

2023  
FRESNO-KINGS UNIT

# FIRE PLAN



## UNIT STRATEGIC FIRE PLAN AMENDMENTS

<b>Date</b>	<b>Section Updated</b>	<b>Page Number</b>	<b>Description</b>	<b>Updated By</b>
3/18/2023	Appendix A	37-39	Fire Plan Projects	B. Garabedian
3/18/2023	Appendix B	39	Wildland Activities	B. Garabedian
3/18/2023	Appendix C	40-41	Updated Ignition Data	B. Garabedian
3/18/2023	Various	102-113	2022 Accomplishments	B. Garabedian
3/18/2023	Various	All	Formatting	B. Garabedian

Figure 1 UNIT STRATEGIC FIRE PLAN AMENDMENTS

## SIGNATURE PAGE

Unit Strategic Fire Plan developed for Fresno-Kings Unit

This Plan:

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

*Bryan Garabedian*

Pre-Fire Engineer  
Bryan Garabedian

5/1/2023

Date

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## **EXECUTIVE SUMMARY**

The Fresno-Kings Unit Strategic Fire Plan was completed by a collaborative effort with the various stakeholders in the Unit, program managers, bureau managers and Battalion Chiefs. The Unit Pre-Fire Engineer compiled the information from the various inputs and presented a document that is a comprehensive Strategic Fire Plan for the Unit that address the needs of the ever-changing environment within the Fresno-Kings Unit.

The Unit's Fire Plan is integrated into one, with CAL FIRE and the Fresno County Fire Protection District working together as one. This document will be updated each year on the successes that have been accomplished and new goals and objectives as outlined by the Unit and the California Strategic Fire Plan.

### **The Fresno-Kings Unit Strategic Fire Plan is broken up into seven components: Unit**

#### **Overview**

- The Fresno-Kings Unit has responsibility for protecting 955,167 State Responsibility Area Acres and 1,626,782 Local Responsibility Acres with a Cooperative Fire Protection Agreement with the Fresno County Fire Protection District.
- During peak fire season, there are 12 State Funded and 14 District Funded fire engines staffed.
- Miramonte Conservation Camp has four (4) Inmate Type 1 Hand crews that respond to emergencies and perform work on pre-fire projects.

#### **Collaboration**

- There is strong collaboration within the Unit with input from various groups such as the Highway 168 Fire Safe Council, Southern California Edison, Pacific Gas and Electric, Sierra National Forest, Sequoia National Forest, and various cities and Fire Districts/Departments.
- Assets at Risk
- Values at Risk
- The primary purpose of wildland fire protection in California is to protect the wide range of assets found on California wildlands. These assets include life and safety; timber; range; recreation; water and watershed; plants; air quality; cultural and historic resources; unique scenic areas; buildings; and wildlife, plants, and ecosystem health, and cultural and historic.
- Communities at Risk
- The Unit has seventeen communities that are listed as high risk for damage from wildfire on the Federal Registrar's "Communities at Risk."

## **Pre-Fire Management Strategies**

- The plan facilitates development of a wide range of management prescriptions, utilizing every program and tool available to the Department, for protecting assets at risk. These tools include every conceivable combination of fuels reduction, ignition management, fire-safe engineering activities, code development and enforcement, public education, and forest health enhancements to protect Public and private assets.

## **Pre-Fire Management Tactics**

- Each Battalion and Bureau within the Unit has specific priorities and goals that were developed to protect specific assets at risk.

## **Appendices, Annual Addendums and Exhibits**

- Appendix A lists the Units' Pre-Fire projects.
- Appendix B is the Unit Goals and Objectives. Each year the Goals and Objectives may be updated with new obtainable ones.
- Other appendixes will be added as necessary to support the unit fire plan.
- The exhibits will include various maps of the Unit including Direct Protection Area (DPA) boundaries and locations of state facilities.

## **Annual Supplements**

Each year, a report will be completed on the success of the accomplishments of the Statewide and Unit specific goals and objectives. Each year annual ignitions summaries will also be included. A complete list of specific accomplishments within each of the Battalions and Bureaus will be included when objectives are worked on or completed.

## **SECTION I: UNIT OVERVIEW**

### **UNIT DESCRIPTION**

The Fresno-Kings Unit of the California Department of Forestry and Fire Protection (CAL FIRE) has primary responsibility for over 1,113,284 acres of Direct Protection Area (DPA) lands. CAL FIRE DPA lands are State Responsibility Area (SRA) and intermingled Federal lands protected by CAL FIRE. CAL FIRE protects Federal lands in state DPA under agreement with federal forest agencies through the California Cooperative Wildland Fire Management and Stafford Act Response Agreement. (CFMA) There are over 955,167 acres of SRA lands in the Fresno-Kings Unit. SRA lands are the areas designated by the State Board of Forestry and Fire Protection on which the state assumes fiscal responsibility for protecting natural resources from damage by fire. The Fresno County Fire Protection District (Fire District) has a Cooperative Fire Protection Agreement (Contract) with the State of California. As part of the contract with CAL FIRE, Fresno- Kings Unit oversees the day-to-day operation of the Fire District and Protects 1,626,782 Acres of land ranging from rural to urban.

The Unit is divided nearly in half by the San Joaquin Valley. This 70-mile span presents some specific logistical and administrative challenges for the development of a Pre-Fire Management Plan. The fuel and topographic conditions, along with the human activity, risk, and ignition history of the Unit add to the diversity of the Unit. To facilitate, the Unit is divided into two (2) operational divisions.

The Eastern Division expands from the floor of the San Joaquin Valley to an elevation of 7,300 feet along the Western slopes of the Sierra Nevada and incorporates two of Central California's major watersheds, the Kings, and San Joaquin Rivers. This Division is primarily vegetated at the lower and mid elevations by seasonal grasses, deciduous and evergreen oaks, and brush, while the higher elevations consist of conifers. The Eastern Division contains three (3) lake recreation areas, Shaver Lake, Millerton Lake, and Pine Flat Lake. The recreational use in these areas is moderate to high. The Eastern Division also contains two (2) population centers, the Shaver Lake – Prather area and the Squaw Valley - Dunlap area. Both population centers have a steadily increasing permanent residential growth pattern. The WUI is a real and current concern in these areas.

The Western Division is made up of the eastern slope of the Coastal Mountain Range. Primary vegetation types consist of seasonal grasses, deciduous oaks, and heavy brush. There is a high seasonal recreational use of Bureau of Land Management (BLM) holdings, within the Division. Residential impact in the area is light, with little indication of growth. Industrial use is heavy in some areas, depending on the economic situation in the petroleum industry.

### **FIRE HISTORY**

The Fresno-Kings Unit over the past 50 years has a history of large, damaging fires with a low frequency or occurrences. This pattern can often be associated with drought conditions and isolated extreme weather conditions. In review of the large fires in the Unit, they can be grouped into two different areas, the Eastern Division, and the Western Division. Some of the largest fires in the Unit have occurred in the Western Division. The

six (6) largest fires from the Western Division have a combined acreage of 151,811 acres with the largest fire being the Ciervo Fire in 1979 at 62,901 acres. The largest five (5) fires from the Eastern Division have a combined acreage of 35,171 with the largest fire being the Powerhouse in 1989 at 11,799 acres.

## **UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES**

### **Fresno-Kings Unit Facilities**

Nine (9) CAL FIRE Stations  
Thirteen (15) Staffed Fire District Stations  
Seven (2) Paid Call Firefighter (PCF) Fire District Stations Miramonte Conservation Camp  
Tollhouse Fire Center  
Mid Valley Crew 1  
Fire Prevention/Protection/Planning Bureau  
Training Bureau  
Emergency Command Center

### **Initial Attack Resources during Peak Fire Season Staffing**

Thirteen (13) CAL FIRE Schedule "B" engines  
Fourteen (14) Schedule "A" engines Seven (2) PCF engines  
Two (2) CAL FIRE bulldozers  
One (1) Fresno County Bulldozer  
One (1) CCC crew  
Up to four (4) inmate type 1 hand crews  
Four (4) California National Guard type 1 hand crews  
One (1) Air Attack lead plane

### **Local Fire Departments that Fresno Kings Unit has mutual or automatic aid agreements with:**

Auberry Volunteer Fire Department City of Coalinga Fire Department  
City of Firebaugh Volunteer Fire Department City of Kingsburg Fire Department  
City of Reedley Volunteer Fire Department City of Sanger Fire Department  
City of Selma Fire Department County of Kings Fire Department County of Madera Fire Department  
County of Merced Fire Department  
Fresno Air National Guard Fire Departmentations Volunteer Fire Department  
Pleasant Valley Prison Fire Department  
Orange Cove Fire Department  
Fresno City Fire Department  
Clovis City Fire Department  
North Central Fire Department  
Shaver Lake Volunteer Fire Department  
Huntington Lake Volunteer Fire  
Bald Mountain Volunteer Fire Department



**Fresno-Kings Emergency Command Center (ECC) Provides Emergency Dispatch Services for:**

- Fresno County Fire Protection District
- Orange Cove Fire District
- Coalinga Fire Department
- Shaver Lake Volunteer Fire Department
- Huntington Lake Volunteer Fire Department
- Big Creek Volunteer Fire Department
- Bald Mountain Fire Protection District
- Auberry Volunteer Fire Department
- Mountain Valley Volunteer Fire Department
- Pine Ridge Volunteer Fire Department
- Pleasant Valley Prison Fire Department
- Riverdale Volunteer Fire Department
- Selma City Fire Department
- City of Reedley Volunteer Fire Department
- Hume Lake Fire & Rescue Department
- Kingsburg City Fire Department

**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><u>Organization</u></b>	<b><u>Title</u></b>
Highway 168 Fire Safe Council	Director
Oak to Timberline Fire Safe Council	Director
Sierra National Forest	Fuels Specialist
Sequoia National Forest	District Fire Management Officer
Pacific Gas and Electric	Forester
California State Parks	Lieutenant
Army Corps of Engineers	Supervisor
Department of Reclamation	Maintenance Supervisor
Bureau of Land Management	Field Manager
Department of Fish and Game	Biologist
Department of Public Works and Planning	Senior Planner
Southern California Edison	Fire Ecologist

**SECTION III: VALUES**

## **VALUES AT RISK**

Assets susceptible to fire impacts are identified in the Fire Plan as air quality, rangelands, recreation, agriculture, structures, timber, water and watersheds, wildlife and habitat, and other resources (cultural, historical, and scenic). The focus of this plan and relative importance of each Asset has been determined by reviewing input from local stakeholders and CAL FIRE managers. The Fresno-Kings Unit Fire Plan has been engineered with these issues in mind.

The priority Assets at Risk in the Unit are Rangelands, Forests, Agriculture and Watershed. Cattle ranches encompass hundreds of thousands of acres of rangelands in the Unit while most of the floor of the San Joaquin Valley has various crops. Forests remain valued assets and are critical to the social and environmental well-being of the Unit. Agriculture is a big industry in the Unit. The agriculture businesses that support the industry are critical to the economic engine that drives the local economy.

There are several major watersheds in the Unit that help provide water for domestic and agriculture purposes and without them there would be devastating consequences for the local economy. The San Joaquin and Kings Rivers have hydroelectric facilities that provide power to the State grid. Large and damaging fires near the San Joaquin and Kings Rivers would potentially cause disastrous effects on the quality and quantity of water available for drinking supply.

## **COMMUNITIES**

During the spring of 2001, a field validation process was conducted in the Fresno-Kings Unit to identify and validate communities at risk. This process was conducted based on a request from Congress, through the FY 2001 Appropriation Bill, which called for a list of "...all urban wildland interface communities, as defined by the Secretaries, within the vicinity of Federal lands that are at high risk from wildfire, as defined by the Secretaries". The following criteria were provided to help identify communities at risk:

- *Interface* exists where humans and their development meet or intermix with wildland fuels.
- *Community* is a defined area where residents live and are provided services such as fire protection, water, law enforcement, etc.
- *Vicinity* of Federal lands is defined as within the range in which fires can travel.
- *High-risk* exists where there is land condition that is characterized by high-risk fire regimes.

After receiving input from the USDA Forest Service and National Park Service, the following communities in Fresno and Kings Counties were identified as Communities at Risk and were placed on the National list in the Federal Register.

Auberry	Dunlap	Piedra
Avenal**	Friant**	Pinehurst
Big Creek*	Hume*	Prather
Big Sandy	Lakeshore*	Shaver Lake

Dinkey Creek Meadow Lake Miramonte  
squawValley Tollehouse

\* Located in Federal Direct Protection Area

\*\* Located in Local Responsibility Area

The significance of a Community at Risk designation has become apparent recently with most Federal proposals for wildfire protection requesting information about Communities at Risk in the proposed project to help rank the proposal.

## **SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES**

### **FIRE PREVENTION**

The Fresno-Kings Fire Prevention Bureau works to protect lives, property, and natural resources from unwanted fires by proactively investigating all Wildland fires and utilizing appropriate criminal, code enforcement, civil and procedures to deter activities that lead to unwanted human caused fires. The Fire Prevention Bureau also coordinates law enforcement activities through public education and information activities to educate the public. Additionally, we educate local public safety agencies, about specific activities that can increase fire risk and offer preventative measures that can be taken to eliminate or lessen the risk.

The Fresno-Kings Unit on average has 1500 ignitions each year that includes SRA and LRA. The greatest number of ignitions causes on average is from human cause. Playing with fire and undetermined combined as the second most frequent causes. Playing with fire cause class is a priority to prevention staff and is in error based on company officers using the category incorrectly. Therefore, we are working on educating our staff to correct the issue.

### **ENGINEERING & STRUCTUREIGNITABILITY**

#### **Fire Prevention Bureau Goals**

Based on the previous identified information the Fire Prevention Bureau has adopted the following actions to provide efforts of ignition mitigation to protect property, natural resource loss, and loss of life or injuries.

#### **Protection and Planning**

The protection and planning section will continue efforts of plans checking in accordance with California Fire Code Requirements to provide for public safety. School programs and care facilities inspection will continue to be a high priority.

The Public Resource Code 4290/Fresno County Fire Safe Ordinance (Chapter 15.60) plans check, and inspections program will continue to provide homes with defensible space and construction. This program is essential with the expansion of single-family homes into the WUI environment throughout primarily the east side of the Unit.

### **Defensible Space**

Managing and reducing the flammable vegetation around structures will also reduce the number of structure ignitions from wildland fires. Clearing vegetation and maintaining that clearance is required by section 4291 of the Public Resources Code (PRC 4291). In 2005 PRC 4291 was amended to increase the minimum vegetation clearance requirement from 30 feet to 100 feet around structures. Although this law requires it, many landowners fail to maintain adequate clearance around their structures. CAL FIRE's fire safe inspection program is used to enforce compliance with PRC-4291. Additionally, the fuel reduction projects within the Unit are aimed at reducing wildland fuels and educating the public on what they can do for themselves to protect their homes from wildfires and reducing structure ignitability.

### **Law Enforcement**

The enforcement of forest and fire laws will continue to be proactive in efforts to pursue and prosecute violators of statute. Efforts to reduce the miscellaneous category on the ignition statistics has improved. Fires must continue to be investigated in more detail. This may require some additional education/training of our fire personnel to assist them in origin and cause investigation and report writing. Our efforts to collect suppression cost on fires of negligent or criminal nature has improved. Emergency incidents are costly and the ability to collect suppression cost and punitive damages will remain active.

Lastly, the law enforcement staff is given the authority and responsibility to identify, investigate and arrest subjects involved in criminal related acts. These incidents will be investigated and documented through proper case management. The management of these cases will be conducted with detail of documentation and proper evidence security. Finally, given the correct legal circumstances the cases will be actively pursued and prosecuted.

Creation and development of new processes relating to Safe and Sane fireworks permitting and use within the district to ensure the safety of public and their properties from fire.

### **Fire Protection/Planning**

The mission of the fire protection/planning bureau is to reduce losses and cost from fires within the Fresno-Kings Unit in both the SRA and LRA by enforcement and public education of applicable fire and public resource codes. It is additionally the mission of the bureau to be proactive in its approach to preventing ignition, loss, and cost of all types of fires.

The priority areas for both SRA and LRA are any area, within the Unit, with substantial residential and industrial development that has the potential to affect the Unit's resources. Although new developments have the potential to impact the Unit's resources, a Community Facilities District was established and adopted to generate funds to ensure staffing and equipment are available to manage increased impacts of development.

## Priorities and Goals:

- **Web Based Protection and Planning:** Develop and implement web-based access to protection and planning requirements for contractors and individual developers. Build efficiency for staff by having available on the district web site all codes and requirements for new and existing construction and PRC 4290 standards.
- **Develop Inspector Guidelines:** Develop and implement standard operating guidelines for inspectors. Develop and implement of new hire training and personnel standards.
- **NFPA 1142 Rural Water Supplies:** Developed and implemented the use of NFPA 1142 as an alternative guide for calculation of fire protection water systems for developments within the SRA or LRA areas of the Unit. The guide provides alternative methods while still considering fire and life safety factors.
- **Business Inspections:** Establish standard operating procedures for staff to conduct annual business inspection for compliance with California Fire Code Standards. Develop standards for conducting mandated inspections.
- **Sub-division Fire Protection System Maintenance:** Monitor new agreements established by Fresno County Planning and Development for new subdivisions within the County of Fresno to provide ongoing maintenance of fire protection systems. This agreement provides language for establishment of a Homeowner's Association to provide maintenance of these systems.
- **Potential Fire Plan Opportunities, Needs & Problems:** The Unit protection and planning department within the Unit works closely with the Fresno County Planning and Development Department. This relationship is critical for new projects in the county ensuring the implementation of California Fire Code standards. The process of project submission at the county level is complicated and requires the Unit to provide ongoing education of the fire code standards as it applies to projects.
- **Fireworks:** Continue to improve fireworks permitting and use processes to ensure the safety of the public and their properties from fire.

## INFORMATION AND EDUCATION

The information and public education outreach programs provide the Department the ability to educate the public. These efforts will continue to be proactive in providing information to residents that reside in the WUI within the Fresno-Kings Unit. The program will also present homeowners with how they may participate as a shareholder in the Fresno and Kings Counties. This information will continue to be proactive through safety messages, community groups, town hall meetings, fire safe councils and through local media outlets.

The information and education bureau strive to reduce ignitions in the Unit. Through a collaborative effort with local allied fire agencies, Fire Inspectors, roadside public education signs, fire prevention education programs, and participation in various community venues has assisted in reducing the overall fire ignitions within the Unit.

## VEGETATION MANAGEMENT

### Program Framework

The current Vegetation Management Program (VMP) is the continuation of the Range Improvement Program that existed in California from the 1950's to the 1970's. The Range Improvement Program was conducted by cooperative groups of ranchers who would band together to conduct prescribed burns primarily for range improvement objectives. These cooperatives had the equipment and expertise to conduct burn projects with limited to no assistance from fire agencies. These groups continued until the mid to late 1970's. At this time, liability issues, available cooperators and air quality restrictions all came together to stop all non-governmental range improvement burning. This led to the passage of Senate Bill 1704, which was signed by Governor Brown Jr. on July 16, 1980. This bill authorized CAL FIRE to assume the liability and project implementation for prescribed burns on private property and thus created the Vegetation Management Program that is utilized by CAL FIRE today. The program became operational with the adoption of the Final Environmental Impact Report for the Chaparral Management Program on May 18, 1981.

The Vegetation Management Program provides CAL FIRE the authority to cooperatively treat vegetation and fuels on private lands. While a vegetation management project obviously improves private property values through reducing accumulated vegetation and increasing land management options, it also has benefits to the public. The benefits to the public include wildlife habitat improvement, increased water yield, air quality benefits of controlled releases of smoke during a prescribed project versus the uncontrolled release of smoke during a wildfire and most importantly the potential savings of significant taxpayers' funds through increased success of fire suppression in areas treated with vegetation management projects versus areas not treated.

*For additional information, see the "California Department of Forestry Chaparral Management Program Final Environmental Impact Report," May 18, 1981.*

A specific example of the public benefit of VMP within the Fresno-Kings Unit is the Beal Fuel break. The Beal Fuel break is in the Pine Ridge area of Fresno County along Highway 168. The Beal Fuel break is a segment of the historic 650-mile-long Ponderosa Way Fuel break that was constructed by the Civilian Conservation Corps in the 1930's. This project has been maintained periodically over the years to include brushing and road grading, and in 2019 was one of the Governors 45-Day priority projects in FKU. The arson caused Highway Fire, which burned from August 13-18, 2000, was ignited down-slope of the Beal, and eventually burned into the fuel break. The fire was controlled at the fuel break.

Under the Vegetation Management Program, CAL FIRE utilizes a standardized program to address vegetation and fuels projects. Prior to project implementation a standardized formula is utilized to determine the private benefit versus the public benefit of a given project. Based on the formula, CAL FIRE may pay up to a maximum of ninety percent of project's costs if it has a high public benefit. The participating landowner(s) and/or other cooperator(s) pay the remainder of the project's cost. The following categories are evaluated in determining private versus public benefits: Fire Hazard Reduction; Water

Improvement; Air Quality Improvement; and Range Forage Improvement.

*For additional information on specific VMP implementation, see the "Vegetation Management Program Handbook and Field Guide," California Department of Forestry and Fire Protection, June 2001.*

The Environmental Impact Report for the Chaparral Management Program, which was adopted in 1981, provides the statewide California Environmental Quality Act (CEQA) clearance for VMP projects. This environmental clearance means that project that comply with the techniques and mitigations found in the Environmental Impact Report will not have a significant impact on the environment. The environmental analysis for the Chaparral Management Program was specific to lands containing "shrub formations" of all types. The term "Chaparral Management" was used because it was felt that a majority of the public understands that term as meaning "brush lands." Since the environmental analysis for the Chaparral Management Program was specific to "lands containing shrub formations," the Vegetation Management Program cannot be utilized on tree-dominated landscapes. In the mid 1990's, CAL FIRE recognizing the need to expand the Vegetation Management Program to other than lands containing "shrub formations" undertook development of a Program Environmental Impact Report (PEIR) to expand the use of Vegetation Management Program. This new PEIR was approved in June 2000. In January of 2002, the newly adopted PEIR was enjoined by the Superior Court of San Francisco County based on a lawsuit by Californians for Alternatives to Toxics and the Environmental Protection Information Center (EPIC). At this time, for vegetation and fuels projects on lands other than those containing "shrub formations" CEQA must be met on an individual project basis.

*For additional information on the PEIR see "Environmental Impact Report Handbook for Vegetation Management Program, California Department of Forestry and Fire Protection," Prepared by Jones and Stokes, Sacramento, CA, July 2000.*

## **Fiscal Framework**

The state funding support of the Vegetation Management Program recognizes the fact that many of the needed CAL FIRE resources to conduct a vegetation management project are in place and funded for fire suppression activities. Thus, there are minimal added expenses to CAL FIRE to conduct projects. The Fresno-Kings Unit is provided from \$5 - \$30 per acre, in augmented funding, to complete vegetation projects. This funding is intended to cover project expenses over and beyond normal operating expenses. This funding process was established when most VMP projects were large-scale (several hundred to several thousand acres) range improvement projects. Due to the minimal amount of fire control line work needed versus the number of acres that could be treated in a single prescribed fire project, the augmented funding was appropriate. In response to the WUI issue and the high assets at risk; CAL FIRE's Vegetation Management Program is now focusing more on small scale, intensive treatment projects adjacent to homes. These types of projects require intensive use of personnel and/or mechanical equipment. The result is small areas treated at high expenses compared to large-scale range improvement projects. The \$5 -\$30 per acre augmented funding is insufficient to cover these types of projects. Within the Fresno-Kings Unit, as well as the Madera- Mariposa- Merced Unit, Tulare Unit and the Contract County Kern, the San Joaquin Valley Unified Air Pollution Control District is now charging up to \$5.84 per acre smoke

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mitigation fee for all non-hazard reduction (PRC 4291) burn projects. This \$5.84 fee offsets much of the augmented funding for vegetation management projects. Additional funding sources are needed to implement WUI vegetation management projects, or individual Units will need to choose to fund projects with operational dollars.

### **Program Setting**

The Fresno-Kings Unit covers a remarkably diverse geographic area. It extends from approximately the 4,000-foot elevation in the Coastal Range on the western side of the Unit then drops to near sea level through the San Joaquin Valley and then climbs again to approximately the 7,300-foot elevation in the Sierra Nevada Range, on the eastern side of the Unit. The vegetation complexes and corresponding fuel types change as one travels across this diverse topography.

Within the Unit, all Fire Behavior Fuel Models can be found. The grass models can be found on the valley floor and the eastern and western foothills. The brush models can be found at the mid to upper elevations on the western side of the Unit and between the oak woodlands and conifer forests on the eastern side of the Unit. The timber models can be found at the highest elevations in the Coastal Range and in the upper elevations on the eastern side of the Unit. The slash models can be found primarily in the northeastern portion of the Unit. This is where most of the commercial timber harvesting occurs within the CAL FIRE DPA. However, limited harvesting does occur within the Coastal Range and the southeastern portions of the Unit.

As well as topography and fuels, land ownership patterns vary across the Unit. Within the Coastal Range portion of the Unit, ownerships are primarily large single owners. These ownerships range from several hundred acres to many thousands of acres. The owners are long-term owners who are truly knowledgeable of their lands and alternatives for land management. A significant percentage of the CAL FIRE DPA in this area consists of public lands managed by BLM. As you descend out of the Coastal Range and onto the valley floor the ownership pattern changes to a mixture of smaller rural residential ownerships (less than an acre to several hundred acres) and agricultural production lands. Within the eastern portion of the Unit, as you leave the valley floor there is a mixture of smaller dispersed rural residential ownerships (two (2) to five (5) acre parcels), several hundred to several thousand-acre rangeland ownerships and now new subdivisions with lot sizes under two (2) acres. At the mid elevations, on the eastern side, there is a mixture of dispersed rural residential ownerships and mid-sized parcels up to approximately several hundred acres. At the upper portions of the DPA, there is a mixture of small residential parcels (less than an acre); mid-sized parcels up to approximately several hundred acres and the largest parcels are industrial timberlands up to several thousand acres. The following communities are all located within the DPA in the eastern portion of the Unit: Friant, Prather, Auberry, Tollhouse, Meadow Lakes, Shaver Lake, Piedra, Squaw Valley, Dunlap, Miramonte, and Pinehurst. These communities all have high population concentrations and exceedingly small parcel sizes.

Within the DPA in the eastern portion of the Unit are public lands managed by the California Department of Parks and Recreation, USDA Forest Service (Sierra and Sequoia National Forests) and the BLM.



Fresno-Kings Unit Fire-Plan  
**Program History in the Unit**

The combination of diverse topography, fuels, and ownerships results in a diverse Vegetation Management Program for the Fresno-Kings Unit. Within the Unit, most VMP projects have focused on the western portion of the Unit. These projects were a mixture of range improvement and fuels reduction. The eastern portion of the Unit historically has had limited VMP projects. Many that did occur were cooperative with the National Forests. Crossman's Road and Comstock fuel break are examples of two recently completed fuels reduction projects in the eastern portion of the Fresno Kings Unit. Both projects have had the benefit of being done in collaboration with the Sierra National Forest and the Highway 168 Fire Safe Council. For a complete list of fuels reduction projects either planned, in progress or completed see Appendix A.

**Future Program Direction**

With the continuing development of the Unit's Pre-Fire Management Plan, the Unit's Vegetation Management Program and fire suppression repair priorities will be evolving also. Vegetation Management Projects will be responsive to the integrated planning approach of Pre-Fire, Prevention, and Vegetation Management. Projects will be developed and implemented to coordinate with Pre-fire objectives. Fire suppression repair priorities will be based not only on best management practices (BMPs) for resource protections, but on tactical suppression needs in coordination with the Unit's strategic fuels reduction plan. It is anticipated new projects will focus on wildland urban interface (WUI) areas. This will result in an increase in projects within the eastern portion of the Unit. However, as CAL FIRE vegetation management projects occur on private property unexpected interest in the program by landowners may alter immediate priorities.

VMP SCE EDISON



Cressman Fuel Modification Zone

Before

After



## **SECTION V: PRE- FIRE MANAGEMENT TACTICS**

### **Miramonte Conservation Camp**

The Miramonte Conservation Camp (Camp) in partnership with the Department of Corrections and Rehabilitation (CDCR) provides four (2) inmate hand crews supervised by CAL FIRE Captains and CDCR Officers. The hand crews support fire operations, pre- fire activities and projects, and other public agencies and approved non-profit organization for public services. The Camp is located near the community of Miramonte in the South- East portion of Fresno County. When the hand crews are not assigned to emergency incidents, they serve as the key workforce for implementing pre-fire/resource management activities and projects. Typically, the Camp provides approximately three hundred crew days per year toward pre-fire/resource management activities and projects. Nearly all the fuel reduction projects listed in Appendix A are implemented by using Camp Crews. In terms of funding support for Camp Crews, various State and Federal Grants provides reimbursement funds to offset operational cost to support grant funded fuels treatment projects. Fire safe councils may utilize camp crews for community fuels treatment projects. The Camp is instrumental in completing most of the fuel's projects within the Unit and without them it would be difficult to achieve priorities and goals that have been outlined in this plan.

### **Tollhouse Fire Center**

Task Force Rattlesnake moved from the Millerton Fire Station to the Sierra Elementary School in the fall of 2022. This Location is now called the Tollhouse Fire Center and currently houses four (4) National Guard crews led by CalFire Captains and Engineers. Modifications are ongoing to the facility to bring it up to date. When the hand crews are not assigned to emergency incidents, they serve as the key workforce for implementing pre-fire/resource management activities and projects. Typically, Tollhouse crews provide 2-4 crews per day each year toward pre-fire/resource management activities and projects. Nearly all the fuel reduction projects listed in Appendix A are implemented by using Crews. Tollhouse is instrumental in completing most of the fuel's projects within the Unit and without them it would be difficult to achieve priorities and goals that have been outlined in this plan.

### **Mid Valley Fire Crew**

Cal Fire and the CCC (California Conservation Core) are partnered and provide one (1) fire crew, Mid Valley 1. The station for now is in Del Rey at the Mid Valley Training Center. When the hand crews are not assigned to emergency incidents, they serve as the key workforce for implementing pre-fire/resource management activities and projects. Mid Valley provides one (1) Crew per day each year toward pre-fire/resource management activities and projects' Valley 1 is instrumental in completing most of the fuel's projects within the Unit and without them it would be difficult to achieve priorities and goals that have been outlined in this plan

## **Battalion 11 - Millerton Battalion**

The Battalion is situated on the eastern foothill edge of the San Joaquin Valley with elevations ranging from 300 feet to 2,800 feet. The pre-dominate terrain within the Battalion is gently sloped foothills. The San Joaquin River Drainage is a significant topographic feature and presents fire suppression challenges due to steep slopes, difficult access, and spot fire potential across the river onto the Madera-Mariposa-Merced Unit. Unique to the area are the basalt lava table topped mountains. The vernal pools on the tabletops contain sensitive plant and animal species, requiring modified fire suppression tactics when possible. Most of the tabletop mountains are owned by the Sierra Foothill Nature Conservancy.

The Millerton Battalion is located on the north end of the Fresno-Kings Unit and includes the communities of Friant, Prather, and Auberry. CAL FIRE wildland fire protection resources are located at the Millerton and Hurley fire stations. CAL FIRE protects 98,020 acres of State Responsibility Area (SRA) within the Battalion. The Fresno County Fire Protection District, via a Schedule A Contract with CAL FIRE, protects approximately 1,629 acres of Local Responsibility Area (LRA). Approximately 81,790 acres of SRA are concurrently within the Fresno County Fire Protection District. Approximately 19,314 acres of SRA are concurrently within the County of Fresno Community Service Area (CSA) #51, also known as the Auberry Volunteer Fire Department. Additionally, the Battalion protects approximately 5,070 acres of Sierra National Forest lands under CAL FIRE Direct Protection Responsibility (DPA).

The Battalion is moderately populated with structures on ranch/farmlands and suburban type subdivisions. The communities of Friant, Prather, and Auberry contain some light commercial and retail occupancy. The Fire Hazard Severity Zone classifications in the battalion are "Moderate" and "High. Most fires in the area travel quickly due to the light fuels and pose an immediate threat to structures. The Millerton Lake recreational area attracts large numbers of people during the summer months and poses a considerable risk for ignitions. The San Joaquin River below the Friant Dam is in the LRA and receives heavy recreational use during the summer months. Fires originating in the river bottom often pose an immediate threat to the SRA. CAL FIRE and Fresno County Fire Protection District also respond to several swift-water rescue incidents at the river each year.

The wildland fuels are predominately fuel model 1 (annual grasses) and fuel model 2 (annual grasses / oak / grey pine). A brush component is introduced along the northern slope aspects of the San Joaquin River Drainage and at the upper elevations of the Battalion. The upper elevations contain fuel model 4 (mature brush), fuel model 6 (intermediate brush) and fuel model 2 (grass / oak / pine). The north and east slope aspects contain a significant dead fuel load.

## **Weather**

Situated near the San Joaquin Valley Floor, the area experiences much of the same hot and dry weather as the valley. Daytime temperatures over 100 degrees with minimal cooling at night are common during the months of July and August. The area occasionally experiences severe fire weather as frontal systems approach or thunderstorms develop. Critical winds do not occur frequently. The last significant fire activity caused by lightning.

was in 2006. Average annual precipitation is approximately 14 inches.

## **Fire History**

The recent major wildland fires are the Powerhouse Fire in 1989 and the Valerie Meadows Fire in 1979. The Battalion typically experiences a few extended attack fires in the 30 – 300 acres range each year. Most of the lands at the upper elevations have experienced fire within the past fifty years. Fires at the lower elevations generally do not offer fuel reduction benefits in following year(s) due to re-growth of annual grasses.

## **Priorities and Goals**

### **1. Defensible Space Inspections**

CAL FIRE personnel enforce Public Resources Code (PRC) 4291 by conducting defensible space inspections (LE-100). Engine crews and inspectors (when funded) conduct inspections for the purpose of educating property owners/tenants about fire safety and enforcing the 100 foot defensible space law. There are an estimated 2,500 structures in the Battalion and the goal each year is to inspect 90% of them.

The Fresno County Fire Protection District has a Weed Abatement Ordinance which is primarily enforced in the LRA. The Sky Harbor Subdivision, which is in the SRA, has small parcels with less than 30-foot setback. Property owners / tenants are not able to achieve 100 foot defensible space around their houses due to the small parcel size. Since this area is concurrently within the Fire District and there is a high potential for structure loss, the weed abatement ordinance is applied to vacant parcels that are adjacent to structures. The Weed Abatement Ordinance is similarly applied to the Mira Bella, Ventana Hills, Brighton Crest, and any future subdivisions.

### **2. San Joaquin River Drainage**

The San Joaquin River is the boundary line between Fresno and Madera counties. The terrain is steep, and fuels are heavy on the northern slope aspect (Fresno County side). The mouth of the drainage is in alignment with the prevailing wind. Strong up canyon winds create potential for a fire to spread to both sides of the river and move up-canyon quickly, threatening the communities of Prather, Auberry, Meadow Lakes, and Shaver Lake. Of particular concern along the drainage is the Powerhouse Road area, which has experienced several fires in the past 25 years. A skilled nursing facility (Wish-I-ah Care Center), housing 100 patients, is a significant target hazard in this area. The community of Auberry was partially burned over during the Powerhouse Fire in 1989 which started in the San Joaquin River Drainage.

CAL FIRE is using Federal grant funds to construct a fuel break, known as the "Comstock Fuel break," to help protect assets near the San Joaquin River Drainage. Construction of the fuel break started in 2011 and will help protect Auberry, the Wish-i-ah Care Center, and the Big Sandy Tribal Rancheria from fires.

originating in the San Joaquin River Drainage near the Powerhouse Road area. The fuel break will also protect the communities of Meadow Lakes and Shaver Lake from fires originating in the Auberry area. The 400 feet wide fuel break is approximately 3 miles long and covers approximately 160 acres.

### **3. Morgan Canyon**

Morgan Canyon is south of the community of Prather. State Highway 168 travels through the canyon. The area is moderately populated with structures on 5 – 20-acre parcels. Many houses and roads in the area were constructed before the SRA Fire safe Regulations were implemented. Steep slopes, a brush fuel component, and inadequate private road systems pose significant challenges for fire perimeter control, structure defense, and civilian evacuation. Structure defense is an immediate priority due to the population density.

To protect the assets in the Morgan Canyon area, CAL FIRE personnel conduct defensible space inspections. Personnel conduct inspections for the purpose of educating property owners/tenants about fire safety and enforcing the 100 feet defensible space law. Defensible space inspections are conducted throughout the Battalion.

### **4. Sky Harbor Subdivision**

The Sky Harbor Subdivision is located at the upper end of Millerton Lake. The subdivision has approximately 40 houses tightly arranged mid-slope on steep terrain in a stand of grey pines. Property owners are not able to achieve 100 feet defensible space due to small lot sizes. There is a significant potential for wildland fire ignitions from recreationists and residents. Structure defense is an immediate concern during a fire situation.

The Sky Harbor Subdivision is concurrently within the SRA and the Fresno County Fire Protection District. The Fresno County Fire Protection District has a Weed Abatement Ordinance which is enforced on vacant and inhabited parcels within the subdivision to reduce the flammable vegetation that poses a threat to houses. CAL FIRE maintains a pre-suppression fire line along Sky Harbor Road for approximately two miles. This fire line helps to slow the spread of fires originating along the roadside near the Sky Harbor Subdivision.

### **5. Millerton Lake State Recreational Area**

The Millerton Lake State Recreational Area provides day use camping areas and boating access which is used during the summer months. The recreational area attracts thousands of people and poses a significant potential for wildland fire ignitions.

CAL FIRE coordinates with State Parks personnel to prevent unwanted fires. CAL FIRE personnel conduct high visibility patrols and public education during the

recreation area 'speak use times. CAL FIRE maintains roadside fire prevention signs along the main roadways to/from the recreational area.

## **6. Friant Dam**

The United States Bureau of Reclamation operates the Friant Dam at Millerton Lake. The dam is a homeland security concern as there are many assets below the dam that would be destroyed if a failure were to occur. CAL FIRE and the Fresno County Fire Protection District provide confined space rescue response to the dam facility. CAL FIRE and the Fresno County Fire Protection District participate in disaster planning exercises.

## **7. Pre-Attack Plans and Business Pre-plans**

Development of Battalion Pre-Attack plans is essential for pre-identifying the needed resources of a large and rapidly expanding incident. Additionally, this will allow the Battalion personnel to be proactive in the communities, meet with local business owners, ranchers, and local school district personnel to develop positive public relations and interaction.

### **Collaborators with the Millerton Battalion:**

Highway 168 Firesafe Council  
Sierra National Forest  
California State Parks, Millerton Lake State Recreational Area  
United States Bureau of Reclamation  
Bureau of Land Management  
Sierra Foothill Nature Conservancy  
Fresno County Sheriff's Department  
Table Mountain Tribal Rancheria  
Big Sandy Tribal Rancheria  
California Highway Patrol  
CAL TRANS  
Pacific Gas and Electric

## **Battalion 12 – Shaver Lake Battalion**

The Shaver Lake Battalion of the CAL FIRE Fresno-Kings Unit is in Central California and makes up part of the Eastern San Joaquin Valley. The Battalion consists of 121,192 acres of State responsibility land under direct CAL FIRE protection. The Battalion is bordered on the east side by the Sierra National Forest.

The elevation of the Battalion ranges from about 400 feet along the western SRA border to the highest point of over 7,300 on the eastern border. Highway 168 runs through the Northern part of the Battalion. This provides a high volume of visitor traffic through the Battalion each day to the many recreation areas within the Battalion and Sierra National Forest. Shaver Lake is in the northern part of the Battalion and provides a high volume of summertime traffic. This reservoir is one of many that supply the San Joaquin River that runs through the Central Valley.

The Battalion has two (2) fire roads which incorporate 11 miles of access that must be maintained annually. The Battalion's diverse elevation provides for an array of fuels which relate to the overall potential fire behavior. The primary fuel models at the lower end of the Battalion consist of seasonal grasses which quickly transition into deciduous and evergreen oaks. In the middle of the Battalion, the fuel models transition to California brush models and continue to increase in size and complexity while moving to conifer models, the upper end of the Battalion is timber interspersed with many residential structures. This provides the Battalion with many different fire behavior characteristics to be concerned with and a potential for a large fire growth if weather, fuel, and topography come into alignment with an ignition.

The entire Battalion has seen a major increase in population over the past several years. This provides for an increase potential in ignitions along with the added WUI problems that are associated in the foothill and mountain areas of California. Recent Battalion fire history indicates an average of 18 ignitions per year over the last decade. We have seen several large extended attack fires during the last few years in the Battalion. The last major significant event occurred in 2020 and burnt 379,895 acres. The common denominators for large wildfires are fuel, slope, weather, and assets at risk. We cannot change slope or weather, but we can modify fuels and ensure that the individual homes and communities have a defensible space. All new homes being built are subject to PRC 4290 regulations which assist us in the defense of these newest additions to the watershed.

### **Priorities and Goals:**

#### **1. Defensible Space Inspection program (PRC4291)**

CAL FIRE personnel enforce Public Resources Code (PRC) 4291 by conducting defensible space inspections (LE100). Engine crews and inspectors (when funded) conduct inspections for the purpose of educating property owners/tenants about fire safety and enforcing the 100 feet defensible space law. Approximately 2000 inspections are completed in the Battalion each year.



## **2. The Beal Fire Road**

The Beal Fire Road has been in place for many years. It is a joint venture with CAL FIRE, USFS, local homeowners and the Highway 168 Fire Safe Council. The road extends from Highway 168 at the 4 Lanes to Auberry Road below Meadow Lakes. The purpose of the project is to reduce fuel accumulations and to decrease the potential of a wildfire that would cause damage to natural resources including wildlife habitat in the Beal Fire Road area. This fuel break is the first defense for fires starting on the lower Highway 168 corridor. The last VMP done on the Beal Fire Road was begun in 1994. It was a three (3) year project. Road grading occurs on a yearly basis on parts of the Beal Fire Road. Future needs for the Beal Fire Road include placement of cement water tanks at strategic points along the Fire Road for fire suppression use and brushing of all the Fire Road. The Highway 168 Fire Safe Council is conducting maintenance with the use of grant funding and continued maintenance is ongoing.

## **3. Meadow Lake / Meadow Lake North**

The Bald Mountain ridge top is a significant fire hazard area. There is immense potential in the area for large dollar losses due to fire activity. Currently, the Beal Fire Road stands as the only defense against large fires rising from the slopes below the Meadow Lakes area. The first phase of line was constructed at the top of the ridge along Radio Lane. The second phase of line is computed and runs from the North end of Radio Lane to Auberry Rd. and the South end of the Acorn. / Sugarloaf Fuel break. The first phase was completed by the Highway 168 Fire Safe Council using grant funding. The second phase was completed by CAL FIRE using USFS grant funding.

## **4. Cressman's**

The community of Cressman's contains approximately 80 homes. It is located mid-slope on a south facing slope. Peterson Mill Road is located below the community of Cressman's. Wildflower subdivision is located above Cressman's. The fuel in the community itself is mainly Fuel Model 8. Fuels below would fall into Fuel Model 4. CAL FIRE response time is 15 minutes. Fire damage potential is extreme.

Cressman's fuel break was completed by the Highway 168 Fire Council which was started in 2000 to reduce the fuel loading along the single lane main road in the subdivision. This will enhance emergency exit for civilians and make access easier for emergency equipment responding to the area. It will also help slow the spread of a wildfire approaching from below. This project was completed in 2004 and maintenance is ongoing dependent on funding.

## **5. Bald Mt. Subdivision**

Bald Mt. Subdivision area contains approximately 350 homes. They are located at the ridge top of a south/west –facing slope. It is up slope of a Fuel Model 4. The ridge top is mainly Fuel Model 4 with 8 and 9 mixed. CAL FIRE response times

are a minimum of 15 minutes. There is a high fire history in the area. The Meadow Lakes North and the Acorn/Sugarloaf Fuel Breaks are in position to help protect the communities around the Bald Mountain Area. This project is being done by CAL FIRE, Highway 168 Fire Safe Council and by the USFS on Federal lands.

## **6. Peterson Mill Road**

This project was ultimately started due to the success of the Cressman Road Project. The demonstration project began in the spring of 2005. This project, which is to reduce fuel loading (Fuel Model 4), is dependent upon "Prop 40" funding, the cooperation of the Fire Safe Council, and that of the stakeholders in the area involved. As with the Cressman project, this project will also aid in the emergency access of civilians and emergency equipment on a single lane road and will help slow the spread of a wildfire. This project was completed by the Highway 168 Fire Safe Council with grant funds in 2008. Additional grant funding should be sought to provide maintenance to this project.

## **7. Linson Lane and Shaver Springs**

Linson Lane and Shaver Springs subdivisions have approximately 75 homes between them. They are both located at or near the top of a drainage. Drainage fuels consist mainly of Fuel Model 4 type. CAL FIRE response time to the area is approximately 15 minutes. Fire history has been moderate in the area but has high potential. The Lower Beal fuel break when it is completed would serve to reduce or prevent the spread of wildfires originating in the Tollhouse area upslope into the Linson Lane subdivision. The Highway 168 Fire Safe Council is working on the project.

## **8. Four Lane Pre-Suppression Fire Line**

Construction of a Pre-Suppression Fire Line near the bottom of the 4 Lane on Highway 168 at Backbone Mountain is a cooperative project in conjunction with the U.S. Forest Service. The purpose of the line is to prevent the spread of fires started from material dislodged from hot brake shoes. This is an annual project supported by CAL FIRE Crews.

## **9. Roadside Fire Prevention Signs**

The Battalion has a total of eight (8) Fire Prevention signs. Two (2) are in Blasingame's first in area and six (6) are in Shaver Lake's first in area. Shaver Lake Station has an annual fire prevention sign plan which includes Shaver Lake and Bald Mountain regions. This project is done in cooperation with the U.S. Forest Service. The signs are placed along Highway 168 and Auberry Road. Throughout the Battalion, the signs are changed regularly to indicate seasonal messages. Sign examples include: "Ready, Set, Go," "It's flu season."



Clean your chimney,” “Burn permits required,” “Clear brush 100 feet around your house”, “No Burning” and fire danger indicators. Ongoing projects include replacing and or repainting existing signs that are in poor repair.

**Collaborators with the Shaver Lake Battalion:**

- Sierra National Forest
- Fresno County Fire Protection District
- Highway 168 Fire Safe Council
- Bald Mountain Fire Protection District
- Pine Ridge Volunteer Fire Department
- Shaver Lake Volunteer Fire Department
- Huntington Lake Volunteer Fire Department
- Southern California Edison – Resource Management
- Fresno County Roads

## **Battalion 13 – Squaw Valley Battalion**

The Squaw Valley Battalion of the CAL FIRE Fresno-Kings Unit is in the Central California and makes up part of the Eastern San Joaquin Valley. The Battalion consists of 151,117 acres of State Responsibility Land under direct CAL FIRE protection. The Battalion is bordered on the east side by both the Sierra and Sequoia National Forest.

The elevation of the Battalion ranges from 400 feet along the western SRA border to the highest point of 5,500 on the eastern border. Highway 180 runs through the middle of the Battalion. Also, known as Kings Canyon, it is the gateway to the Sequoia National Park and Kings Canyon National Park. This provides a high volume of visitor traffic through the Battalion each day. Pine Flat Reservoir is in the northern part of the Battalion and provides a moderate to high volume of summertime traffic. This reservoir supplies the Kings River that runs through the Central Valley.

During the years of 2014-2017 the Bark Beetle infestation devastated conifers and specifically Ponderosa Pine above 3000' elevation. The conifer tree mortality due to the infestation ranged from 46% to 90% within the Battalion and Unit. Over the next decades there will be an increased fuel loading on the forest floor due to the mortality which will create more BTUs when there is a fire within the tree mortality areas.

The Battalion's diverse elevation provides for an array of fuels which relate to the overall potential fire behavior. The primary fuel models at the lower end of the Battalion consist of seasonal grasses which quickly transition into deciduous and evergreen oaks. At the upper end of the Battalion, the fuel models

transition to California brush models and continue to increase in size and complexity while moving to conifer models. This provides the Battalion with many different fire behavior characteristics to be concerned with and a potential for a large fire growth if weather, fuel, and topography come into alignment with an ignition.

The entire Battalion has seen an increase in population over the past several years. This provides for an increase potential in ignitions along with the added WUI problems that are associated in the foothill and mountain areas of California. Recent Battalion fire history indicates an average of 20 ignitions per year over the last decade. The Rough Fire in 2015 burned up to the Battalion edge and was the last major fire near the Battalion. The last significant event in the Battalion since the 1950's occurred in 2015 and burnt 151,623 acres. History indicates that it's not of matter of "if" we have a fire, but rather "when" we will have a fire. The common denominators for large wildfires are fuel, slope, weather, and assets at risk. We cannot change slope or weather, but we can modify fuels and ensure that the individual homes and communities have a defendable space. All new homes being built are subject to PRC 4290 regulations which assist us in the defense of these newest additions to the watershed.

**Priorities and Goals:**

- 1. Sequoia Lake VMP**
- 2. White Deer VMP**
- 3. Brookside Fuel Break-Fire Safe Council**
- 4. Pinehurst-Miramonte Ingres/Egress Roadside Fuel Break- Fire Safe Council**
- 5. Miramonte Fuel Break-Fire Safe Council**
- 6. Pre-Fire Lines (Rat Trailing)**

- Utilize the Fire Crews to construct hand lines along high prone ignition road roadways to slow and contain potential fire spread.
  - Highway 180
  - Hills Valley Road
  - Sunnyslope Road
  - Sand Creek Road

**7. Fire Control Road Maintenance**

- Work with property owners and other agencies to repair White Deer Fire Control Road.
- Brush along the sides of Greeley Fire Control Road and chip or burn the piles.
- Grade Fish Creek Fire Control Road
- Grade Cleveland Fire Control Road

**Collaborators with the Squaw Valley Battalion:**

Sierra National Forest  
Sequoia National Forest  
Sequoia & Kings Canyon National Park  
Oak to Timberline Fire Safe Council  
Mountain Valley Volunteer Fire Department  
US Army Corps of Engineers  
Orange Cove Fire District  
Hume Lake Volunteer Fire & Rescue Department  
Sierra Nevada Conservancy  
Great Basin Institute  
Fresno County Roads

## **Battalion 14 – Coalinga Battalion**

The Coalinga Battalion of the CAL FIRE Fresno-Kings Unit is in Central California and makes up part of the Western San Joaquin Valley. The Battalion consists of 563,076 acres of State responsibility land under direct CAL FIRE protection. The Coalinga Battalion also has 151,967 acres of Bureau of Land Management (BLM) Direct Protection Area (DPA). CAL FIRE provides fire protection for most of the BLM property within the Coalinga Battalion. The total CAL FIRE DPA of the Coalinga Battalion is 715,043 acres. The Battalion is bordered by CAL FIRE Units of San Luis Obispo, San Benito Monterey, Mariposa Madera Merced, and Kern County. The Coalinga Battalion is also boarded by Local Government of Kings County, Fresno County Fire Protection District and The City of Coalinga.

The elevation of the Battalion ranges from 400 feet along the eastern SRA border to the highest point of 5,000 on the western border. Interstate 5 runs 80 miles along the Eastern SRA boundary of the Battalion. This provides remarkably high transit traffic. State Highway 198 and Los Gatos Creek Road are east west routes to State Highway 101. These routes have high traffic as well.

The Coalinga Battalion has three (3) fire roads which incorporate 42 miles of access that has historically been maintained annually. There are many ranch roads which provide access to the Battalion. There are several oils fields which crude oil and natural gas is produced and stored and transported by pipeline. This creates unique issues with fire control. The Battalion's diverse elevation provides for an array of fuels, which relate to the overall potential fire behavior. The primary fuel models at the lower end of the Battalion consist of seasonal grasses, which quickly transition into deciduous and evergreen oaks. At the mid-slope to higher elevations of the Battalion, the fuel models transition to California brush models. There are areas within the Battalion that contain stands of evergreen and confer trees. These are located at the highest elevations of the Battalion. There are several areas, which are inaccessible, or control measures will be difficult due to steep topography. This provides the Battalion with many different fire behavior characteristics to be concerned with and a potential for a large fire growth if weather, fuel, and topography come into alignment with an ignition.

The Battalion has not seen a significant increase in population over the last decade. Predominately, the Battalion is cattle ranches with large land ownership. The Battalion's WUI areas are along Hwy 198, Los Gatos Creek Road, and some areas of Kings County. About 500 structures are in these areas. There are an unknown number of structures located within the ranches located within the Battalion. Recent Battalion's fire history indicates an average of 10 ignitions per year over the last decade. Most fires will reach 100 acres or more due to the significant response time of initial attack resources to the Battalion. The Battalion has a significant large fire every five (5) years on average.

## **Priorities and Goals:**

### **1. Defensible Space Inspection program (PRC4291)**

- CAL FIRE personnel enforce Public Resources Code (PRC) 4291 by conducting defensible space inspections (LE-100). Engine crews and inspectors (when funded) conduct inspections for the purpose of educating property owners/tenants about fire safety and enforcing the 100 feet defensible space law.
- Approximately 200 inspections are completed in the Battalion each year. With the large geographical area within the Battalion, it is hard to complete defensible space inspections on all inhabited structures each year.
  - Inspection priorities will be the Los Gatos and Warthan Canyon areas due to the higher concentration of inhabitable structures.
  - We will continue to track inspections utilizing GPS coordinates to help provide better tracking and improvement of the GIS layer in CAD and Toughbook's.

### **2. Fire Control Roads - Tar Canyon, Juniper Ridge, Mud Run**

Although these roads are in entirely different locals, they are important to the philosophy of keeping fires small which will keep costs to a minimum. For a minimum investment in the late spring, we can provide ourselves with not only an access to some very inaccessible country but also create a secondary defense to stop a wildland fire. The maintenance of these fire roads is imperative to the mission of controlling fires at the earliest possible moment.

- Juniper Ridge Fire Road is located west of the City Coalinga running from Highway 198 north to Los Gatos Road. Its most apparent use would be for controlling a fire that originates in the oil fields or the foothills west of Coalinga.
- The Tar Canyon Fire Road is in Kings County, beginning just south of Avenal on Highway 33 going west through the hills towards Pacheco Rock. It provides access to some very rough country in and around the Black Hole Quadrant.
- Mud Run is a North /South fire control road that starts at the Los Gatos Canyon Road. It continues through several private ranches and ties into Warthan Canyon Rd. The significance of this control road is to provide access into an area that would otherwise be inaccessible to firefighting equipment. It also provides a control point prior to a wildfire moving into an area of WUI.

### **3. Los Gatos Canyon**

Los Gatos Canyon is a sparsely inhabited area of the Los Gatos Creek drainage on Los Gatos Road west of Derrick Avenue to the County line. It is populated mostly by longtime residents of the area which have a better than average knowledge of fire safe regulations and practices. It is this knowledge, which makes them unique in that they are exceptionally low maintenance regarding fire prevention, allowing Battalion crews to concentrate on the newer residents to the

## Fresno-Kings Unit Fire-Plan

area. The fuel models consist of mostly 1 and 4 with the biggest challenge in the off-road areas, being access. Although fire history does not support a tremendous problem there has been some activity usually related to ranch activities or lightning.

- This asset is protected by LE-100 inspections, fire control roads, roadside prevention signs and VMP Burns.

### **4. Warthan Canyon**

This area lies up the Warthan Creek drainage along Highway 198, south the City of Coalinga to the County line and south on Parkfield Road to the County line. Its characteristics are not so different from those of the Los Gatos Canyon area with its problems and solutions being very much the same. Fuel Models are 1 and 4 and fire history has been limited with most causes being equipment oriented mostly off the highway.

- This asset is protected by LE-100 inspections, fire control roads, roadside prevention signs and VMP Burns.

### **5. Oil fields**

The Oil fields lay in both the SRA and the LRA and although crisscrossed with roads are a definite threat to the wildland to the west should a fire escape from this area. Its fuel model is a 1 and the primary cause for fires in this area has been power line related. These are not the normal utility lines in that they are owned privately by the oil companies and are maintained by them. We have an ongoing process of keeping the oil companies educated regarding their responsibilities about maintenance and the liability if their lines are responsible for causing a fire. Through this process, along with our enforcement and cost collection procedures, has reduced the numbers of fires.

- This asset is protected by meeting with company owners and educating them on clearances around their lines.

### **6. Kings County SRA**

The Kings County SRA lies along the Highway 33 corridor to the west from Coalinga to the Kern County line. Since the closing of the Cottonwood FFS, the response times have become considerable with the first in initial attack equipment now coming from CAL FIRE/SLU, Kern County Fire, or the Kings County Fire Department. The primary fuel model is 1 and 4. The extended response times can make this an interesting problem regarding suppression if IA resources do not have a positive effect in regard to suppression. Fire causes are generally a result of coming off the Highway 33. Support and interface with the cooperative agencies tend to keep a handle on this area's problems. Additionally, there are two 230 KV electrical transmission lines. The Diablo-Gates and the Templeton-Gates are in the south, in and around the junction of the Kings, Fresno, and Monterey County lines.



## **7. Vegetation Management Program Burns**

Due to environmental concerns and rising costs of associated with Vegetation Management Burn it has become difficult to conduct these burns. There are several ranchers in the Coalinga area that would like to conduct VMP burns. Given the fiscal climate of the economy, it is difficult for them to pay their cost share with such a project. Creating a Fire Safe Council or with the rancher's support may provide some opportunities for fuels reduction.

## **8. Pre-Attack Plans and Business Pre-plans**

Development of Battalion Pre-Attack plans is essential for pre-identifying the needed resources of a large and rapidly expanding incident. Additionally, this will allow the Battalion personnel to be proactive in the communities, meet with local business owners, ranchers, and local school district personnel to develop positive public relations and interaction.

## **9. Fire Prevention Displays: Horn Toad Derby and Coalinga Fest**

Each year the City of Coalinga has two (2) major events, the Horned Toad Derby, and Coalinga Fest. Both are considerable in size and attended by a vast majority of the residents, as well as visitors to the area. The parade provides venue to display Smokey and entice the public to a Fire Prevention booth where we can reach out to the youth of the area and to put forth any fire prevention message that is pertinent at the time.

## **10. Roadside Fire Prevention Signs**

The roadside fire prevention signs are located throughout the Battalion on the main arteries. These signs provide the public with information that will make them a friendlier user of the wildlands, both private and public.

### **Collaborators with the Coalinga Battalion:**

Bureau of Land Management Hollister.  
Fresno County Fire Protection District  
City of Coalinga  
County of Kings Fire Department  
California Department of Fish and Game

## **Battalion 15 (Fresno County Fire Protection District)**

### **Description**

Battalion 15 is in the central and western area of the Fresno County Fire Protection District (FCFPD) in the Fresno Kings Unit. The Battalion consists of 730,970 acres of Local Responsibility Area (LRA) making up part of the Central San Joaquin Valley. The Battalion is bordered by Merced County Fire to the North, North Central Fire and FCFPD, Battalion 18 to the East, Kings County Fire Department to the South, and FCFPD, Battalion 14 which includes 563,076 acres of SRA to the West. The San Joaquin River acts partially as the north edge boarder, and the Kings River acts as partial boarder on the south edge of Battalion15.

The elevation with-in the Battalion ranges from 150 in the valley and 600 feet along Interstate 5. Interstate 5, State Highways 180, 33, 41, 145, and 269 all run through Battalion 15. Due to the number of highways, Battalion 15 experiences high volumes of daily traffic.

The Central San Joaquin Valley is primarily used as agricultural land for crops, orchards, and milk dairies. This contributes to the high volume of commercial and agricultural vehicle traffic on highways and local roadways. The communities of Laton, Riverdale, San Joaquin, Mendota, and Firebaugh are encompassed in Battalion 15. FCFPD provides fire protection for the City of San Joaquin and Mendota.

The Mendota Wildlife refuge consisting of 14,000 acres and a portion of the California Aqueduct is also encompassed in Battalion 15.

Primary fuels for Battalion 15 are Fuel Model 1, annual grasses. This fuel is present along roadways, canals, fallow fields, with-in the housing areas and cities in Battalion 15. The fuel models along the various rivers edges within the Battalion are Fuel Model 2, 5. Fuel Models in the Wildlife Refuge are 1, 3 and5.

### **Priorities and Goals:**

#### **1. City of Mendota**

The City of Mendota unemployment remains high per capita in the state of California. Due to the unemployment rate, an increase of foot traffic throughout the city occurs both day and night on city streets and on foot trails throughout the city. This has resulted in regular nuisance fires caused by arson or playing with fire. With the establishment of Mendota PD, fires with-in the city has significantly dropped. Nuisance fires still occur with-in the city; both the CAL FIRE/Fresno County Fire Protection District and The Mendota PD remain diligent on Fire Prevention through public education.

- Weed Abatement and Public Education will help reduce the number of nuisance fires.

## **2. Pre-Plans**

Update existing preplans and preplan any new businesses in the battalion. This contact allows the station personnel to be proactive, meet business owners, school district personnel in their area and create positive public relations.

- Priority of preplans: Schools, Skilled Nursing Facilities, Target Hazards, and Industrial Businesses with large workforces.
- Engine Companies continue to update existing preplans and preplan new businesses in the battalion.
- Continue to work with and support Department IT personnel on development of a server-based application to make the preplans available to CAD and Toughbook's.

## **3. Weed Abatement**

Continue inspections to meet the intent of the weed abatement program. Work with the Unit's Prevention Bureau with enforcement of the program.

- Work with communities within the battalion to gain compliance in the program.

## **4. Public Education**

Continue efforts with communities, community leaders and local schools on fire prevention education.

- Stations and Engine Companies participate in Parades, carnivals, station tours.
- Continue school programs and outreaches.
- Continue involvement with community leaders to promote fire prevention education within their communities through established monthly mailers.

## **5. Mendota Wildlife Area (Alkali Sink)**

Assist the California Department of Fish and Game with their efforts for enhancement of wildlife and endangered plants in the Alkali Sink Reserve through noxious non-native vegetation removal.

### **Collaborators within Battalion 15:**

Laton Community Services District  
Riverdale Community Services  
District City of Firebaugh Fire  
Department California Department of Fish and Game

## **Battalion 17-Fresno County Fire Protection District**

The Metropolitan Area of the Fresno County Fire Protection District is identified as Battalion 17 of the CAL FIRE Fresno-Kings Unit (FKU). It is in Central California and makes up part of the Central/Eastern San Joaquin Valley. The Battalion consists of 113,810 acres of Local Responsibility Area (LRA) land that is under contractual agreement with CAL FIRE to provide personnel services and management on behalf of the Fresno County Fire Protection District. The Battalion is bordered on the North and East sides by State Responsibility Area (SRA) under direct protection of CAL FIRE.

The elevation of the Battalion ranges from 250-400 feet along the western SRA border. State Highways: 41, 99, 168, and 180 run through the Battalion. This highway infrastructure contributes to a high volume of commuter and visitor traffic through the Battalion each day. The primary fuel models within the Battalion consist of seasonal grasses adjacent to roadways, within suburban living areas, and transitioning to rural agricultural areas. The entire Battalion has seen an increase in population over the past several years and as a result has the highest population density of all the Battalions within the Fresno- Kings Unit. The population density coupled with the high traffic transportation corridors provides for an increase's potential for wildland fire ignition.

The mission of the Battalion is to provide the highest level of customer service while reducing the costs and losses from fire through education of the public, active involvement in school programs and communities and maintaining a positive and professional relationship with allied agencies.

### **Priorities and Goals:**

#### **1. Preplans**

Update existing preplans and preplan any new businesses in the Battalion. This contact allows the station personnel to be proactive, meet business owners, school district personnel in their area and create positive public relations. There are numerous industrial complexes in the Battalion which can be identified and updating contact numbers or special circumstances pertaining to that business or school.

- Goal of completing or updating 25% of preplans each year.
- Priority of preplans: Schools, Skilled Nursing Facilities, Target Hazards, and Industrial Businesses with large workforces.
- Specific Target Hazards: Hazardous material distribution facilities, fireworks storage facilities, large petroleum and propane facilities and Mega Commercial Warehouses

#### **2. Addresses**

A frequent problem found throughout our County is the lack of addresses posted or they are posted but unreadable. This not only increases response times but creates a safety problem as we are trying to search for addresses in the dark or fog. Some viable solutions would be to:

## Fresno-Kings Unit Fire-Plan

- Send out fliers explaining the importance of posting legible addresses.
- Enlisting the help from schools, either as a school project or after school activity.
- Using the PCF Companies to fund raise for their companies. If the Unit and County can adopt a standard for posting addresses, such as having a sign with their numbers, perhaps the PCF Companies can make these to sell.

### **3. School Program Plan**

Be more involved with the schools in our response areas. We do participate in some activities, but more intervention would go a long way in developing a strong relationship with the communities. Programs such as Career Days, Fire Safety, Fire Prevention Day, or Station Tours are some ways we can interact with the children.

### **Collaborators within Battalion 17:**

Clovis Fire Department  
Fresno Fire Department  
California Air National Guard Fire Department  
North Central Fire Protection District

## **Battalion 18-Fresno County Fire Protection District**

The mission of Battalion 18 is to provide the highest level of customer service while reducing the costs and losses from fire through education of the public, active involvement in school programs and communities and maintaining a positive and professional relationship with allied agencies. Battalion 18 is a suburban to rural area of Fresno County in the San Joaquin Valley of California. The Battalion consists of 186,950 acres of Local Responsibility Area (LRA) land. The Battalion contains many of the medium to smaller communities in Fresno County such as Sanger, Del Rey, Fowler, Selma, Kingsburg, Reedley, and Orange Cove.

The elevation of the Battalion ranges from 260 feet along the Kings River to 1,752 feet on Campbell Mountain on the East side of the Battalion. State Highways 43, 99 and 180 run through the Battalion. This highway infrastructure contributes to a high volume of vehicular traffic through the Battalion every day. The Kings River also runs through the Battalion and contributes to a large volume of recreational traffic and related water rescue incidents.

The primary fuel models within the Battalion consist of seasonal grasses to oak woodland along the Kings River. Most of the land in the Battalion is in agricultural production.

### **Priorities and Goals:**

#### **1. Preplans**

Update existing preplans and preplan any new businesses in the Battalion. This contact allows the station personnel to be proactive, meet business owners, school district personnel in their area and create positive public relations. There are numerous industrial complexes in the Battalion which can be identified and updated contact numbers or special circumstances pertaining to that business or school.

- Continue to complete these preplans in order as identified by importance:
- Schools (concurrent with inspections)
- Care or Foster facilities (rest homes)
- Any Industrial complexes creating mass evacuations i.e., cold storage, bulk hazardous material storages.
- Industrial businesses with large work forces. Schools (concurrent with inspections)
- Continue to work with and support Department IT personnel on development of a server-based application to make the preplans available to CAD and Toughbook's.

#### **2. School Programs**

Be more involved with the schools in our response areas. We do participate in some activities, but more intervention would go a long way in developing a strong relationship with the communities. Programs such as Career Days, Fire Safety, Fire Prevention Day, or Station Tours are some ways we can interact with the children.

- Continue to contact schools and the Fire District Public Information Officer to coordinate programs. This will be in conjunction with the annual school inspection program.

## **1. Kings River**

The section of Kings River between Adams Avenue and Dinuba Avenue contain a high fuel loading both on the riverbanks and islands. Due to increased usage of the river water ways and urban interface, fires and rescues have become more frequent. These types of incidents require many resources and extended commitment times. Firebrands from resultant fires have a potential for ignition of roof fires in the City of Reedley and adjacent urban residences.

- The Kings River Plan identifies access points to the Kings River for first responders during all types of emergency incidents. The access points are identified on photocopies of topographical maps. The maps cover the Kings River from the Fresno-Tulare County line to Trimmer Springs. The Plan needs to be updated utilizing GIS to include addresses and parcel numbers printed on aerial images and topographical maps. The mapping should also extend above Pine Flat Reservoir to Kirch Flat. A component of the Kings River Plan update could include identifying areas for fuel reduction projects to help reduce fire behavior and improve access to the river for water rescues. Coordinate with Reedley City Fire Department and the Fresno County Sheriff's Office to update and distribute the plan.

### **Collaborators within Battalion 18**

Sanger Fire Department  
Selma Fire Department  
Fowler Fire Department  
Kingsburg Fire Department  
Reedley Fire Department  
Orange Cove Fire Department  
North Central Fire Protection District



APPENDIX A  
PRE-FIRE PROJECTS

Fresno-Kings Unit (FKU)

01/01/2022 thru 12/31/2022

**Fresno-Kings Unit (FKU)**

PROGRAM	PROJECT NAME	Project Status	Treatment Footprint Acres	Treatment Footprint Miles	
Fire Plan	Alder Heights	Complete in Maint	234.48		FKU
Fire Plan	Auberry Road and Peterson Road Fuel Breaks	Active	155.01		FKU
Fire Plan	Beal Fuel Break	Complete in Maint	426.08		FKU
Fire Plan	Big Sandy Rancheria Hazard Fuels Reduction	Active			FKU
Fire Plan	Blue Rush Fuel Break	Complete in Maint	112.11		FKU
Fire Plan	Brookside Fuel Break	Active	636.79		FKU
CFIP	Castlewood CFIP 2021	Active	43.45		FKU
Fire Plan	Cressman Fuel Break Expansion	Active	236.51		FKU
CFIP	Davis CFIP 2019	Complete	95.20		FKU
Fire Plan	Eastern Fresno County Hazardous Fuels and T	Active	668.97		FKU
VMP	Edison VMP	Active	1,482.07		FKU
Fire Plan	Elwood Kencade Fire Control Road	Complete in Maint		4.92	FKU
Forest Heal	Eshom Ecological Restoration Project Phase I	Active	3,811.00		FKU
Fire Plan	Fire Escape Roads	Complete in Maint	107.28		FKU
CFIP	Forked Meadow CFIP 2013	Complete	80.42		FKU
CFIP	Garton CFIP 2021	Complete	533.43		FKU
CFIP	Goodman CFIP 2021	Active	41.49		FKU
CFIP	Herrick CFIP 2013	Complete	49.71		FKU
CFIP	Herrick CFIP 2022	Active	40.12		FKU
Fire Plan	High Sierra Front Country Fuel Breaks Project	Complete in Maint	9.40		FKU
Fire Plan	Highway 168 Pre Suppression Line	Complete in Maint		0.78	FKU
Fire Plan	Highway 180 Pre Suppression Line	Complete in Maint	3.90	5.40	FKU
Fire Plan	HSRD SHAVER SPRINGS FUEL REDUCTION	Complete	31.35		FKU
VMP	Johnson VMP	Active	646.25		FKU
Forest Heal	Jose Basin Fuels Reduction	Active	8,740.38		FKU
Fire Plan	Juniper Ridge Fire Control Road	Complete in Maint	39.50	75.61	FKU
CFIP	Laclergue CFIP 2019	Complete	62.00		FKU
VMP	McKenzie VMP	Active			FKU
CFIP	McMahan CFIP 2021	Active	29.14		FKU





APPENDIX A  
PRE-FIRE PROJECTS

Fresno-Kings Unit (FKU)

01/01/2022 thru 12/31/2022

Fresno-Kings Unit (FKU)

PROGRAM	PROJECT NAME	Project Status	Treatment Footprint Acres	Treatment Footprint Miles
CFIP	McNeill CFIP 2020	Active	143.57	FKU
Fire Plan	Meadow Lakes North	Complete in Maint	108.63	FKU
CFIP	Melba Mathias CFIP 2020	Complete	147.66	FKU
CFIP	Messer CFIP FKU 2019	Active	1,690.16	FKU
CFIP	Michaels CFIP 2021	Active	21.89	FKU
Fire Plan	Miramonte Emergency Ingress and Egress	Cancelled		FKU
CFIP	Mitchell CFIP 2020	Complete	36.57	FKU
Fire Plan	Musick Fuel Break	Complete in Maint	393.58	FKU
Fire Plan	Old Bretz	Active	72.20	FKU
CFIP	Old Pine Ridge CFIP 2021	Active	347.09	FKU
CFIP	Parr CFIP 2021	Active	74.85	FKU
CFIP	Perron CFIP 2019	Complete	42.56	FKU
Fire Plan	Pinehurst Community Fuel Break	Active	70.77	FKU
Fire Plan	Pinehurst Community Fuel Break (Local Unit)	Active	76.90	FKU
Fire Plan	Pinehurst Fuel Break	Active	277.01	FKU
CFIP	Rock Haven CFIP 2020	Active	291.25	FKU
Fire Plan	Sandcreek Pre Suppression Line	Complete in Maint	1.56	FKU
CFIP	Shaver Ranch II CFIP 2019	Complete	424.59	FKU
CFIP	Shaver Ranch III CFIP 2021	Complete	173.22	FKU
VMP	Shaver South 2020 VMP	Active	897.76	FKU
Fire Plan	Shaver Springs Fuel Break	Complete in Maint	151.91	FKU
Fire Plan	Shaver West Fuel Break	Complete in Maint	551.97	FKU
Forest Heal	Sierra Resilient Landscape Collaborative	Complete	7,071.11	FKU
Fire Plan	Sky Harbor Pre Suppression Line	Complete in Maint		5.64
Forest Heal	Southern Sierra All-Lands Restoration and Rec	Cancelled	37,622.95	FKU
CFIP	Stucky CFIP 2020	Complete	106.56	FKU
CFIP	The Cedars CFIP 2014	Complete	121.41	FKU
Fire Plan	Tollhouse Fire Center Reduction Project	Active	11.81	FKU
VMP	VMP Comstock	Active	236.82	FKU
VMP	VMP SCE Shaver Lake	Active	513.93	FKU
VMP	VMP White Deer	Active	30.68	FKU
Cal VTP	VTP Sequoia Lake	Active	74.09	FKU
Cal VTP	VTP Shaver Ranch	Active	21.39	FKU
Fire Plan	White Deer Fuel Break	Complete in Maint	227.34	FKU
CFIP	Wintersteen CFIP 2021	Active	39.70	FKU
Fire Plan	YR 2019 - 168 Corridor Dead & Dying Tree Rem	Active	0.52	FKU
<b>Totals</b>			<b>70,390.05</b>	<b>92.35</b>

## **APPENDIX B: UNIT GOALS AND OBJECTIVES**

### **The Fresno-Kings Unit Key Objectives from the California Strategic Fire Plan:**

Analyze trends in fire cause and focus prevention and education efforts to modify behavior and effect change. (Goal 4 Objective K)

Support the availability and utilization of CAL FIRE hand crews and other CAL FIRE resources, as well as public and private sector resources, for fuels management activities, including ongoing maintenance. (Goal 5, Objective H)

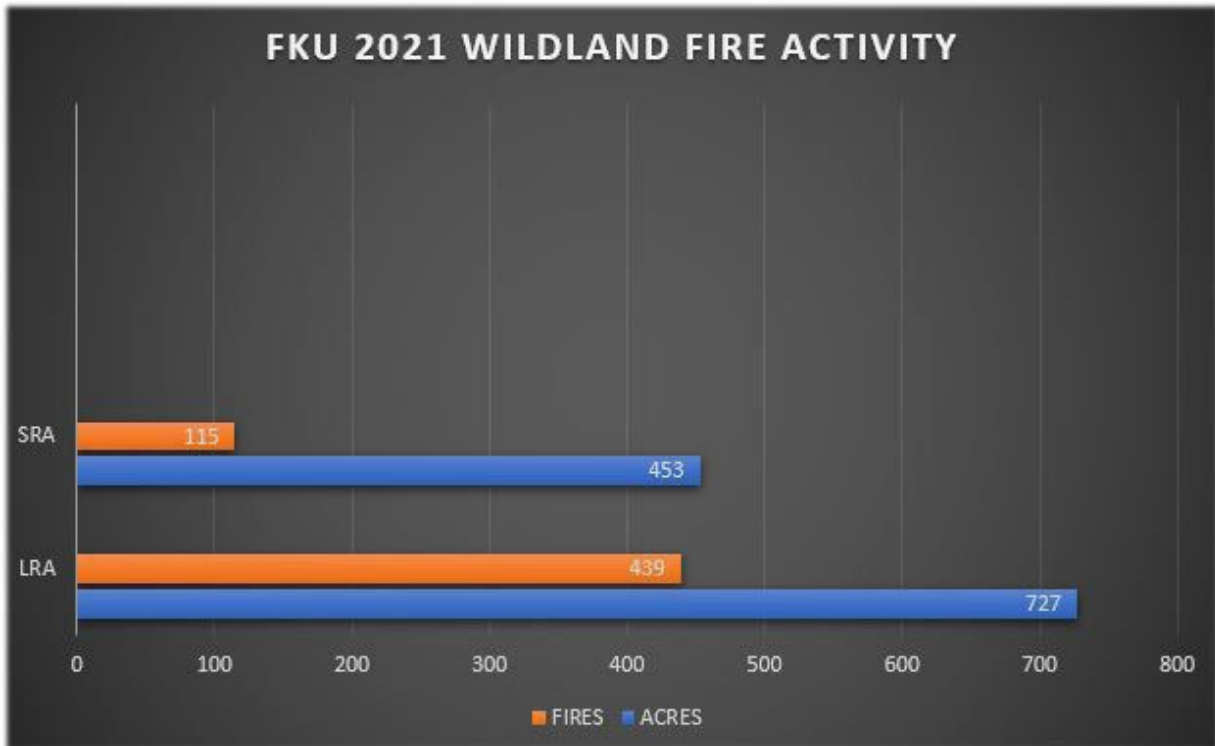
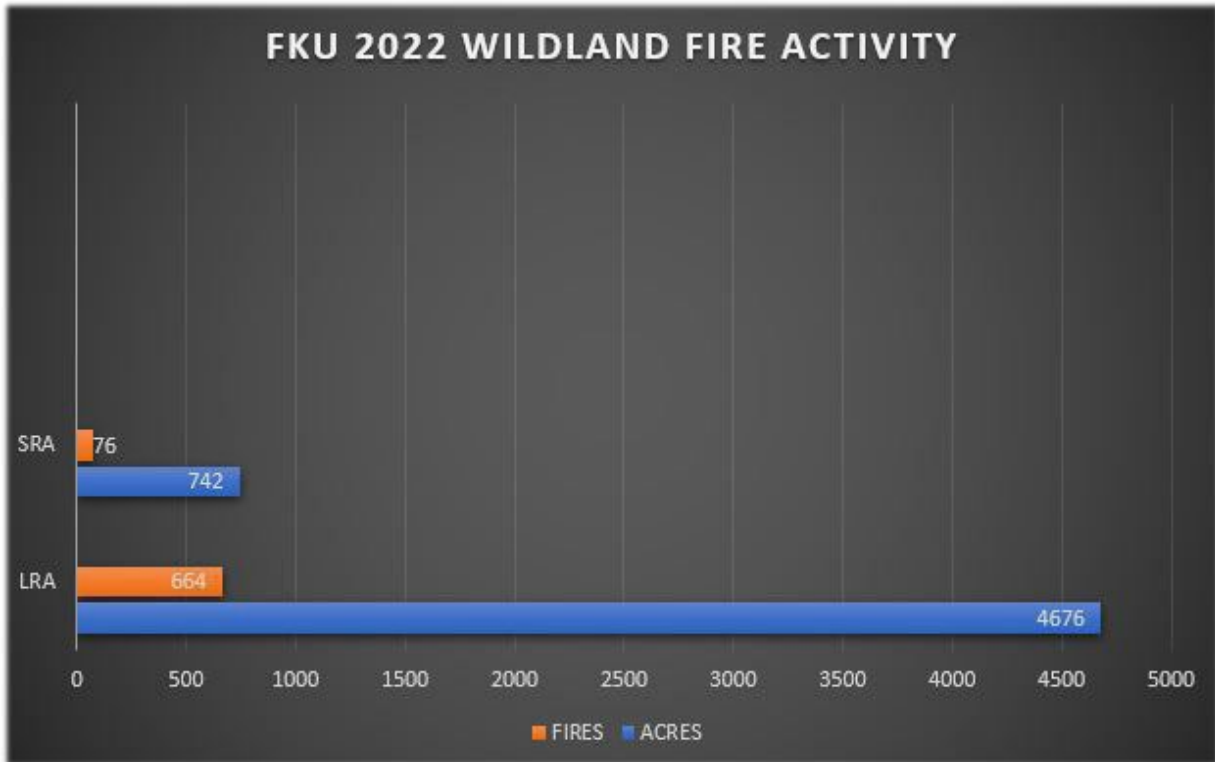
Effectively engage and train employees across all disciplines to address both planning and emergency response utilizing a “total force “approach.

Assist landowners and local government in the evaluation of the need to retain and utilize features (e.g., roads, fire lines, water sources) developed during a fire suppression effort, taking into consideration those identified in previous planning efforts. (Goal 7, Objective E)

The Fresno-Kings Unit management intends to support the Fire Plan and make it successful. With the limited availability of funds, creative ways to accomplish fuel reduction projects will remain a top priority. Work with grant writers and stakeholders to secure funds to implement projects. The Unit will also focus on the maintenance of completed projects; this step will allow us to have the strategic benefits of the projects for years to come. Fire Control Road maintenance will be prioritized, and a rotation schedule developed. We will continue to collect, analyze, and prepare data to assess communities at risk for those in need of fuel reduction or other projects. Continue our participation with the local fire safe councils. The Fresno-Kings Unit strives to educate the public on fire prevention and incorporating fire resistant landscaping and construction to their property, as well as hazardous fuel reduction to keep their lives, homes, property, and natural resources safe from catastrophic wildfires.

We intend to build on our commitment to pre-plan for emergency situations and to enhance our critical infrastructure protection plan in high-risk areas by creating and producing pre-attack plans.

**APPENDIX C- IGNITIONS DATA**



**2022 SRA WILDLAND IGNITIONS**

Row Labels	Count of Wildland Fire Cause
Arson	5
Debris and Open Burning	11
Equipment	14
Exposure - Other	1
Exposure - Structure	2
Misuse of Fire by a Minor	1
Natural	3
Other	15
Power Generation/Transmission/Distribution	9
Smoking	2
Under Investigation	1
UU - Undetermined	8
Vehicle	4
(blank)	
<b>Grand Total</b>	<b>76</b>

**2022 LRA WILDLAND IGNITIONS**

Row Labels	Sum of Row Labels2
(blank)	
Arson	71
Debris and Open Burning	32
Equipment	24
Exposure - Other	1
Grand Total	332
Misuse of Fire by a Minor	12
Natural	2
Other	30
Power Generation/Transmission/Distribution	25
Recreation and Ceremony	7
Smoking	2
Under Investigation	2
Undetermined	5
UU - Undetermined	77
Vehicle	42
(blank)	
<b>Grand Total</b>	<b>664</b>

**EXHIBITS: MAPS: Figure A: Unit Maps**

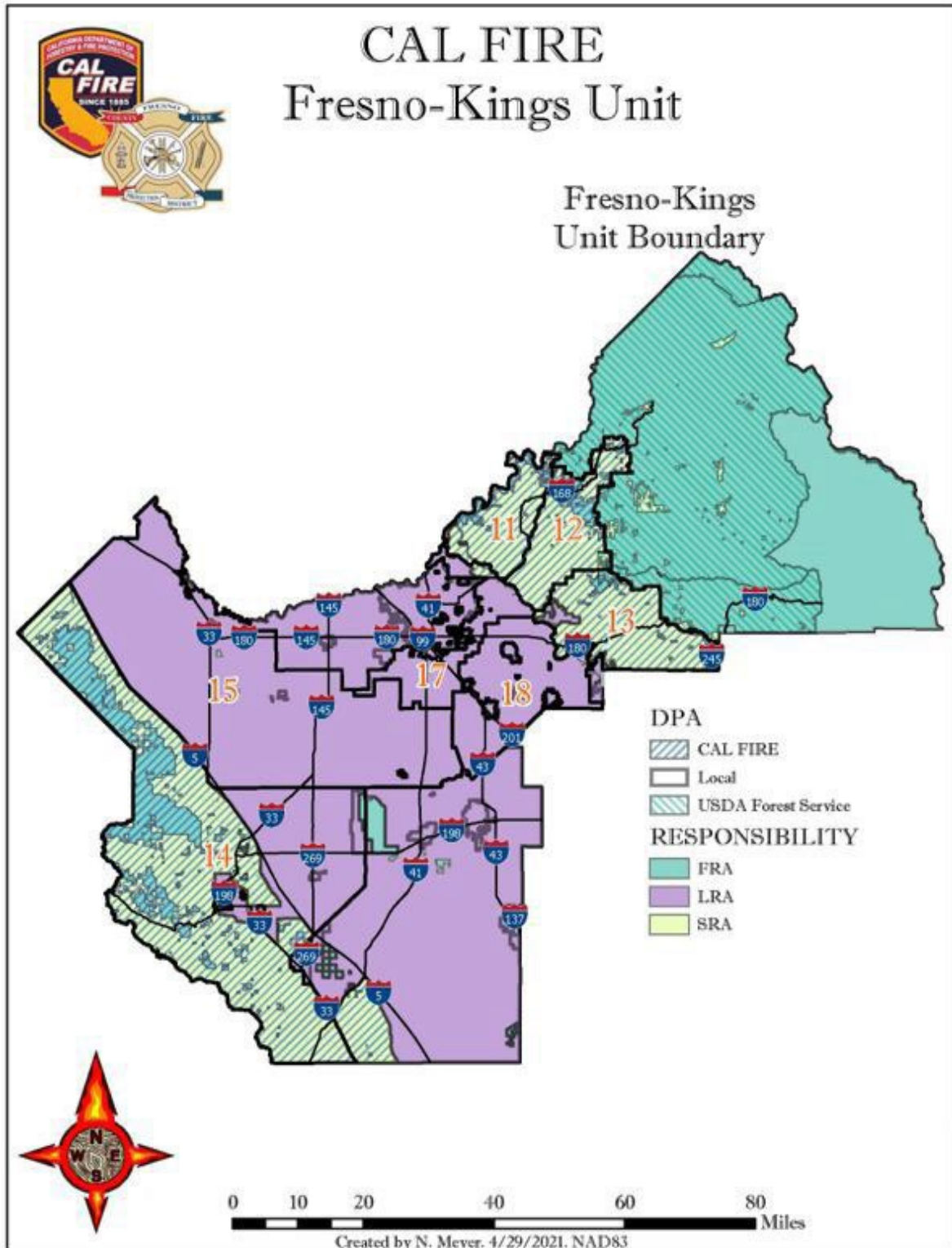
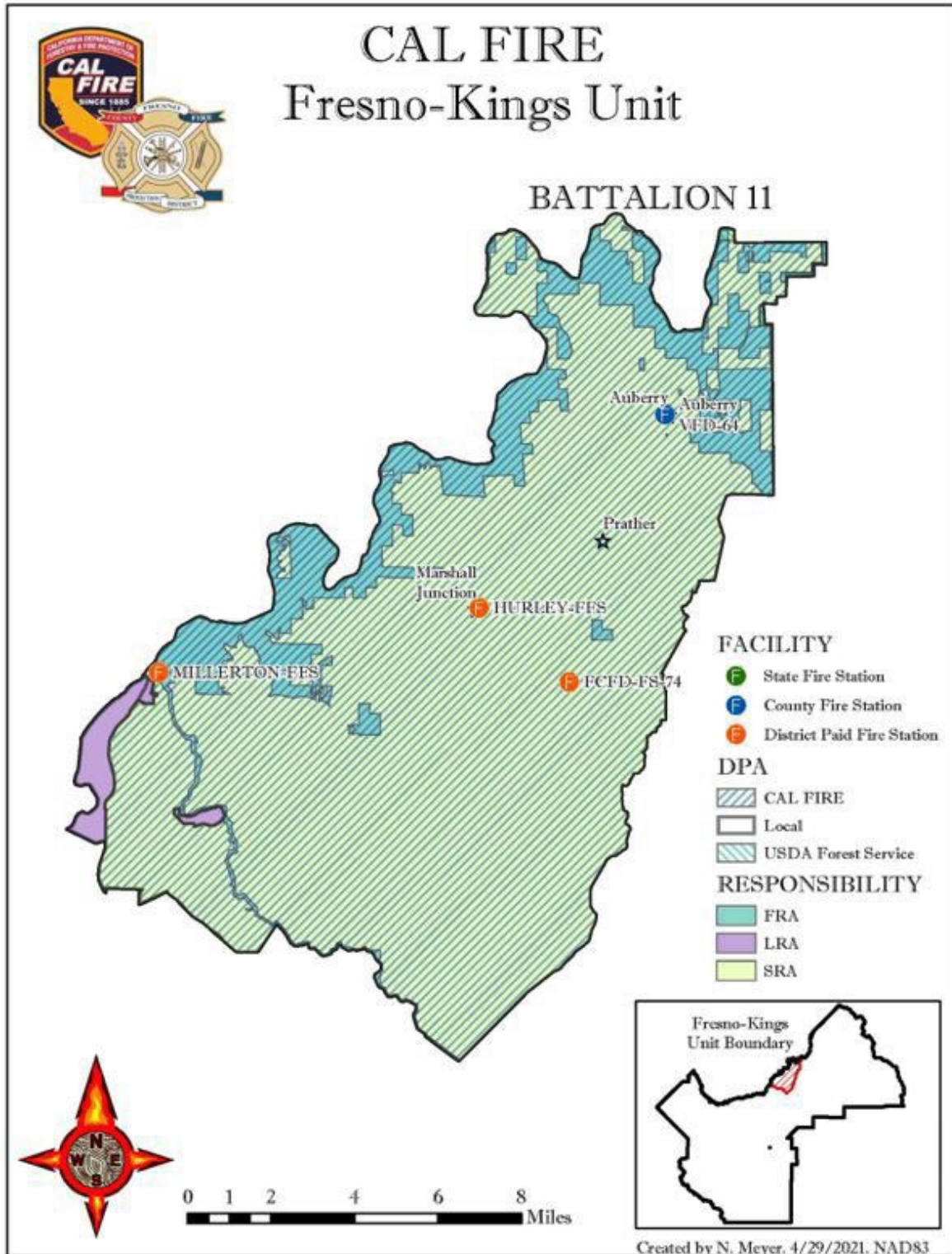
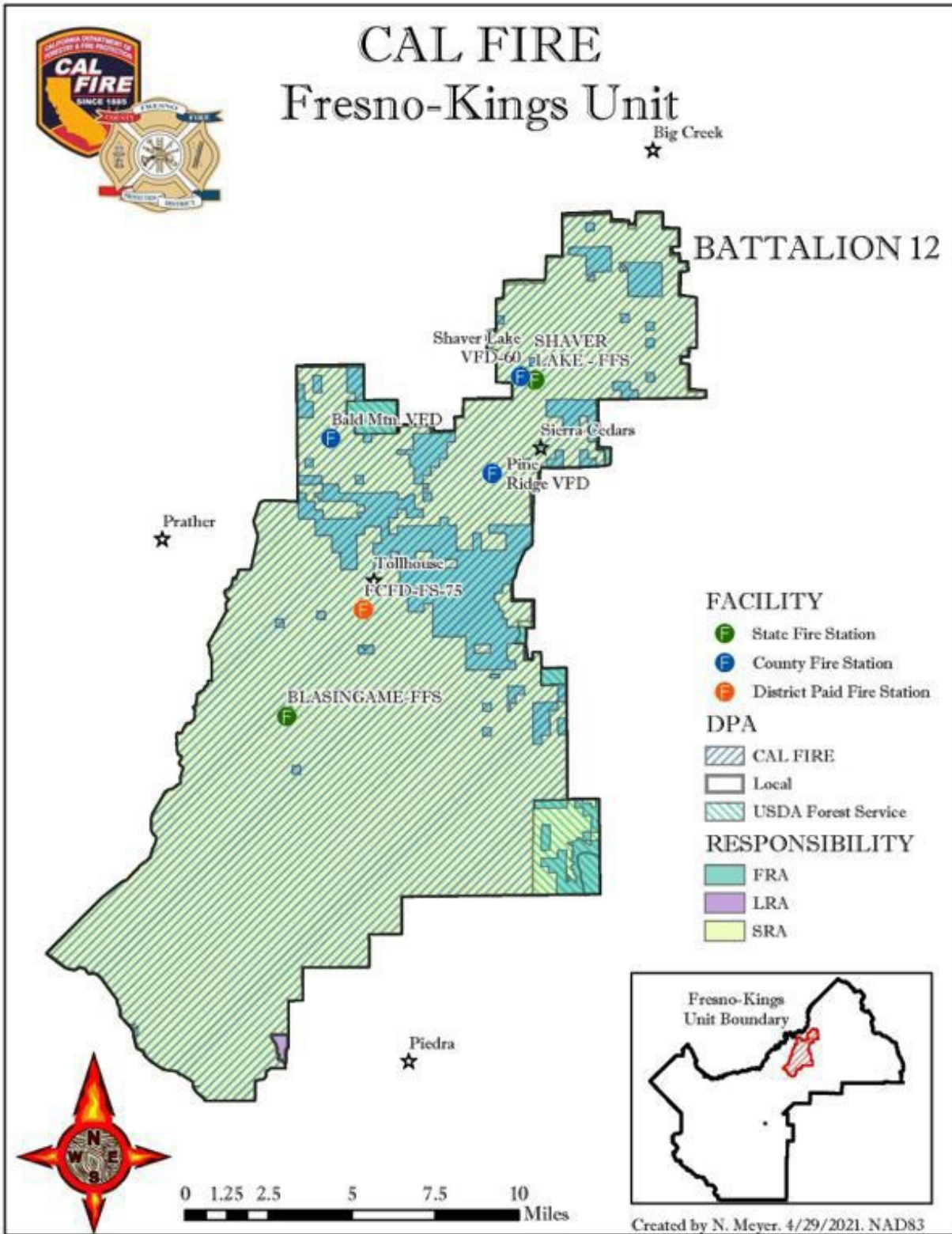
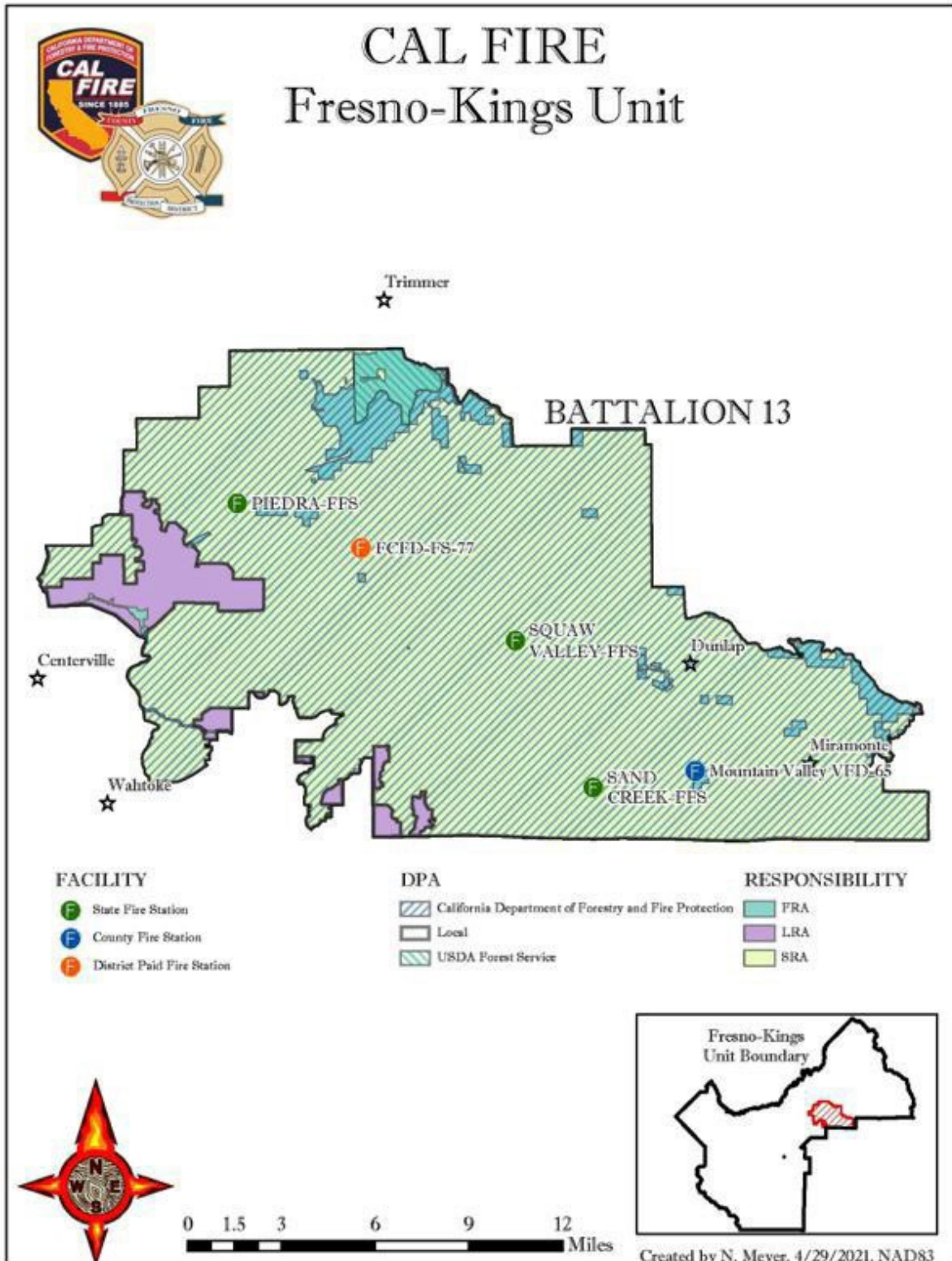


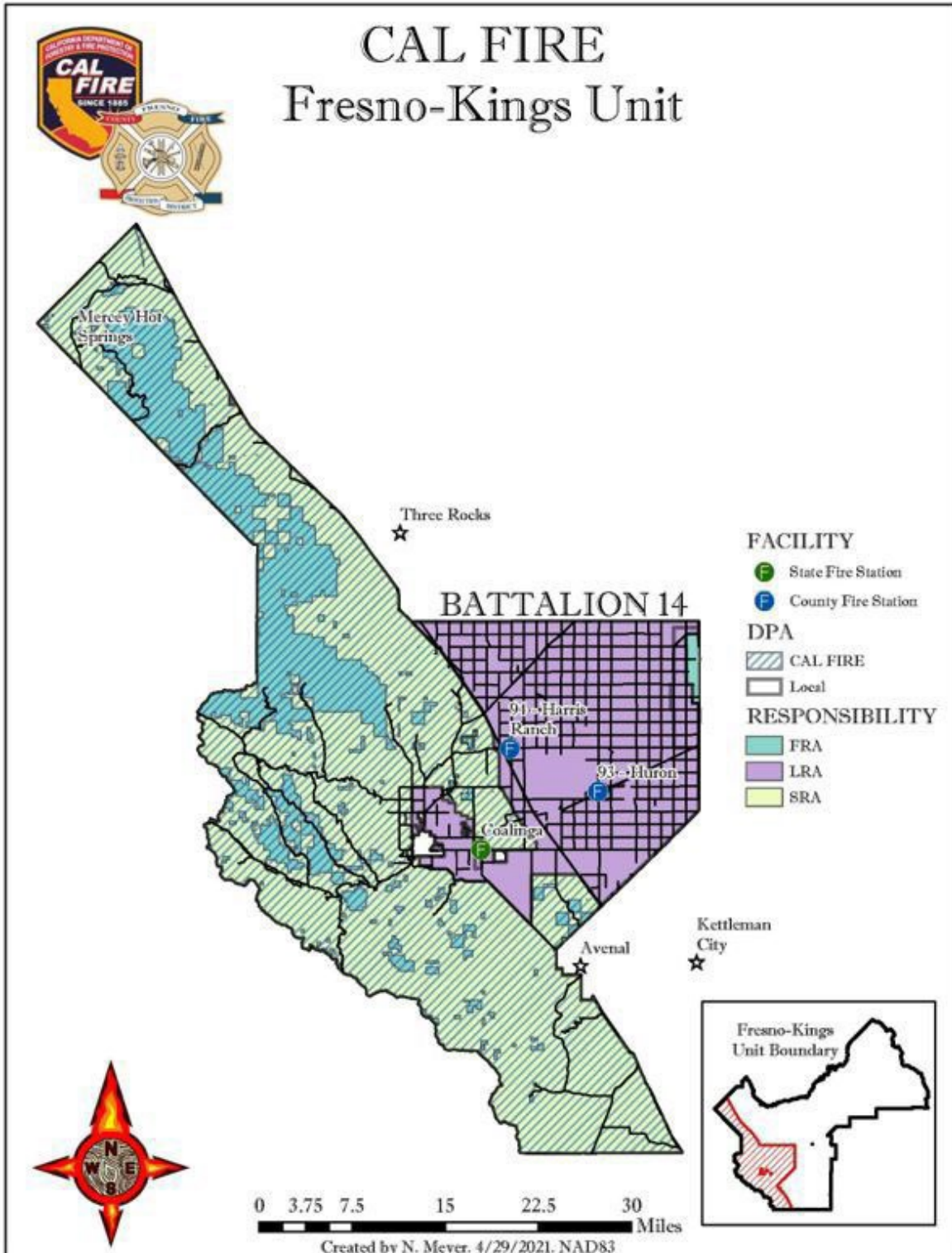
Figure B: Battalion Maps

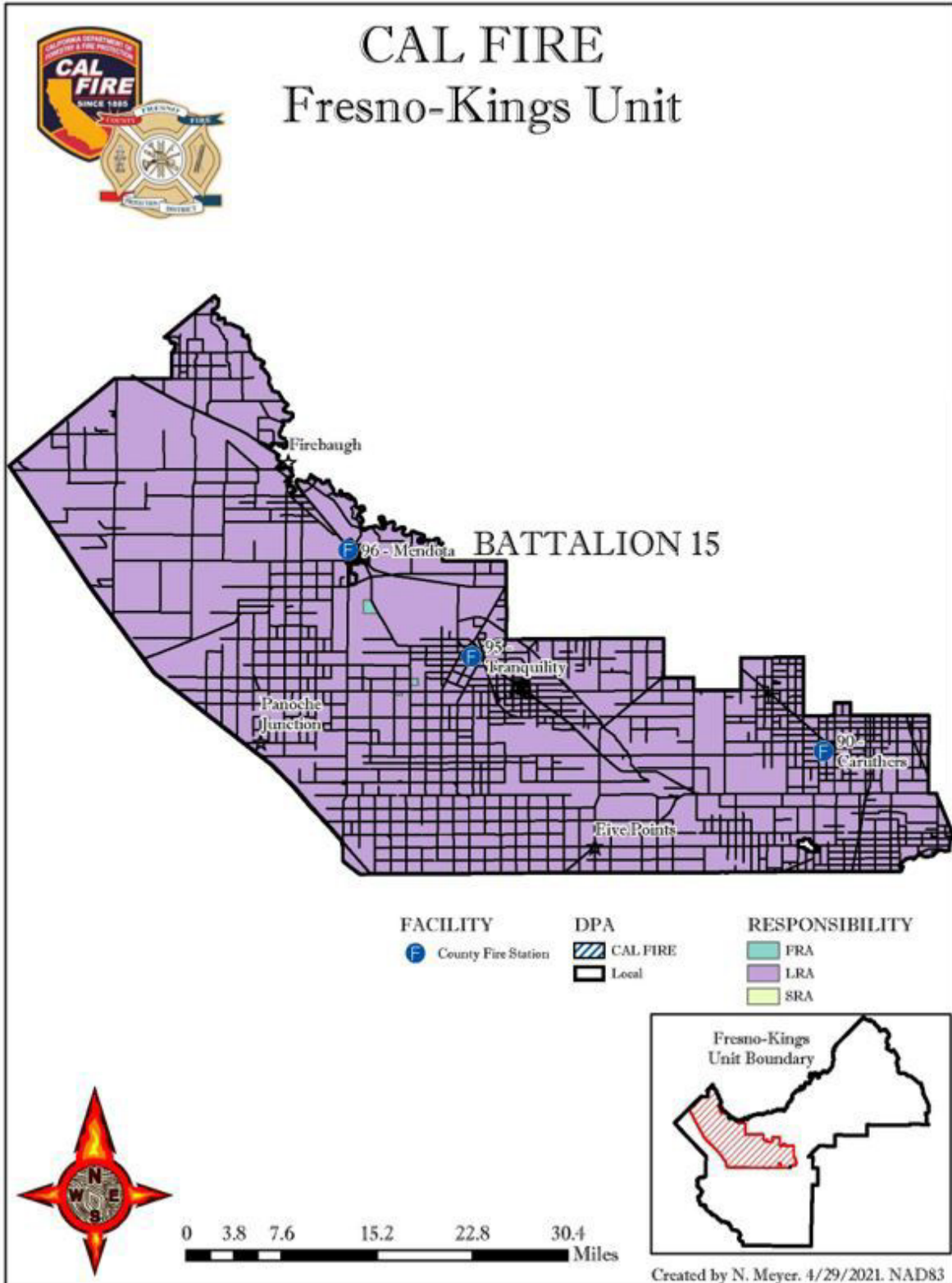


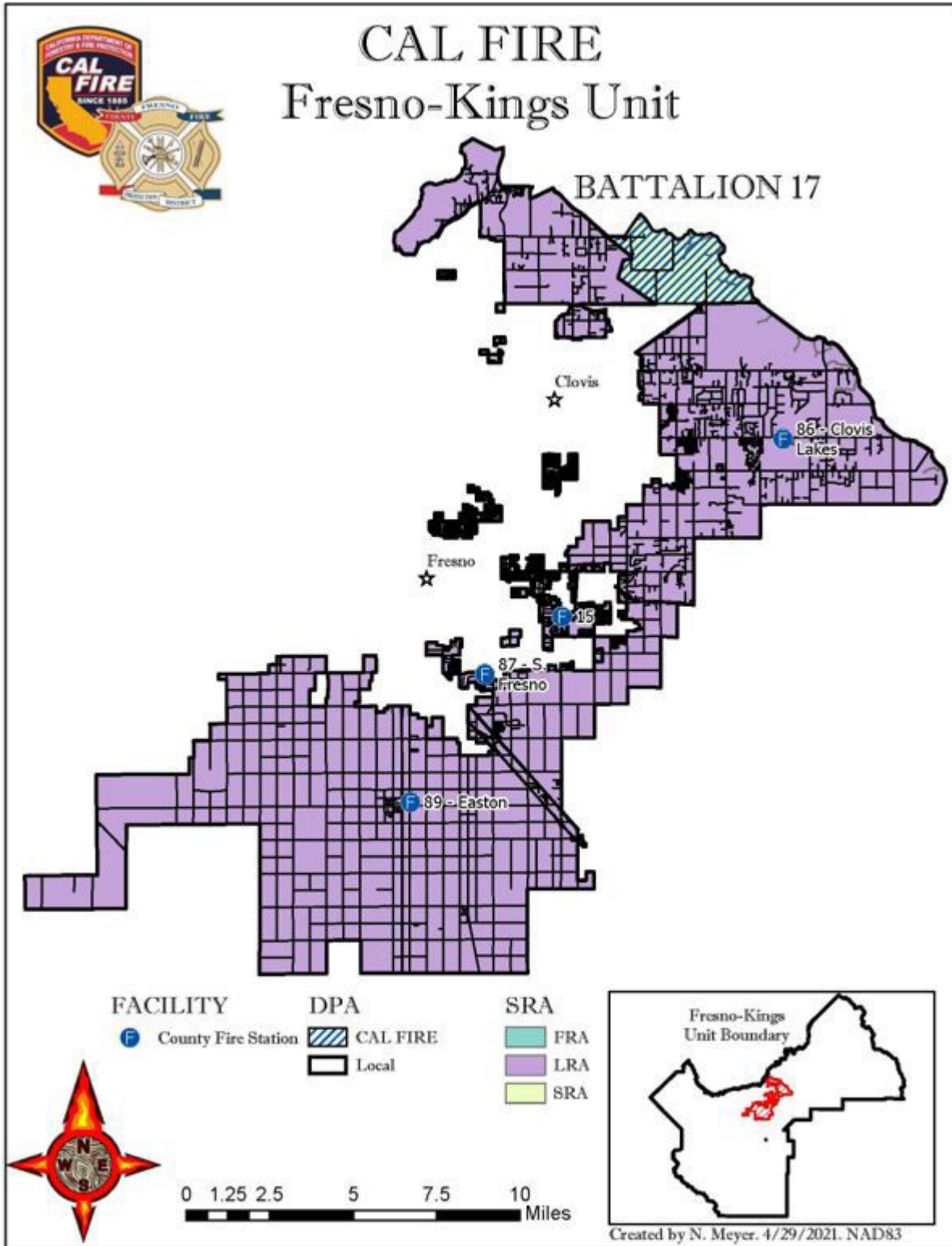


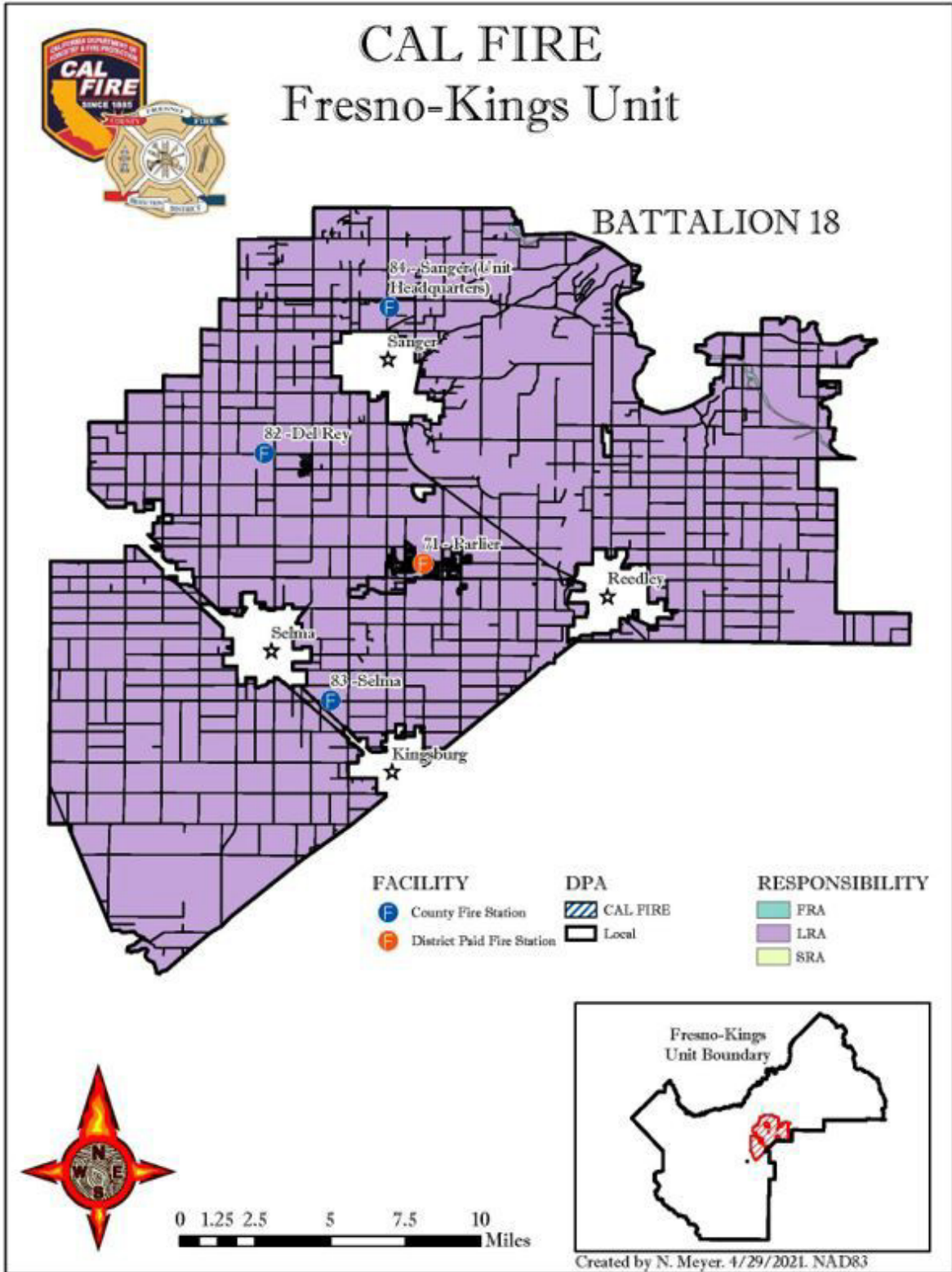












Bald Mtn. June 2015



Bald Mtn. February 2016



Bald Mtn. April 2017



## ANNUAL ACCOMPLISHMENTS REPORTING (2018)

### Fire Planning

In the spring of 2018, the Unit continued to partner with the Fresno County Sheriff's Department, County OES, California Highway patrol, Red Cross, Local Fire Safe Councils, US Forest Service, local Fire Districts, Pacific Gas and Electric and Southern California Edison to prepare the communities for the upcoming fire season. A series of community meetings were held throughout the County educating the residents about evacuation options, defensible space, and tree mortality. Over 200 people attended these meetings, and we are currently planning the spring 2019 series of meetings with our cooperators.

The Fresno County Tree Mortality Task Force (FCTMTF) has made great strides in completing projects and reducing the impacts of tree mortality in 2018. In 2018 the County of Fresno, 168 Fire Safe Council and the Oak to Timberline Fire Safe Council received California Climate Investment Grants for Fuels Reduction totaling \$2,936,606 to reduce the impacts of tree mortality and create safer communities. Below are the tree removal statistics for trees removed along ingress and egress routes, communities, and critical infrastructure by members of the FCTMTF.

#### Tree Removal 2016 to 2019:

<b>Cal-Fire</b>	<b>24,270</b>
<b>Caltrans</b>	<b>19,156</b>
<b>Highway 168 Fire Safe Council</b>	<b>2,592</b>
<b>Oak to Timberline Fire Safe Council</b>	<b>1,823</b>
<b>PG&amp;E</b>	<b>40,604</b>
<b>So. Cal. Edison</b>	<b>98,632</b>
<b>U.S. Forest Service – Sequoia (felled only)</b>	<b>69,810</b>
<b>U.S. Forest Service – Sierra</b>	<b>52,976</b>
<b>Fresno County</b>	<b>16,295</b>
<b>TOTAL</b>	<b>326,158</b>

Vegetation mortality due to drought and subsequent insect activity is apparent in the timber stands in the eastern portion of the Unit. Lower elevation vegetation types such as oaks

and understory brush species have also experienced substantial vegetation die-off or contain remarkably high dead fuels accumulations within the live vegetation. Fuel treatments for 2018 were once again primarily focused on areas affected by tree mortality. Project funding was utilized to hire four private contractors to remove dead and dying trees from unit fuel break projects and generally consisted of dead tree removal, piling, and mastication. Utilizing private contractors allowed the unit to make the best use of limited financial resources utilizing professionals that specialize in this kind of work. The decision to utilize private contractors allowed the unit resources to focus priorities on activities better suited by CAL FIRE such as pile or broadcast burning, allowing Fresno-Kings to treat more acres than had been treated over the subsequent 10 years. Once again grants were given to two California Conservation

Corps crews to work on fuel breaks, assist with piling, and brush removal. Continued funding for contracts will allow our response to continue, expand where needed, and to protect the communities we serve. Emergency response personnel continue to work on fuels reduction projects as we transition and move to peak fire season, however this work will slow and at times cease as incident activity dictates. Areas of the eastern portion of the Unit may type convert from timber to brush within the High Hazard Zone (HHZ). The long term needs to plan, implement, and maintain existing and planned fuels reduction acres has increased exponentially due to current conditions.



### **SHAVER-SOUTH FUEL BREAK**

Both the 168 Fire Safe Council and the Oak to Timberline Fire Safe Councils received funding from the Sierra Resource Conservation District to create new Community Wildfire Protection Plans (CWPP). These were signed by the Unit Chief and the County of Fresno in September of 2018. It was important to update these documents as the changes to the fuels due to tree mortality have drastically changed the risks to communities throughout Fresno County.

The Unit is committed to implementing the goals of the 2018 Strategic Fire Plan for California. The drought and subsequent tree mortality highlights the need for us to have a

natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships.

### **Investigations and Enforcement**

The Fresno-Kings Prevention Bureau responded to approximately 323 calls for service ranging from fire and law enforcement responses, to assisting other law enforcement agencies within the SRA and the Fresno County Fire Protection District (SRA & LRA). Of those total 323 calls, 172 of them officers investigated 62 structure fires, 78 wildland fires, 11 vehicle fires, 18 refuse fires, 3 Ag products, and 11 other agencies assist. Officers responded to approximately 115 calls related to law enforcement, 20 citations were issued, 14 total arrests: 6 arson arrests and 9 arrests were related to other crimes or warrants.

### **Wildland Fire Prevention Engineering**

The Public Resource Code 4291 (LE-100) Inspection Program continues to make great progress; in the number of inspections; and educating the public on how to create their defensible space in hopes of reducing homeowner risk and damage of an advancing wildfire. The Unit has maintained a high goal of inspections for the past several years.

The program was staffed with four defensible space inspectors which created.

a coordinated inspection program with the support of field personnel (station personnel and Battalion Chiefs). Personnel completed 4,771 LE-100 inspections, which includes second inspections. With the department moving towards collecting inspections using the Pre-and Post-Fire Inspection Reporting System (PFIRS) the Fresno Kings Unit collected inspections in the required format and converted all inspections into a GIS format to be integrated into PIFIRS. The Unit was one of the test locations for the new application.

More than 68 Public Resources Code 4290/County Ordinance 15.60, inspections took place in the Unit. During these inspections, such items as roadway length and width, fuel modification, maintenance of defensible space, and water tanks were inspected to confirm compliance with the regulations by the field Battalion Chiefs.

The Fire District Protection and Planning office monitors new construction and strives to maintain the safety of the public and their property. The services involved the preparation of 129 conditioning letters to the Fresno County Building Department, held 117 consultation meetings; our Protection and Planning office conducted 445 plan reviews and our Field Inspectors conducted a total of 899 inspections related to new construction of both residential and commercial projects, underground systems, new business inspections, local jail and court inspections, and 60 retail fireworks stands.

The fire inspectors continue to maintain an aggressive weed abatement program in the LRA, where station personnel conduct the initial inspections of all parcels and additional work to gain compliance by the public is conducted by this office. Within the Fire District, we conducted 1880 inspections, and approximately 1062 violation notices were issued.

### **Civil Cost Recovery**

During the 2018 calendar year, the Fresno Kings Unit submitted 11 reports to Civil Cost Recovery for fires within the SRA. The cause of these fires was a result of negligence and or a violation of law, therefore the responsible party was issued a letter of demand related to the extinguishment and investigation of the fires.



## **Education and Information**

The Fresno-Kings Unit and the Fresno County Fire Protection District Information and Education Bureau continue to expand outreach programs to provide for public safety education. Public outreach programs provide the department the ability to educate the public and therefore potentially reduce ignitions within the Unit. In 2018, the fire education program exceeded over 3,446 hours that were dedicated to prevention and education of the public at over 90 formal events. These efforts will continue to be proactive in providing information and education to residents that reside, work, or travel through the wildland urban interface, as well as the communities throughout the County of Fresno.

The program served approximately 2,686 students from Pre-school – 6<sup>th</sup> grade. The two current curriculums are F.I.S.E. (Firefighter's in Safety Education) program which is associated with California's Common Core Curriculum along with the Alisa Ann Ruch Burn Foundation and Smokey Bear's Five Rules for Fire Prevention taught in conjunction with the USFS. The Fresno-Kings Unit is also partnering with Safe Kids, Central Valley Burn Coalition, Central Valley Burn Center, and Fresno Fire to continually have a Youth Fire Setter Program available to educate any Youth Fire setters as needed. We are continuing to utilize NFPA's "Remember When" program for our 55 and older population which is centered around teaching 16 key safety messages (8 Fire Prevention messages and 8 fire Prevention messages). We have also continued to strengthen our relationship with the Cold Springs Rancheria and the Big Sandy Rancheria. Big Sandy Pre-school is part of our Team-teaching program to teach fire safety to. We have attended community meetings and educated their tribal members about the Ready, Set, Go program, smoke alarms, carbon monoxide detectors, and defensible space. The programs also present homeowners with information on how they may participate as shareholders in Fresno and King's Counties, with the use of safety messages, community groups, town hall meetings, firesafe councils, social media, and local media outlets. We continue to utilize our Fire Prevention trailer for public outreach events such as, The Big Fresno Fair, May Day at Chukchansi, Paw Patrol Night at Grizzly Stadium, Family Night at multiple schools, and our Wildfire Awareness media event. We are currently utilizing 3 social media platforms, Twitter, Facebook, and Instagram. During 2018, social media continued to expand while striving to instantaneously communicate with the people that we serve or that may be impacted by our operations. Safety messages, fire prevention tips, local emergencies, evacuations, recommendations, and other information is sent over several social media sites and is displayed at [Website link to Fresno County Fire](#). The Unit continues expanding the Public Education Roadway Sign Program, with the purchase of 20 new road sign holders that have been dispersed throughout the unit.

## **Vegetation Management**

The Unit wide VMP program continues with a diverse set of projects. Including rangeland improvement, fuels reduction, training, tree mortality mitigation, and environmental protection projects. All Fresno-Kings VMP projects are consistent with the unit priorities described in this plan.



### **ALDER-HEIGHTS FUEL BREAK**



### **ACORN SUGARLOAF FUEL BREAK**

This was the first year the Unit did not have a forester to continue updating and moving new projects forward. However, with assistance from the Southern Region Resource Management Staff the Unit was able to renew the Edison VMP and continue to work on projects. The Unit contracted with Vermillion Resource Management to continue adding projects. The contractor worked on adding an additional 11,864-acre VMP with Southern California Edison which should be approved by the fall of 2019.

Currently the Fresno-Kings Unit has 15,761 compliant VMP acres contained within eight projects. The Unit started scoping an additional 13,324 acres during 2018 for a total of 29,805 available VMP acres across varied fuel types. The Edison, Sequoia Lake, and Johnson VMP's were the most successful projects where HFEO proficiency drills, tree mortality treatments, and broadcast burn entries occurred. A total of 447 acres were treated by broadcast burning in 2018 and more acreage is planned for 2019.

Additionally, the Fresno-Kings Unit plans to expand project work across other smaller private ownerships to create additional defensible fuel zone profiles and fuel breaks along the western side of Shaver Lake. This project will create an integrated fuel break, prescribed fire system in and around the greater Shaver Lake area.

The Acorn Sugarloaf shaded fuel break is a successful shaded fuel break restoration project done in cooperation with the Sierra National Forest under the Good Neighbor and Wyden Authority to work across land ownership. This project has nearly reached completion. The Cressman, Alder Heights and Shaver South projects continue to progress towards completion with private contractors and CAL FIRE resources completing project work. For a complete list of fuels reduction projects either planned, in progress or completed see appendix A.

Governor Brown issued an Emergency Proclamation (EP) on October 30, 2015, in response to the ongoing drought and subsequent beetle kill tree mortality occurring across California timber lands. It is anticipated that to implement some of the directives included within the EP, and to comply with Chief Pimlott's fall 2018 fuels reduction/VMP Memo, use of the VMP program will be significantly increased where fuels and climatic conditions create favorable burning conditions. Currently the north-east portion of the Fresno Kings Unit (Battalion 12) has a series of strategically located fuels reduction projects. The south-eastern portion of the Unit (Battalion 13) does not have terrain and land ownership patterns suitable for large scale VMP projects.

Therefore, VMP activity in this battalion is limited to one VMP at Sequoia Lake and CAL Fire agency support of community fuels reduction or education. Battalions 12 and 13 contain the units (HHZ) areas and most of the Units VMP & fuels reduction projects. Battalion 14 has terrain and fuel models that support significant rangeland improvement burns. The current widespread vegetation mortality and the governor's plan triggered a re-evaluation of the Units fuels reduction projects. Planning for additional fuels reduction projects began in late 2014 and is ongoing and develops to respond to changing conditions. Additional projects beyond what is listed in the Unit Fire Plan are anticipated. Fuels reduction projects will be responsive to the integrated planning approach of Pre-fire, Prevention, and Vegetation Management. Projects will be developed and implemented in coordination with Unit Pre-fire objectives. Priority will

be given for fuels reduction work to occur within the tree mortality (HHZ) in support of the Governors EP and directive 7 but the Unit will have approved VMP's acres.

available across the variety of fuel types represented in Fresno County to take advantage of favorable conditions when and where they occur for multiple pre-fire and resource management objective.

The Fresno-Kings Volunteers in Prevention (VIP's) program currently has 23 volunteers that assist with The Big Fresno Fair (Fair attendance was 632,410) and fair education days had over 35,000 students attend. The VIP's also assist with school programs, career days, Fresno Home & Garden show, health and safety events, and other functions designed to educate the public on wildfire safety and fire prevention safety in and around the home.

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

The Fresno Kings Unit continues to collaborate with CAL FIRE's Fire and Resource Assessment Program (FRAP), local cooperators, and various CAL FIRE programs to assist with data collection techniques, information presentation and dissemination, landscape mortality assessment, and site-specific fuel reduction mitigations. The Units on the ground mitigation response that began in 2015 increased in pace and scale for 2018 and continues. Tree felling, log decking, mastication, chipping, and pile burning has occurred on five existing fuels reduction projects. Trees are felled utilizing CAL FIRE resources and contractors, logs are decked, and slash is treated to restore the fuel breaks to a viable state. Once project acres have existing fuel loading reduced to appropriate levels, broadcast burning will be utilized as a treatment. Additional fuel breaks have been identified and are through the planning process and ready for implementation. Assessment and planning efforts continue for long term fuel reduction needs. A critical component of the Units total response includes close collaboration with our cooperators. The unit works with US Forest Service, local Fire Safe Councils, utility companies and Fresno County to prioritize tree removal work and utilization of our collective resources directly adjacent to communities, ingress and egress routes and infrastructure.

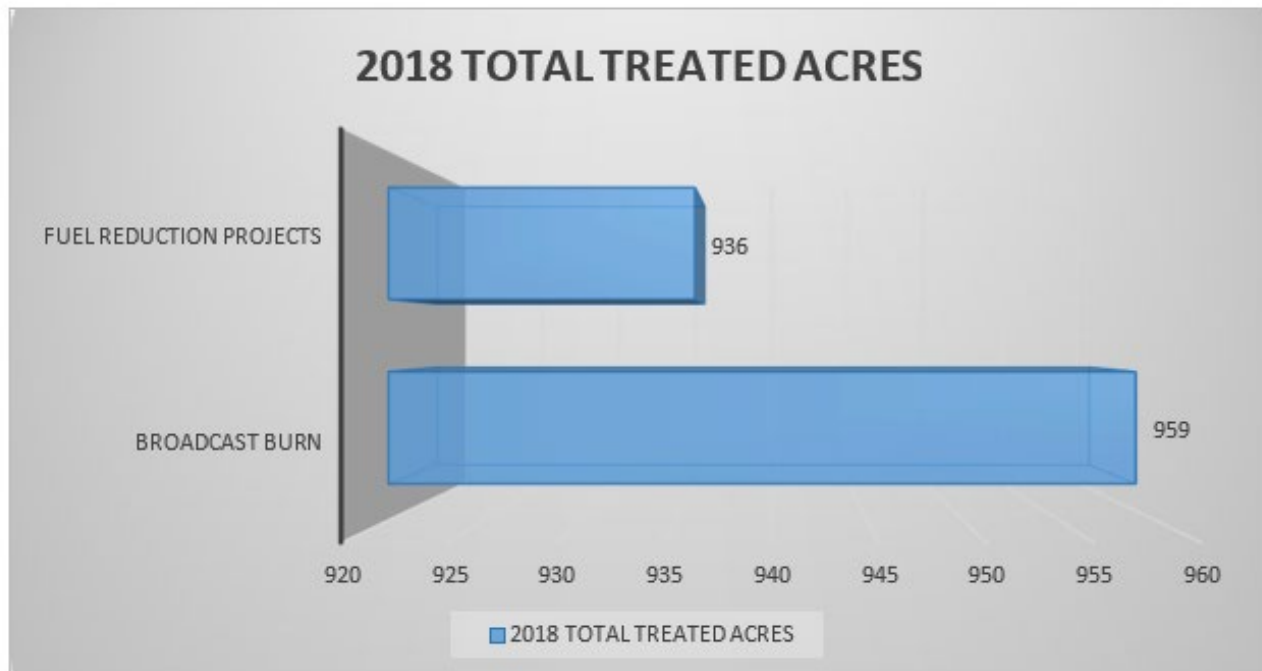
In 2018 the Fresno Kings Unit assisted the County of Fresno in updating their Local Hazard Mitigation Plan. This was an exercise in not only identifying hazards related to wildland fire and tree mortality, but risk related to flood, earthquake, and environmental issues County wide. The Protection Planning program along with Region Land Use Planning staff has been meeting with the County over the last year on the Safety element updates of the general plan as the County works through updating their General Plan.

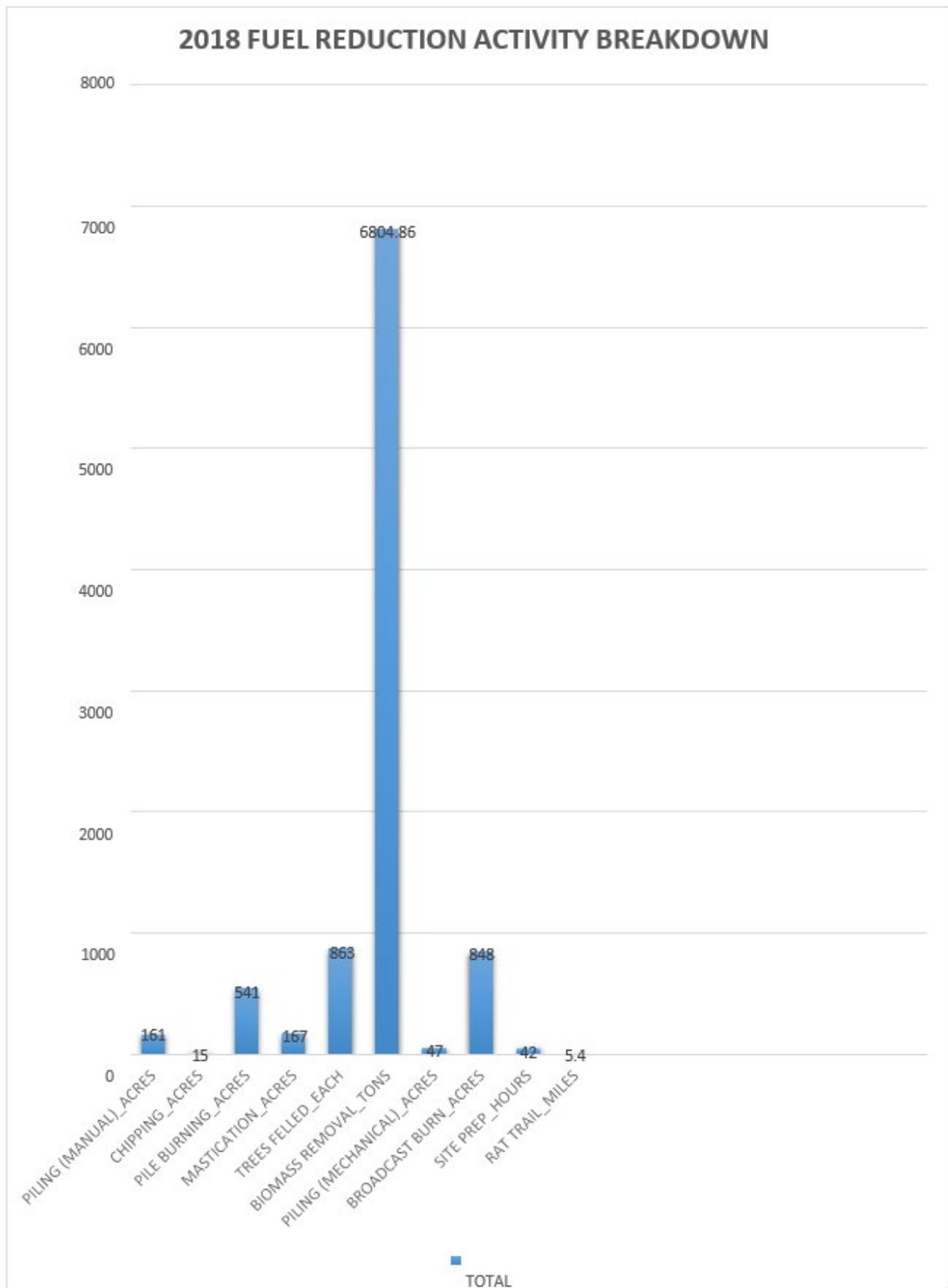
### **VMP SCE EDISON**



The following graphs and charts represent fuel reduction efforts and activities completed by the Fresno-Kings Unit in 2018. These totals are pulled from Cal Mapper and represent all project efforts. The following is list of the specific projects that the Fresno-Kings Unit focused on in 2018.

- Acorn-Sugarloaf Fuel Break-424 days, 3,259.25 personal hours, 1,842.50 equipment hours.
- Alder Heights- 37 days, 277 personal hours, 407 equipment hours.
- Comstock Retreat VMP- 3 days, 72 personal hours, 5.50 equipment hours.
- Cressman VMP- 401 days, 2,922.25 personal hours, 1,768.25 equipment hours.
- Dinkey FS- 7 days, 66 personal hours, 18 equipment hours.
- Edison VMP- 219 days, 2,125.25 personal hours, 1,363 equipment hours.
- Highway 168 Pre Suppression Line- 1 day, 5 personal hours, 9 equipment hours.
- Highway 180 Pre Suppression Line- 52 days, 339 personal hours, 573 equipment hours.
- Hills Valley Pre Suppression Line- 4 days, 21 personal hours, 27 equipment hours.
- Meadow Lakes North- Contractor
- Mendota Wildlife Area- 11 days, 79 personal hours, 50.50 equipment hours.
- Rush Creek FS- U.S.F.S. assist.
- SCE- 16 days, 132 personal hours, 63 equipment hours.
- Sequoia Lake (2017-2020)- 133 days, 1,056.75 personal hours, 825.25 equipment hours. Shaver South DFZ- 32 days, 250 personal hours, 224.25 equipment hours.
- White Deer Fuel Break- 34 days, 331.25 personal hours, 244.75 equipment hours.
- White Deer VMP- 36 days, 230.75 personal hours, 171.25 equipment hours.





## **ANNUAL ACCOMPLISHMENTS REPORTING (2019)**

### **Fire Planning**

In the Spring of 2019, CAL FIRE was charged with completing 35 hazardous fuels reduction projects near vulnerable communities by Governor Gavin Newsom, five of these projects were in the Fresno Kings Unit. These projects were selected as a high priority by unit personnel because of their strategic locations throughout the unit's Very High Fire Hazard Severity Zones (VHFSZ). The footprint acres of these five projects totaled just over 1,000 acres and provide essential fuel breaks in and adjacent to communities in the VHFSZ's within the Fresno-Kings Unit. These fuel breaks will reduce the impacts of a wildfire to communities, critical infrastructure and provide safe ingress and egress for the residents and first responders. This type of request was unprecedented and a monumental challenge to accomplish in 9 months. It took a coordinated effort by multiple agencies as well as the full support from the Unit Executive Staff and unit resources.

The Beal and Shaver Springs projects were completed on both Federal and Private lands. The Unit and the High Sierra Ranger District of the Sierra National Forest amended the existing Good Neighbor and Weyden Authority to include these projects. This type of agreement has been successful for both agencies to accomplish work regardless of land ownership and putting fuel treatments where they are the most beneficial to communities.

To assist with accomplishing these projects the Governor deployed California National Guard (CNG) soldiers to the Fresno-Kings Unit. The CNG crews consisted of two, 20-person crews supervised by CNG officers. CAL FIRE provided four Captains and eight Fire Fighter I's to direct and assist the CNG crews with accomplishing the work. Along with the CNG crews, CAL FIRE developed several Regional Fuels Reduction crews throughout the state to further assist tree mortality and fuel reduction projects. The Fresno FRC crew worked in FKU sporadically in 2019 to assist on the five high priority projects. Project funding was utilized to hire nine private contractors to remove dead and dying trees, pile slash and masticate to create these fuel breaks. Utilizing private contractors allowed the unit to make the best use of limited financial resources utilizing professionals that specialize in this kind of work. The decision to utilize private contractors allowed the unit resources to focus priorities on activities better suited for our resources such as pile or broadcast burning and responding to normal fire season calls. Pile burning as well as broadcast burning were utilized when climatic conditions allowed for the use of prescribed fire to complete these projects. In addition to the CNG and FRC crews, the Unit dedicated Heavy Fire Equipment Operator HFEO's, three state-mission Type 3 engines and up to four Miramonte crews on any given day to accomplish these projects. The combination of private contractors, CNG crews, and Unit resources allowed the Unit to accomplish these projects and treat more acres than had been treated over the subsequent 10 years.

The California Conservation Corps (CCC) crews assisted the Unit with project funding they obtained to conduct fuel reduction. This is the third year that the CCC have assisted us in completing fuels work in the Unit. The CCC have become an integral partner to the Unit and our cooperators in this effort. The Fresno County Tree Mortality Task Force (FCTMTF) continues to make great strides in completing projects and reducing the impacts of tree.

mortality in 2019. In 2019 the County of Fresno, 168 Fire Safe Council, Sierra RCD, and the Oak to Timberline Fire Safe Council received California Climate Investment Grants for Fuels Reduction totaling \$2,628,196 to reduce the impacts of tree mortality and create safer communities. Below are the tree removal statistics for trees removed along ingress and egress routes, communities, and critical infrastructure by members of the FCTMTF.

**Tree Removal 2016 to 2019:**

<b>Cal-Fire</b>	<b>24,270</b>
<b>Caltrans</b>	<b>19,156</b>
<b>Highway 168 Fire Safe Council</b>	<b>2,592</b>
<b>Oak to Timberline Fire Safe Council</b>	<b>1,823</b>
<b>PG&amp;E</b>	<b>40,604</b>
<b>So. Cal. Edison</b>	<b>98,714</b>
<b>U.S. Forest Service – Sequoia (felled only)</b>	<b>69,810</b>
<b>U.S. Forest Service – Sierra</b>	<b>52,976</b>
<b>Fresno County</b>	<b>16,095</b>
<b>TOTAL</b>	<b>326,040</b>

Continued funding for contracts will allow our response to continue, expand where needed, and to protect the communities we serve. The long term needs to plan, implement, and maintain existing and planned fuels reduction acres has increased exponentially due to current conditions.

The Unit is committed to implementing the goals of the 2019 Strategic Fire Plan for California. The drought and subsequent tree mortality highlights the need for us to have a natural environment that is more fire resilient; buildings and infrastructure that are more fire-resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships.

**Investigations and Enforcement**

The Fresno-Kings Prevention Bureau responded to approximately 392 calls for service ranging from fire and law enforcement responses, to assisting other law enforcement agencies within the SRA and the Fresno County Fire Protection District (SRA & LRA). Of those total 392 calls, 199 of them officers investigated 62 structure fires, 92 wildland fires, 11 vehicle fires, 25 refuse fires, 5 Ag products, and 4 other agencies assist. Officers responded to approximately 193 calls related to law enforcement, 53 citations were issued, 15 total arrests: 8 arson arrests and 9 arrests were related to other crimes or warrants.

**Wildland Fire Prevention Engineering**

The Public Resource Code 4291 (LE-100) Inspection Program continues to make great progress; in the number of inspections; and educating the public on how to create their defensible space in hopes of reducing homeowner risk and damage of an advancing wildfire. The Unit has maintained a high goal of inspections for the past several years. The



program was staffed with four defensible space inspectors which created a coordinated inspection program with the support of field personnel (station personnel and Battalion Chiefs). Personnel completed 9,708 LE-100 inspections, which includes second inspections. More than 70 Public Resources Code 4290/County Ordinance 15.60, inspections took place in the Unit.

During these inspections, such items as roadway length and width, fuel modification, maintenance of defensible space, and water tanks were inspected to confirm compliance with the regulations by the field Battalion Chiefs.

The Fire District Protection and Planning office monitors new construction and strives to maintain the safety of the public and their property. The services involved the preparation of 143 conditioning letters to the Fresno County Building Department, held 131 consultation meetings; our Protection and Planning office conducted 471 plan reviews and our Field Inspectors conducted a total of 899 inspections related to new construction of both residential and commercial projects, underground systems, new business inspections, local jail and court inspections, and 60 retail fireworks stands.

The fire inspectors continue to maintain an aggressive weed abatement program in the LRA, where station personnel conduct the initial inspections of all parcels and additional work to gain compliance by the public is conducted by this office. Within the Fire District, we conducted 1952 inspections, and approximately 976 violation notices were issued.

### **Cost Recovery**

During the 2019 calendar year, the Fresno Kings Unit submitted 2 reports to Civil Cost Recovery for fires within the SRA. The cause of these fires was a result of negligence and or violation of law, therefore the responsible party was issued a letter of demand related to the extinguishment and investigation of the fires.

### **Education and Information**

The Fresno-Kings Unit and the Fresno County Fire Protection District Information and Education Bureau continues to expand the reach and potential for public education opportunities. Public outreach programs provide the department the ability to educate the public and therefore potentially reduce ignitions within the Unit. In 2019, the fire education program expended over 2,900 hours to prevention and education of the public at over 75 formal events. These efforts will continue to be proactive in providing information and education to residents that reside, work, or travel through the wildland urban interface, as well as the communities throughout the County of Fresno. The program served approximately 3,417 students from Pre-school – 6th grade. The two current curriculums are F.I.S.E. (Firefighters in Safety Education) program which is associated with California's Common Core Curriculum along with the Alisa Ann Ruch Burn Foundation and Smokey Bear's Five Rules for Fire Prevention taught in conjunction with the United States Forest Service (USFS). The Fresno-Kings Unit also partners with Safe Kids, Central Valley Burn Coalition, Central Valley Burn Center, and Fresno Fire to continually have a Youth Fire Setter Program available to educate any youth fire setters as needed. We are continuing to utilize NFPA's "Remember When" program for our 55 and older population which is centered around teaching 16 key safety messages (8 Fire Prevention messages and 8 Fall Prevention messages).

The partnership continues with a great relationship with Cold Springs Rancheria and the Big Sandy Rancheria, both are part of our team-teaching program with the USFS. Representatives from Fresno-Kings Unit have attended community meetings and educated their tribal members about the Ready, Set, Go program, smoke alarms, carbon monoxide detectors, and defensible space.

The programs also present homeowners with information on how they may participate as shareholders in Fresno and Kings Counties, with the use of safety messages, community groups, town hall meetings, fire safe councils, social media, and local media outlets. We continue to utilize our fire prevention trailer for public outreach events such as The Big Fresno Fair, May Day at Chukchansi, Paw Patrol Night at Grizzly Stadium and at our Wildfire Awareness media event. During 2019, social media continued to expand while striving to instantaneously communicate with the people that we serve or that may be impacted by our operations. Safety messages, fire prevention tips, local emergencies, evacuations, recommendations, and other information is sent over several social media sites and is displayed at [Website link to Fresno County Fire](#). We are currently utilizing 3 social media platforms, Twitter, Facebook, and Instagram, between all 3 platforms we have over 10,000 followers.

The Unit continues expanding the Public Education Roadway Sign Program. With the purchase of 8 additional new and updated road signs including signs in Spanish, these have been dispersed throughout the Unit.

## **Vegetation Management**

The Unit-wide VMP program continues with a diverse set of projects developed for rangeland improvement, fuels reduction, training, tree mortality mitigation, and environmental protection. All Fresno-Kings fuels reduction projects are consistent with the Unit priorities described in this plan.

The Unit hired a Forester I in early 2019 after the position was vacant for nearly 18 months. The Shaver Ranch and McKenzie VMP's were introduced and are ongoing. The Shaver South 2020 VMP along with several non-VMP fuels reduction projects were approved. An Emergency Proclamation by Governor Newsom directed CAL FIRE Units throughout the state to complete 35 "Priority Projects". The Fresno-Kings Unit completed five of these projects across nearly 1,000 acres., Vermillion Resource Management continues to work on adding an additional 11,864-acre VMP on Southern California Edison lands around Shaver Lake which should be approved by Summer 2020.

Currently, the Fresno-Kings Unit has 17,785 approved VMP acres contained within six projects. The Unit started scoping an additional 9,637 acres during 2019 for a total of 27,422 acres across varied fuel types. The Edison, Sequoia Lake, and Johnson VMP's were the most successful projects where HFEO proficiency drills, tree mortality treatments, and broadcast burn entries occurred. A total of 74.6 acres were treated by broadcast burning in 2019 and more acreage is planned for 2020. Additionally, the Fresno-Kings Unit plans to expand project work across other smaller private ownerships to create additional defensible fuel zone profiles and fuel breaks along the western side of Shaver Lake. This will create an integrated fuel break and prescribed fire system in and around the greater Shaver Lake area.

## Fresno-Kings Unit Fire-Plan

The Acorn-Sugarloaf shaded fuel break is a successful shaded fuel break restoration project done in cooperation with the Sierra National Forest under the Good Neighbor and Wyden Authority to work across jurisdictional boundaries. This project is complete with only pile burning and log removal on Federal lands remaining. The Cressman, Alder Heights and Shaver South projects were also completed with private contractors and CAL FIRE resources.

For a complete status of fuels reduction projects, see appendix A.

The northeast portion of the Unit (Battalion 12) has a series of strategically located fuels reduction projects. The southeastern portion of the Unit (Battalion 13) does not have terrain and land ownership patterns suitable for large scale VMP projects. VMP activity in Battalion 13 consists of two VMP's, Sequoia Lake and White Deer. Battalions 11 and 12 contain most of the Unit's VMP & fuels reduction projects. Battalion 14 has terrain and fuel models that support significant rangeland improvement burns. The current widespread vegetation mortality and the governor's Emergency Proclamation have triggered a re-evaluation of the Units fuels reduction projects. Additional projects beyond what is listed in the Unit Fire Plan are anticipated. Fuels reduction projects will be responsive to the integrated planning approach of Pre-fire, Prevention, and the Vegetation Management Program. Projects will be developed and implemented in coordination with Unit Pre-fire objectives. Priority will be given for fuels reduction work to occur within the tree mortality zones in support of the

Governors EP, but the Unit will have approved VMP's acres available across the variety of fuel types represented in Fresno County to take advantage of favorable conditions when and where they occur for multiple pre-fire and resource management objectives.

### PILE BURNING ON FUELS PROJECT



Shaver Springs before treatment



Shaver Springs during treatment (pile burning)



Shaver Springs after treatment



Musick before treatment



Musick after treatment



Musick after the Creek Fire 2020



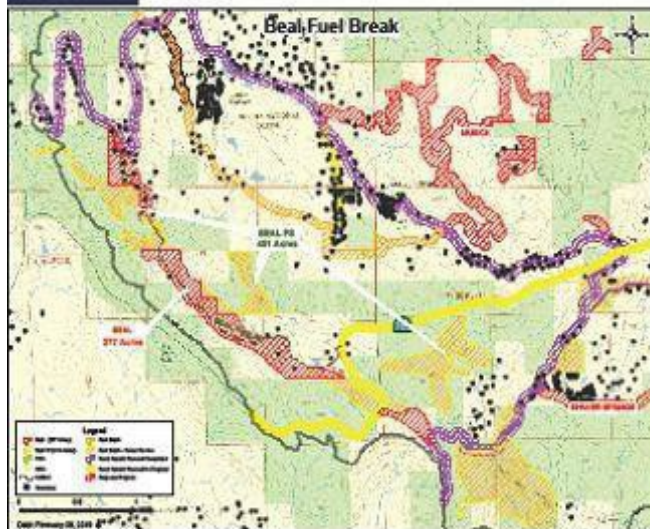
# PROJECT NAME: BEAL FUEL BREAK

SIZE: 728 ACRES



**PROJECTED COMPLETION DATE:**  
12/31/19

**LOCATION:**  
Above the community of Auberry and below the community of Meadow Lakes, Fresno County, CAL FIRE Fresno-Kings Unit.



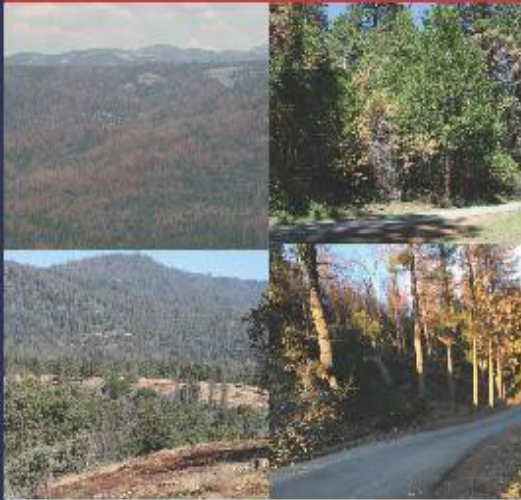
**Summary:** This existing 728-acre fuel break, created in 1994, has been a combined project with the USFS. Since the initial treatment, the project has been retreated in sections, however, not consistently across the entire fuel break. The USFS has treated approximately 451 acres over the last 3 years. CAL FIRE removed the dead and dying trees years ago on 110 acres. 277 acres of private lands need to be retreated to remove the ground fuels and additional dead trees that have died since the previous treatment. This fuel break has been effective in stopping the forward progress of 4 wildland fires. The maintenance of this project will return the fuel break back to being effective. The project directly reduces the impacts of fire for the residents that live on Beal Fire road and the communities of Meadow Lakes and Alder Heights that are directly above the fuel break. These areas have been impacted by over 80% tree mortality in recent years. The fuels consist of scattered pine trees, most of which have died over the last 4 years, 5-6 foot tall brush and 12-18-foot tall oak trees.



**What communities or habitats will project protect?** Meadow lakes, Alder Heights and Shaver Lake.

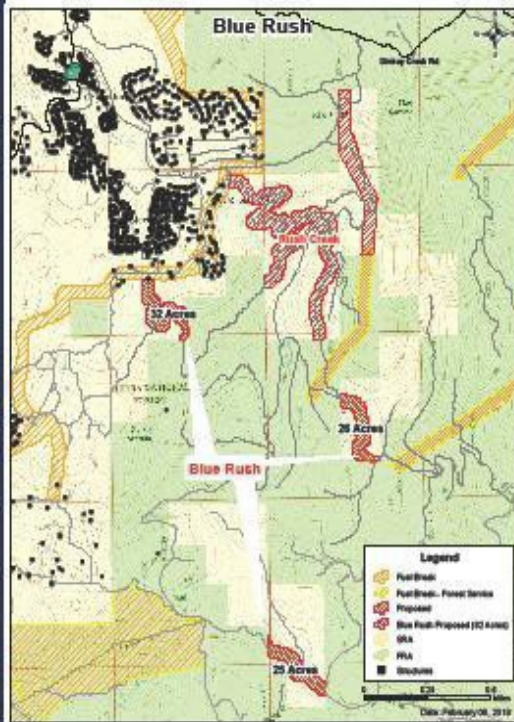
# PROJECT NAME: BLUE RUSH FUEL BREAK

SIZE: 82 ACRES



**PROJECTED COMPLETION DATE:**  
11/30/19

**LOCATION:**  
Community of Shaver Lake, Fresno County,  
CAL FIRE Fresno-Kings Unit.



**Summary:** This new 82-acre roadside clearance project will create safe transportation corridors, by treating fuels 200 feet on both sides of the road. The project is on private lands intermixed within Federal lands. The scope of this roadside fuels reduction is to remove the dead hazard trees, thin the understory trees, and remove the brush creating a shaded fuel break. This project will not only enhance forest health, but provide a fuel break that will reduce the impacts of fire to the Shaver Lake Community. The project is in the Blue Canyon area of the Sierra National Forest where they have completed the same proposed treatment using a California Climate Investments Grant awarded by CALFIRE, and federal dollars. Currently there are gaps of untreated areas on private lands, completing this project will make this roadway clearance continuous throughout the area. Fuels consist of pines that have near 80% mortality due to the pest infestation. Approximately 25% has already fallen, creating ground fuels. The understory fuels consist of 6-10 foot brush.



**What communities or habitats will project protect?** Shaver lake and Pine Ridge.

# PROJECT NAME: MUSICK FUEL BREAK

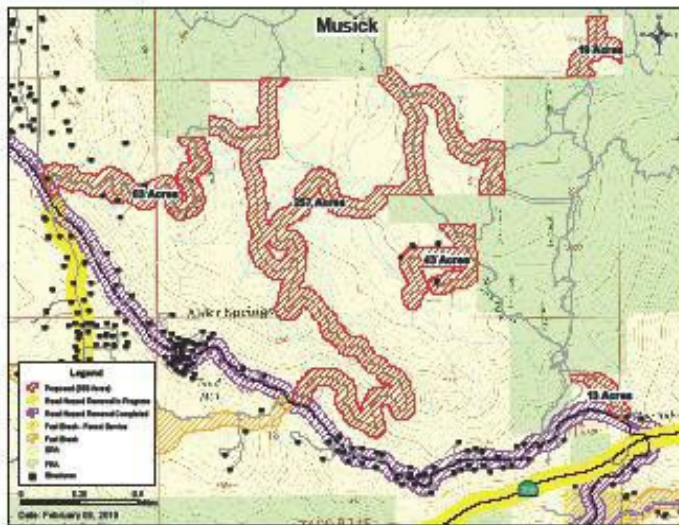
SIZE: 393 ACRES



**PROJECTED COMPLETION DATE:**  
12/19

**LOCATION:**  
Project is between the communities of Meadow lakes and Alder Heights, Fresno County, CAL FIRE Fresno-Kings Unit.

**Summary:** This new 393-acre road-side treatment, 200 feet on both sides of the road, will create a safe evacuation corridor for residents and provide access to a high-risk area for wildland fire for both CAL FIRE and the USFS in the Jose Basin area. The scope of this roadside fuels reduction is to remove the dead hazard trees, thin the understory, and remove the brush, creating a shaded fuel break. This project will not only enhance forest health but provide a fuel break that will reduce the impacts of fire to the nearby communities. The main transmission lines for the Big Creek Hydro Electric Facility transect this landscape. Currently there are only two safe access points at either end of the transmission line road. The USFS is in the process of obtaining environmental compliance for this large project called the Musick Project. It will consist of many different treatments across the landscape, one of them being to create 200-foot-wide fuels breaks along all the roads. This project will complement the Musick Project by doing the same work on all the private lands that are intermixed and provide a 3rd safe access road. This is also the main access road to private timberlands in Jose Basin. The vegetation consists of pines that have near 80% mortality due to the pest kill. Approximately 25% has already fallen, creating ground fuels. The understory fuels consist of 6-10 foot brush.



**What communities or habitats will project protect?** Meadow Lakes, Alder Heights, Pine Ridge and Shaver Lake.



# PROJECT NAME: SHAVER SPRINGS

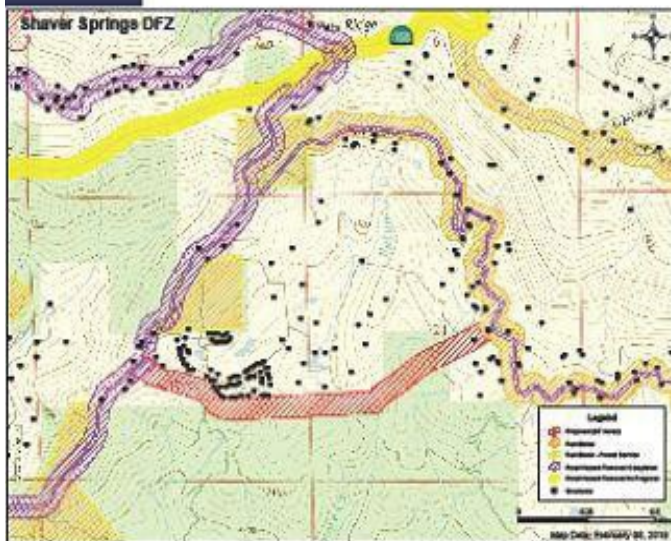
SIZE: 78 ACRES



**PROJECTED COMPLETION DATE:**  
12/31/19

**LOCATION:**  
Community of Tollhouse, Fresno County,  
CAL FIRE Fresno-Kings Unit.

**Summary:** This 78-acre, 400-foot wide fuel break will be adjacent to the community of Shaver Springs. The scope of this fuel break is to remove dead trees, thin the understory, and remove brush. This project will not only enhance forest health, but provide a fuel break that will reduce impacts of fire not only to Shaver Springs, but the housing developments of Pine Ridge, Peterson Road and Cressman. This would be completed under Good Neighbor Authority with the USFS. The fuel break would be on both Federal and Private lands. There is a USFS Fire Station in this community. The USFS has completed work along Tollhouse road, the main access to the area. This fuel break would connect to the USFS work and create a buffer between the larger forest landscape and the community. Most of the homes in this area are built to the federal property line and therefore do not have 100 feet of defensible space. The home owners have completed a lot of work within the private lands, however they cannot treat the federal property adjacent to the community. This project is a very high priority for both CAL FIRE and the High Sierra Ranger District of the Sierra National Forest. The fuels consist of pines that have had 90% mortality due to the pest kill and approximately 25% have already fallen, creating ground fuels. The understory vegetation consists of 8-10 foot tall brush, and 20-foot tall live oak trees.



**What communities or habitats will project protect?** Community of Tollhouse, Fresno County, Fresno Kings Unit.

# PROJECT NAME: RUSH CREEK

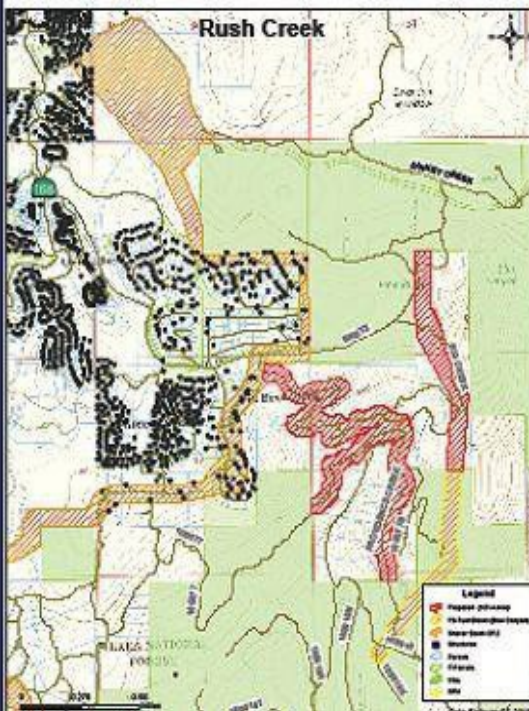
SIZE: 181 ACRES



**PROJECTED COMPLETION DATE:**  
12/31/19

**LOCATION:**

South of the subdivision of Sierra Cedars, Old Bretz Mill and Ockenden, Community of Shaver lake, Fresno County, CAL FIRE Fresno-Kings Unit.



**Summary:** This new 181-acre fuel break is in the Shaver Lake area directly adjacent to the community of Shaver and subdivisions of Sierra Cedars, Old Bretz Mill and Ockenden. This project will not only enhance forest health, but provide a fuel break that will reduce the impacts of fire to these communities. The scope of this roadside fuels reduction and ridge top fuel break is to remove the dead trees, thin the understory trees, and remove the brush. This project includes a 400-foot ridge-top shaded fuel break that will extend a newly constructed fuel break created by the USFS using a California Climate Investments Grant awarded by CAL FIRE and will connect to the Shaver South Fuel Break being created currently by CAL FIRE. The project also includes roadside clearance of 200-feet on either side of the road, creating a fuel break. This road is the only access into the Blue Canyon recreation area from the north. These roads connect to USFS roads with similar treatments and funded by the same grant. Within the road network are wells that supply water for fire suppression and potable water for the Old Bretz Mill subdivision. The Fuel Break is the last section to complete of a series of fuels breaks in the area to reduce the impacts of fire to the community of Shaver Lake. The vegetation consists of pines that have had 80% mortality due to the pest kill. Approximately 25% has already fallen, creating ground fuels. The understory consists of 8-10 foot brush.



**What communities or habitats will project protect?** Shaver Lake.

## **Volunteerism**

The Fresno-Kings Volunteers in Prevention (VIP's) program currently has 20 volunteers that assist with The Big Fresno Fair (Fair attendance in 2019 was 632,590) and fair education days had over 20,605 students attend. The VIP's also assist with school programs, career days, Fresno Home & Garden show, health and safety events, and other functions designed to educate the public on wildfire safety and fire prevention safety in and around the home.

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

The Fresno Kings Unit continues to collaborate with CAL FIRE's Fire and Resource Assessment Program (FRAP), local cooperators, and various CAL FIRE programs to assist with data collection techniques, information presentation and dissemination, landscape mortality assessment, and site-specific fuel reduction mitigations. The Units on the ground mitigation response that began in 2015 increased in pace and scale for 2019 and continues. Tree felling, log decking, mastication, chipping, and pile burning has occurred on five existing fuels reduction projects and expanded with the five 45-day projects. Trees are felled utilizing CAL FIRE resources and contractors, logs are decked, and slash is treated to restore the fuel breaks to a viable state. Once project acres have existing fuel loading reduced to appropriate levels, broadcast burning will be utilized as a treatment. Additional fuel breaks have been identified and are through the planning process and ready for implementation.

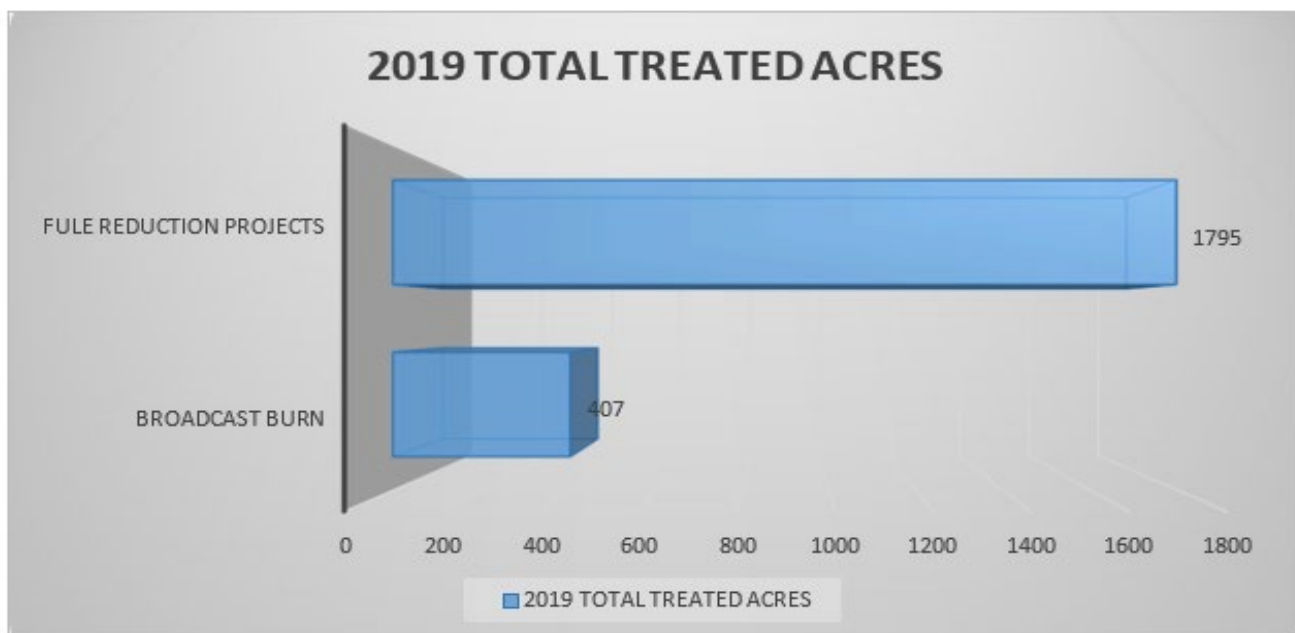
Assessment and planning efforts continue for long term fuel reduction needs. A critical component of the Units total response includes close collaboration with our cooperators. The unit works with US Forest Service, local Fire Safe Councils, utility companies and Fresno County to prioritize tree removal work and utilization of our collective resources directly adjacent to communities, ingress and egress routes and infrastructure.

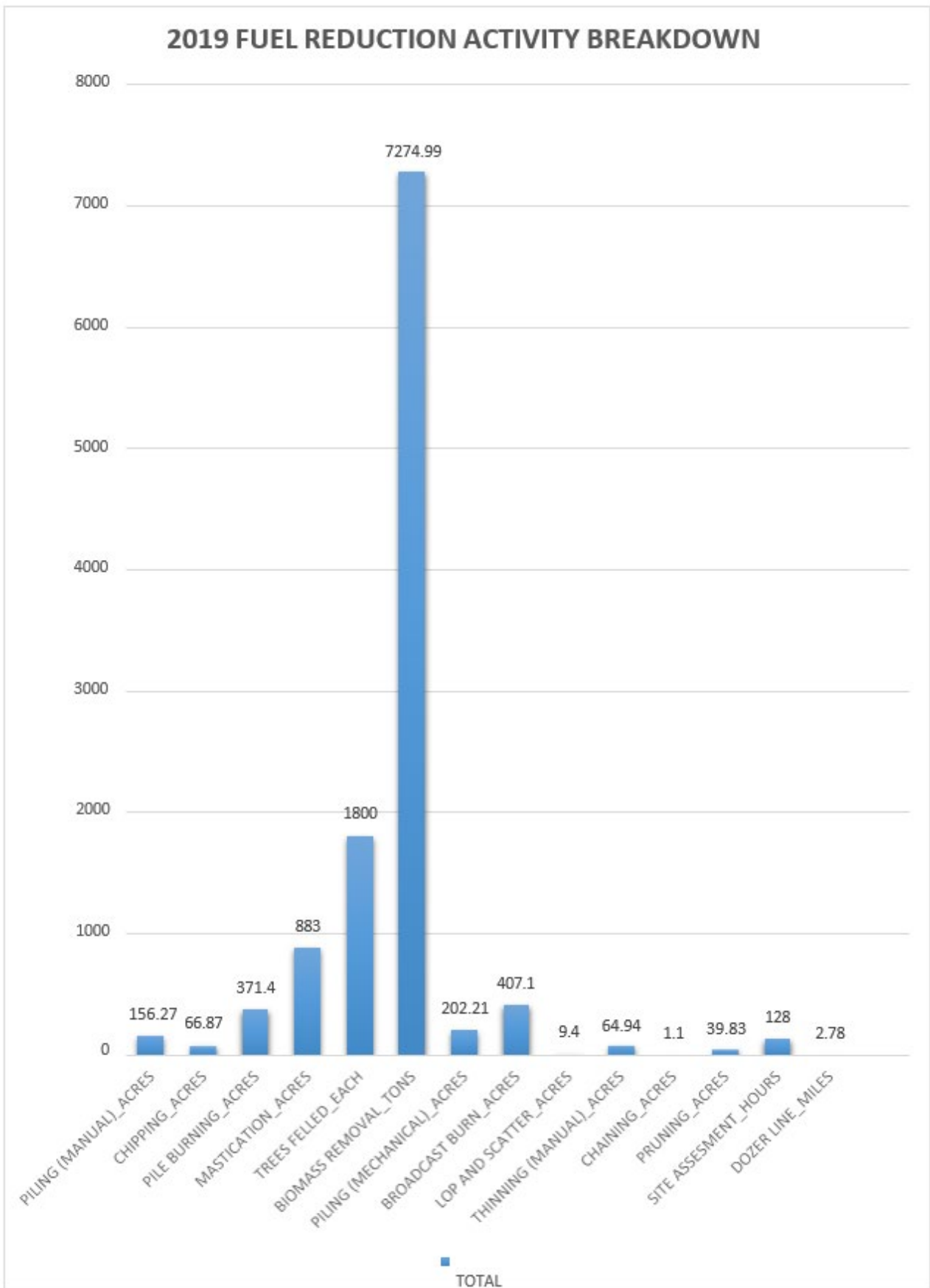
### **RUSH CREEK FUEL BREAK AFTER TREATMENT**



The following graphs and charts represent fuel reduction efforts and activities completed by the Fresno-Kings Unit in 2019. These totals are pulled from Cal Mapper and represent all project efforts. The following is list of the specific projects that the Fresno-Kings Unit focused on in 2019.

- Acorn-Sugarloaf Fuel Break- 138 days, 1,000.50 personal hours, 497 equipment hours.
- Alder Heights- 189 days, 1,306.50 personal hours, 661.50 equipment hours.
- Beal Fuel Break- 751 days, 5,957.50 personal hours, 4,846.50 equipment hours.
- Blue Rush Fuel Break- 176 days, 1,369 personal hours, 879.50 equipment hours.
- China Creek- 15 days, 116.50 personal hours, 57 equipment hours.
- Cressman VMP- 91 days, 695.75 personal hours, 462.25 equipment hours.
- Edison VMP- 7 days, 42 personal hours, 12 equipment hours.
- Johnson VMP- 35 days, 273.50 personal hours, 168.50 equipment hours.
- Mendota Wildlife Area- no project 33's
- Miramonte- 22 days, 164.75 personal hours, 95 equipment hours.
- Musick Fuel Break- 446 days, 3,131 personal hours, 2,118 equipment hours.
- Rush Creek Fuel Break- 516 days, 3,698 personal hours, 2,590.75 equipment hours.
- Sequoia Lake (2017-2020)- 40 days, 279.25 personal hours, 164.75 equipment hours.
- Shaver Springs Fuel Break- 322 days, 2,041.25 personal hours, 1,595.75 equipment hours.
- Shaver South DFZ- 93 days, 632 personal hours, 455.50 equipment hours.
- Sierra Resilient Landscape Collaborative-No 33's
- White Deer VMP- 22 days, 186 personal hours, 231.50 equipment hours.





## **ANNUAL ACCOMPLISHMENTS REPORTING (2020)**

### **Fire Planning**

In the late months of Winter thru the Spring, the Fresno-Kings Unit actively burned piles within 5 of the Governors high priority hazardous fuels reduction projects which were mandated in 2019. These projects were selected as a high priority by unit personnel because of their strategic locations throughout the unit's Very High Fire Hazard Severity Zones(VHFSZ) The footprint acres of these five projects totaled just over 1,000 acres and provide essential fuel breaks in and adjacent to communities in the VHFHSZ's within the Fresno-Kings Unit. These fuel breaks will reduce the impacts of a wildfire to communities, critical infrastructure and provide safe ingress and egress for the residents and first responders. This type of request was unprecedented and a monumental challenge to accomplish in 9 months. It took a coordinated effort by multiple agencies as well as the full support from the Unit Executive Staff and unit resources.

The Shaver Springs project was completed on both Federal and Private lands. Unit and the High Sierra Ranger District of the Sierra National Forest amended the existing Good Neighbor and Weyden Authority to include these projects. This type of agreement has been successful for both agencies to accomplish work regardless of land ownership and putting fuel treatments where they are the most beneficial to communities. This fuel break was pile burned in a joint effort between the two agencies and proved to be an essential part of controlling the Creek Fire along with saving the community of Shaver Springs and the residents along Tollhouse Road. The unit also partnered with the U.S.F.S. and assisted in several control burns to reduce the fuel loading in strategic areas in the Central Sierra Nevada's.

Accomplishing such a task was only achievable due to the arduous work of all personnel involved. The unit supported the use of 3 Schedule B engines, HFEO's operating excavators and skid steers, Miramonte crews, Fuels Crew 4349, and our CAL FIRE/California National Guard Crews 43A & 43B. Project funding was utilized to continue to hire private contractors to remove dead and dying trees, pile slash and masticate to create these fuel breaks. Utilizing private contractors allowed the unit to make the best use of limited financial resources utilizing professionals that specialize in this kind of work. The decision to utilize private contractors allowed the unit resources to focus priorities on activities better suited for our resources such as pile or broadcast burning and responding to normal fire season calls.

The California Conservation Corps (CCC) crews assisted the unit with project funding they obtained to conduct fuel reduction. This is the third year that the CCC have assisted us in completing fuels work in the Unit. The CCC have become an integral partner to the unit and our cooperators in this effort. The Fresno County Tree Mortality Task Force (FCTMTF) continued to make great strides in completing projects and reducing the impacts of tree mortality in 2020. In 2020 the County of Fresno, 168 Fire Safe Council, Sierra RCD, and the Oak to Timberline Fire Safe Council received California Climate Investment Grants for Fuels Reduction projects totaling \$2,628,196 to reduce the impacts of tree mortality and create safer communities. Fresno County Removed 1000 dead or dying trees along or adjacent to access and egress routes throughout the county in 2020.

## Fresno-Kings Unit Fire-Plan

Due to the consolidated efforts of all mentioned above, the town of Shaver Lake along with surrounding neighborhoods were able to be saved during the largest fire in California to date, the Creek Fire. More information about success stories can be found on the CAL FIRE public website, [fire.ca.gov](http://fire.ca.gov).

Continued funding for contracts will allow our response to continue, expand where needed, and to protect the communities we serve. The long term needs to plan, implement, and maintain existing and implement planned fuels reduction acres has increased exponentially due to current conditions.

The Unit is committed to implementing the goals of the 2018 Strategic Fire Plan for California. The drought and subsequent tree mortality highlights the need for us to have a natural environment that is more fire resilient; buildings and infrastructure that are more fire-resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships.

## **Investigations and Enforcement**

The Fresno-Kings Prevention Bureau responded to approximately 378 calls for service ranging from fire and law enforcement responses, to assisting other law enforcement agencies within the State Responsibility Area and the Fresno County Fire Protection District. Of those total 378 calls, 259 of them officers investigated 83 structure fires, 116 wildland fires, 12 vehicle fires, 40 refuse fires, and 8 other agencies assist. Officers responded to approximately 119 calls related to law enforcement, 16 citations were issued, 10 total arrests: 7 arson arrests and 9 arrests were related to other crimes or warrants.

## **Wildland Fire Prevention Engineering**

The Public Resource Code 4291 (LE-100) Inspection Program continues to make great progress; in the number of inspections; and educating the public on how to create their defensible space in hopes of reducing homeowner risk and damage of an advancing wildfire. The unit has maintained a high goal of inspections for the past several years. The program was staffed with four defensible space inspectors which created a coordinated inspection program with the support of field personnel (station personnel and Battalion Chiefs). Personnel completed 10,191 LE-100 inspections, which includes second inspections. More than 70 Public Resources Code 4290/County Ordinance 15.60, inspections took place in the Unit.

During these inspections, such items as roadway length and width, fuel modification, maintenance of defensible space, and water tanks were inspected to confirm compliance with the regulations by the field Battalion Chiefs. The Fire District Protection and Planning office monitors new construction and strives to maintain the safety of the public and their property. The services involved the preparation of 181 conditioning letters to the Fresno County Building Department, held 42 consultation meetings; Protection and Planning staff conducted 521 plan reviews and our Field Inspectors conducted a total of 982 inspections related to new construction of both residential and commercial projects, underground systems, new business inspections, local jail and court inspections, and 48 retail fireworks stands.

The fire inspectors continue to maintain an aggressive weed abatement program in the Local Responsibility Areas, where station personnel conduct the initial inspections of all

Fresno-Kings Unit Fire-Plan

parcels and additional work to gain compliance by the public is conducted by this office. Within the Fire District, we conducted 1952 inspections, and approximately 976 violation notices were issued.

## **Cost Recovery**

During the 2020 calendar year, the Fresno Kings Unit submitted 5 reports to Civil Cost Recovery for fires within the SRA. The cause of these fires was a result of negligence and or violation of law, therefore the responsible party was issued a letter of demand related to the extinguishment and investigation of the fires.

## **Education and Information**

The Fresno-Kings Unit and the Fresno County Fire Protection District Information and Education Bureau had a decline in Fire Prevention Education in 2020 due to the Covid-19 pandemic. Public outreach programs in person came to a halt March 15th, 2020 which continued though the remaining 2020 year.

For the first three months of the 2020 calendar year our fire education program attended 5 school presentations and in December 2020 we held our first Zoom educational program. With a total of 626 students educated in 2020 with the F.I.S.E. (Firefighter's in Safety Education) program which is associated with California's Common Core Curriculum along with the Alisa Ann Ruch Burn Foundation.

The Fresno-Kings Unit did report 1,421 fire prevention hours that were dedicated to prevention and education. These efforts will continue to be proactive in providing information and education to residents that reside, work, or travel through the wildland urban interface, as well as the communities throughout the County of Fresno.

The Fresno-Kings Unit continues to partner with Safe Kids, Central Valley Burn Coalition, Central Valley Burn Center, and Fresno Fire to continually have a Youth Fire Setter Program available to educate any Youth Fire Setters as needed.

We utilized our Fire Prevention trailer this year on the Creek Fire which was present at Sierra High School for the public to stop by to obtain information regarding the fire. Outreach events such as, The Big Fresno Fair, May Day at Chukchansi, Family Night at multiple schools, and or Wildfire Awareness media events did not happen this year, we hope to see everyone in 2021.

We are currently utilizing 3 social media platforms, Twitter, Facebook, and Instagram. During 2020, social media continued to expand while striving to instantaneously communicate with the people that we serve or that may be impacted by our operations. We currently have over 12,300 followers on Facebook. Safety messages, fire prevention tips, local emergencies, evacuations, recommendations, and other information is sent over several social media sites and is displayed at [www.fresnocountyfire.org](http://www.fresnocountyfire.org). Also, in December 2020 the Unit has adopted utilizing the Neighbors Application through Ring as another platform to have information sent out to the public including, incidents and public service announcements. The Fresno-Kings Unit continues expanding the Public Education Roadway Sign Program, with new road sign holders that have been dispersed throughout the unit.



Fresno-Kings Unit Fire-Plan  
**Vegetation Management**

The unit wide Vegetation Management (VMP) program continues with a diverse set of projects developed for rangeland improvement, fuels reduction, training, tree mortality mitigation, and environmental protection. All Fresno-Kings fuels reduction projects are consistent with the unit priorities described in this plan.

The Unit hired a Forester I in early 2020. The McKenzie VMP was approved, and broadcast burning is expected to begin in 2021. The SCE 2020 Mitigated Negative Declaration (MND) was approved in December of 2020 after two years of work by consultants and Unit staff. At 11,864 acres, it is the largest fuels reduction project in the unit. The Comstock and White Deer VMPs were renewed for another ten years. Work has begun on renewing the Sequoia Lake VMP as a Vegetation Treatment Programmatic Environmental Impact Report (VTP). Approval is anticipated in 2021. The Shaver Ranch VTP was submitted in June and had reached Sacramento review but was returned to the unit due to the substantial changes to the area caused by the Creek Fire. Approval is anticipated in 2021. The grant-funded Shaver West fuel break was completed shortly before the Creek Fire.

Currently, the Fresno-Kings Unit has 26,862 approved VMP acres contained within seven projects. The Edison, Sequoia Lake, and Johnson VMP's were the most successful projects where HFEO proficiency drills, tree mortality treatments, and broadcast burn entries occurred. A total of 194.4 acres were treated by broadcast burning in 2020 and more acreage is planned for 2021. Additionally, the Fresno-Kings Unit plans to expand project work across other smaller private ownerships to create additional defensible fuel zone profiles and fuel breaks along the western side of Shaver Lake. This will create an integrated fuel break and prescribed fire system in and around the greater Shaver Lake area. For a complete status of fuels reduction projects, see appendix A.

The northeast portion of the Unit (Battalion 12) has a series of strategically located fuels reduction projects. The southeastern portion of the Unit (Battalion 13) does not have many terrain and land ownership patterns suitable for large scale VMP projects. VMP activity in Battalion 13 consists of two VMP's, Sequoia Lake and White Deer. Battalions 11 and 12 contain most of the unit's VMP & fuels reduction projects. Battalion 14 has terrain and fuel models that support significant rangeland improvement burns. The current widespread vegetation mortality and the governor's Emergency Proclamation have triggered a re-evaluation of the unit's fuels reduction projects. Additional projects beyond what is listed in the unit Fire Plan are anticipated. Fuels reduction projects will be responsive to the integrated planning approach of Pre-fire, Prevention, and the Vegetation Management Program. Projects will be developed and implemented in coordination with unit's Pre-fire objectives. The Unit will have approved VMP's acres available across the variety of fuel types represented in Fresno County to take advantage of favorable conditions when and where they occur for multiple pre-fire and resource management objectives.

EDISON VMP



**Volunteerism**

The Fresno-Kings Unit Volunteers in Prevention (VIP's) program currently has 20 volunteers that did assist with school programs, career days, and the Fresno Home & Garden show in the first 3 months of 2020. Due to the Covid-19 pandemic the VIP's events that they would normally attend were limited.

**Fire Hazard Severity Mapping and Mitigation**

The Fresno-Kings Unit continues to collaborate with CAL FIRE's Fire and Resource Assessment Program (FRAP), local cooperators, and various CAL FIRE programs to assist with data collection techniques, information presentation and dissemination, landscape mortality assessment, and site-specific fuel reduction mitigations. The units ground mitigation response that began in 2015 and increased in pace and scale in 2019, continued in 2020. Each fuel break was strategically created to reduce fuel loading in and around communities at risk of fire danger. The fuel breaks are constructed in a manner which makes access and egress much safer during an emergency. In the winter and spring of 2020, the unit made it a priority to get the piles on the fuel breaks burnt and ready for the upcoming fire season. With the addition of the Environmental Scientist position in the unit we have begun designing a fuel's monitoring program. This will include evaluating existing fuel's treatments, planned treatments and monitoring the effects of prescribed fire.

UNERSTORY BURNING IN SHAVER



DEFENSIVE FIRING ON THE CREEK FIRE IN ACORN SUGARLOAF FUEL BREAK



## PILE BURNING ON FUEL BREAKS



## PILE BURNING ON THE BLUE RUSH FUEL BREAK



Like past years, the unit supported an all-hands-on deck approach to get the remaining piles burned and the fuel breaks fully operational. Three state engines, California National Guard crews, Fresno's fuels crew 4349, two HFEO's running excavators and skid steers to bone pile (push in) large log deck piles, as well as Miramonte crews, all had a part in ensuring this goal was met. The Unit also added a Forester I and an Environmental Scientist (ES) to the Pre-Fire team in 2020. Both played an instrumental role in ensuring environmental compliance was met in a timely fashion which aided the resources on the ground to get fuel breaks completed. The Unit's Forester I and ES also played an important part getting accurate maps and boundaries which lead to less confusion for all involved when in the field. Several of our fuel breaks which were created through the Good Neighbor Authority Agreement with the U.S.F.S. and spanned across SRA and FRA were burnt in a joint effort between the two agencies. The unit continued its partnership with Southern California Edison (SCE) and facilitated several broadcast burns on one of our VMP projects, with many more planned for the future. The unit is proud of the continued healthy working relationship between the two agencies which allows to provide a higher level of protection for the citizens who work, travel through, and live in the communities at risk within the County of Fresno.

In the Fall of 2020, the Creek fire started on the Sierra National Forest and spread extremely fast toward the communities in and around the Shaver Lake area. The fire eventually grew to be the largest single fire in the Sates history at 374,466 acres and destroyed 856 structures and damaged 71. The unit along with the Incident Management Team's assigned to the fire utilized the fuel breaks during the Creek Fire and in doing so, saved the town of Shaver Lake along with many homes, out buildings, and property. More about the success stories during the creek fire can be found on CAL FIRE's website, [www.fire.ca.gov](http://www.fire.ca.gov).

CREEK FIRE

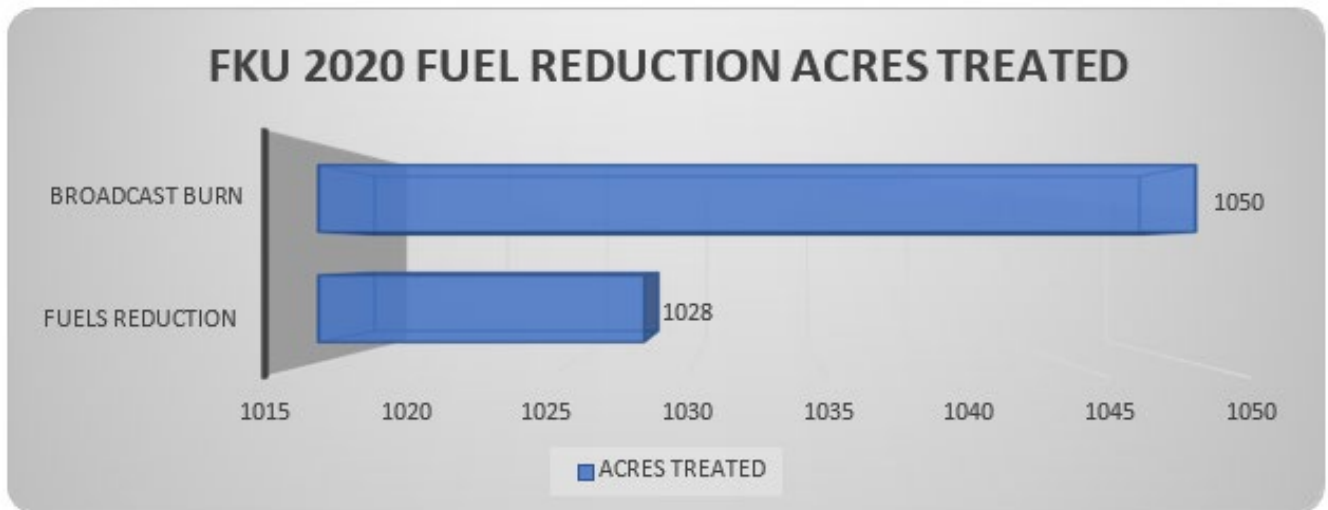


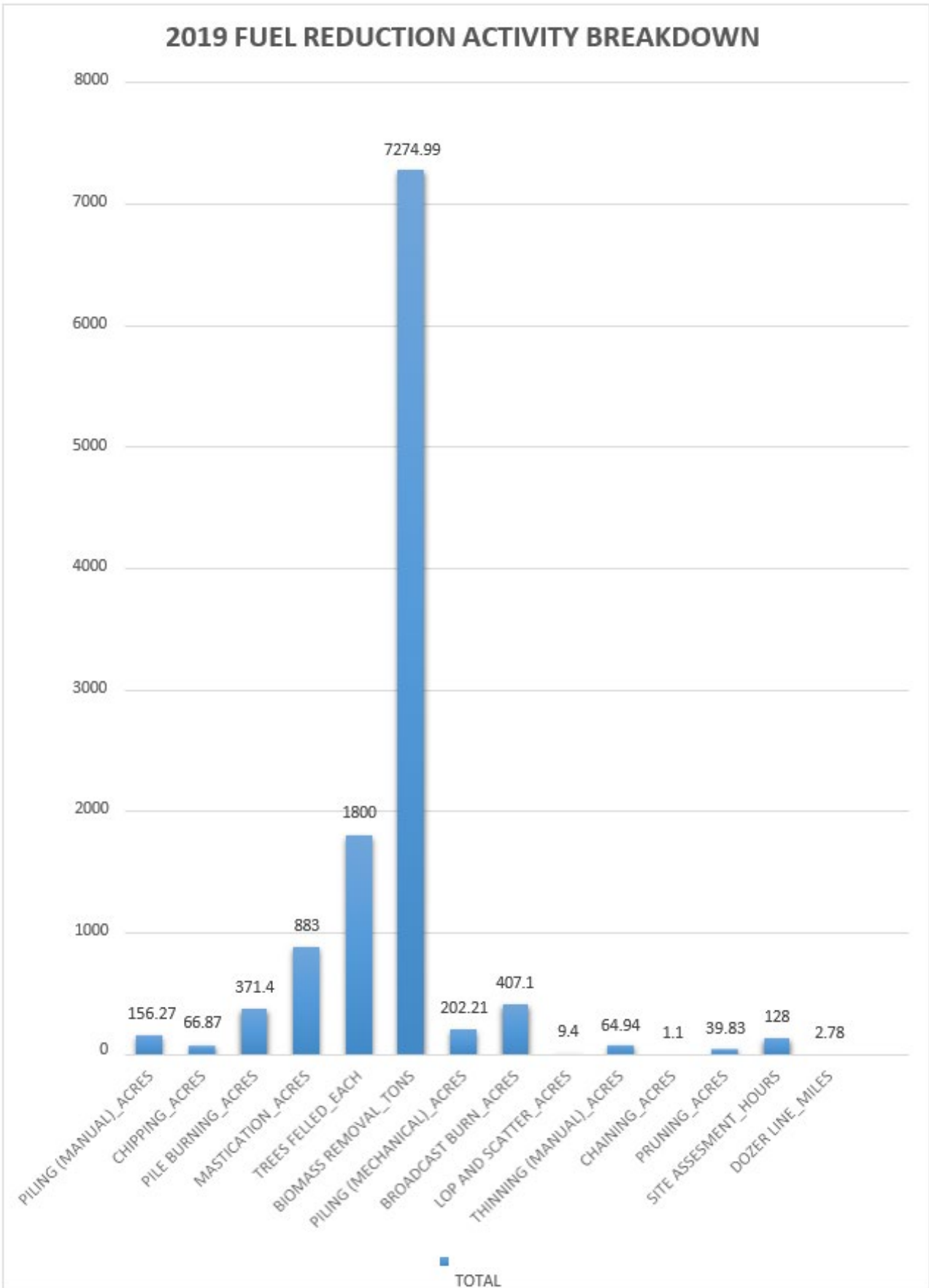
## Fresno-Kings Unit Fire-Plan

Additional fuel breaks have been identified and are through the planning process and ready for implementation. Assessment and planning efforts continue for long term fuel reduction needs. A critical component of the unit's total response includes close collaboration with our cooperators. The unit works with the U.S.F.S., local Fire Safe Councils, Utility Companies like SCE, and Fresno County to prioritize tree removal and fuels reduction work and the utilization of our collective resources directly adjacent to communities, ingress and egress routes and infrastructure.

The following graphs and charts represent fuel reduction efforts and activities completed by the Fresno-Kings Unit in 2020. These totals are pulled from Cal Mapper and represent all project efforts. The following is list of the specific projects that the Fresno-Kings Unit focused on in 2020.

- Acorn Sugarloaf Fuel Break- 73 days, 574 personal hours, 315 equipment hours.
- Barnes Mnt\_RX\_FS- U.S.F.S. assist.
- Beal Fuel Break- 251 days, 2,313.50 personal hours, 826.50 equipment hours.
- Blue Rush Fuel Break- 135 days, 1,075.50 personal hours, 961.50 equipment hours.
- Comstock Retreat VMP- 83 days, 831.50 personal hours, 362.50 equipment hours.
- Edison VMP- 375 days, 2,723.50 personal hours, 1,372 equipment hours.
- Highway 180 Pre Suppression Line- 18 days, 144 personal hours, 75 equipment hours.
- Mckenzie Ridge\_FS- U.S.F.S. assist
- Mendota Wildlife Area- 30 days, 207.25 personal hours, 56.75 equipment hours.
- Musick Fuel Break- 776 days, 6,504 personal hours, 3,190.50 equipment hours.
- Old Bretz- 56 days, 445 personal hours, 176 equipment hours.
- Rush Creek Fuel Break- 227 days, 2,050.75 personal hours, 1,150.25 equipment hours.
- Shaver South 2020 VMP- 6 days, 42 personal hours, 90 equipment hours.
- Shaver Springs Fuel Break- 281 days, 2,328 personal hours, 1,137 equipment hours.
- Sierra Resilient Landscape Collaborative-Assist
- Southern Sierra All-Lands Restoration and Recovery- assist.
- VMP Comstock- 27 days, 206 personal hours, 90 equipment hours.







## **ANNUAL ACCOMPLISHMENTS REPORTING (2021)**

### **Fire Planning**

During the 2021 year, the FKU Unit continued its dedication to fuel reduction by Pile burning, broadcast burning, mastication, manual thinning, tree felling, biomass removal, and piling current projects. The location and prioritization of 2021 FKU fuels projects remained focused on Very High Fire Hazard Severity Zones (VHFSZ), Unit VMP's, and assisting our Federal (USFS) and private (SCE) partners on fuel reduction work in the Shaver Lake community and Pinehurst community. Working at this capacity takes a coordinated effort by multiple agencies as well as the full support from the Unit Executive Staff and unit resources.

Work was completed by CAL FIRE fuels crews, crews from Task Force Rattlesnake, Miramonte CDCR crews, CCC crews, CAL FIRE engines and HFEO's operating tree mortality equipment. In 2020 the Unit added 2 more National Guard crews to taskforce Rattlesnake for a grand total of 4, and in 2021 the Unit along with our National Guard partners remained committed to maintaining that crew count. Having that kind of workforce available to the Unit for Fuels reduction again proved to be highly beneficial.

The Fresno County Tree Mortality Task Force (FCTMTF) continued to make great strides in completing projects and reducing the impacts of tree mortality in 2021. In 2021 the County of Fresno, 168 Fire Safe Council, Sierra RCD, and the Oak to Timberline Fire Safe Council received California Climate Investment Grants for Fuels Reduction projects to reduce the impacts of tree mortality and create safer communities. Fresno County Removed 800 dead or dying trees along or adjacent to access and egress routes throughout the county and removed 1800 cubic yards of dead vegetation in 2021.

The Unit continued working on larger VMP's and was successful in getting the Johnson VMP and White deer VMP closer to treating, which will help the Department meet its commitment to fuels reduction while strengthening protection within the communities these VMP's are in. planning for the future of fuel reduction, the Unit continues looking for new larger VMP/VTP's, maintaining our established fuel breaks while actively searching for opportunities to implement new fuel breaks. The Unit is committed to implementing the goals of the 2018 Strategic Fire Plan for California. The drought and subsequent tree mortality highlight the need for us to have a natural environment that is more fire resilient; buildings and infrastructure that are more fire-resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships.

### **Investigations and Enforcement**

The Fresno-Kings Prevention Bureau responded to approximately 408 calls for service ranging from fire and law enforcement responses, to assisting other law enforcement agencies within the State Responsibility Area and the Fresno County Fire Protection District. Of those total 408 calls, 259 of them officers investigated 82 structure fires, 117 wildland fires, 11 vehicle fires, 17 refuse fires, and 4 other agencies assist. Officers responded to approximately 175 calls related to law enforcement, 32 citations were issued, 7 total arrests: 5 arson arrests and 2 arrests were related to other crimes or warrants.

## **Wildland Fire Prevention Engineering**

The Public Resource Code 4291 (LE-100) Inspection Program continues to make great progress; in the number of inspections; and educating the public on how to create their defensible space in hopes of reducing homeowner risk and damage of an advancing wildfire. The unit has maintained a high goal of inspections for the past several years. The program was staffed with four defensible space inspectors which created a coordinated inspection program with the support of field personnel (station personnel and Battalion Chiefs). Personnel completed 7,950 LE-100 inspections, which includes second inspections. More than 70 Public Resources Code 4290/County Ordinance 15.60, inspections took place in the Unit.

During these inspections, such items as roadway length and width, fuel modification, maintenance of defensible space, and water tanks were inspected to confirm compliance with the regulations by the field Battalion Chiefs. The Fire District Protection and Planning office monitors new construction and strives to maintain the safety of the public and their property. The services involved the preparation of 154 conditioning letters to the Fresno County Building Department, held 42 consultation meetings; Protection and Planning staff conducted 490 plan reviews and our Field Inspectors conducted a total of 991 inspections related to new construction of both residential and commercial projects, underground systems, new business inspections, local jail and court inspections, and 42 retail fireworks stands.

The fire inspectors continue to maintain an aggressive weed abatement program in the Local Responsibility Areas, where station personnel conduct the initial inspections of all parcels and additional work to gain compliance by the public is conducted by this office. Within the Fire District, we conducted 1900 inspections, and approximately 950 violation notices were issued.

## **Cost Recovery**

During the 2021 calendar year, the Fresno Kings Unit submitted 4 reports to Civil Cost Recovery for fires within the SRA. The cause of these fires was a result of negligence and or a violation of law, therefore the responsible party was issued a letter of demand related to extinguishment and investigation of the fires.

## **Education and Information**

The Fresno-Kings Unit and the Fresno County Fire Protection District Information and Education Bureau had a slight increase in Fire Prevention Education in 2021 our events continued to be hampered due to the Covid-19 pandemic.

For the 2021 calendar year the first six months our fire education program attended 5 school presentations all, but one was via Zoom. The last six months of 2021 we attend five in person school programs, with a total of 675 students. We continue to utilize the F.I.S.E. (Firefighter's in Safety Education) program which is associated with California's Common Core Curriculum along with the Alisa Ann Ruch Burn Foundation.

The Fresno-Kings Unit did report 2,694 fire prevention hours that were dedicated to prevention and education. These efforts will continue to be proactive in providing information and education to residents that reside, work, or travel through the wildland urban interface, as well as the communities throughout the County of Fresno.

The Fresno-Kings Unit continues to partner with Safe Kids, Central Valley Burn Coalition, Central Valley Burn Center, Valley Children's hospital and Fresno Fire.

We utilized our Fire Prevention trailer this year at the Big Fresno Fair in which we reached over 3500 children from all over the Central Valley. May Day at Chukchansi, Family Night at multiple schools, and Wildfire Awareness media events did not happen in 2021.

We are currently utilizing 4 social media platforms, Twitter, Facebook, Instagram and TikTok. During 2021, social media continued to expand while striving to instantaneously communicate with the people that we serve or that may be impacted by our operations. We currently have over 14,325 followers on Facebook. Safety messages, fire prevention tips, local emergencies, evacuations, recommendations, and other information is sent over several social media sites and is displayed at [www.fresnocountyfire.org](http://www.fresnocountyfire.org). The Fresno-Kings Unit continues expanding the Public Education Roadway Sign Program, each year new road sign signs are dispersed throughout the unit.

## **Vegetation Management**

The unit wide Vegetation Management (VMP) program continues with a diverse set of projects developed for rangeland improvement, fuels reduction, training, tree mortality mitigation, and environmental protection. All Fresno-Kings fuels reduction projects are consistent with the priorities described in this plan.

A successful broadcast burn was conducted on the Edison VMP in the fall of 2021. Dead trees and vegetation have been removed on approximately 30% of the Cressman Fuels Reduction Project. Piles were burned in early 2022. It is anticipated that the rest of the project will be treated by the fall of 2022. Fuel's reduction piles were burned on the Comstock fuel break in late 2021 and early 2022. Miramonte Conservation Camp Crews cleared vegetation along the Greeley Fire Control Road, effectively creating a fuel break along the road.

Work continued the Fire Prevention Grant-funded Pinehurst Community Fuel Break courtesy of the Oak to Timberline Firesafe Council. Fresno-Kings Unit resources assisted the Sequoia National Forest on the Federal portions of the project. The Highway 168 Firesafe Council has received approval to expend the remaining funds on the Shaver West grant to re-treat areas that were impacted by the Creek Fire. Work will be completed under this grant by November 2022. The County of Fresno continued removing dead and dying trees along major roadways under prior-year Fire Prevention Grants.

It is anticipated that broadcast burns will be conducted on the Edison VMP and Sequoia Lake VTP in the Fall of 2022. Contracts have been developed to implement fuels reduction activities on the White Deer VMP and Musick Fuels Reduction Project. A new VMP in Battalion 14, called the Danell VMP, is in the planning stages and will likely be approved in late 2022 or early 2023. The project will consist of piling and burning and broadcast burning. Additional projects will likely enter the planning stage soon. Acres treated are also expected to increase as funds for the use of contractors continues to become available.

PILE BURNING ON FUEL BREAKS



PILE BURNING ON FUEL BREAK



## Volunteerism

The Fresno-Kings Unit Volunteers in Prevention (VIP's) program currently has eight volunteers that did assist with school programs, career days, and the Fresno Home & Garden show. Due to the Covid-19 pandemic the VIP's events that they would normally attend were limited.

## SCHOOL EVENT



## Fire Hazard Severity Mapping and Mitigation

The Fresno-Kings Unit continues to collaborate with CAL FIRE's Fire and Resource Assessment Program (FRAP), local cooperators, and various CAL FIRE programs to assist with data collection techniques, information presentation and dissemination, landscape mortality assessment, and site-specific fuel reduction mitigations. The units ground mitigation response that began in 2015 and increased in pace and scale in 2019, continued in 2020 and 2021. Each fuel break was strategically created to reduce fuel loading in and around communities at risk of fire danger. The fuel breaks are constructed in a manner which makes access and egress much safer during an emergency. In the winter and spring of 2020, the unit made it a priority to get the piles on the fuel breaks burnt and ready for the upcoming fire season. With the addition of the Environmental Scientist position in the unit we have begun designing a fuel's monitoring program. This will include evaluating existing fuel's treatments, planned treatments and monitoring the effects of prescribed fire. The Unit implemented these techniques on a VTP in Shaver Lake with our partners at Edison. Data from that will be coming in the near future.

### UNDERSTORY AND PILE BURNING



## PILE BURNING ON THE RUSH CREEK FUEL BREAK



Like past years, the unit supported an all-hands-on deck approach to get the remaining piles burned and the fuel breaks fully operational. Three state engines, four California National Guard crews, Fresno's fuels crew 4349, 2 two HFEO's running excavators and skid steers to bone pile (push in) large log deck piles, as well as Miramonte crews, all had a part in ensuring this goal was met. The Unit added a Forester I and an Environmental Scientist (ES) to the Pre-Fire team in 2020. In 2021, both played an instrumental role in ensuring environmental compliance was met in a timely fashion which aided the resources on the ground to get fuel breaks completed. The Unit's Forester I and ES also played an important part getting accurate maps and boundaries which lead to less confusion for all involved when in the field. The Unit started utilizing the Forester assistant II from Crew 4349 to function as a project manager, which has been instrumental in continuing the success and progress on fuel reductions and data gathering in FKU. Several of our fuel breaks which were created through the Good Neighbor Authority Agreement with the U.S.F.S. and spanned across SRA and FRA were burnt in a joint effort between the two agencies. The unit continued its partnership with Southern California Edison (SCE) and facilitated several broadcast burns on one of our VMP projects, with many more planned for the future. The unit is proud of the continued healthy working relationship between the two agencies which allows to provide a higher level of protection for the citizens who work, travel through, and live in the communities at risk within the County of Fresno.

DRONE VIEW OF PILE BURNING ON THE COMSTOCK VMP

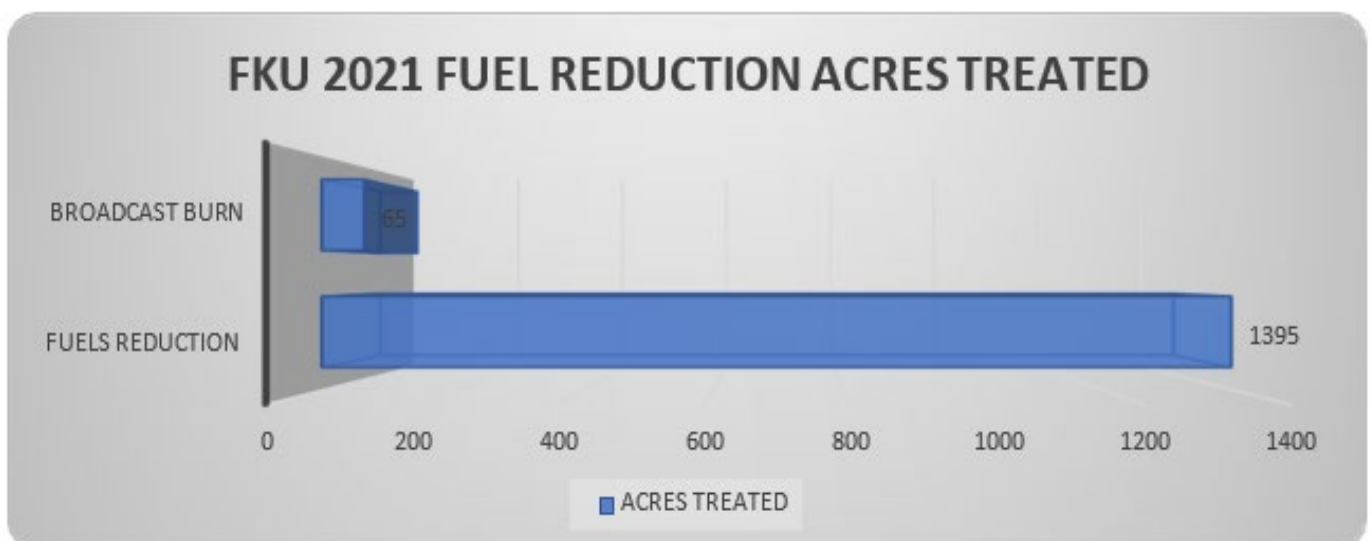


Additional fuel breaks have been identified and are through the planning process and ready for implementation. In addition to Fuel Breaks, the Unit has several VMP/VTP's shovel ready and will start prep work in 2022. Assessment and planning efforts continue for long term fuel reduction needs. A critical component of the unit's total response includes close collaboration with our cooperators. The unit works with the U.S.F.S., local Fire Safe Councils, Utility Companies like SCE, and Fresno County to prioritize tree removal and fuels reduction work and the utilization of our collective resources directly adjacent to communities, ingress and egress routes and infrastructure.

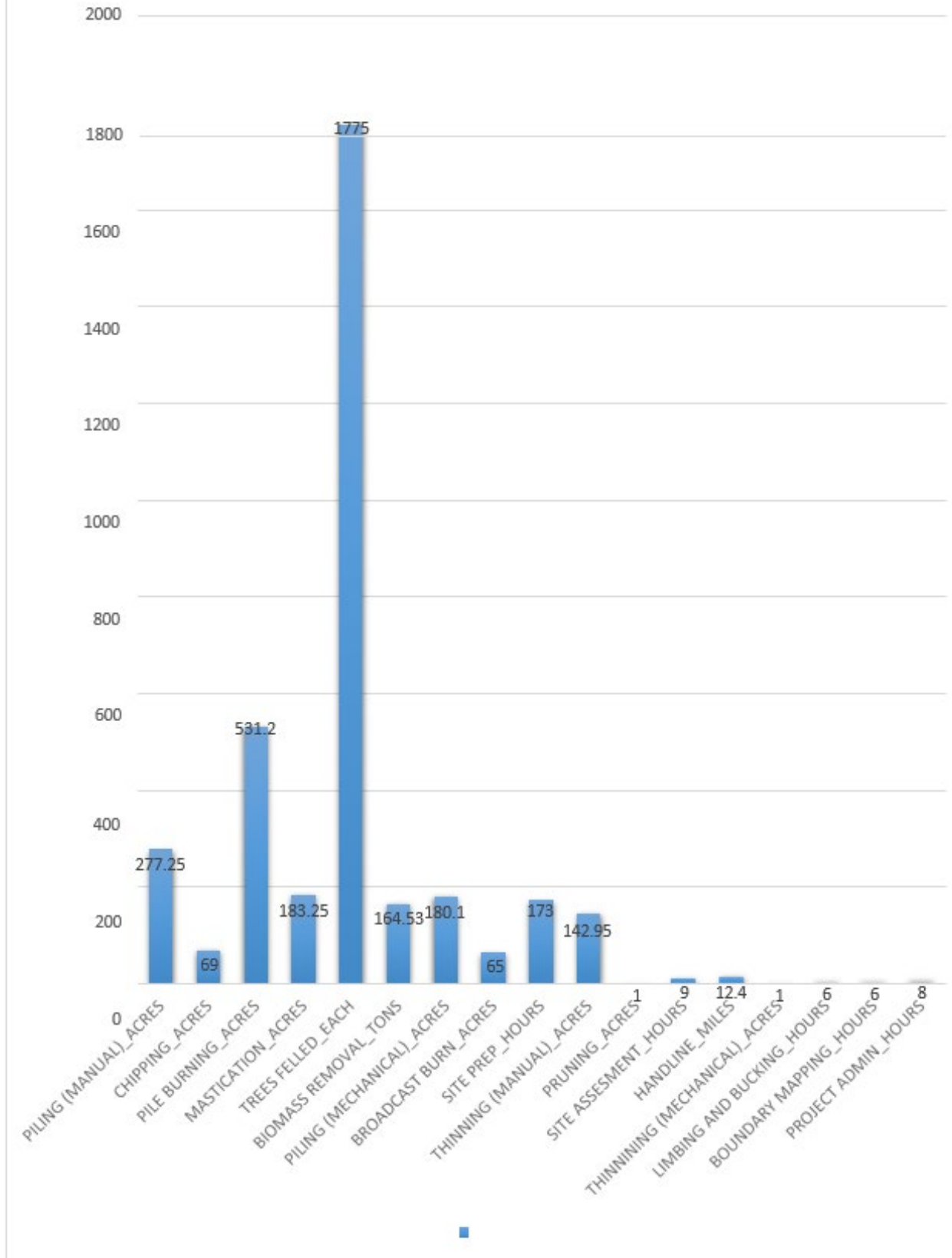


The following graphs and charts represent fuel reduction efforts and activities completed by the Fresno-Kings Unit in 2021. These totals are pulled from Cal Mapper and represent all project efforts. The following is list of the specific projects that the Fresno-Kings Unit focused on in 2021.

- Acorn Sugarloaf Fuel Break- 299 days, 2,062 personal hours, 516 equipment hours.
- Alder Heights- 83 days, 557 personal hours, 311 equipment hours.
- Beal Fuel Break- 103 days, 713 personal hours, 227 equipment hours.
- Blue Rush Fuel Break- 83 days, 554 personal hours, 405 equipment hours.
- Cressman Fuel Break Expansion- Contractor
- Edison VMP- 279 days, 2,180 personal hours, 1,422.50 equipment hours.
- Fire Escape Roads-CCC crews ( non-CAL FIRE)
- Greeley Fire Control Road- 31 days, 130 personal hours, 339.50 equipment hours.
- Highway 168 Pre Suppression Line- 3 days, 6 personal hours, 2 equipment hours.
- HSRD Shaver Springs Fuel Reduction- 27 days, 398 personal hours, 106 equipment hours.
- Johnson VMP- 15 days, 116 personal hours, 94 equipment hours.
- Juniper Ridge Fire Control Road- 80 days, 562 personal hours, 520.50 equipment hours.
- Meadow Lakes North- 32 days, 215 personal hours, 44 equipment hours.
- Old Bretz- 403 days, 2,246.50 personal hours, 1,497.50 equipment hours.
- Rush Creek Fuel Break- 204 days, 1,348 personal hours, 790 equipment hours.
- Shaver South 2020 VMP- 182 days, 1,044 personal hours, 557 equipment hours.
- Shaver Springs Fuel Break- 6 days, 48 personal hours, 16 equipment hours.
- Sky Harbor Pre Suppression Line- 36 days, 330 personal hours, 114 equipment hours.
- VMP Comstock- 160 days, 1,194 personal hours, 743 equipment hours.
- VMP SCE Shaver Lake- 40 days, 348 personal hours, 168 equipment hours.
- VTP Sequoia Lake- 16 days, 77 personal hours, 60 equipment hours.



## 2021 FUEL REDUCTION ACTIVITY BREAKDOWN



TOTAL

95

## **ANNUAL ACCOMPLISHMENTS REPORTING (2022)**

### **Fire Planning**

During the 2022 year, the FKU Unit continued its dedication to fuel reduction by Pile burning, broadcast burning, mastication, manual thinning, tree felling, biomass removal, and piling current projects. The location and prioritization of 2022 FKU fuels projects remained focused on Very High Fire Hazard Severity Zones (VHFSZ), Unit VMP's, VTP's and assisting our Federal (USFS) and private (SCE) partners on fuel reduction work in the Shaver Lake community and Pinehurst community. Working at this capacity takes a coordinated effort by multiple agencies as well as the full support from the Unit Executive Staff and unit resources.

Work was completed by CAL FIRE fuels crews, crews from Task Force Rattlesnake, Miramonte CDCR crews, CCC crews, CAL FIRE engines and HFEO's operating tree mortality equipment and private contractors. In 2022 the Unit moved Task Force Rattlesnake crews from the Millerton Fire Station to the Sierra Elementary School in Tollhouse. This site will eventually provide barracks, training rooms and be a full Fire Center. The Crews also adopted the Name Tollhouse. The Tollhouse Fire Center currently is home to four crews. Having that kind of workforce available to the Unit for Fuels reduction again proved to be highly beneficial.

The Fresno County Tree Mortality Task Force (FCTMTF) continued to make great strides in completing projects and reducing the impacts of tree mortality in 2022. In 2022 the County of Fresno, 168 Fire Safe Council, Sierra RCD, and the Oak to Timberline Fire Safe Council received California Climate Investment Grants for Fuels Reduction projects to reduce the impacts of tree mortality and create safer communities. Fresno County Removed 4,314 dead or dying trees along or adjacent to access and egress routes throughout the county and removed 3,900 cubic yards of dead vegetation in 2021.

The Unit continued working on larger VMP's and was successful in burning the Johnson VMP and plans to burn the White deer VMP in 2023, which will help the Department meet its commitment to fuels reduction while strengthening protection within the communities these VMP's are in. Planning for the future of fuel reduction, the Unit continues looking for new larger VMP/VTP's, maintaining our established fuel breaks while actively searching for opportunities to implement new fuel breaks. The Unit is committed to implementing the goals of the 2018 Strategic Fire Plan for California. The drought and subsequent tree mortality highlight the need for us to have a natural environment that is more fire resilient; buildings and infrastructure that are more fire-resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships.

### **Investigations and Enforcement**

The Fresno-Kings Prevention Bureau responded to approximately 408 calls for service ranging from fire and law enforcement responses, to assisting other law enforcement agencies within the State Responsibility Area and the Fresno County Fire Protection District. Of those total 311 calls, 213 of them officers investigated eighty-one structures.

fires, 112 wildland fires, 12 vehicle fires, 21 refuse fires, and 6 other agencies assist. Officers responded to approximately sixty-two calls related to law enforcement, 13 citations were issued, 13 total arrests: 6 arson arrests and 7 arrests were related to other crimes or warrants.

### **Wildland Fire Prevention Engineering**

The Public Resource Code 4291 (LE-100) Inspection Program continues to make great progress; in the number of inspections; and educating the public on how to create their defensible space in hopes of reducing homeowner risk and damage of an advancing wildfire. The unit has maintained a high goal of inspections for the past several years. The program was staffed with four defensible space inspectors which created a coordinated inspection program with the support of field personnel (station personnel and Battalion Chiefs). Personnel completed 12,186 LE-100 inspections, which includes second inspections. More than 70 Public Resources Code 4290/County Ordinance 15.60, inspections took place in the Unit. During these inspections, such items as roadway length and width, fuel modification, maintenance of defensible space, and water tanks were inspected to confirm compliance with the regulations by the field Battalion Chiefs. The Fire District Protection and Planning office monitors new construction and strives to maintain the safety of the public and their property. The services involved the preparation of 126 conditioning letters to the Fresno County Building Department, held 87 consultation meetings; Protection and Planning staff conducted 456 plan reviews and our Field Inspectors conducted a total of 870 inspections related to new construction of both residential and commercial projects, underground systems, new business inspections, local jail, and court inspections, and 33 retail fireworks stands.

The fire inspectors continue to maintain an aggressive weed abatement program in the Local Responsibility Areas, where station personnel conduct the initial inspections of all parcels and additional work to gain compliance by the public is conducted by this office. Within the Fire District, we conducted 2454 inspections, and approximately 1227 violation notices were issued.

### **Cost Recovery**

During the 2022 calendar year, the Fresno Kings Unit submitted three reports to Civil Cost Recovery for fires within the SRA. The cause of these fires was a result of negligence and or a violation of law, therefore the responsible party was issued a letter of demand related to extinguishment and investigation of the fires.

### **Education and Information**

The Fresno-Kings Unit and the Fresno County Fire Protection District Information and Education Bureau has had a significant increase in Fire Prevention Education for 2022. We attended over eighty-five in person events providing educational information on fire and life safety. A few of the events we attended were Career Days, Parades, Trunk or Treats, School Programs, Fairs, and Health and Safety Day

For the 2022 calendar year our fire education programs were delivered to twenty different schools, with a total of 1,928 students with the F.I.S.E. (Firefighter's in Safety Education) program which is associated with California's Common Core Curriculum along with the Alisa Ann Ruch Burn Foundation. We also delivered the Smokey Bear program in conjunction with the USFS.

The Fresno-Kings Unit reported over 3,704 fire prevention hours that were dedicated to prevention and education for the 2022 calendar year. These efforts will continue to be proactive in providing information and education to residents that reside, work, or travel through the wildland urban interface, as well as the communities throughout the County of Fresno.

We also have installed approximately twenty smoke alarms this past year to homeowners in the

Fresno King's Unit that needed replacement alarms. The Fresno-Kings Unit continues to partner with Safe Kids, Central Valley Burn Coalition, and the Central Valley Burn Center.

We are currently utilizing four social media platforms, Twitter, Facebook, Instagram, and Twitter. During 2022, social media continued to expand while striving to instantaneously communicate with the people that we serve or that may be impacted by our operations. We currently have over 15,000 followers on Facebook, 7,615 followers on Instagram, 12,600 followers on Twitter and 439 Tik Tok followers. Safety messages, fire prevention tips, local emergencies, evacuations, recommendations, and other information is sent over several social media sites and is displayed at [www.fresnocountyfire.org](http://www.fresnocountyfire.org). The Fresno-Kings Unit continues expanding the Public Education Roadway Sign Program, with new road signs holders that have been purchased to place throughout the unit.

## **Vegetation Management**

The unit wide Vegetation Management (VMP) program continues with a diverse set of projects developed for rangeland improvement, fuels reduction, training, tree mortality mitigation, and environmental protection. All Fresno-Kings fuels reduction projects are consistent with the priorities described in this plan.

Late 2022 into 2023 have been productive. We have completed work on the Comstock Fuel break. The Contractor has completed work on the Cressmans Fuel break and most piles have been burned bringing this project nearer completion. The cutting and piling on Old Bretz has been completed and is waiting for access to finish. The California National Guard and Fuels 4349 continue to work on Shaver Ranch in preparation for the Landowner to replant Spring of 2023. Both Southern California Edison VMP's continue to move forward in multiple locations with both pile burning and broadcast burning, Edison has continued Creek Fire clean up across there affected properties. Edison also has unaffected areas that have been prepped and we plan to conduct broadcast burning on in the Fall and Winter of 2023/2024.

The Fall/Winter of 2023/2024 we have multiple prescribed burns planned, starting at the Sequoia Lake VTP moving west along the 180 corridors to the White deer VMP in the Town of Squaw Valley, this is an approximately 800 acres burn. Contractors have started work to define the perimeter for the project. The CCC Crews along with Miramonte and Fuels 4349 have started the preparation in areas unable to be prepared with machinery for this project. In the Westside of the Unit, we have resumed working on the Johnson.

Fresno-Kings Unit Fire-Plan

VMP we were able to burn 168 acres this year in preparation for an approximately 3000 acres burn this Fall/Winter.

PILING ON THE WHITE DEER VMP[



### Volunteerism

The Fresno-Kings Unit Volunteers in Prevention (VIP's) program currently has four volunteers that did assist with school programs, career days, and the Fresno Home & Garden show, and the Bif Fresno Fair.

### SCHOOL EVENT



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

The Fresno-Kings Unit continues to collaborate with CAL FIRE's Fire and Resource Assessment Program (FRAP), local cooperators, and various CAL FIRE programs to assist with data collection techniques, information presentation and dissemination, landscape mortality assessment, and site-specific fuel reduction mitigations. The units ground mitigation response that began in 2015 and increased in pace and scale in 2019, continued in 2020 and 2021. Each fuel break was strategically created to reduce fuel loading in and around communities at risk of fire danger. The fuel breaks are constructed in a manner which makes access and egress much safer during an emergency. In the winter and spring of 2020, the unit made it a priority to get the piles on the fuel breaks burnt and ready for the upcoming fire season. With the addition of the Environmental Specialist position in the unit we have begun designing a fuel's monitoring program. This will include evaluating existing fuel's treatments, planned treatments and monitoring the effects of prescribed fire. The Unit implemented these techniques on a VMP in Shaver Lake with our partners at Edison. Pre and post treatment monitoring by FKU Environmental Specialist showed that the prescribed fire treatments on this VMP effectively changed the Fuel type from a Fuel Model 13 (Heavy Logging Slash) to a Fuel Model 2 (Timber grass and understory) which dramatically reduced the potential fire behavior.

These pre and post treatment monitoring results were identified throughout our fuel reduction projects within the timber fuel type in 2022. In addition to the projects in the timber, our oak woodland fuel reduction projects had similar results. We converted oak woodland fuel types from Fuel Model 5 (Brush) to a Fuel Model 1 (short grass) which dramatically reduces fire behavior in this type of plant community. An additional finding was that fuel treatments in oak woodland habitats significantly reduced the abundance of the invasive grasses and thick thatch allowing for native botanicals to flourish.

Like past years, the unit supported an all-hands-on deck approach to get the remaining piles burned and the fuel breaks fully operational. Three state engines, four California National Guard crews, Fresno's fuels crew 4349, Mid Valley 1 (CCC crew), two HFEO's running excavators and skid steers to bone pile (push in) large log deck piles, as well as Miramonte crews, all had a part in ensuring this goal was met. Several of our fuel breaks which were created through the Good Neighbor Authority Agreement with the U.S.F.S. and spanned across SRA and FRA were burnt in a joint effort between the two agencies. The unit continued its partnership with Southern California Edison (SCE) and facilitated several broadcast burns on one of our VMP projects, with many more planned for the future. The unit is proud of the continued healthy working relationship between the two agencies which allows to provide a higher level of protection for the citizens who work, travel through, and live in the communities at risk within the County of Fresno.



PILE BURNING ON THE PINEHURST FUEL BREAK



PILE BURNING ON THE WHITE DEER VMP



PILE BURNING ON THE OLD BRETZ FUEL BREAK



PILE BURNING ON THE WHITE DEER VMP



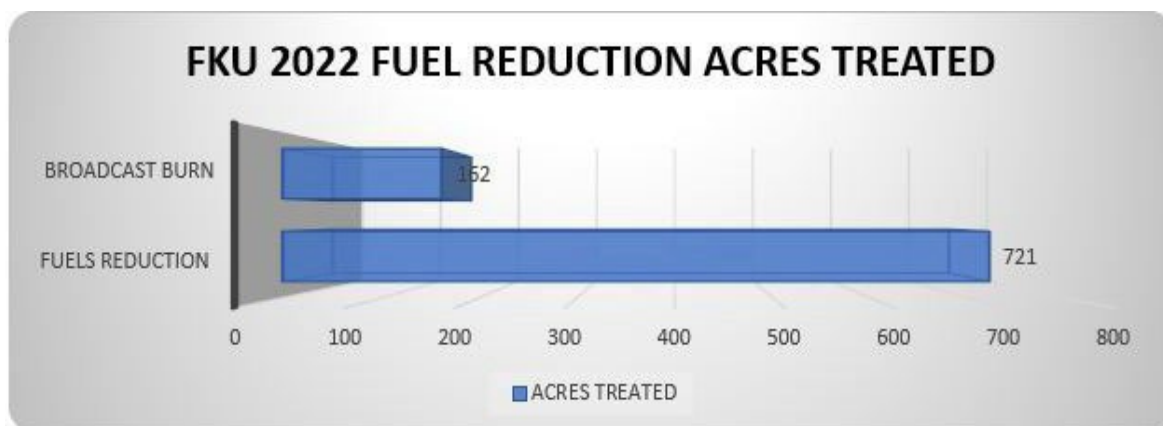
PILE BURNING ON THE WHITE DEER VMP

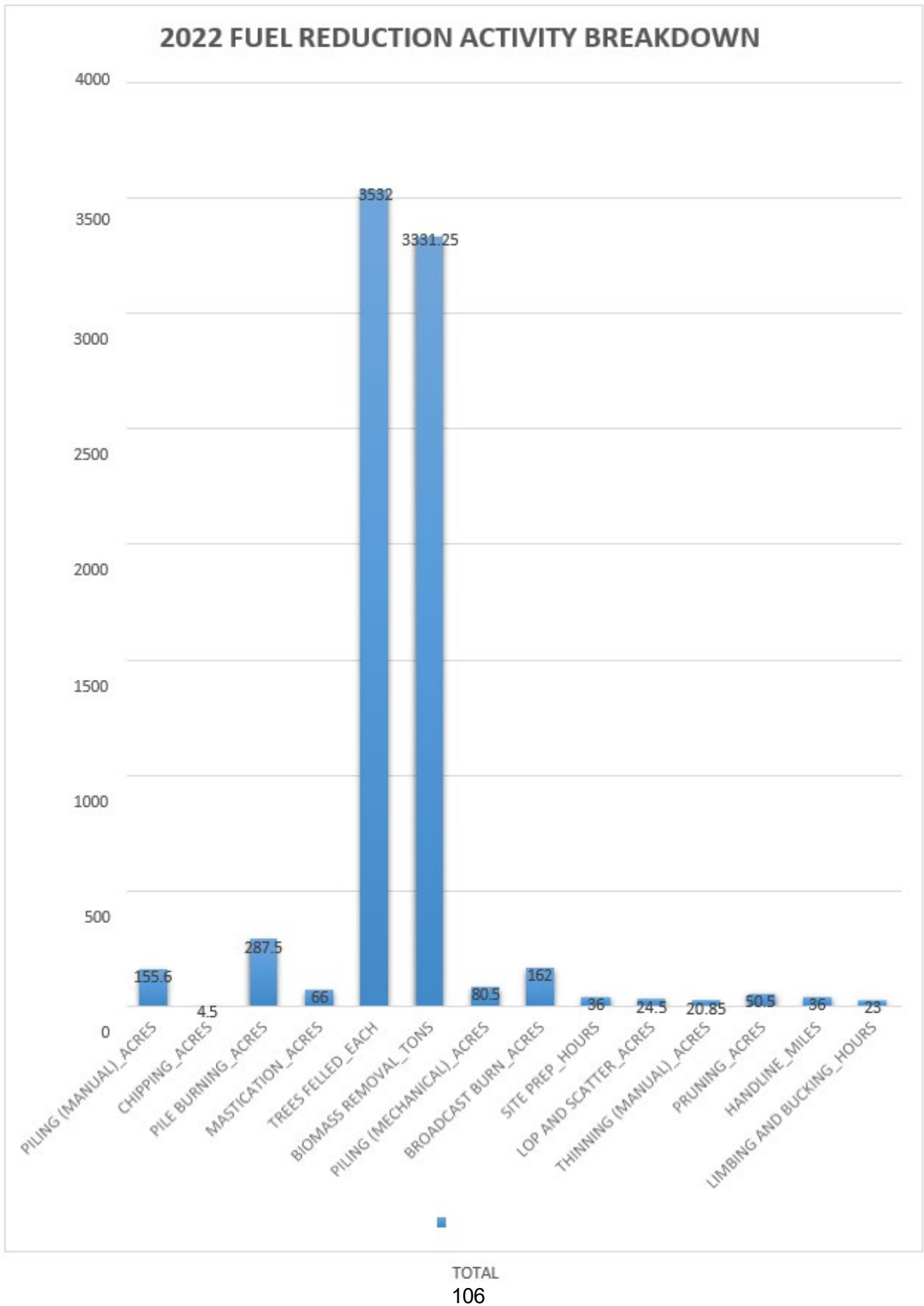


Additional fuel breaks have been identified and are through the planning process and ready for implementation. In addition to Fuel Breaks, the Unit has several VMP/VTP's shovel ready and will start prep work in 2023. Some of these VMP/VTP's are the White Deer VMP, Sequoia Lake VTP, Johnson VMP, and the Shaver Ranch VTP. Assessment and planning efforts continue for long term fuel reduction needs. A critical component of the unit's total response includes close collaboration with our cooperators. The unit works with the U.S.F.S., local Fire Safe Councils, Utility Companies like SCE, and Fresno County to prioritize tree removal and fuels reduction work and the utilization of our collective resources directly adjacent to communities, ingress and egress routes and infrastructure.

The following graphs and charts represent fuel reduction efforts and activities completed by the Fresno-Kings Unit in 2022. These totals are pulled from Cal Mapper and represent all project efforts. The following is list of the specific projects that the Fresno-Kings Unit focused on in 2022.

- Alder Heights- 21 days, 147 personal hours, 63 equipment hours.
- Cressman Fuel Break Expansion- 41 days, 285 personal hours, 243 equipment hours.
- Edison VMP- 15 days, 144 personal hours, 77 equipment hours.
- High Sierra Front Country Fuel Breaks Project- 15 days, 88 personal hours, 180 equipment hours.
- Highway 168 pre suppression line- 3 days, 9 personal hours, 9 equipment hours.
- Highway 180 pre suppression line- 6 days, 18.50 personal hours, 28.50 equipment hours.
- Johnson VMP- 218 days, 1,693.75 personal hours, 1,475.75 equipment hours.
- Juniper Ridge Fire Control Road- 19 days, 165.50 personal hours, 172 equipment hours.
- Old Bretz- 451 days, 2,865.50 personal hours, 2,856.50 equipment hours.
- Pinehurst Community Fuel Break- 12 days, 111 personal hours, 147 equipment hours.
- Sky Harbor Pre Suppression Line- 36 days, 106 personal hours, 106 equipment hours.
- VMP Comstock- 309 days, 1,861 personal hours, 2,779 equipment hours.
- VMP Shaver Lake- 65 days, 432 personal hours, 469 equipment hours.
- VMP White Deer- 37 days, 197 personal hours, 516 equipment hours.
- VTP Sequoia Lake- 67 days, 331.25 personal hours, 820.50 equipment hours.
- VTP Shaver Ranch- 124 days, 787 personal hours, 663.50 equipment hours.





OLD BRETZ FUEL BREAK

BEFORE TREATMENT



AFTER TREATMENT



UNIT CHIEF  
DUSTIN HAIL

05/04/2023  
Date