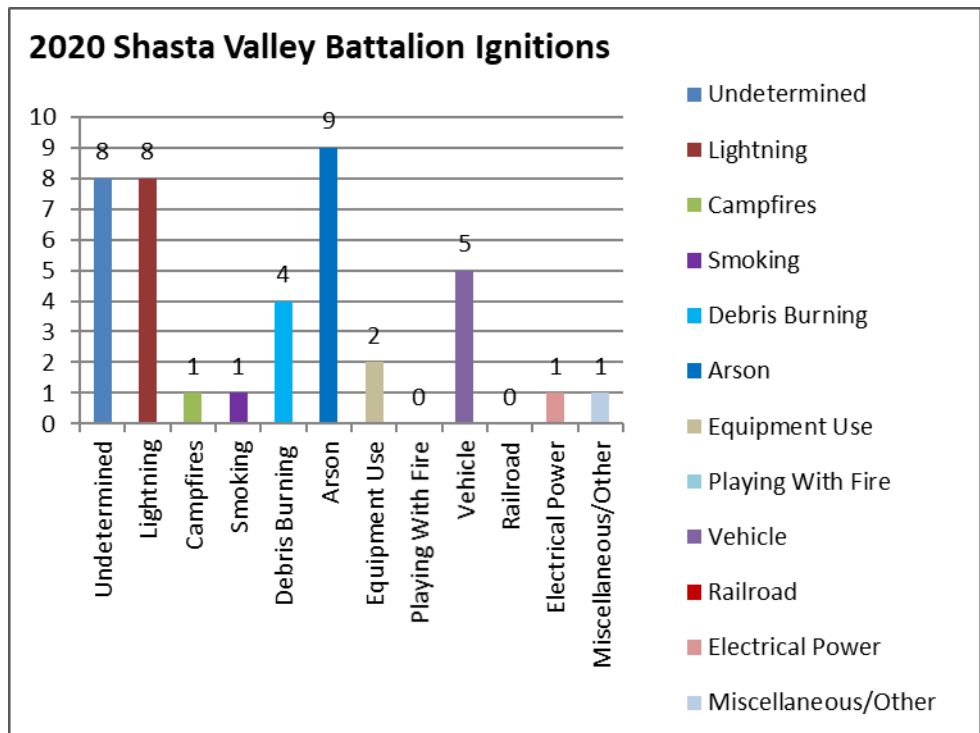
The leading cause of fires in the battalion for 2020 was Intentionally set fires with a total of nine. This was an increase of 80% above the six-year normal in this category. Fortunately, suppression resources were able to limit the intentionally caused fires to a total of 0.27 acres. Undetermined fires were slightly above the six-year historical average.

The largest fire in the Shasta Valley was the Badger fire. The fire grew to approximately 557 acres. The Badger fire was a vehicle caused fire. The Townsend Fire was the second largest at 13 acres. The Townsend Fire was a debris burn escape. All other ignitions were at or below the historical averages.

Large fast-moving fires are becoming more of a trend throughout the state. Fuel reduction efforts within the Shasta Valley Battalion, will continue to focus on improving ingress and egress for communities, protecting critical infrastructure, and creating a fire resilient environment while protecting natural resources.

Battalion personnel will continue to educate the public through the burn permit process including burning regulations, site inspections and public outreach in conjunction with the Prevention Bureau. Battalion personnel will work closely with the Prevention Bureau to gain more education and experience in preserving fire scenes along with conducting origin and cause investigations. The results of this will help decrease the number of undetermined fires in the battalion.

Batt II	Number	Acres
2020	by	Burned
	Causes	
Undetermined	8	14.5
Lightning	8	15.4
Campfires	1	0.1
Smoking	1	0.9
Debris Burning	4	16.74
Arson	9	0.27
Equipment Use	2	7
Playing With Fire	0	0
Vehicle	5	559.21
Railroad	0	0
Electrical Power	1	0.1
Miscellaneous/Other	1	0.1
<b>Total:</b>	<b>40</b>	<b>614.32</b>



## **Butte Valley / Weed Battalion 2020- Ignition Analysis and Achievements**

### *Achievements*

Battalion personnel assisted The Klamath National Forest with prescribed burns in the Tennant area with a 500-acre prescribed burn on the Klamath National Forest as well as the Bureau of Land Management with pile burning in Butte Valley. They also assisted with prescribed burns totaling over 2,500 acres with the USFWS in the Tulelake/State line area. Participating in these prescribed burns encourages interagency cooperation, area orientation and provides valuable training and experience to battalion and unit personnel.

The Butte Valley / Weed Battalion continues to focus on improving emergency ingress and egress routes for at-risk communities. Weed and Macdoel station personnel continued with local chipping projects in coordination with the Juniper Flat Fire Safe Council in Mt Shasta Vista and the Hammond Ranch Fire Safe Council. The focus of the chipping projects is to improve ingress and egress of easements in subdivisions where vegetation has built up and impedes civilian evacuation and emergency responder access. The Mt. Shasta Vista subdivision continues to be an area of concern for fuels reduction, ingress, and egress. This area is at high risk due to local wind patterns, extended response times, narrow winding roads and a high concentration of people. February of 2020, Juniper Flat Fire Safe Council received a CAL FIRE CCI Fire Prevention Grant for \$812,000 to complete 433 acres of fuel reduction (100ft each side) along the roads in the Mount Shasta Vista Sub-Division. The project will utilize mastication and chipper/chainsaw work to provide valuable ingress, egress, and defensible space for the citizens in that area. As of March 2021, the RFP for the fuel reduction project has been awarded and work will begin as soon as the weather permits. Additional fuel reduction projects will continue to be evaluated and planned to protect communities, critical infrastructure, and natural resources in the Butte Valley / Weed Battalion.



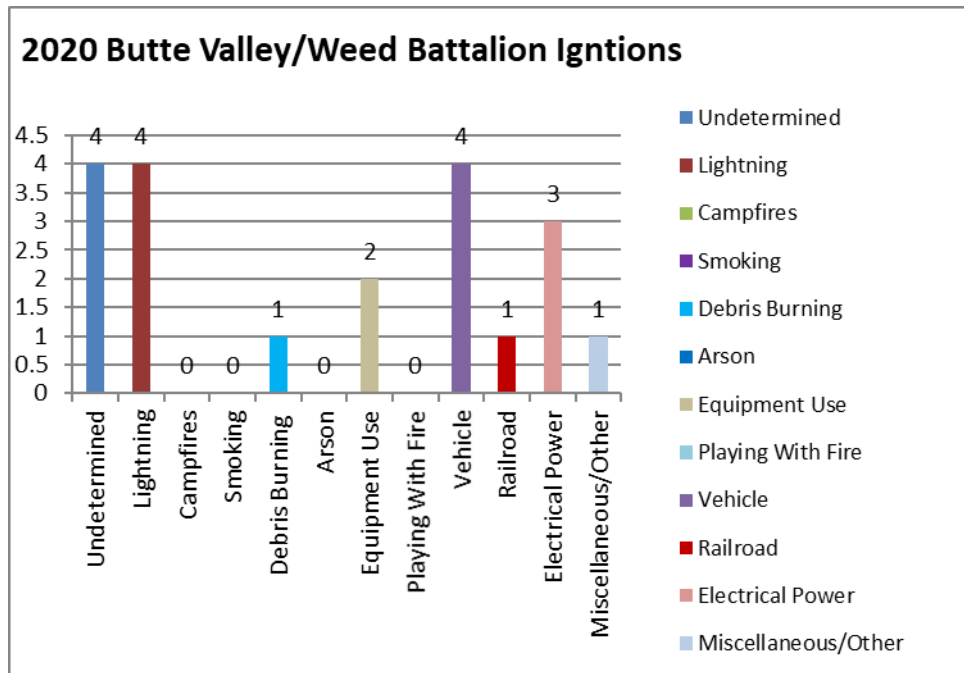
## Ignition Analysis

In 2020, there were 20 ignitions in the battalion, compared to 30 ignitions in 2019 and 40 in 2018. This is down 20 in the last two years and is 10 below the 6-year average for the battalion. This is mainly the result of fewer lightning caused fires and partly because of focused fire prevention education, widespread media coverage of recent large fires. In 2020 the total acreage burned in the battalion was 10.89 acres, which is about 11 percent of the yearly average of 96 acres over the last six years. Resource availability and early detection aided in quick fire suppression keeping all fires within the battalion less than 10 acres.

The leading causes for 2020 were lightning fires, undetermined fires, and vehicle caused fires. Lightning fires were well under the historical average whereas all other ignitions were near or below average. Historically lightning caused fires are the number one cause of fires in the unit and battalion. For this reason, work will continue with landowners and cooperating agencies to improve ingress and egress for areas with high lightning occurrence to aid in quick fire detection and suppression. In 2020, debris burning was about 80 percent lower than the past 6 years. Battalion personnel will focus on increasing public education on safe residential and agricultural burning in 2021 working with the Public Information Officer to increase prevention efforts as this is typically near the top of human caused fires. The battalion had 4 fires that were undetermined which was down by 1 from last year. To better understand the fire problem in the battalion, it is important to reduce the number of undetermined fires to better target prevention efforts. Battalion personnel will work with the Prevention Bureau to get additional training and experience with cause and origin investigations. Vehicle was determined as the cause of 4 fires which burned 1.23 acres. Vehicle caused fires increased from 2019 which will also be a focus of fire prevention in 2021.

The Butte Valley/ Weed Battalion will continue to focus on preventing and reducing the number of all vegetation fires through public education events, media, fuel reduction, pre-planning and any other means that are feasible. All other ignitions were near or below historical averages.

<b>Batt III</b>	<b>Number</b>	<b>Acres</b>
<b>2020</b>	<b>by</b>	<b>Burned</b>
	<b>Causes</b>	
Undetermined	4	1.4
Lightning	4	2.3
Campfires	0	0
Smoking	0	0
Debris Burning	1	0.1
Arson	0	0
Equipment Use	2	0.5
Playing With Fire	0	0
Vehicle	4	1.23
Railroad	1	0.2
Electrical Power	3	5.1
Miscellaneous/Oth	1	0.06
<b>Total:</b>	<b>20</b>	<b>10.89</b>



## **McCloud Battalion 2020-Ignition Analysis and Achievements**

### *Achievements*

2020 saw many accomplishments in the McCloud Battalion highlighted by the restarting of the McCloud and the Dunsmuir Fire Safe Councils. Fuel reduction work continued through the Fire Safe Council of Siskiyou County around the City of Mount Shasta, with fuel break projects utilizing chipper days, Deadwood Crews and Engine Companies within the battalion. Engine crews began work on the Deetz Rd. project in 2020 and will continue in 2021. Deadwood Crews and battalion Engine companies completed the Siskiyou 89 project in cooperation with CAL TRANS and began working on the Squaw Valley Fuel Break. Maintenance work continues for fuel reduction projects at Mt. Shasta Fish Hatchery and at the Mt. Shasta sewer ponds. Collaboration between CAL FIRE, the United States Forest Service, local Timber Companies, Fire Safe Councils and local Fire Departments for pre-fire planning and fire prevention will continue to be a priority in the battalion. Defensible space inspections in the battalion continued with an emphasis on compliance and public education. Timber companies continue to add fuel breaks while also maintaining existing fuel breaks and roadways. Collaboration with cooperators continues to be a critical asset in pre-planning and fire suppression.

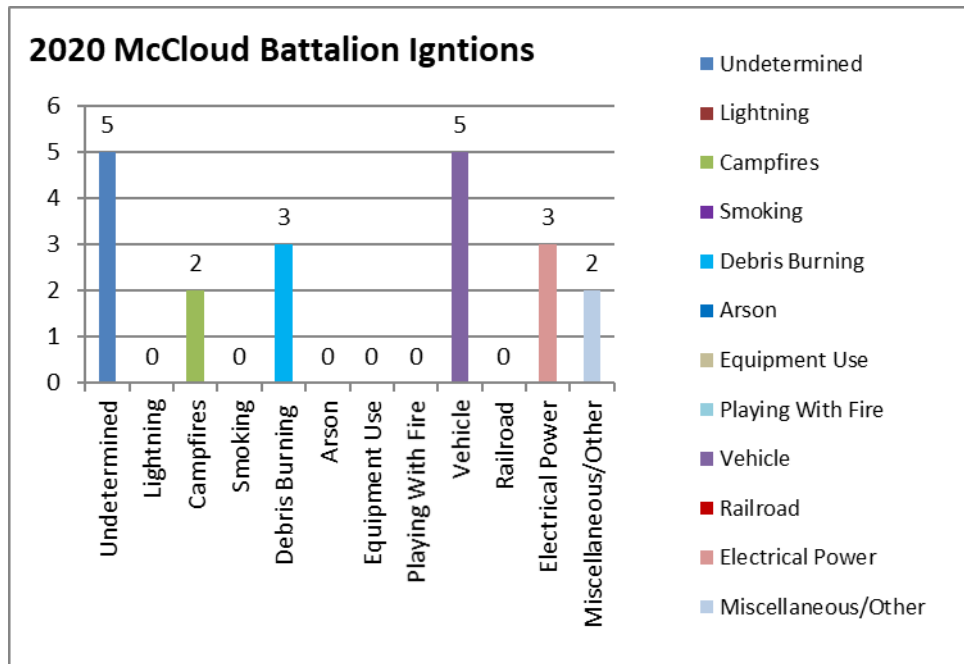
McCloud Battalion personnel are involved in the local Fire Safe Council and School programs in addition to outreach events designed to educate the public on the importance of wildfire awareness through various means such as the Ready, Set, Go, Code Red and defensible space programs. The McCloud Fire Safe Council was awarded a grant through CAL FIRE's California Climate Investments Fire Prevention Grant Program that will establish a shaded fuel break around the town of McCloud for \$775,066.00 with work continuing in 2021. The Siskiyou Unit is working with CAL TRANS on the reentry and maintenance of the Azalea Fuel break on Interstate 5 from Dunsmuir to Azalea Rd. This project will treat both sides of Interstate 5 within the CAL TRANS right-of-way. This is the first of three phases to treat fuels along the Interstate 5 Right-of-Way from Dunsmuir to Edgewood Rd

### *Ignition Analysis*

In 2020 there were a total of 20 ignitions, which was up from the 12 ignitions the previous year. The increase in ignitions in the battalion was mostly due to an increase in tourism and outdoor recreation in the battalion. Causes varied from abandoned campfires, debris burns, vehicle, undetermined/other, electrical power, and miscellaneous fires. The McCloud Battalion did not have any lightning fires in 2020. The remaining ignitions fell within historical averages. Early detection and aggressive initial attack contained all fires to less than 10 acres and a total of 10.19 acres, up by five acres from the year prior.

All human caused fire types will be addressed by targeted messaging and education of the public utilizing fire prevention signs, education outreach, and social media campaigns. Battalion personnel will work closely with the Prevention Bureau to gain more education and experience in preserving fire scenes along with conducting origin and cause investigations. The results of this will help decrease the number of undetermined fires in the battalion.

Batt IV	Number	Acres
2020	by	Burned
	Causes	
Undetermined	5	1.2
Lightning	0	0
Campfires	2	1.1
Smoking	0	0
Debris Burning	3	3.29
Arson	0	0
Equipment Use	0	0
Playing With Fire	0	0
Vehicle	5	0.5
Railroad	0	0
Electrical Power	3	3
Miscellaneous/Other	2	1.1
<b>Total:</b>	<b>20</b>	<b>10.19</b>



## ***ANNUAL ACCOMPLISHMENTS REPORTING 2020***

### **Fire Planning:**

In 2020 fuel reduction work continued to be a priority on multiple CAL FIRE and Fire Safe Council projects. These projects included the Newton Broadcast Burn, Squaw Valley Fuel Break, Scott River Ranch VMP, Bogus Creek VMP, Castle Crags Project, Siskiyou County Flood Control, Deadwood Defensible Space, multiple USFS (KNF & SHF) projects, along with many other projects. Siskiyou Unit Personnel participated in the review and editing of various Community Wildfire Protection Plans including the Yreka Area CWPP Update.

The Siskiyou Unit recognizes the necessity for maintenance to be completed on multiple fuel breaks within the unit. Maintenance grants have been challenging to obtain by Siskiyou County Fire Safe Councils. The unit would be more fire resilient by maintaining and constructing strategically located fuel breaks rather than completing fuel breaks in non-strategic areas.

In 2020, CAL FIRE conducted the 5-year State Responsibility Area (SRA) review. The Siskiyou Unit proposed 34,462 acres of Local Responsibility Area (LRA) be converted to SRA. This proposal was approved by the California Board of Forestry and went into effect on July 1st of 2020.

### **Investigations and Enforcement:**

In 2020 the Siskiyou Unit investigated 167 total SRA fires with various causes, 114 of which were vegetation fires. The ignition analysis shows that vehicle caused fires were the major preventable cause of fires last year. In addition to debris burn escapes, investigating illegal burning was a main activity for unit personnel and prevention investigators. Illegal burn investigations associated with marijuana cultivation continues to steadily increase. Nine fires within the unit were determined to be caused by arson which was up from 7 last year and was up from the unit average.

During the year, the Prevention Bureau took the following enforcement actions: 2 custodial fire related arrests, 8 citations, 1 District Attorney Complaints, and multiple assists to other law enforcement agencies. 44 LE-38 notices of fire hazard inspection were issued due to illegal burning within the unit.

### **Wildland Fire Prevention Engineering:**

The Siskiyou Unit processed a total of 127 building permit applications and conducted 24 plan reviews in 2020.

### **Education and Information:**

Fire prevention and education programs were conducted throughout the year. 2020 made it very challenging with the Covid-19 pandemic. These accomplishments included: 30 fire prevention signs that were displayed on major roadways, fire prevention messaging to over 20,000 people daily via social media, and 12,490 contacts with students through virtual school programs. The Prevention Bureau processed 9,490 defensible space inspections, an increase of 3,635 from the previous year. Unit Forestry Aids (DSI) were instrumental in completing these inspections. There were 167 media contacts made for fire information and/or prevention education. Numerous hours of staff time were spent with outreaches to local and federal government cooperators and fire safe councils in aiding them in fire prevention efforts.

### **Vegetation Management:**

Fuel reduction work continues to be a priority within the Siskiyou unit. In 2019 many fuel reduction projects were completed as well as new projects planned. Fuel reduction work was completed on the 500-acre Vegetation Management Program (VMP) contract on the Ordway Ranch in Weed. Treatments included a hand and tractor piling, pile burning and prescribed burning. Prescribed fire burn preparation began on the 1400-acre Bogus Creek VMP in anticipation of burning in 2020. The Scott River Ranch VMP located in Scott Valley was approved in 2019 with preparation work beginning in 2020. Planning has begun for several other VMP and fuel reduction projects including the Golden Gate Flat VMP, several smaller VMPs in the Yreka area, the Azalea Fuel Break in Dunsmuir, and the Squaw Valley Fuel Break in McCloud.

### **Volunteerism:**

Volunteers in Prevention put in 1000 plus hours of Fire Prevention activity. Volunteer hours were limited to the Honor Guard and training functions due to the challenges of Covid-19 pandemic.

### **Fire Hazard Severity Mapping and Mitigation:**

No Fire Hazard Mapping was conducted in 2020 but it is expected that new Fire Hazard Severity Zone mapping will be completed in 2021. Fuel reduction projects to be conducted throughout Siskiyou County continue to be considered short term mitigations for fire hazard severity.

### **Other Fire Prevention Projects in SRA:**

Numerous hours of staff time were spent in with Local and Federal government cooperators assisting them in combined fire prevention efforts. Staff hours were also spent aiding Fire Safe Councils in their fuel reduction and fire prevention education efforts.

## 2021 Siskiyou Unit Ignition Analysis

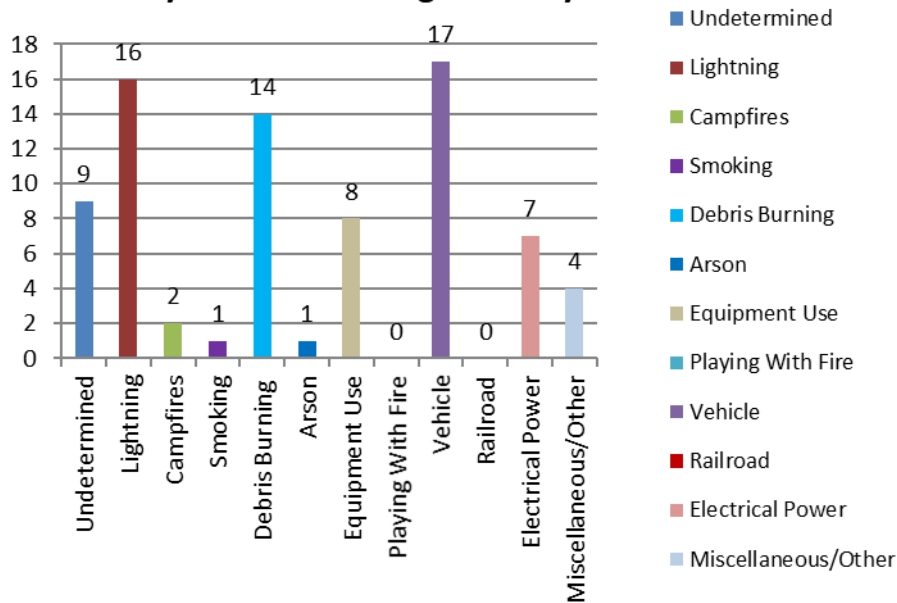
In 2021 the Siskiyou Unit had 79 vegetation fires that started in State Direct Protection Area (DPA). These fires burned 187.36 acres within the State DPA. This was down by 35 fires from the previous year and down about 32 from the average number of fires per year. The reduction in ignitions can be attributed to less than half the average number of lightning caused fires. Vehicle was the number one cause of ignitions within the unit at 17 which is above average. The ignition analysis showed that vehicle caused fires were the major preventable cause of fires last year, almost two times the 5-year average. Acreage for fires in State DPA was almost half the 5-year average. All other ignitions in the unit were near or below the 5-year average. GIS mapping data was collected for 9 SRA vegetation fires within the unit and submitted to the Fire and Resource Assessment Program for fire history data sets.

In addition to the 79 fires originating in State DPA, there were four Federal DPA fires that burned onto State DPA totaling 5680 (State DPA Burned) acres as well as one unprotected Local DPA fire totaling 874 acres. In 2021 the Siskiyou Unit was able to contain about 97 percent of the fires in State DPA to less than 10 acres, exceeding the Department's goal of 95 percent.

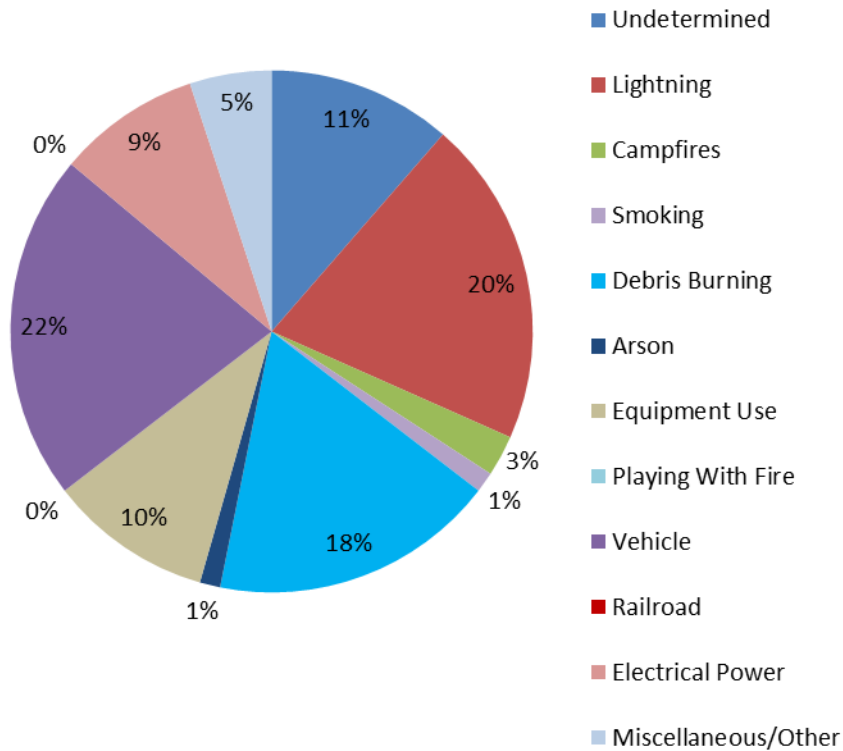
In 2022 the Siskiyou Unit will continue to focus on fire prevention education, fuel reduction, pre-fire planning, training, and aggressive initial attack to meet the goals of this Fire Plan.

SKU 2021 Causes	Number by Causes	Acres Burned	SKU 5-Year Averages	Average by Causes	Average Acres
Undetermined	9	13.72	Undetermined	15	31.3
Lightning	16	3.13	Lightning	35.6	96
Campfires	2	0.6	Campfires	2	1
Smoking	1	0.5	Smoking	1	1.4
Debris Burning	14	41.48	Debris Burning	16.4	28
Arson	1	0.5	Arson	6	8.5
Equipment Use	8	6.24	Equipment Use	9.6	6.5
Playing With Fire	0	0	Playing With Fire	0.2	0
Vehicle	17	1.16	Vehicle	10	2.2
Railroad	0	0	Railroad	0.6	0.6
Electrical Power	7	119.71	Electrical Power	7	33
Miscellaneous/Other	4	0.32	Miscellaneous/Other	8	99
	79	<b>187.36</b>		111.4	<b>307.5</b>

### 2021 Siskiyou Unit - Total Ignitions By Cause



### 2021 Siskiyou Unit Ignitions - Cause Percentages





## Scott Valley Battalion 2021 Ignition Analysis and Achievements

### Achievements:

In 2021, battalion personnel worked throughout Siskiyou County on unit fuel reduction projects. The Battalions personnel and equipment attributed to the Units successful completion of these critical projects. These projects will help protect Siskiyou County and Scott Valley communities and first responders from the damaging effects of catastrophic wildfires. Battalion personnel worked with local landowners and cooperators within Scott Valley to educate and assist them with fuel reduction projects utilizing broadcast burning to enhance agriculture production and fire safe landscapes. Opening and maintaining fire access roads continued to be a priority in the battalion. Work continued through cooperation with private timber companies and landowners to open fire access roads that were previously impassable.

Private Timber Companies have continued fuel reduction efforts from Patterson Creek to the Crystal Creek accounting for about 11 miles of treatment varying in width from 600 feet to half a mile. They have also thinned along Sniktaw Road above Shackleford Creek and continue to work on improving ingress and egress routes. These projects seek to bolster and extend the Etna Fuel Break to protect of stakeholders on the west side of Scott Valley from wildfires. Local fire safe organizations have applied for grant funding to complete fuel reduction projects for the communities of Seiad Valley and Partridge Pines with treatments that focus on ingress and egress, defensible space for the disabled and elderly, and building continuity with other local fuel treatments.

The Scott River Water Shed Council and the Siskiyou Prescribed Burn Association have submitted grants for education and fuels reduction projects in Scott Valley that connect previously completed fuel breaks and proposed Fire Safe Council grant fuel breaks.

The Scott River Ranch VMP project in the McConaughey Gulch area of Scott Valley is in year 3 of a 10-year contract and will improve habitat and range land as well as reducing potential ignition and spread of catastrophic wildfires in the area. There have been several different treatments completed totaling about 270 acres utilizing mechanical thinning, mechanical piling, hand thinning, hand piling, pile burning, and broadcast burning. Future efforts will utilize the same treatment methods.

CAL FIRE personnel are currently in the planning phase of a new VMP project adjacent to the Scott River VMP that will be finalized in 2022 with similar goals and treatments objectives.

Battalion personnel continued to foster cooperative relationships with local and federal counterparts, participating in local and multi-agency training exercises. The battalion worked with the Units Fire Prevention Bureau participating in local events. This created direct contact with community members for public education. Fire Prevention education topics included the leading causes of fires within the battalion and unit. Scott Valley Battalion personnel completed over 150 LE-100 fire safety inspections within Scott Valley in 2021 to help ensure the safety of residents and first responders.

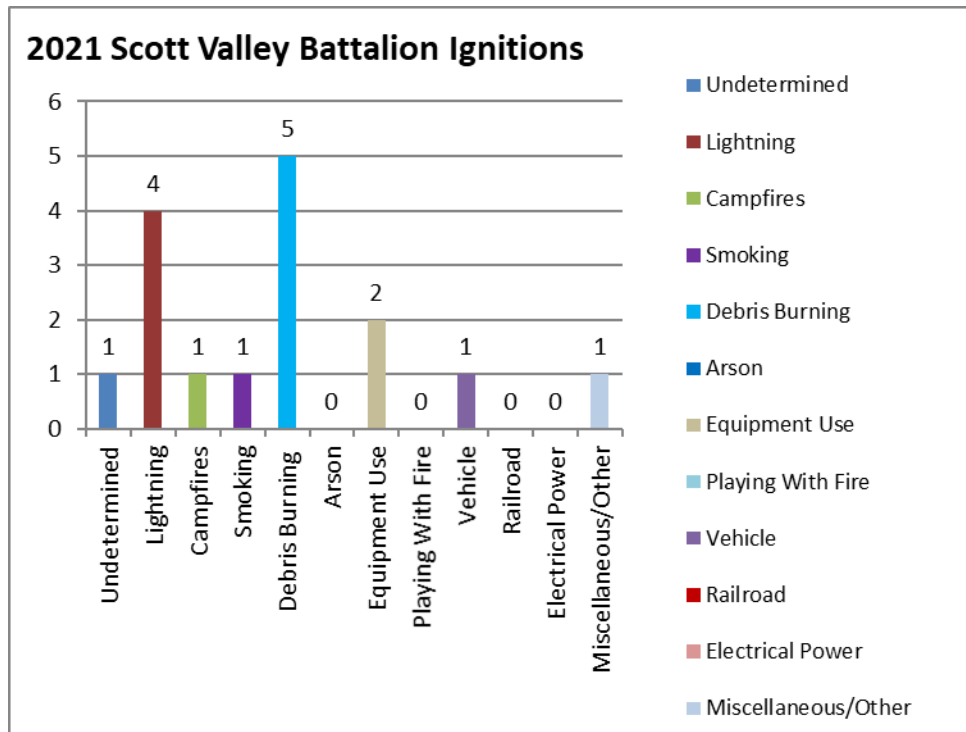
### Ignition Analysis:

In 2021, the Scott Valley Battalion had 16 ignitions totaling 8.02 acres, which was less than half from both the previous year and the 5-year average. This can be attributed to a decrease in lightning caused fires and focused fire prevention efforts. Debris burning was the leading cause of fires within the battalion with 5 ignitions, which equals the 7-year average, totaling 6.16 acres burned. Lightning fires were second with 4 totaling 13 acres. Aggressive fire suppression, lookout staffing, landowner relationships and available suppression resources contributed to the quick containment and minimal acres burned in these ignitions.

Equipment use resulted in 2 fire ignitions while campfires, smoking, vehicle, other type and undetermined resulted in 1 ignition for each cause. All ignitions were near or below the 7-year average in yearly occurrence. Battalion personnel will continue to educate the public while issuing burn permits, complete burn pile inspections, and continue education efforts at local events.

In 2022 the Scott Valley Battalion will continue to look for opportunities to work with the community, cooperators, and stakeholders on fuel breaks in and around populated areas. The focus of these fuel breaks will be to improve ingress and egress routes within the battalion as well as protecting communities, critical infrastructure, and timber lands. The battalion will also continue to identify locations for the implementation and completion of fuel reduction projects within these strategic locations. The goal for these projects will be to reduce available fuel for fire ignitions and reduce the spread of wildland fires within Scott Valley.

<b>Batt I</b>	<b>Number</b>	<b>Acres</b>
<b>2021</b>	<b>by</b>	<b>Burned</b>
	<b>Causes</b>	
Undetermined	1	0.3
Lightning	4	0.13
Campfires	1	0.1
Smoking	1	0.5
Debris Burning	5	6.16
Arson	0	0
Equipment Use	2	0.12
Playing With Fire	0	0
Vehicle	1	0.51
Railroad	0	0
Electrical Power	0	0
Miscellaneous/Other	1	0.2
<b>Total:</b>	<b>16</b>	<b>8.02</b>



## **Shasta Valley Battalion 2021 - Achievements and Ignition Analysis**

### Achievements:

In 2021, the Shasta Valley Battalion was successful in keeping 97% of our fires to less than 10 acres. A 70% decrease in lighting activity, based on a seven-year average, had a part in this. Another contributing factor was the four significant Federal DPA fires in the area throughout the summer. These fires were a constant reminder to the public to be fire safe. Once again, the augmentation of an additional bulldozer, type one helicopter, and 40-person firefighter hand crew aided with aggressive initial attack helped keep most of the new fire starts from developing into extended attack fires.

The Yreka Fire Safe council continued its efforts to collaborate and educate the public through zoom meetings in the area and sought more citizen involvement along with identifying funding for additional Fire Safe projects. The Fire Safe Council hopes to tie in past and current projects with the USFS Craggy Fuel Break project. The Craggy project will provide a fuel break on Humbug and Gunsight ridges helping to protect the city of Yreka and surrounding communities. Future projects are being discussed to protect all sides of the Yreka area.

Shasta Valley Battalion personnel in conjunction with other CAL FIRE Siskiyou Unit personnel completed the Newton prescribed fire project, located on the southern edge of Yreka City. This was an 83-acre broadcast burn project with an additional 6 acres of manual fuel treatment. The battalion has plans to complete phase two of this project in the fall of 2022. Additional fuel reduction projects completed in 2021 were the BLM Humbug and BLM Yreka pile burning units.

Currently, CALFIRE is in the early planning phases with several fuel reduction projects around the Yreka area. Most of these projects are expected to tie into the current USFS Craggy Fuel project and past Fire Safe Council fuel reduction efforts.

### Ignition Analysis:

In 2021, the Shasta Valley Battalion saw a decrease in total ignitions. This reduction in total number of fires can most directly be associated with a below average amount of lighting caused fires.

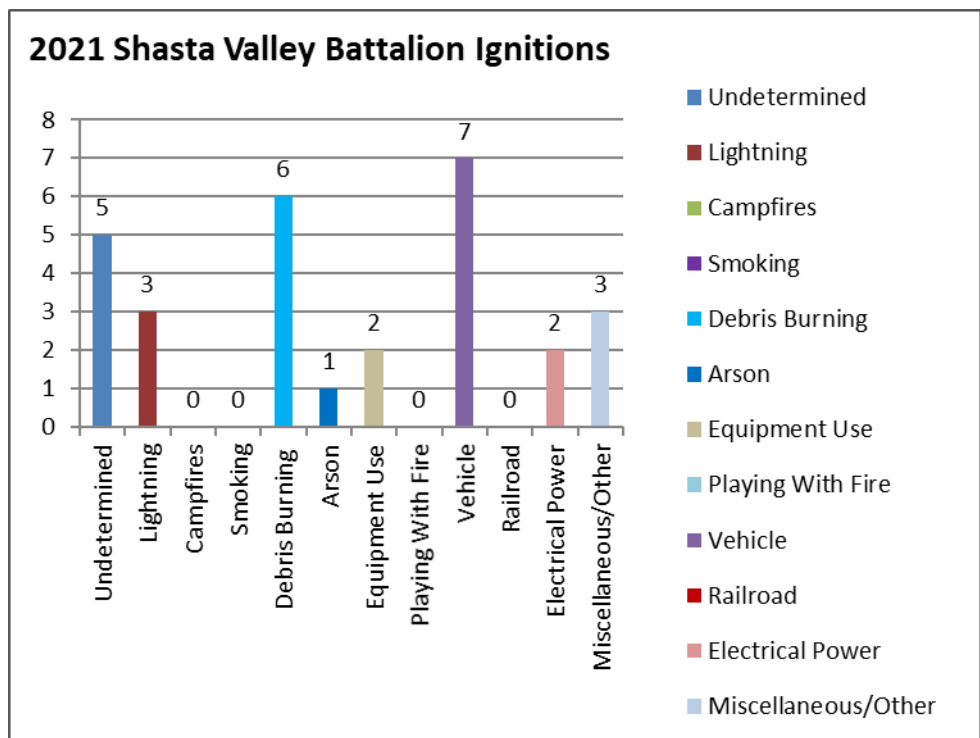
The leading cause of fires in the battalion for 2021 was vehicle caused fires, with seven fire starts. However, almost all these fires were from a single moving vehicle along Interstate 5.

The largest fire in the Shasta Valley was the Beswick fire. The fire grew to approximately 118 acres. The Beswick fire was caused by electrical power. The Hovey Fire was the second largest at 9.5 acres. The Hovey Fire was a debris burn escape. The total debris burn caused fires exceeded the 7-year average. All other ignitions were at or below the historical averages.

Large fast-moving fires are becoming more of a trend throughout the state. Fuel reduction efforts within the Shasta Valley Battalion, will continue to focus on improving ingress and egress for communities, protecting critical infrastructure, and creating a fire resilient environment while protecting natural resources.

Battalion personnel will continue to educate the public through the burn permit process including burning regulations, site inspections and public outreach in conjunction with the Prevention Bureau. Battalion personnel will work closely with the Prevention Bureau to gain more education and experience in preserving fire scenes along with conducting origin and cause investigations. The results of this will help decrease the number of undetermined fires in the battalion.

Batt II	Number	Acres
2021	by	Burned
	Causes	
Undetermined	5	6.02
Lightning	3	0.42
Campfires	0	0
Smoking	0	0
Debris Burning	6	12.35
Arson	1	0.5
Equipment Use	2	0.12
Playing With Fire	0	0
Vehicle	7	0.34
Railroad	0	0
Electrical Power	2	118.1
Miscellaneous/Other	3	0.12
<b>Total:</b>	<b>29</b>	<b>137.97</b>



## **Butte Valley / Weed Battalion 2021- Ignition Analysis and Achievements**

### *Achievements*

Battalion personnel assisted The Klamath National Forest with prescribed burns in the Tennant area with a 500-acre prescribed burn on the Klamath National Forest as well as the Bureau of Land Management with pile burning in Butte Valley. They also assisted with prescribed burns totaling over 2,500 acres with the USFWS in the Tulelake/State line area. Participating in these prescribed burns encourages interagency cooperation, area orientation and provides valuable training and experience to battalion and unit personnel.

The Butte Valley / Weed Battalion continues to focus on improving emergency ingress and egress routes for at-risk communities. Weed and Macdoel station personnel continued with local chipping projects in coordination with the Juniper Flat Fire Safe Council in Mt Shasta Vista and the Hammond Ranch Fire Safe Council. The focus of the chipping projects is to improve ingress and egress of easements in subdivisions where vegetation has built up and impedes civilian evacuation and emergency responder access. The Mt. Shasta Vista subdivision continues to be an area of concern for fuels reduction, ingress, and egress. This area is at high risk due to local wind patterns, extended response times, narrow winding roads and a high concentration of people. In February of 2020, the Juniper Flat Fire Safe Council received a CAL FIRE CCI Fire Prevention Grant for \$812,000 to complete 433 acres of fuel reduction (100ft each side) along the roads in the Mount Shasta Vista Sub-Division. The project will utilize mastication and chipper/chainsaw work to provide valuable ingress, egress, and defensible space for the citizens in that area. Work on this project began in 2021 is now near completion. Additional fuel reduction projects will continue to be evaluated and planned to protect communities, critical infrastructure, and natural resources in the Butte Valley / Weed Battalion.

### *Ignition Analysis*

In 2021, there were 21 ignitions in the battalion, compared to 20 ignitions in 2020 and 30 in 2019. This is down 10 from 2019 and up 1 from 2020, 8 below the 7-year average for the battalion. This is mainly the result of fewer lightning caused fires, focused fire prevention education, and widespread media coverage of recent large fires. In 2021 the total acreage burned in the battalion was 38.74 acres, which is about 44 percent of the yearly average of 87.9 acres over the last 7 years. Resource availability, early detection, and aggressive initial attack aided in quick fire suppression keeping most fires within the battalion less than 10 acres.

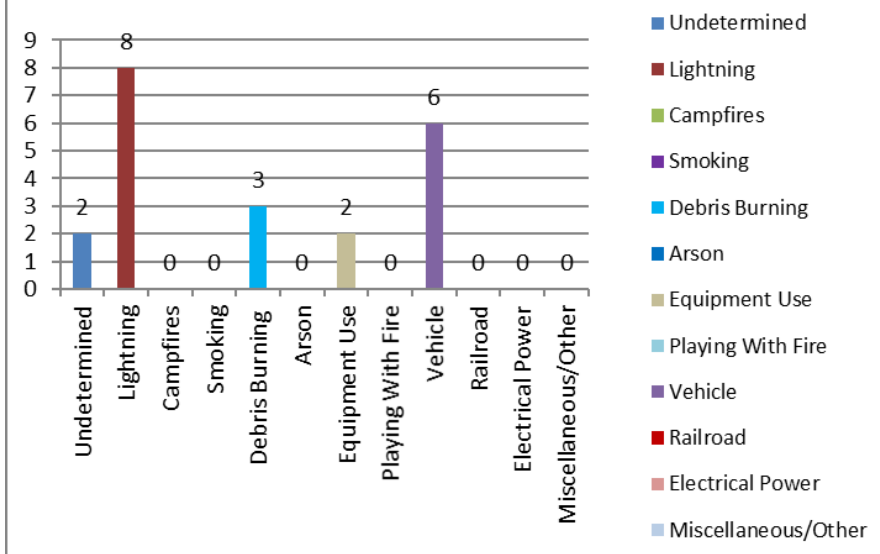
The leading causes for 2021 were lightning caused fires, undetermined fires, and vehicle caused fires. Lightning fires were well under the historical average whereas all other ignitions were near or below average. Historically lightning caused fires are the number one cause of fires in the unit and battalion. For this reason, work will continue with landowners and cooperating agencies to improve ingress and egress for areas with high lightning occurrence to aid in quick fire detection and suppression. In 2021, debris burning was about 60 percent lower

than the past 7 years. Battalion personnel will focus on increasing public education on safe burning in 2022 while working with the Public Information Officer to increase prevention efforts as this is historically the leading type of human caused fires. The battalion had 2 fires that were undetermined which was down by 2 from last year. To better understand the fire problem in the battalion, it is important to reduce the number of undetermined fires to better target prevention efforts. Battalion personnel will work with the Prevention Bureau to get additional training and experience with cause and origin investigations. Vehicle was determined as the cause of 6 fires which burned 0.19 acres. Vehicle caused fires increased from 2020 which will also be a focus of fire prevention in 2022.

The Butte Valley/ Weed Battalion will continue to focus on preventing and reducing the number of all vegetation fires through public education events, media, fuel reduction, pre-planning and any other means that are feasible. All other ignitions were near or below historical averages.

Batt III 2021	Number by Causes	Acres Burned
Undetermined	2	7.3
Lightning	8	2.48
Campfires	0	0
Smoking	0	0
Debris Burning	3	22.97
Arson	0	0
Equipment Use	2	5.8
Playing With Fire	0	0
Vehicle	6	0.19
Railroad	0	0
Electrical Power	0	0
Miscellaneous/Oth	0	0
<b>Total:</b>	<b>21</b>	<b>38.74</b>

**2021 Butte Valley/Weed Battalion Ignitions**





## **McCloud Battalion 2021-Ignition Analysis and Achievements**

### Achievements

2021 saw many accomplishments in the McCloud Battalion highlighted by formation of Dunsmuir's Disaster Planning Advisory Committee board to work with the Siskiyou County Fire Safe Council on planning and completing fire prevention and fuel reduction work. Battalion personnel continued fuel reduction work on the Deetz Road project and on the Squaw Valley Fuel Break with work continuing in 2022. Maintenance work continues for fuel reduction projects at Mt. Shasta Fish Hatchery and at the Mt. Shasta sewer ponds. Collaboration between CAL FIRE, the United States Forest Service, local Timber Companies, Fire Safe Councils and local Fire Departments for pre-fire planning and fire prevention will continue to be a priority in the battalion. Defensible space inspections in the battalion continued with an emphasis on compliance and public education. Timber companies continue to add fuel breaks while also maintaining existing fuel breaks and roadways. Collaboration with cooperators continues to be a critical asset in pre-fire planning and fire suppression.

McCloud Battalion personnel continue to be involved with local fire prevention programs and outreach events designed to educate the public on wildfire awareness, Ready Set Go, Zone Haven evacuation system, Code Red, and defensible space programs. The McCloud Fire Safe Council Grant for a shaded fuel break around the town of McCloud is in progress and will continue through 2022.

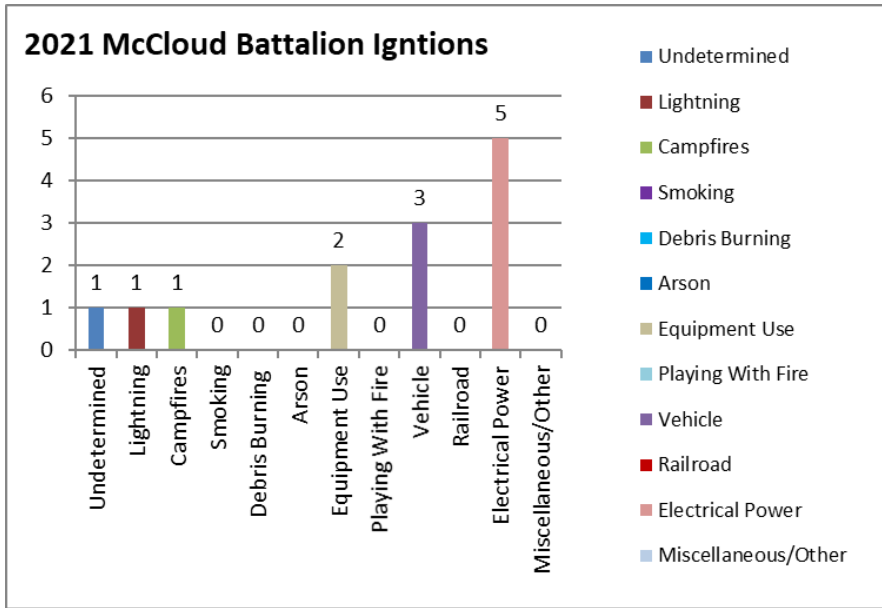
The Siskiyou Unit is working with CAL TRANS, Shasta Valley RCD, and the Mount Shasta Fire Safe Council on the Azalea Fuel break on Interstate 5 from Dunsmuir to Azalea Rd. This project will treat both sides of Interstate 5 within the CAL TRANS right-of-way. This is the first of three phases to treat fuels along the Interstate 5 Right-of-Way from Dunsmuir to Edgewood Rd. Planning efforts continued in 2021 for several future fuel reduction projects including phase 2 of the Interstate 5 project and the Highway 89 fuels project.

### Ignition Analysis

In 2021 there were a total of 13 ignitions, which was down from the 20 ignitions the previous year. The decrease in ignitions in the battalion was mostly due to a reduction in lightning caused fires and fire prevention education. Causes varied from abandoned campfires, equipment use, vehicle, undetermined/other, electrical power, and Lightning. The McCloud Battalion did not have any Arson, Smoking, Debris Burning, Playing-with fire, or Railroad caused fires in 2021. All ignitions were at or below historical averages except Electrical Fires which had an increase from the previous year. Early detection and aggressive initial attack contained all fires to less than 2.63 acres, a decrease of 7.56 acres the previous year.

All human caused fire types will be addressed by targeted messaging and education of the public utilizing fire prevention signs, education outreach, and social media campaigns. Battalion personnel will work closely with the Prevention Bureau to gain more education and experience in preserving fire scenes along with conducting origin and cause investigations.

Batt IV 2021	Number by Causes	Acres Burned
Undetermined	1	0.1
Lightning	1	0.1
Campfires	1	0.5
Smoking	0	0
Debris Burning	0	0
Arson	0	0
Equipment Use	2	0.2
Playing With Fire	0	0
Vehicle	3	0.12
Railroad	0	0
Electrical Power	5	1.61
Miscellaneous/Other	0	0
<b>Total:</b>	<b>13</b>	<b>2.63</b>



## ***ANNUAL ACCOMPLISHMENTS REPORTING 2021***

### **Fire Planning:**

In 2021 fuel reduction work continued to be a priority on multiple CAL FIRE and Fire Safe Council projects. These projects included the BLM Yreka Project, Azalea Fuel Break, Squaw Valley Fuel Break, Scott River Ranch VMP, Castle Crags Project, the Craggy GNA, Siskiyou County Flood Control, Deadwood Defensible Space, multiple USFS (KNF & SHF) projects, along with many other projects. Siskiyou Unit Personnel participated in the review and editing of various Community Wildfire Protection Plans including the Yreka Area CWPP Update.

The Siskiyou Unit recognizes the necessity for maintenance to be completed on multiple fuel breaks within the unit. Maintenance grants have been challenging to obtain by Siskiyou County Fire Safe Councils. The unit would be more fire resilient by maintaining and constructing strategically located fuel breaks rather than completing fuel breaks in non-strategic areas.

### **Investigations and Enforcement:**

In 2021 Siskiyou Unit Law Enforcement Officers responded to 370 various calls for service. Of these calls for service, Officers Investigated 77 SRA vegetation fires with various causes, 18 structure fires, and 121 other type fires. The ignition analysis shows that vehicle caused fires were the major preventable cause of fires last year. In addition to debris burn escapes, investigating illegal burning was a main activity for unit personnel and prevention investigators. Illegal burn investigations associated with marijuana cultivation continues to steadily increase. During the year, the Prevention Bureau took the following enforcement actions: 12 custodial arrests and Misdemeanor Citations and over 20 infraction citations issued. CAL FIRE Law Enforcement Officers assisted other law enforcement agencies approximately 95 times throughout the year. A total of 36 LE-38 notices of fire hazard inspection were issued due to illegal burning within the unit.

### **Wildland Fire Prevention Engineering:**

The Siskiyou Unit processed a total of 134 building permit applications and conducted 62 plan reviews in 2021.

### **Education and Information:**

Fire prevention and education programs were conducted throughout the year. 2021 made it very challenging with the Covid-19 pandemic. These accomplishments included: 30 fire prevention signs that were displayed on major roadways, fire prevention messaging to over 20,000 people daily via social media, and 13,000 contacts with students through virtual school programs. The Prevention Bureau processed 8,035 defensible space inspections. Unit Forestry Aids (DSI) were instrumental in completing these inspections. There were 167 media contacts made for fire information and/or prevention education. Numerous hours of staff time were spent with outreaches to local and federal government cooperators and fire safe councils in aiding them in fire prevention efforts.

### **Vegetation Management:**

Fuel reduction work continues to be a priority within the Siskiyou Unit. In 2019 many fuel reduction projects were completed as well as new projects planned. Fuel reduction work was completed on the 500-acre Vegetation Management Program (VMP) contract on the Ordway Ranch in Weed. Treatments included a hand and tractor piling, pile burning and prescribed burning. Prescribed fire burn preparation began on the 1400-acre Bogus Creek VMP in anticipation of burning in 2020. The Scott River Ranch VMP located in Scott Valley was approved in 2019 with preparation work beginning in 2020. Planning has begun for several other VMP and fuel reduction projects including the Golden Gate Flat VMP, several smaller VMPs in the Yreka area, the Azalea Fuel Break in Dunsmuir, and the Squaw Valley Fuel Break in McCloud.

### **Volunteerism:**

Volunteers in Prevention put in 1200 plus hours of Fire Prevention activity. Volunteer hours were limited to the Honor Guard and training functions due to the challenges of Covid-19 pandemic.

### **Fire Hazard Severity Mapping and Mitigation:**

No Fire Hazard Mapping was ongoing 2021 and it is expected that new Fire Hazard Severity Zone mapping will be completed for State Responsibility Area in 2022. Local Responsibility Area should begin in the fall of 2022. Fuel reduction projects to be conducted throughout Siskiyou County continue to be considered short term mitigations for fire hazard severity.

### **Other Fire Prevention Projects in SRA:**

Numerous hours of staff time were spent in with Local and Federal government cooperators assisting them in combined fire prevention efforts. Staff hours were also spent aiding Fire Safe Councils in their fuel reduction and fire prevention education efforts.

## 2022 Siskiyou Unit Ignition Analysis

In 2022, the Siskiyou Unit had 86 vegetation fires that started in State DPA. These fires burned 17,568 acres within State DPA. This was up by 7 fires from the previous year, and down approximately 14 from the average number of fires per year. The increase in ignitions from 2021 to 2022 can be attributed to additional arson caused fires. Lightning was the number one cause of ignitions within the unit at 19, which is below the Siskiyou Unit 5 year average for lightning caused fires. The ignition analysis showed that arson caused fires were the major preventable cause of fires last year, more than two times the 5-year average. All other ignitions in the unit were near or below the 5-year average. 2022's total acreage for fires in State DPA was almost double the 5-year average. GIS mapping data was collected for 16 SRA vegetation fires within the unit and submitted to the Fire and Resource Assessment Program (FRAP) for fire history data sets.

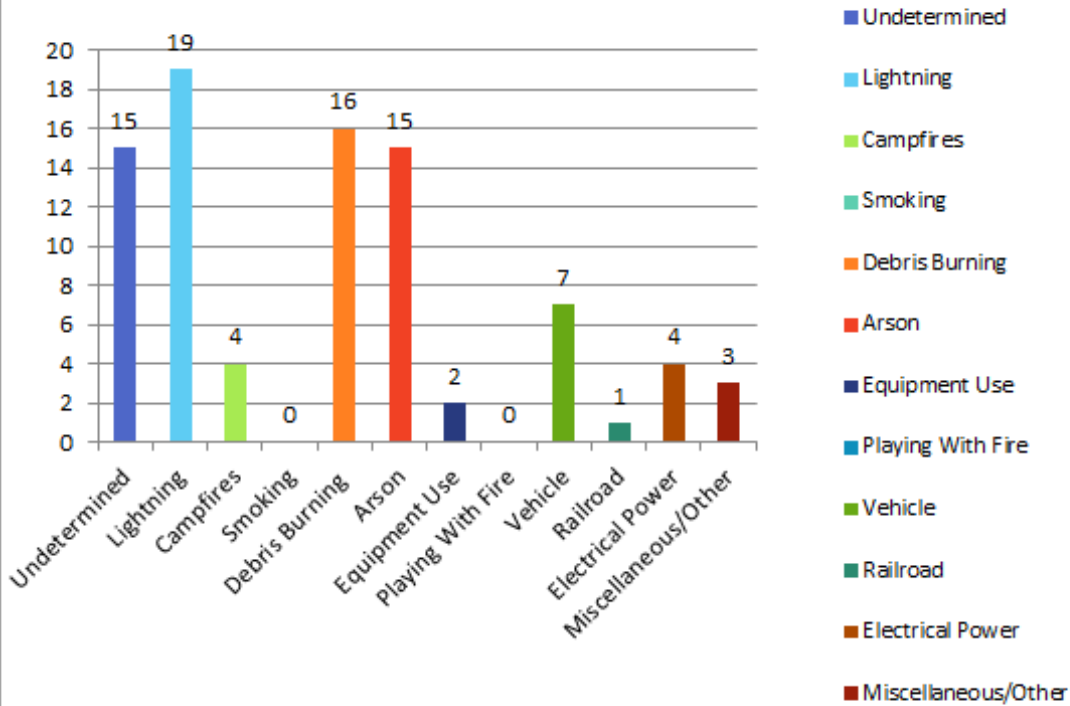
In addition to the 86 fires originating in State DPA, there was one Federal DPA fire that burned onto State DPA totaling 709 (State DPA Burned) acres. In 2022 the Siskiyou Unit was able to contain about 92 percent of the fires in State DPA to less than 10 acres, nearly meeting the Department's goal of 95 percent.

In 2023 the Siskiyou Unit will continue to focus on enforcement of fire laws, fire prevention education, fuel reduction, pre-fire planning, training, and aggressive initial attack to meet the goals of this Fire Plan.

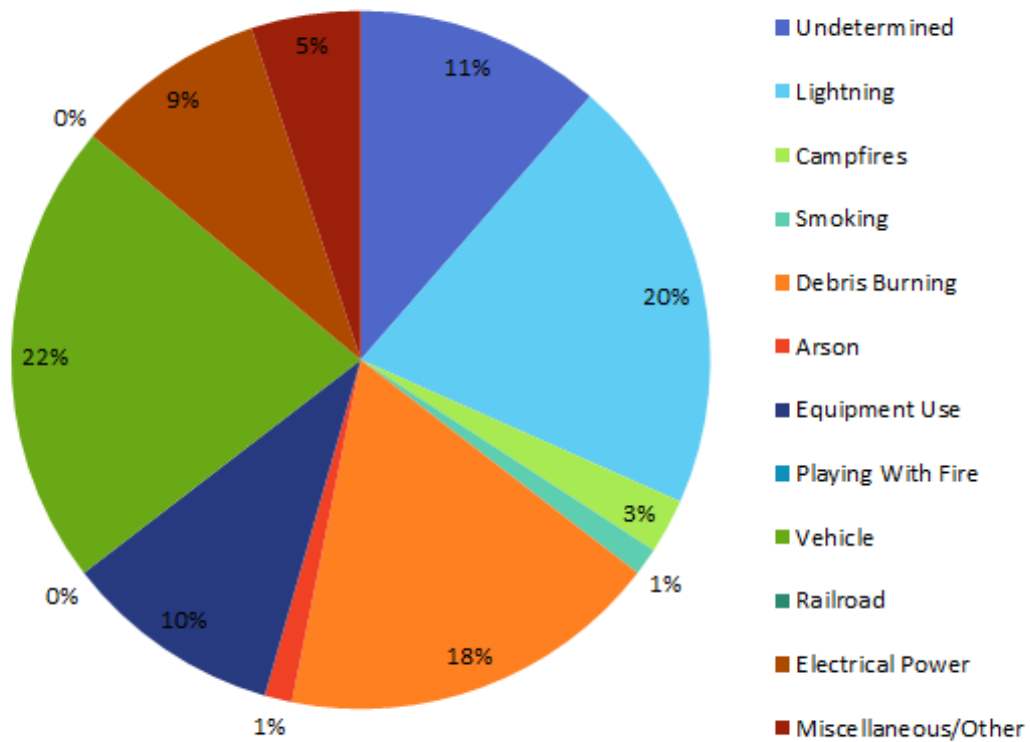
SKU 2022 Causes	Number by Causes	Acres Burned
Undetermined	15	3.62
Lightning	19	394.31
Campfires	4	0.82
Smoking	0	0
Debris Burning	15	131.41
Arson	15	18.04
Equipment Use	2	0.23
Playing With Fire	0	0
Vehicle	7	13465.28
Railroad	2	9.46
Electrical Power	4	0.87
Miscellaneous/Other	3	3939.11
<b>Total:</b>	<b>86</b>	<b>17963.15</b>

SKU 5-Year Averages	Average by Causes	Average Acres
Undetermined	12.8	31.66
Lightning	31.2	173.66
Campfires	2.8	1.01
Smoking	1.4	3.57
Debris Burning	14.8	7666.62
Arson	6.6	9.1
Equipment Use	5.8	6.29
Playing With Fire	0	0
Vehicle	10.6	2806.56
Railroad	1	2.55
Electrical Power	6.6	33.54
Miscellaneous/Other	6.6	793.02
<b>Totals:</b>	<b>100.2</b>	<b>11527.58</b>

### 2022 Siskiyou Unit - Total Ignitions By Cause



### 2022 Siskiyou Unit Ignitions - Cause Percentages



## Scott Valley Battalion 2022 Ignition Analysis and Achievements

### Achievements:

In 2022, battalion personnel worked throughout Siskiyou County on unit fuel reduction projects. The successful completion of these critical projects can be attributed to the personnel and equipment of the battalion. These projects will help protect Siskiyou County, Scott Valley communities, and first responders from the damaging effects of catastrophic wildfires. Battalion personnel worked with local landowners and cooperators within Scott Valley to educate and assist with fuel reduction projects utilizing broadcast burning to enhance agriculture production and fire safe landscapes. Opening and maintaining fire access roads continued to be a priority in the battalion. Work continued through cooperation with private timber companies and landowners to open fire access roads that were previously impassable.

Private timber companies have continued fuel reduction efforts from Patterson Creek to the Crystal Creek, accounting for about 11 miles of treatment varying in width from 600 feet to half a mile. They have also thinned along Sniktaw Road above Shackelford Creek, and continue to work on improving ingress and egress routes. These projects seek to bolster and extend the Etna Fuel Break to protect other stakeholders on the west side of Scott Valley from wildfires. Local fire safe organizations have received grant funding to complete fuel reduction projects for the communities of Seiad Valley, Partridge Pines, and Quartz Valley with treatments that focus on ingress and egress, defensible space for the disabled and elderly, and building continuity with other local fuel treatments.

The Scott River Water Shed Council and the Siskiyou Prescribed Burn Association have submitted grants for education and fuels reduction projects in Scott Valley that connect previously completed fuel breaks and proposed Fire Safe Council grant fuel breaks.

The Scott River Ranch VMP project in the McConaughey Gulch area of Scott Valley is in year 4 of a 10-year contract and will improve habitat and range land as well as reduce potential ignitions and spread of catastrophic wildfires in the area. There have been several different treatments completed utilizing mechanical thinning, mechanical piling, hand thinning, hand piling, pile burning, and broadcast burning. Future efforts will utilize the same treatment methods.

CAL FIRE personnel are currently in the implementation phase of the new Spencer VMP project adjacent to the Scott River VMP that will have similar goals and treatment objectives.

Battalion personnel continued to foster cooperative relationships with local and federal counterparts, participating in local and multi-agency training exercises. The battalion worked with the unit's Fire Prevention Bureau participating in local events. This created direct contact with community members for public education. Fire Prevention education topics included the leading causes of fires within the battalion and unit. Scott Valley Battalion personnel completed over 150 LE-100 fire safety inspections within Scott Valley in 2022 to help ensure the safety of residents and first responders.

### Ignition Analysis:

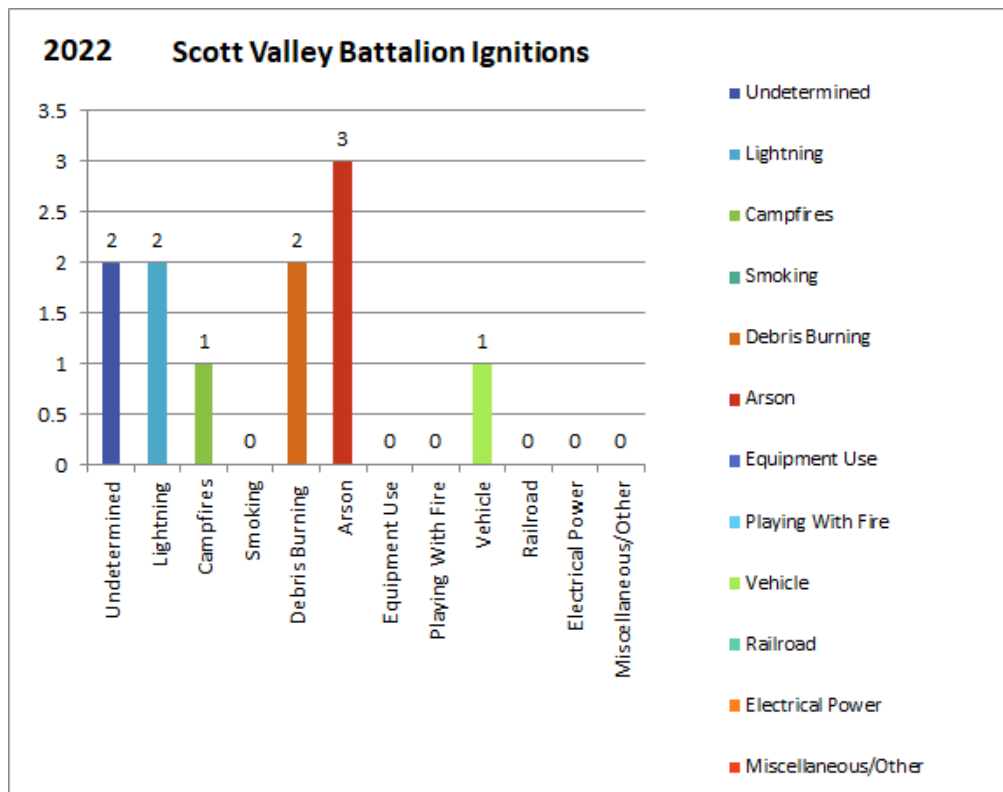
In 2022 the number of total fires in the Scott Valley were down, however, the area was impacted by two large fires. The McKinney fire started on the Klamath National Forest and burned into the north end of Scott Valley. The Mountain Fire started east of Callahan and burned into the east side of Scott Valley. The total number of fires in the battalion was 11, down from 16 the previous year, and nearly half the yearly average of 21. A contributing factor is a decrease in lightning caused fires and focused fire prevention efforts. There were 3 arson caused fires which was the leading fire cause in 2022. Lightning caused fires were twenty-five percent of normal with only two fires. Debris burning caused fires were half of the annual average at only 2. All other fire causes were at or below historical averages.

Battalion personnel will continue to educate the public while issuing burn permits, complete burn pile inspections, and continue education efforts at local events. Personnel will also work closely with Prevention Bureau staff to increase fire origin and cause investigation skills to better identify future problems in order to develop fire prevention strategies.

In 2023 the Scott Valley Battalion will continue to look for opportunities to work with the community, cooperators, and stakeholders on fuel breaks in and around populated areas. The focus of these fuel breaks will be to improve ingress and egress routes within the battalion as well as protecting communities, critical infrastructure, and timber lands. The battalion will also continue to identify locations for the implementation and completion of fuel reduction projects within these strategic locations. The goal for these projects will be to reduce available fuel for fire ignitions, improve ingress and egress, improve continuity of fuel breaks, and reduce the spread of wildland fires within Scott Valley. Fire prevention efforts will continue to focus on debris burning safety as this is historically the second leading cause of fires behind lightning caused fires.



Batt I 2022	Number by Causes	Acres Burned
Undetermined	2	0.32
Lightning	2	93
Campfires	1	0.1
Smoking	0	0
Debris Burning	2	2.01
Arson	3	6.11
Equipment Use	0	0
Playing With Fire	0	0
Vehicle	1	13440
Railroad	0	0
Electrical Power	0	0
Miscellaneous/Other	0	0
<b>Total:</b>	<b>11</b>	<b>13541.54</b>



## **Shasta Valley Battalion 2022 - Achievements and Ignition Analysis**

### **Achievements:**

In 2022, the Shasta Valley Battalion was successful in keeping all battalion fires to less than 10 acres. Decreased lightning activity, based on a seven-year average, had a part in this. Another contributing factor was a large Federal DPA fire to the west and two large SRA fires located in the neighboring battalion to the south. These fires were a constant reminder to the public to be fire safe.

Once again, the augmentation of an additional bulldozer, a type one helicopter, and a 40-person firefighter hand crew aided with aggressive initial attack, and helped keep most of the new fire starts from developing into extended attack fires.

The Yreka Fire Safe Council continued its efforts to collaborate and educate the public through in person meetings in the area, and sought more citizen involvement along with identifying funding for additional Fire Safe projects. The Fire Safe Council hopes to tie in past and current projects with the USFS Craggy Fuel Break project. The Craggy project will provide a fuel break on Humbug and Gunsight ridges helping to protect the city of Yreka and surrounding communities. Future projects are being discussed to protect all sides of the Yreka area.

Shasta Valley Battalion personnel, in conjunction with other CAL FIRE Siskiyou Unit personnel successfully burned 610 acres on the Bogus project, located in the northern half of the battalion. The battalion has plans to burn approximately 83 acres on the Newton project in the fall of 2022.

Currently, CALFIRE is in the early planning phases with several fuel reduction projects around the Yreka area. Most of these projects are expected to tie into the USFS Craggy Fuel project and past Fire Safe Council fuel reduction efforts.

### Ignition Analysis:

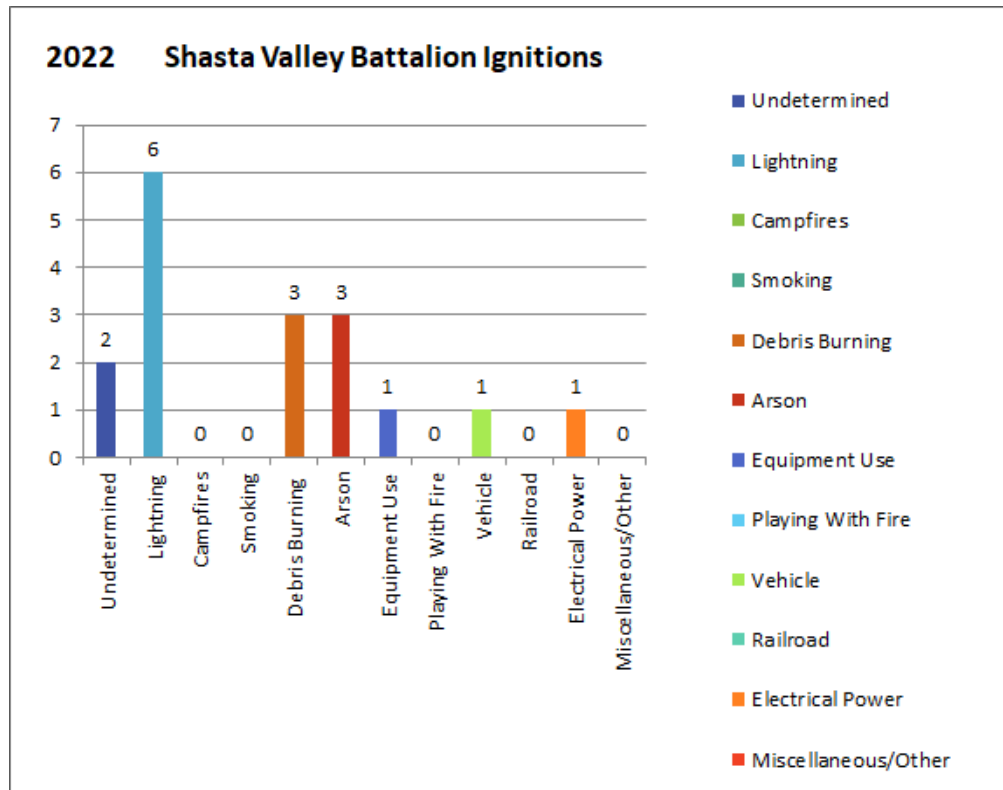
In 2022, the Shasta Valley Battalion saw an almost 50 percent decrease in total ignitions. This reduction in the total number of fires can most directly be associated with a below average amount of lightning caused fires and a heightened sense of awareness from the public due to three significant fires in the area throughout the summer.

The leading cause of fires in the battalion for 2022 was lightning caused fires, with six fire starts. Lightning caused fires are typically the highest fire cause in the battalion, However, only six lightning starts is a rare occurrence. All other ignitions were below the historical averages.

Large, fast-moving fires are becoming more of a trend throughout the state. Fuel reduction efforts within the Shasta Valley Battalion, will continue to focus on improving ingress and egress for communities, protecting critical infrastructure, and creating a fire resilient environment while protecting natural resources.

Battalion personnel will continue to educate the public through the burn permit process including burning regulations, site inspections and public outreach in conjunction with the Prevention Bureau. Battalion personnel will work closely with the Prevention Bureau to gain more education and experience in preserving fire scenes along with conducting origin and cause investigations. The results of this will help decrease the number of undetermined fires in the battalion.

Batt II 2022	Number by Causes	Acres Burned
Undetermined	2	2.41
Lightning	6	3.64
Campfires	0	0
Smoking	0	0
Debris Burning	3	0.63
Arson	3	0.32
Equipment Use	1	0.1
Playing With Fire	0	0
Vehicle	1	0.24
Railroad	0	0
Electrical Power	1	0.6
Miscellaneous/Other	0	0
<b>Total:</b>	<b>17</b>	<b>7.94</b>



## **Butte Valley / Weed Battalion 2022- Ignition Analysis and Achievements**

### Achievements

Battalion personnel assisted the US Fish and Wildlife Service with burning approximately 1,400 acres in the Lower Klamath Wildlife Refuge near Tule Lake. Participating in these prescribed burns encourages interagency cooperation, area orientation, and provides valuable training and experience to battalion and unit personnel.

The Butte Valley / Weed Battalion continues to focus on improving emergency ingress and egress routes for at-risk communities. Weed and Macdoel station personnel continued with local chipping projects in coordination with the Juniper Flat Fire Safe Council in Mt Shasta Vista and the Hammond Ranch Fire Safe Council. The focus of the chipping projects is to improve ingress and egress of easements in subdivisions where vegetation has built up and impedes civilian evacuation and emergency responder access. Ingress and egress as well as fuel reduction remain concerns for the Mt. Shasta Vista subdivision. This area is at high risk due to local wind patterns, extended response times, narrow winding roads, and a high concentration of people. In Feb 2020, the Juniper Flat Fire Safe Council received a CAL FIRE CCI Fire Prevention Grant for \$812,000 to complete 433 acres of fuel reduction (100ft each side along the roads in the Mount Shasta Vista subdivision. The project will utilize mastication and chipper/chainsaw work to provide valuable ingress, egress, and defensible space for the citizens in that area. Work on this project began in 2021 and will be an ongoing project. Additional fuel reduction projects will continue to be evaluated and planned to protect the communities, critical infrastructure, and natural resources in the battalion.

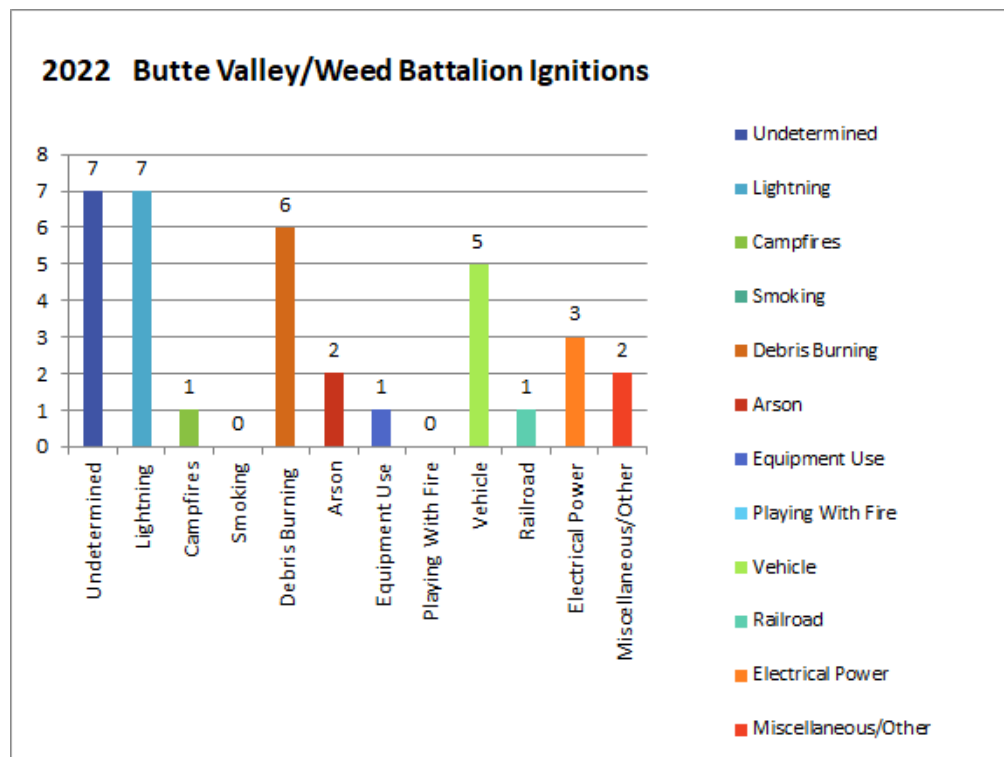
### Ignition Analysis

In 2022 there were 35 ignitions in the battalion, compared to 21 ignitions in 2021 and 20 ignitions in 2020. This is up 5 from 2019 and up 14 from 2021, 5 above the 7-year average for the battalion. This is mainly the result of an increase in undetermined, debris burning, arson, vehicle, and electrical power caused fires. In 2022 the total acreage burned in the battalion was 4,389 acres, which is well above average due to two larger fires that burned in the battalion: The Mill and the Highway 97 fires. Resource availability, early detection, aggressive initial attack aided in quick-fire suppression keeping most fires within less than 10 acres. The leading causes for 2022 were undetermined fires, lightning caused fires, and vehicle caused fires. Lightning fires were well under the historical average, whereas all other ignitions were near or below average. Historically, lightning caused fires are the number one cause of fires in the unit and battalion. For this reason, work will continue with landowners and cooperating agencies to improve ingress and egress for areas with high lightning occurrence to aid in quick fire detection and suppression. In 2022, debris burning was slightly above the 7 year average. Battalion personnel will focus on increasing public education on safe burning, and will work with the PIO to increase prevention efforts as this is historically the leading type of human caused fires. The battalion had six fires that were undetermined, which is three from last year. To better understand the fire problem in the battalion, it is important to reduce the number of undetermined fires to better target prevention efforts. Battalion personnel will work with the Prevention Bureau to get additional training and experience with cause and origin investigations.

Vehicles were determined as the cause of 5 fires which burned 25 acres. Vehicle caused fire acres increased from 2021 to 2022 which will also be a focus of fire prevention in 2023.

The Butte Valley/ Weed Battalion will continue to focus on preventing and reducing the number of all vegetation fires through public education events, media, fuel reduction, pre-planning and any other means that are feasible. All other ignitions were near or below historical averages.

Batt III 2022	Number by Causes	Acres Burned
Undetermined	7	0.29
Lightning	7	297.24
Campfires	1	0.27
Smoking	0	0
Debris Burning	6	126.76
Arson	2	0.35
Equipment Use	1	0.13
Playing With Fire	0	0
Vehicle	5	25.04
Railroad	1	0.26
Electrical Power	3	0.27
Miscellaneous/Other	2	3939.01
<b>Total:</b>	<b>35</b>	<b>4389.62</b>



## **McCloud Battalion 2022 - Ignition Analysis and Achievements**

### *Achievements*

In 2022, the McCloud Battalion achieved many accomplishments including working with Dunsmuir's Disaster Planning Advisory Committee board and the Siskiyou County Fire Safe Council to receive a grant for planning, completing fire prevention and fuel reduction work in the City of Dunsmuir, and furthering fuel reduction efforts on the Highway 89 Fuel Break and the Squaw Valley Fuel Break with work continuing into 2023. Additionally, the battalion completed fuels reduction and day lighting on the Esperanza road which leads into the Mount Shasta Forest Estates. Maintenance work also continued for fuel reduction projects at Mt. Shasta Fish Hatchery and at the Mt. Shasta sewer ponds. The battalion prioritized collaboration between CAL FIRE, the United States Forest Service, local Timber Companies, Fire Safe Councils, and local Fire Departments for pre-fire planning and fire prevention. Defensible space inspections in the battalion continued with an emphasis on compliance and public education. Timber companies continued to add fuel breaks while also maintaining existing fuel breaks and roadways. Collaboration with cooperators remained a critical asset in pre-fire planning and fire suppression.

Personnel from the McCloud Battalion remain actively engaged in local fire prevention programs and outreach events aimed at educating the public about wildfire awareness, the Ready Set Go program, the Zone Haven evacuation system, the Code Red evacuation system, and the defensible space program. Additionally, the McCloud Fire Safe Council is currently working on a grant-funded project to create a shaded fuel break around the town of McCloud, which is expected to continue through 2022.

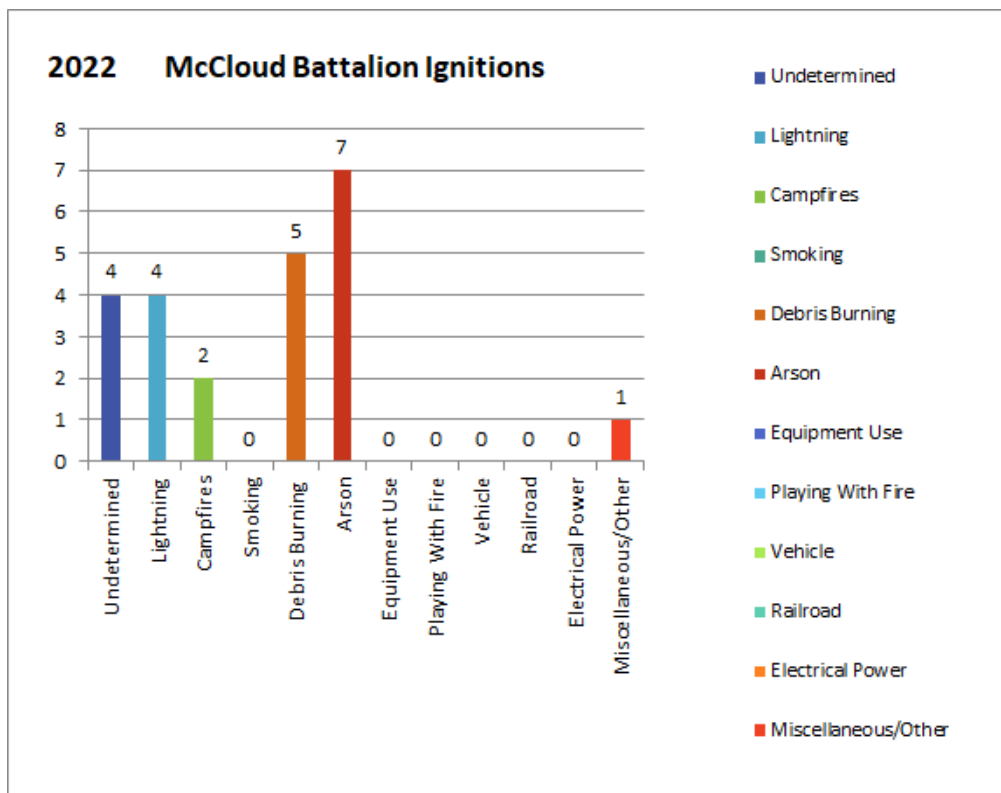
The Siskiyou Unit is collaborating with CAL TRANS, Shasta Valley RCD, and the Mount Shasta Fire Safe Council on the Azalea fuel break project on Interstate 5, from Dunsmuir to Azalea road. This initiative aims to treat fuels on both sides of the Interstate within the CAL TRANS right-of-way. The project is in the first phase of a three-part effort to treat fuels along the Interstate 5 Right-of-Way from Dunsmuir to Edgewood road. Planning is underway for future fuels reduction projects, including phase 2 of the Interstate 5 project from Azalea road to the Truck Village exit, which is state-funded. The Highway 89 fuels project is ongoing, with funding secured to complete the CEQA process.

### *Ignition Analysis*

In 2022, the McCloud Battalion experienced a significant increase in the number of ignitions, totaling 23 compared to 13 the previous year. The increase was largely due to arson and lightning-caused fires. Causes of fires varied, including arson, debris and open burning, recreation and ceremony, natural, and undetermined. Arson and debris burning were the most common causes in the battalion. However, there were no equipment, vehicle, exposure, other, railroad, misuse of fire by minor, or power-caused fires. Thanks to early detection and prompt initial response, all fires were contained to 24.05 acres, a modest increase of 21.42 acres from the previous year.

Targeted messaging and education programs will address all types of human-caused fires, through the use of fire prevention signs, education outreach, and social media campaigns. The battalion personnel will closely collaborate with the Prevention Bureau to gain more experience and education in preserving fire scenes, as well as conducting origin and cause investigations.

Batt IV 2022	Number by Causes	Acres Burned
Undetermined	4	0.6
Lightning	4	0.43
Campfires	2	0.45
Smoking	0	0
Debris Burning	5	11.21
Arson	7	11.26
Equipment Use	0	0
Playing With Fire	0	0
Vehicle	0	0
Railroad	0	0
Electrical Power	0	0
Miscellaneous/Other	1	0.1
<b>Total:</b>	<b>23</b>	<b>24.05</b>





## ***ANNUAL ACCOMPLISHMENTS REPORTING 2022***

### **Fire Planning:**

In 2022, several CAL FIRE and Fire Safe Council projects prioritized fuel reduction work, including the BLM Yreka Project, Azalea Fuel Break, Squaw Valley Fuel Break, Scott River Ranch VMP, Castle Crags Project, the Craggy GNA, Siskiyou County Flood Control, Bogus Creek VMP, Greenhorn Park, and multiple USFS (KNF & SHF) projects. Siskiyou Unit Personnel contributed to reviewing and editing various Community Wildfire Protection Plans, including the Yreka Area CWPP Update.

The Siskiyou Unit acknowledges the importance of maintaining multiple fuel breaks within the unit, as they are essential for fire resilience. However, acquiring maintenance grants has been challenging for the Siskiyou County Fire Safe Councils. Instead of constructing fuel breaks in non-strategic areas, the unit would benefit from constructing and maintaining strategically located fuel breaks.

### **Investigations and Enforcement:**

In 2022, the Siskiyou Unit's law enforcement officers received 459 calls for service and investigated 69 vegetation fires in SRA, 20 structure fires, and 114 other types of fires. The analysis of ignition sources revealed that arson was the primary preventable cause of fires last year. The unit's personnel and bureau law enforcement officers also focused on investigating illegal burning, particularly related to marijuana cultivation. The Prevention Bureau took enforcement actions to include, 18 custodial arrests and misdemeanor citations, and issued five infraction citations. CAL FIRE Law Enforcement Officers supported other law enforcement agencies about 88 times throughout the year. Additionally, a total of 36 LE-38 notices of fire hazard inspection were issued due to illegal burning within the unit.

### **Wildland Fire Prevention Engineering:**

The Siskiyou Unit processed a total of 111 building permit applications and conducted 67 plan reviews in 2022.

### **Education and Information:**

Fire prevention and education programs were conducted throughout the year. These accomplishments included: 31 fire prevention signs that were displayed on major roadways, fire prevention messaging to over 20,000 people daily via social media, and 22,000 contacts with students through virtual school programs. The Prevention Bureau processed 8,035 defensible space inspections. Unit Forestry Aids (DSI) were instrumental in completing these inspections. There were 167 media contacts made for fire information and/or prevention education. Numerous hours of staff time were spent with outreaches to local and federal government cooperators and fire safe councils, assisting with fire prevention efforts.

### **Vegetation Management:**

Fuel reduction work continues to be a priority within the Siskiyou unit. In 2022 many fuel reduction projects were completed as well as new projects planned. Prescribed fire burn preparation continued on the 1400-acre Bogus Creek VMP, and in the fall of 2022 over 600 acres were broadcast burned. 70 acres of bulldozer crushed and piled brush were burned on the Scott River Ranch VMP. Planning has begun for several other VMP and fuel reduction projects including the KNF Lovers Canyon, Spencer VMP, phase 2 of the Azalea fuel break in Dunsmuir, the Squaw Valley fuel break in McCloud, as well as several smaller VMP's in the Yreka area.

### **Volunteerism:**

Volunteers in Prevention put in 1150 hours of Fire Prevention activity. Volunteer hours were mostly Honor Guard related.

### **Fire Hazard Severity Mapping and Mitigation:**

New Fire Hazard Severity Zone maps for the SRA were rolled out in November of 2022. The new maps may be significantly different from the previous versions in some areas because new data was used. The most impactful change is that burn probability has increased as the area burned in California has increased. The new draft map uses fire history data in California through 2020. In addition, local climate data for the years 2003–2018 were used to adjust the estimated flame length and to model dispersion of blowing embers into urban areas. The FHSZ maps are being updated to more accurately reflect the zones in California that are susceptible to wildfire. The hazard mapping process will incorporate new science in local climate data and improved fire assessment modeling in determining hazard ratings. Local Responsibility Area FHSZ mapping should begin in the fall of 2023. Fuel reduction projects to be conducted throughout Siskiyou County continue to be considered short term mitigations for fire hazard severity.

### **Other Fire Prevention Projects in SRA:**

Numerous hours of staff time were spent assisting local and federal government cooperators with combined fire prevention efforts. Staff hours were also spent aiding fire safe councils in their fuel reduction and fire prevention education efforts.