Fresno-Kings Unit
Strategic Fire Plan

4/30/2015

UNIT STRATEGIC FIRE PLAN AMENDMENTS

Date	Section Updated	Page Numbers Updated	Description of Update	Updated By
5/10/13	Appendix D		Lightning Plan removed	M Zaver
5/10/13	Various		Pictures added & formatting corrected	M Zaver
5/6/14	Various		Updated ignitions & 2013 Accomplishment	M Zaver
4/11/15	Various	36,39,40,& 53	Updated Appendix A, Ignitions, & 2014 Accomplishments	M Zaver

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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.

6/12/12

Unit Chief
Keith Larkin

Date

6-6-12

Pre-Fire Engineer
Shawn Hogan

Date

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:

1. Unit Overview

a. 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.
b. During peak fire season there are 12 State Funded and 14 District Funded fire engines staffed.
c. Miramonte Conservation Camp has four (4) Inmate Type 1 Handcrews that respond to emergencies and perform work on pre-fire projects.

2. Collaboration

a. 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.

3. Assets at Risk

a. 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.

b. Communities at Risk

The Unit has 17 communities that are listed as high risk for damage from wildfire on the Federal Registrar's "Communities at Risk".

4. Pre Fire Management Strategies

a. 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.

5. Pre Fire Management Tactics

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

6. Appendices, Annual Addendums and Exhibits

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

7. Annual Supplements

a. 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 financial 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.

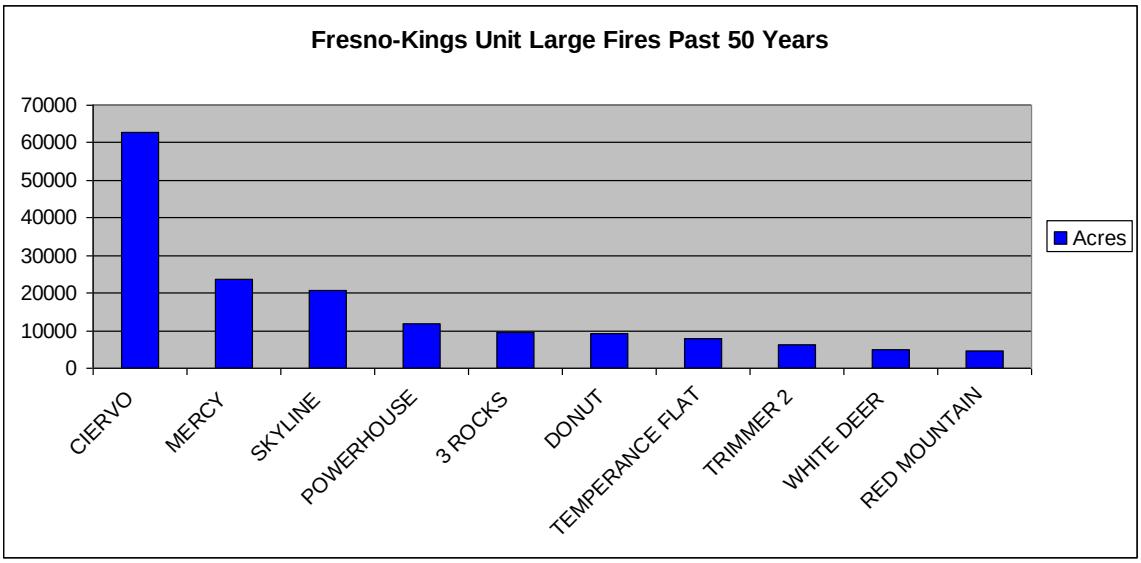
The Unit is divided nearly in half by the San Joaquin Valley. This 70-mile span presents some specific logistical and administrative challenges for the development of a Pre-Fire Management Plan. The fuel and topographic conditions, along with the human activity, risk, and ignition history of the Unit 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 five (5) 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 (13) Staffed Fire District Stations
- Seven (7) Paid Call Firefighter (PCF) Fire District Stations
- Miramonte Conservation Camp
- Fire Prevention/Protection/Planning Bureau
- Training Bureau
- Emergency Command Center

Initial Attack Resources during Peak Fire Season Staffing

- Twelve (12) CAL FIRE Schedule “B” engines
- Fourteen (14) Schedule “A” engines
- Seven (7) PCF engines
- Two (2) CAL FIRE bulldozers
- Four (4) inmate type 1 hand crews

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 Department
- Laton Volunteer Fire Department
- Pleasant Valley Prison Fire Department
- Riverdale Volunteer Fire Department

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

- Fresno County Fire Protection District
- Orange Cove Fire District
- Laton Fire District
- 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
- City of Fowler Fire Department
- City of Reedley Volunteer Fire Department
- Hume Lake Fire & Rescue 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:

Organization	Title
Southern California Edison	Fire Ecologist
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

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 in particular 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, that 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	Dunalp	Piedra
Avenal **	Friant **	Pinehurst
Big Creek *	Hume *	Prather
Big Sandy	Lakeshore *	Shaver Lake
Dinkey Creek*	Meadow Lakes	Squaw Valley
	Miramonte	Tollhouse

** 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 area of 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 general 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 1300 ignitions each year that includes SRA and LRA. The greatest number of ignition causes on average is from Arson. Playing with fire and undetermined combined as the second most frequent cause. Playing with fire cause class is a priority to prevention staff and is likely in error based on company officers using the category incorrectly. Therefore, we are working on educating our staff to correct the issue.

A. ENGINEERING & STRUCTURE IGNITABILITY

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 handle 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.

B. INFORMATION AND EDUCATION

1. Public 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, road side 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 carried out 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 essentially 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 general public. The benefits to the general 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 Fuelbreak. The Beal Fuelbreak is located in the Pine Ridge area of Fresno County along Highway 168. The Beal Fuelbreak is a segment of the historic 650-mile long Ponderosa Way Fuelbreak 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. The most recent significant maintenance activity treated in excess of 100 acres funded by a Federal grant beginning in the fall of 2010 and continuing into the 2011/2012 winter. The arson caused Highway Fire, which burned from August 13-18, 2000, was ignited down-slope of the Beal, and eventually burned into the fuelbreak. The fire was controlled at the fuelbreak.

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 a 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 Yields; Watershed Stabilization; Wildlife Habitat Improvement; Fisheries Habitat 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." Due to the fact that 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" under took 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 carry out a vegetation management project are in place and funded for fire suppression activities. Thus, there are minimal added expenses to CAL FIRE to carry out 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 where large-scale (several hundred to several thousand acre) range improvement projects. Due to the minimal amount of fire control line work needed versus the amount 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 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 very 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 climes 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 the majority 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 greatly 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 generally long-term owners who are very knowledgeable of their

lands and alternatives for land management. A large 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 very 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.

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. Cressmans Road and Beale Fire Control road fuelbreaks are examples of two recently completed fuels reduction projects in the eastern portion of the Fresno Kings Unit. Both of these 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.

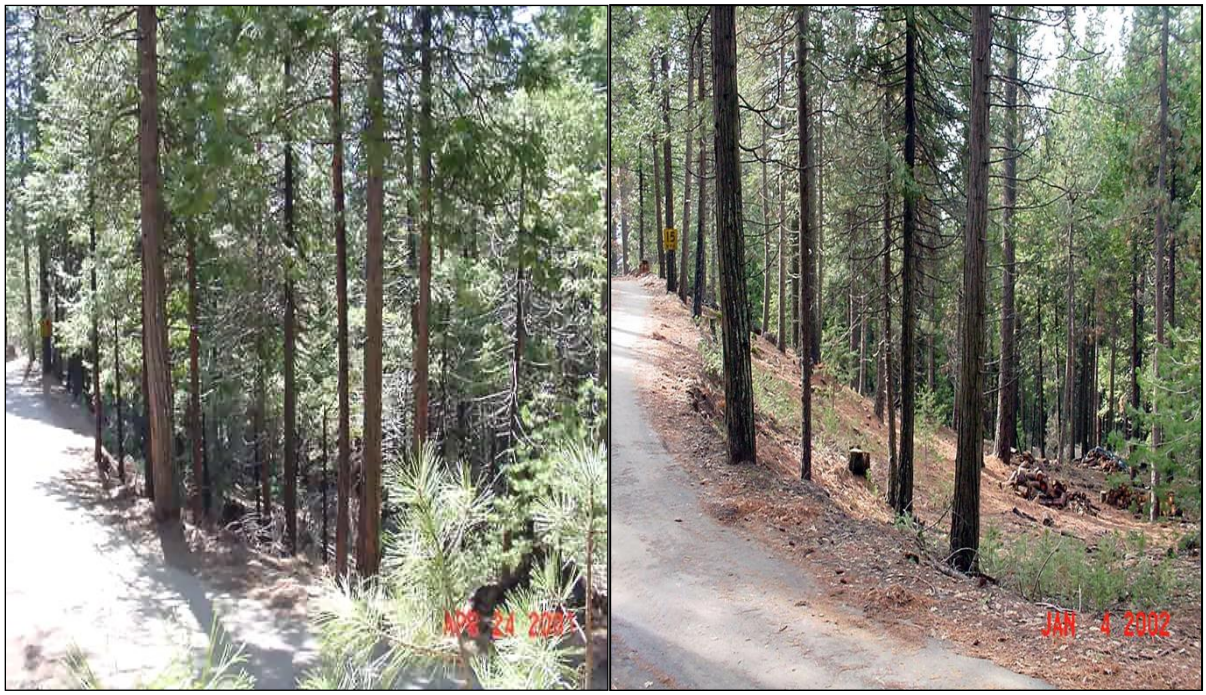
Future Program Direction

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 Prefire, 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.

Cressman Fuel Modification Zone

Before Fuel Modification

After Fuel Modification



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 (4) inmate handcrews supervised by CAL FIRE Captains and CDCR Officers. The handcrews 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 handcrews 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 fuels 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 table tops contain sensitive plant and animal species, requiring modified fire suppression tactics when possible. Most of the table top 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/farm lands 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 high 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 acre 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 (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. There are an estimated 2,500 structures in the Battalion and the goal each year is to inspect 50% 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 feet 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 Fuelbreak," 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 fuelbreak 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 Firesafe 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.

In an effort 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 in order 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 highly 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's peak 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 located 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 located 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 has to 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 a large number of 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 1989. 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 (PRC 4291)**

   - 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 great 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 Fuelbreak. 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 Fuelbreak 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 Fuelbreak 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 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 located in 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 located 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.

The Battalion has nine (9) fire roads which incorporate 21 miles of access that has to maintain annually. Currently, all roads have been mapped and GIS data gathered for future use in the Unit's Fire Plan. 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. We have not seen any large or devastating fires during the last several decades in the Battalion. The last significant event occurred in the 1950's. 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. **Defensible Space Inspection program (PRC 4291)**

    - Approximately 1,400 inspections done in the Battalion each year. This comprises about 70% of the Battalion population. Continue to track inspections utilizing GPS coordinates. This provides for a real time picture of the amount and locations of all structures in the Battalion.

2. **Pre-Fire Lines (Rat Trailing)**

    - Utilize the Miramonte 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

3. 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. Pre Attack plans are being completed to protect the communities of Miramonte, Squaw Valley, Sand Creek, Wonder Valley, Piedra and Sunnyslope.

4. Fire Control Road Maintenance and Identification

- To continue to maintain these essential accesses to difficult areas in the Battalion for the ability to assist in fire control operations. Continue to pursue the options of marking the entrance of each road with their identified name.

Collaborators with the Squaw Valley Battalion:

- Sierra National Forest
- Sequoia National Forest
- Kings Canyon National Park
- Sequoia 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

Battalion 14 – Coalinga Battalion

The Coalinga Battalion of the CAL FIRE Fresno-Kings Unit is located 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 western SRA border to the highest point of 5,000 on the eastern border. Interstate 5, runs 80 miles along the Eastern SRA boundary of the Battalion. This provides very 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 a large number of ranch roads which provide access to the Battalion. There are several oil 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 (PRC 4291)**

    a. 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.
    b. 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.
        i. Inspection priorities will be the Los Gatos and Warthan Canyon areas due to the higher concentration of inhabitable structures.
        ii. 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 located 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.

a. 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.
b. 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.
c. 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 very low maintenance in regards to fire prevention, allowing Battalion crews to concentrate on the newer residents to the 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 very 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 regards to suppression. Fire causes are generally a result of coming off the Highway 33. Support and interface with the cooperative agencies tends 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 located 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 ranchers 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 of these are considerable in size and attended by a great majority of the local residents, as well as visitors to the area. The parade provides a 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 located 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 Battalion 15.

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 and 5.

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.

   a. 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.

   a. Priority of preplans: Schools, Skilled Nursing Facilities, Target Hazards and Industrial Businesses with large war forces
   b. Engine Companies continue to update existing preplans and preplan new businesses in the battalion.
   c. 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.

   a. 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.

   a. Stations and Engine Companies participate in Parades, carnivals, station tours, "Every 15 Minute" Programs and etc.

b. Continue school programs and outreaches.
c. 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 located 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 of the Battalions within the Fresno-Kings Unit. The population density coupled with the high traffic transportation corridors provides for an increases 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 war forces
   - Specific Target Hazards: Hazardous material distribution facilities, fireworks storage facilities, large petroleum and propane facilities and Mega Commercial Warehouses

2. **Addresses**

   A common 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 possible solutions would be to:

   - 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

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. The majority 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.

   a. Continue to complete these preplans in order as identified by importance:
      1. Schools (concurrent with inspections)
      2. Care or Foster facilities (rest homes)
      3. Any Industrial complexes creating mass evacuations i.e.; cold storage, bulk hazardous material storage etc.
      4. Industrial businesses with large work forces. Schools (concurrent with inspections)

   b. 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.

a. 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.

3. 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 a large number of 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.

a. 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 Rd. 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

APPENDIX A: PRE- FIRE PROJECTS

PROJECT_NAME	PROJECT_STATUS	TYPE	TREATMENT ACRES	TREATMENT MILES
Alcalde	Planned	VMP	**35.10**	**0.00**
Badger Miramonte Fire Control Road	Complete in Maintenance	FirePlan	**0.00**	**0.00**
Baker Fire Control Road	Complete in Maintenance	FirePlan	**0.00**	**0.00**
Beal Fire Control Road	Complete in Maintenance	FirePlan	**0.00**	**0.00**
Beal Phase 1 Maintenance	Complete in Maintenance	FirePlan	**117.37**	**0.00**
Bear Mountain Access	Complete in Maintenance	FirePlan	**25.09**	**0.00**
Black Mountain	Complete in Maintenance	FirePlan	**20.21**	**0.00**
Bladen CFIP	Active	CFIP	**0.00**	**0.00**
Cleveland Fire Control Road	Complete in Maintenance	FirePlan	**0.00**	**0.00**
Comstock	Complete in Maintenance	VMP	**221.90**	**0.00**
Cressman Road Fuel Break Maintenance	Complete in Maintenance	FirePlan	**170.53**	**0.00**
Elwood Kencade Fire Control Road	Complete in Maintenance	FirePlan	**0.00**	**0.00**
Finch CFIP	Active	CFIP	**47.99**	**0.00**
Fire Prevention Road Signs	Complete in Maintenance	FirePlan	**0.00**	**0.00**
Fish Creek Fire Control Road	Complete in Maintenance	FirePlan	**0.00**	**0.00**
Fresno Fair	Complete in Maintenance	FirePlan	**99.40**	**0.00**
Greeley Fire Control Road	Complete in Maintenance	FirePlan	**63.66**	**0.00**
Hayden	Planned	CFIP	**0.00**	**0.00**
Highway 168 Pre Suppression Line	Complete in Maintenance	FirePlan	**0.00**	**0.40**
Highway 180 Pre Suppression Line	Complete in Maintenance	FirePlan	**3.90**	**5.41**
Hills Valley Pre Suppression Line	Complete in Maintenance	FirePlan	**1.80**	**2.62**
Hog Mountain Fire Control Road	Active	FirePlan	**0.00**	**0.00**
Juniper Ridge Fire Control Road	Active	FirePlan	**0.00**	**0.00**
Lost Lake VMP	Complete in Maintenance	VMP	**39.08**	**0.00**
Meadow Lakes North	Complete in Maintenance	FirePlan	**36.20**	**0.00**
Miramonte Access Road	Active	FirePlan	**0.00**	**0.00**
Mud Run Fire Control Road	Active	FirePlan	**0.00**	**0.00**
Neffs Camp CFIP	Planned	CFIP	**6.88**	**0.00**
Sandcreek Pre Suppression Line	Complete in Maintenance	FirePlan	**1.56**	**2.15**
Seibert-Hanging Branch	Planned	CFIP	**54.10**	**0.00**
Sequoia Lake VMP	Planned	VMP	**0.00**	**0.00**
Sky Harbor Pre Suppression Line	Complete in Maintenance	FirePlan	**2.02**	**2.84**
Sunny Slope Pre Suppression Line	Complete	FirePlan	**14.09**	**1.41**
Tar Canyon Fire Control Road	Active	FirePlan	**0.00**	**0.00**
White Deer Fire Control Road	Active	FirePlan	**0.00**	**0.00**

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, firelines, water sources) developed during a fire suppression effort, taking into consideration those identified in previous planning efforts. (Goal 7, Objective E)

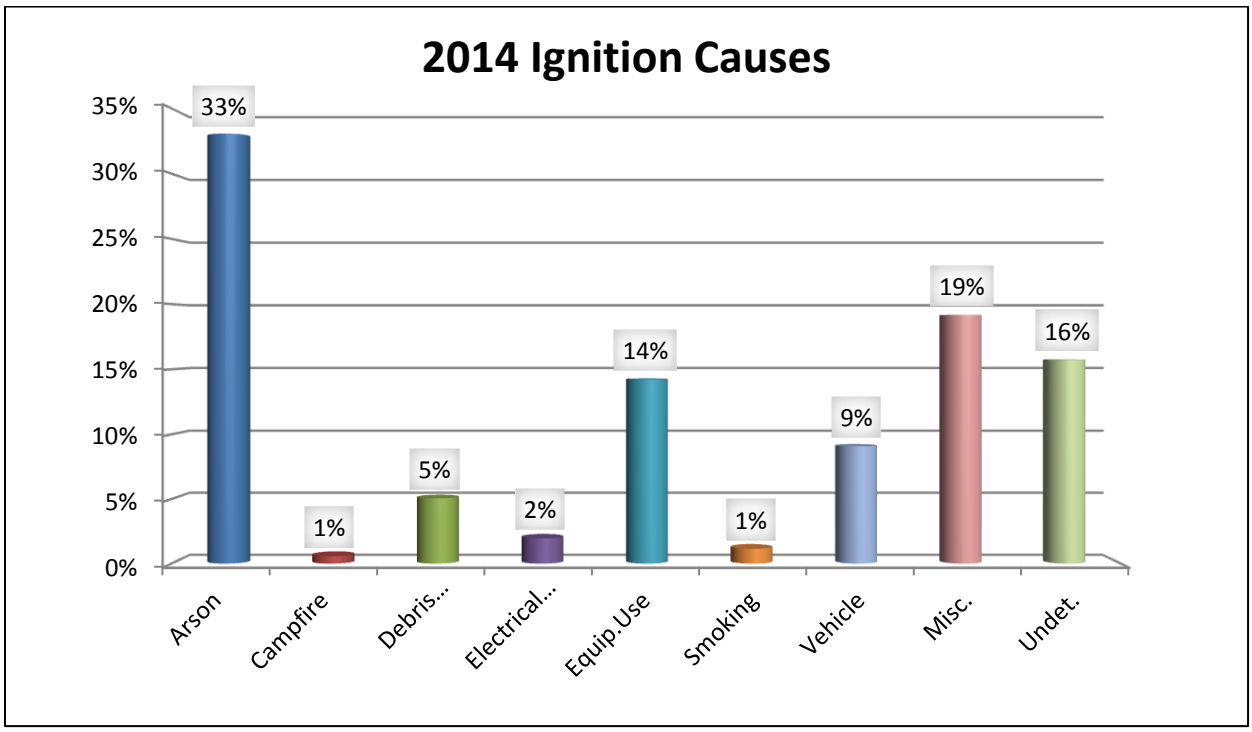
The Fresno-Kings Unit management intends to support the Fire Plan and make it successful. With the limited availability of funds, creative ways to accomplish fuel reduction projects will remain a top priority. Work with grant writers and stakeholders to secure funds to implement projects. The Unit will 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.

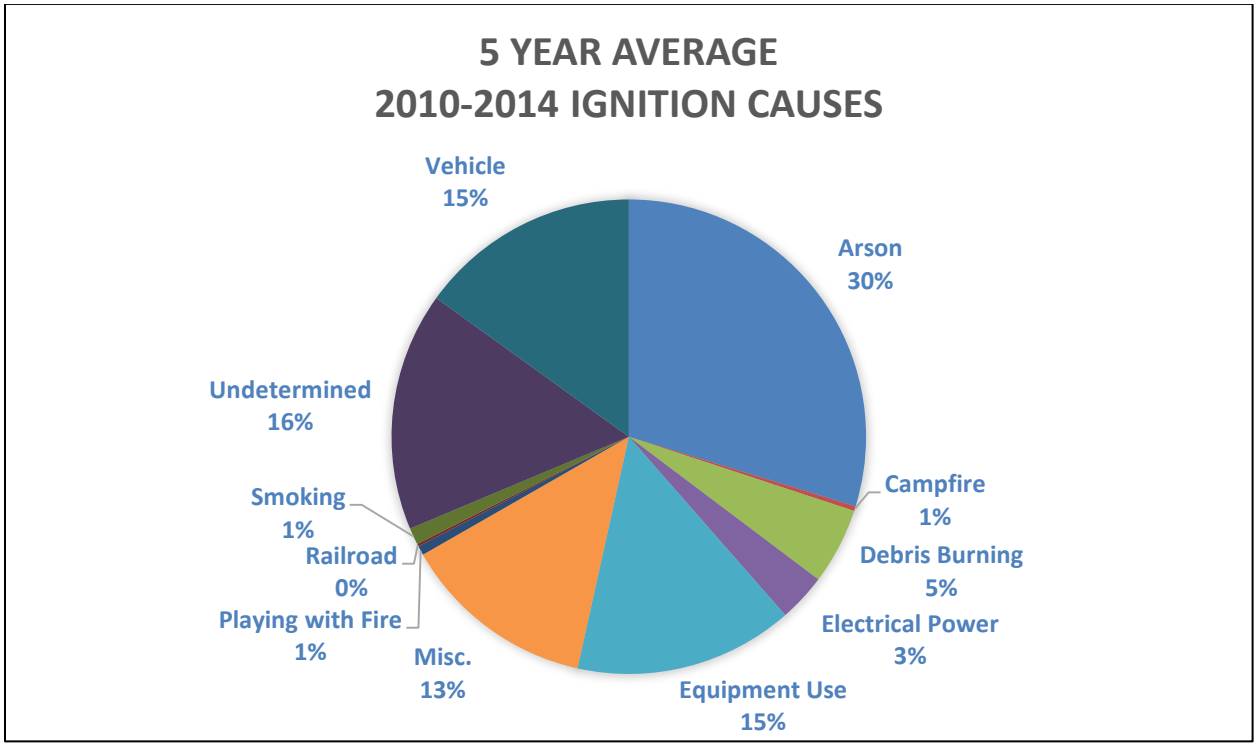
APPENDIX C- IGNITIONS DATA

Fresno-Kings Ignition Summary					
Cause	**2010**	**2011**	**2012**	**2013**	**2014**
Arson	235	256	320	276	288
Debris Burning	49	54	71	52	44
Equipment Use	96	160	144	136	124
Miscellaneous	84	91	66	47	167
Playing With Fire	158	173	10	9	9
Electrical Power	13	15	48	33	17
Railroad	4	1	2	0	3
Smoking	52	31	23	18	10
Undetermined	180	183	136	168	137
Unknown	128	46	0	0	0
Vehicle	88	72	207	219	79
Lightning	0	2	4	9	1
Campfire	0	1	4	4	5
Total	***1087***	***1085***	***1035***	***971***	***884***

Local Responsibility Area CAIRS data 2012 & later					
Cause	**2010**	**2011**	**2012**	**2013**	**2014**
Arson	231	240	307	268	273
Debris Burning	45	43	51	43	32
Equipment use	90	122	125	125	120
Miscellaneous	72	58	45	39	153
Playing With Fire	150	157	9	7	9
Electrical Power	9	7	30	20	12
Railroad	4	1	2	0	3
Smoking	51	30	13	18	9
Undetermined	160	166	112	152	123
Unknown	110	30	0	0	0
Vehicle	83	62	188	208	69
Lightning	0	0	0	4	0
Campfire	0	1	1	3	3
Total	***1005***	***917***	***884***	***887***	***806***

State Responsibility Area CAIRS					
Cause	**2010**	**2011**	**2012**	**2013**	**2014**
Arson	4	16	13	8	15
Debris Burning	4	11	20	9	12
Equipment Use	6	38	19	11	4
Miscellaneous	12	33	21	8	14
Playing With Fire	8	16	1	2	0
Electrical Power	4	8	18	13	5
Railroad	0	0	0	0	0
Smoking	1	1	10	0	1
Undetermined	20	17	24	16	14
Unknown	18	16	0	0	0
Vehicle	5	10	19	11	10
Lightning	0	2	3	5	1
Campfire	0	0	3	1	2
Total	***82***	***168***	***151***	***84***	***78***


2014 Ignition Causes
35%
30%
25%
20%
15%
10%
5%
0%
33%
1%
5%
2%
14%
1%
9%
19%
16%
Arson
Campfire
Debris...
Electrical...
Equip.Use
Smoking
Vehicle
Misc.
Undet.


5 YEAR AVERAGE
2010-2014 IGNITION CAUSES
Vehicle 15%
Arson 30%
Undetermined 16%
Smoking 1%
Railroad 0%
Playing with Fire 1%
Misc. 13%
Equipment Use 15%
Electrical Power 3%
Debris Burning 5%
Campfire 1%

EXHIBITS: MAPS

Figure A: Unit Map

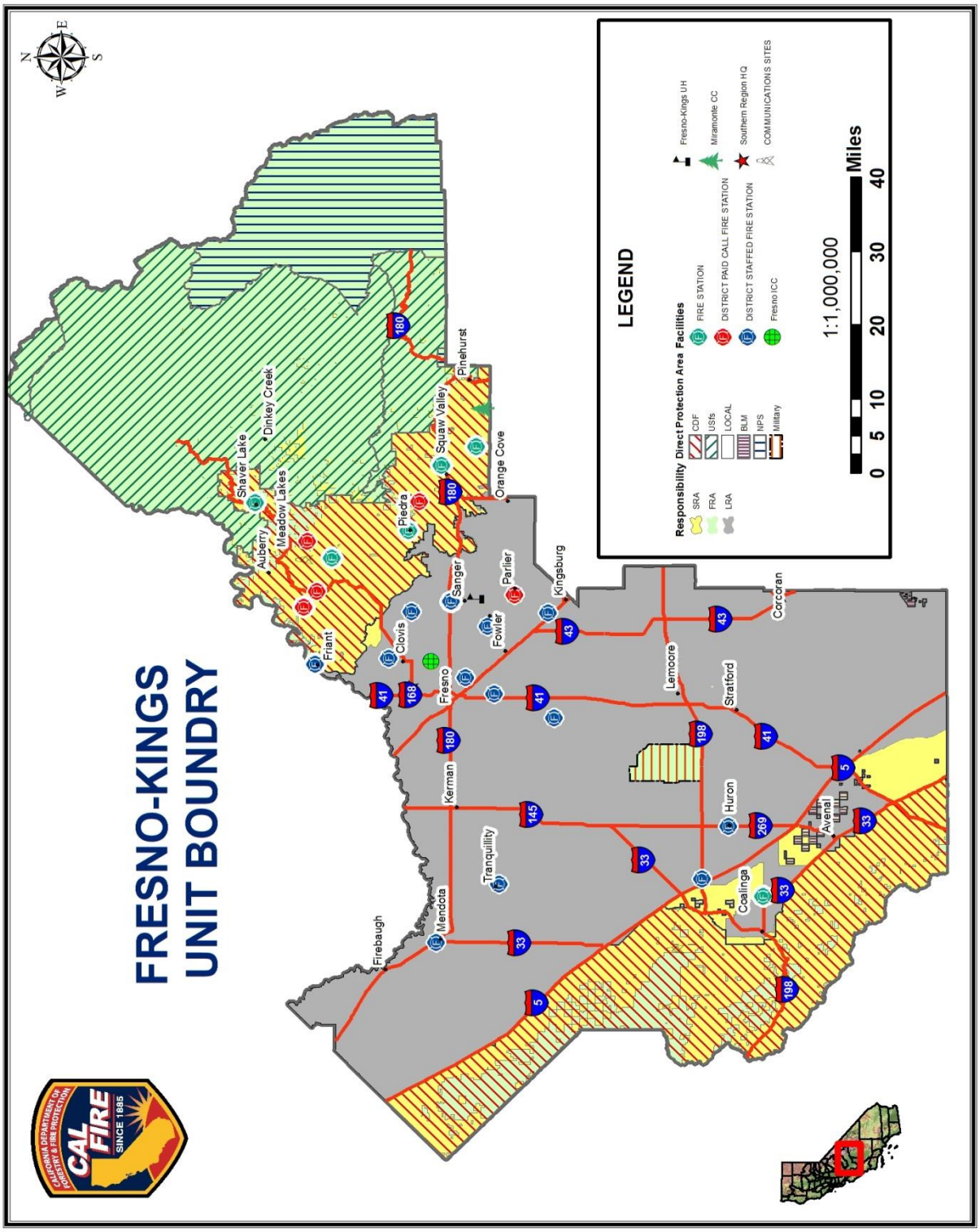
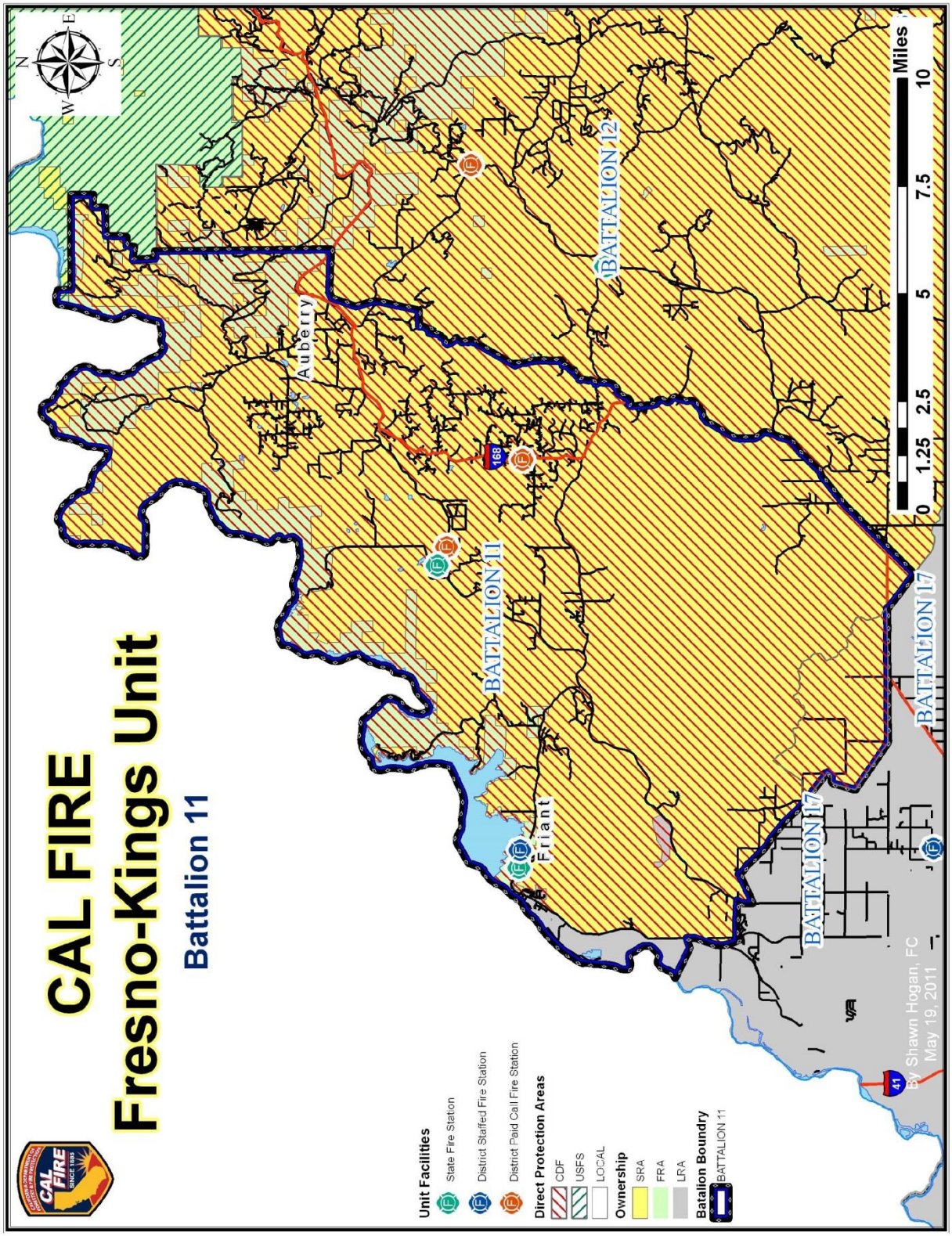
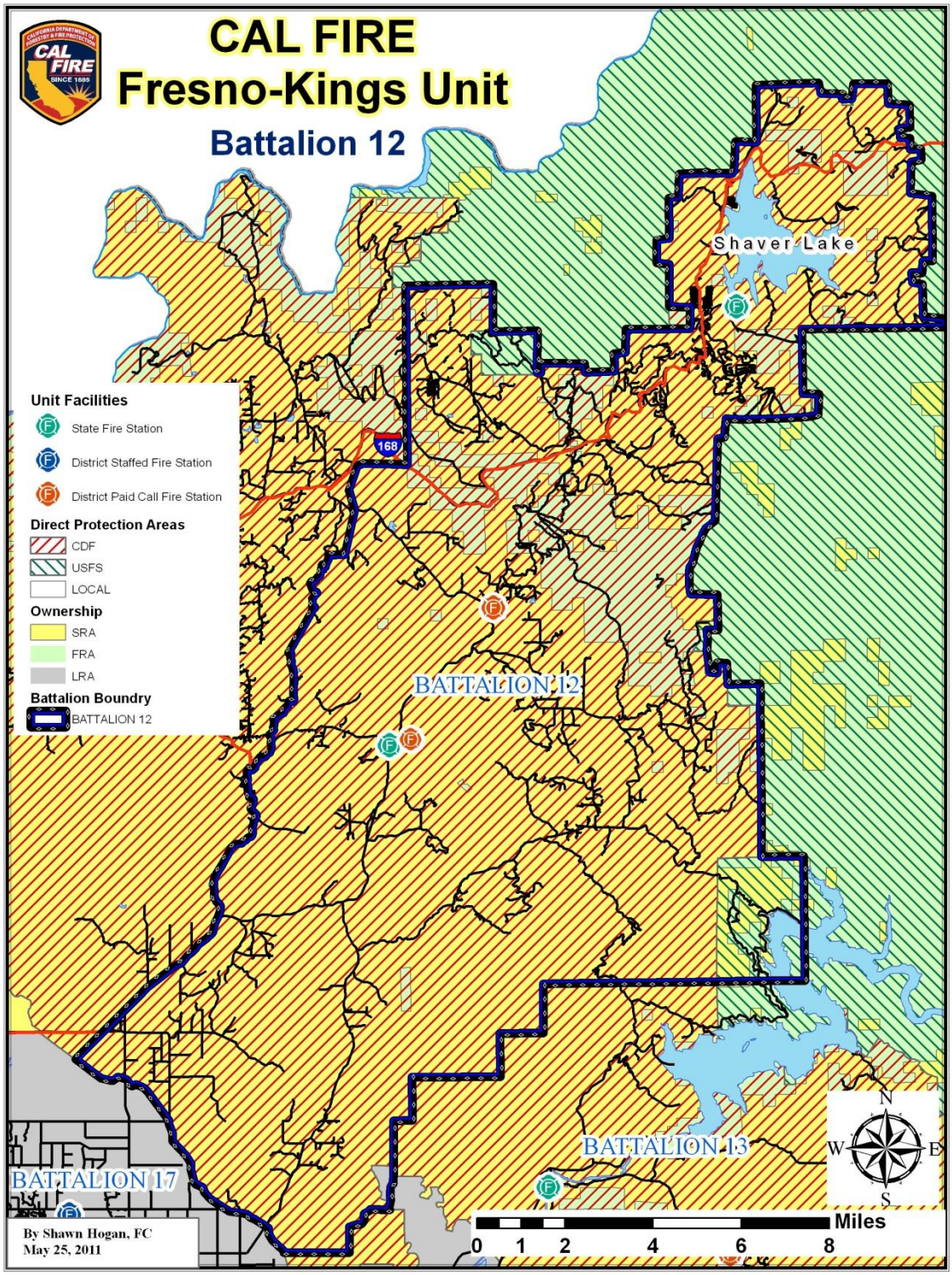


Figure B: Battalion Maps

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Battalion 12
Shaver Lake
Unit Facilities
State Fire Station
District Staffed Fire Station
District Paid Call Fire Station
Direct Protection Areas
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USFS
LOCAL
Ownership
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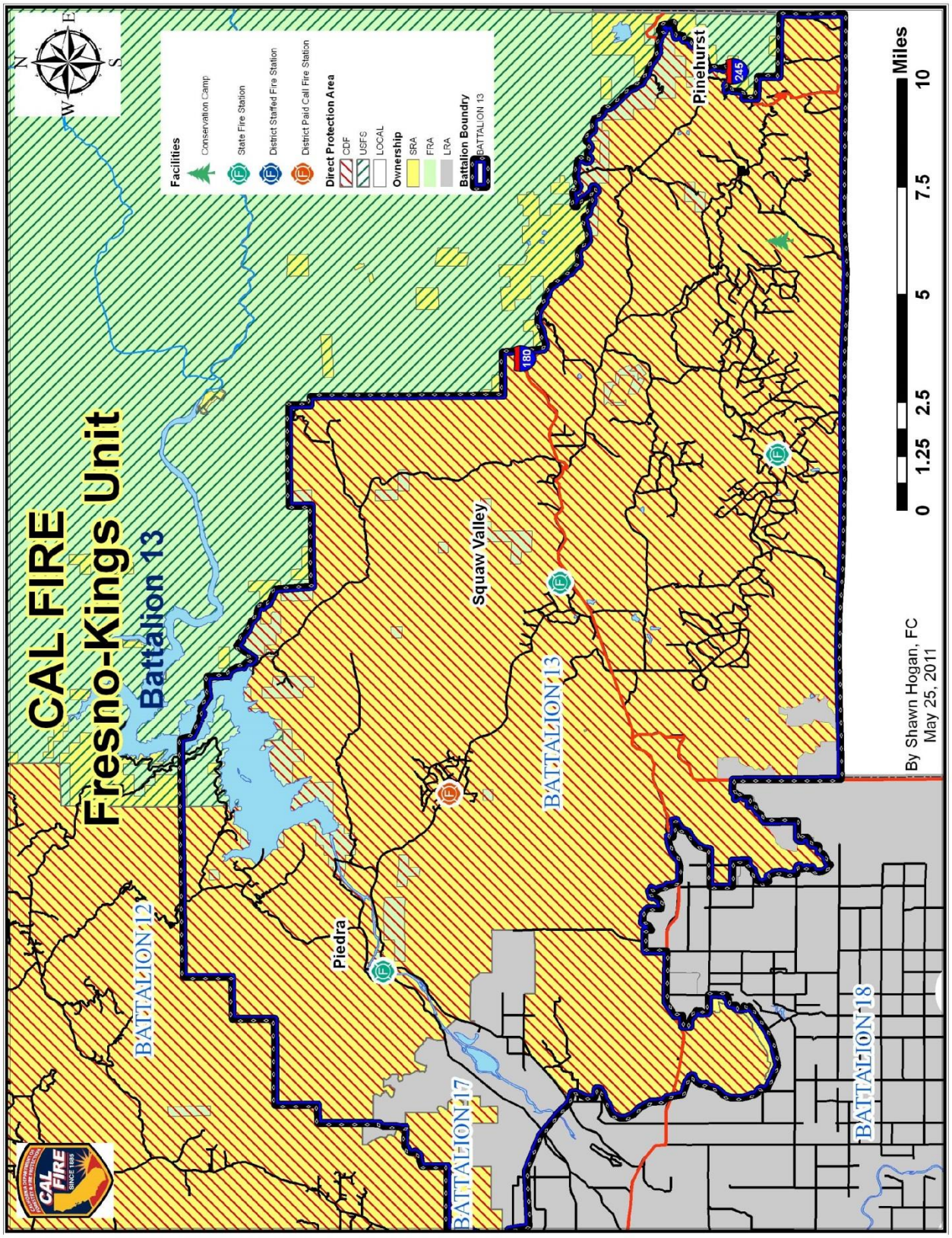
By Shawn Hogan, FC
May 25, 2011


CAL FIRE
Fresno-Kings Unit
Battalion 13
Facilities
Conservation Camp
State Fire Station
District Staffed Fire Station
District Paid Call Fire Station
Direct Protection Area
CDF
USFS
LOCAL
Ownership
SRA
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LRA
Battalion Boundry
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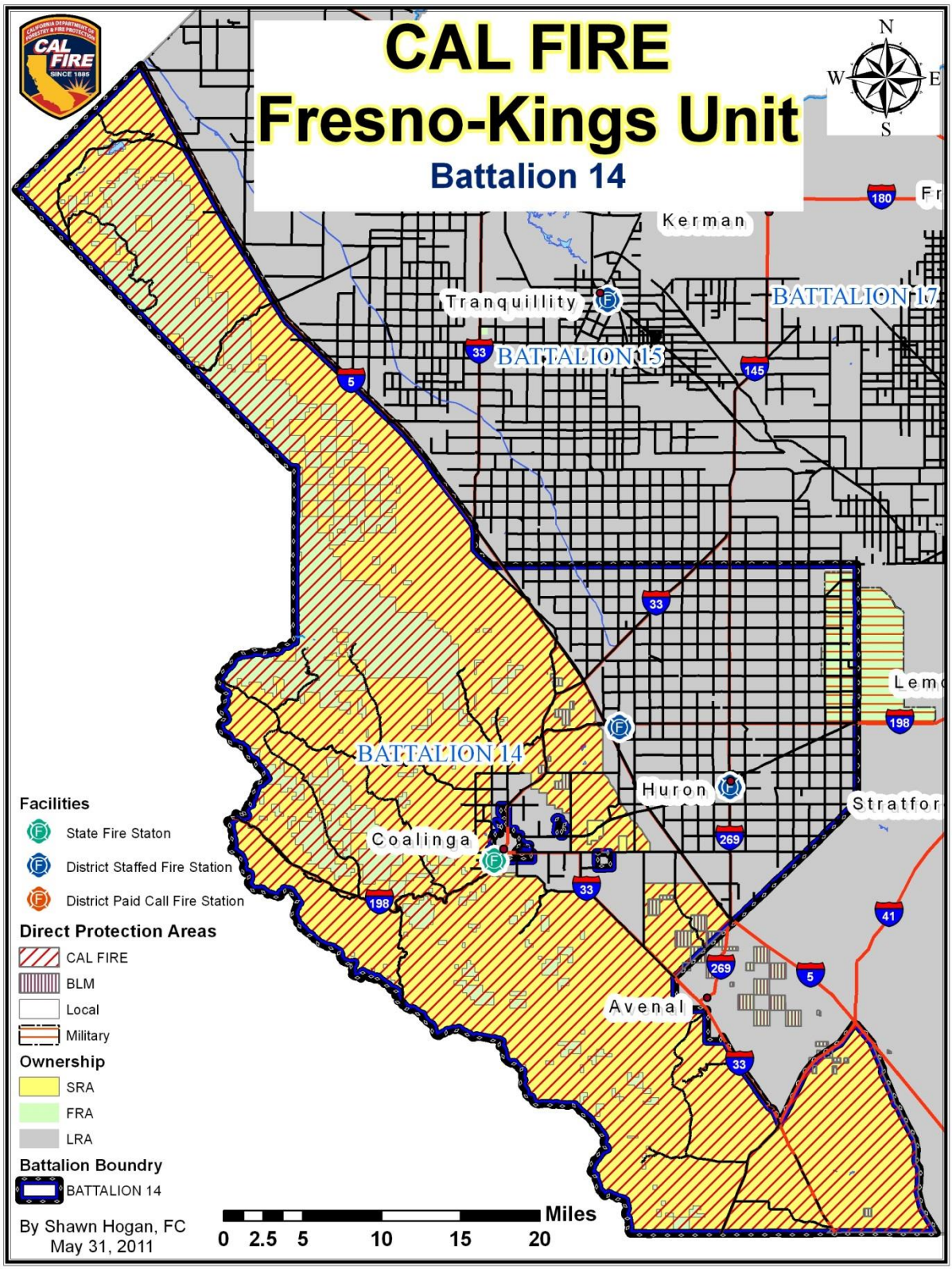
By Shawn Hogan, FC
May 25, 2011


CAL FIRE
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Direct Protection Areas
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FRA
LRA
Battalion Boundry
BATTALION 14
By Shawn Hogan, FC
May 31, 2011
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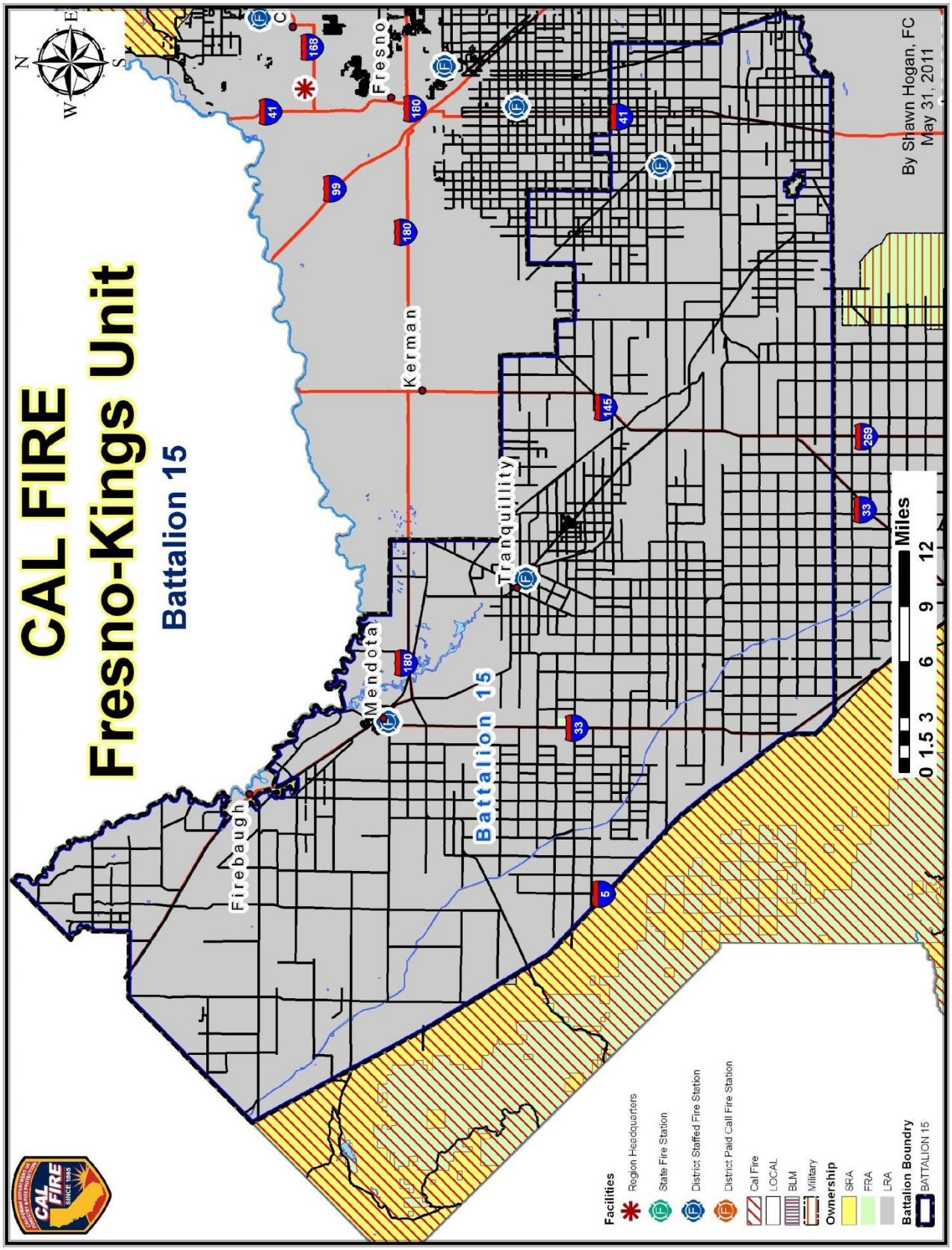
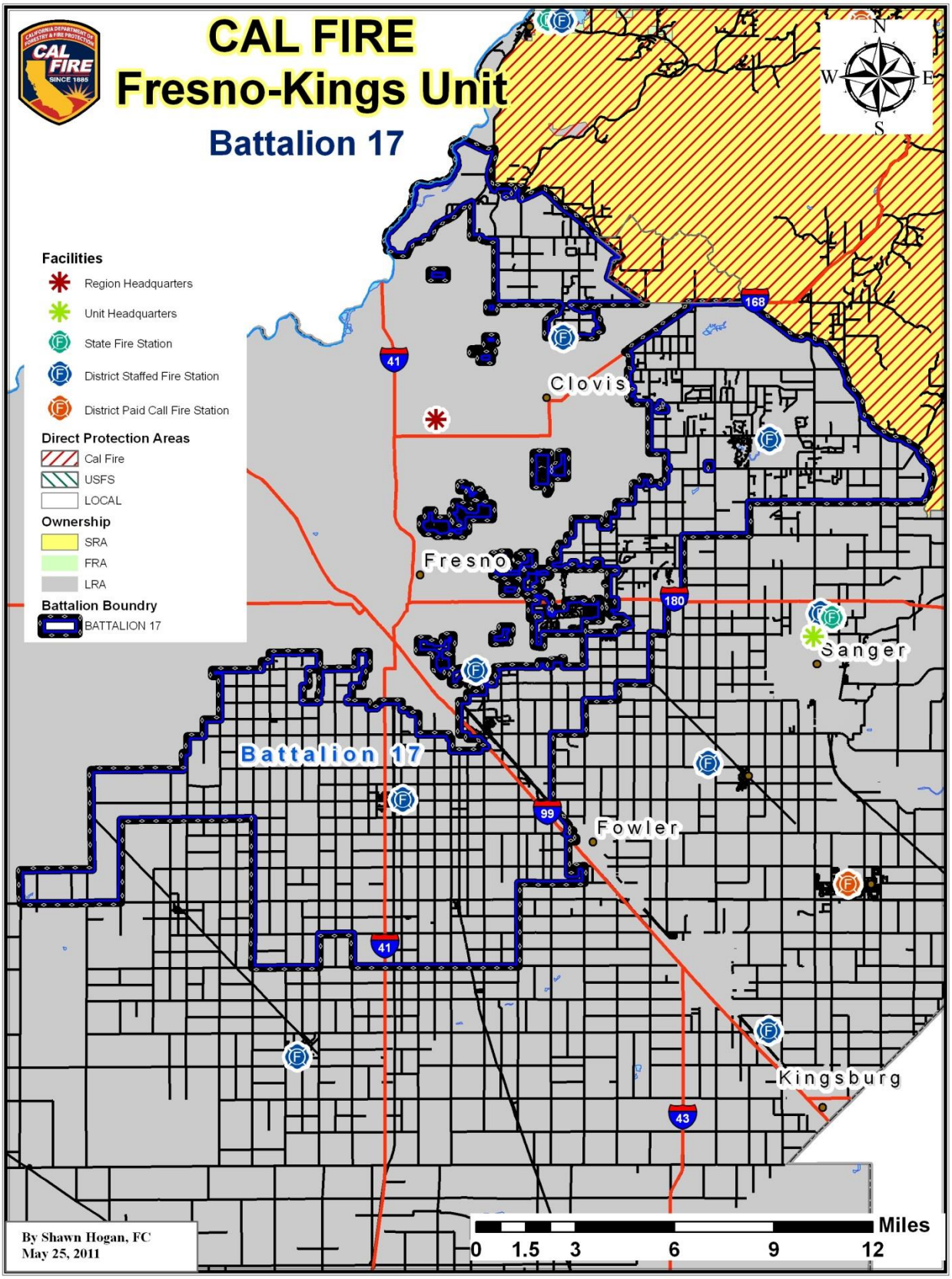

CAL FIRE
Fresno-Kings Unit
Battalion 15
Fresno
Kerman
Tranquillity
Mendota
Firebaugh
Battalion 15
By Shawn Hogan, FC
May 31, 2011
0 1.5 3 6 9 12
Miles
Facilities
Region Headquarters
State Fire Station
District Staffed Fire Station
District Paid Call Fire Station
Ownership
Cal Fire
LOCAL
BLM
Military
SRA
FRA
LRA
Battalion Boundry
BATTALION 15


CAL FIRE
Fresno-Kings Unit
Battalion 17
Facilities
Region Headquarters
Unit Headquarters
State Fire Station
District Staffed Fire Station
District Paid Call Fire Station
Direct Protection Areas
Cal Fire
USFS
LOCAL
Ownership
SRA
FRA
LRA
Battalion Boundry
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Fresno
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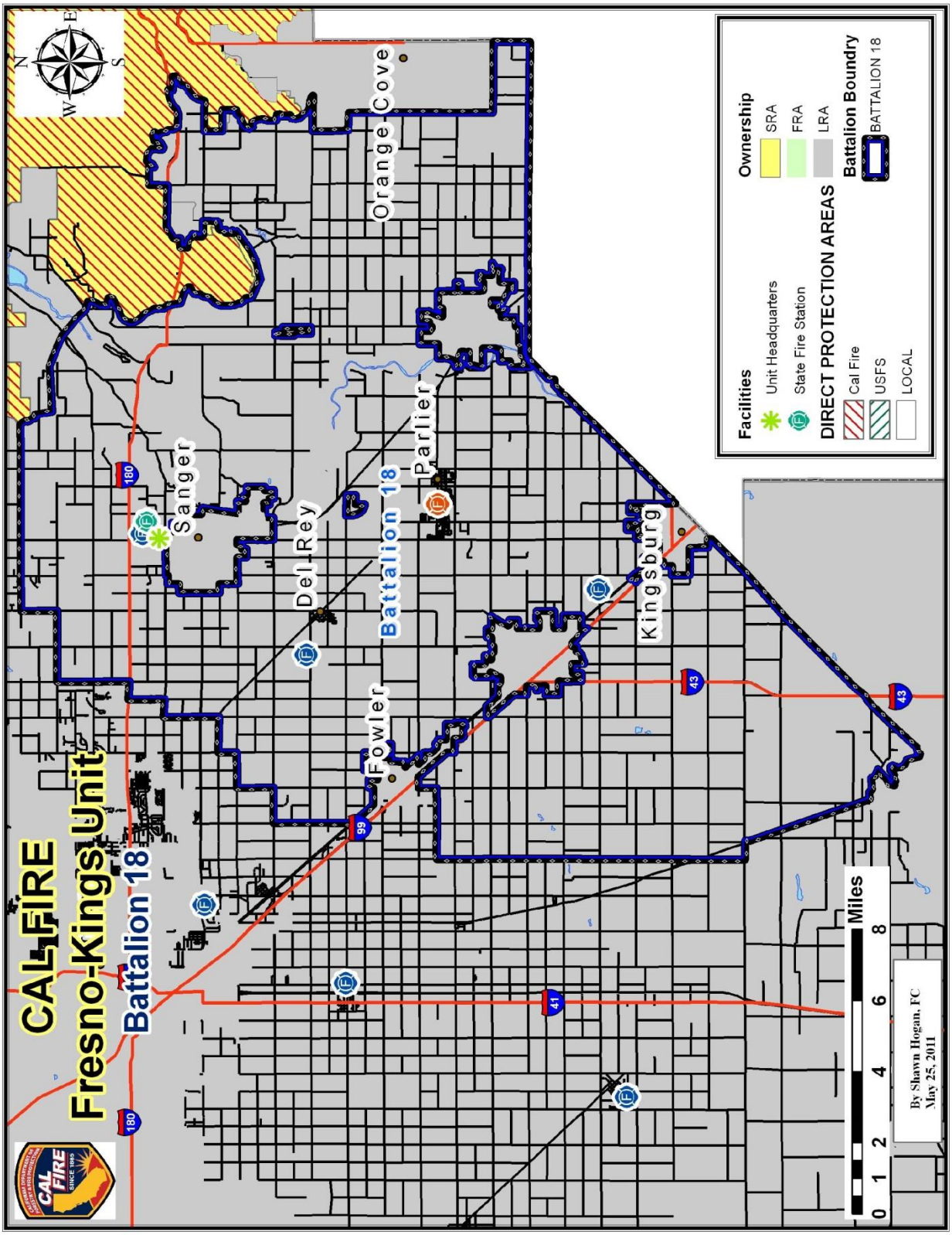
By Shawn Hogan, FC
May 25, 2011


CAL FIRE
Fresno-Kings Unit
Battalion 18
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Del Rey
Orange Cove
Parlier
Fowler
Kingsburg
Battalion 18
180
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43
Facilities
Unit Headquarters
State Fire Station
DIRECT PROTECTION AREAS
Cal Fire
USFS
LOCAL
Ownership
SRA
FRA
LRA
Battalion Boundry
BATTALION 18
Miles
0 1 2 4 6 8
By Shawn Hogan, FC
May 25, 2011

ANNUAL ACCOMPLISHMENTS REPORTING (2012)

Battalion 11

- Comstock Fuel Break is 90% completed as of spring 2013. Acreage was treated 70% by tractor piling and 30% by Miramonte crews utilizing the Northern Supplemental Hazardous Fuel Treatment grant.
- Maintenance is being performed during the spring and fall on Beal Fire Control Road Fuel Break by the 168 Fire Safe Council utilizing a Proposition 40 Community Assistance Grant administered through CALFIRE.
- Sky Harbor Pre Suppression Line completed.
- Completed 1617 defensible space inspections.
- Completed 136 Fresno County Weed Abatement inspections.
- New Fire Prevention Road signs were installed.

Battalion 12

- Meadow Lakes North Fuel break was completed.
- Completed 2617 defensible space inspections.
- Roadside Fire Prevention signs were updated and refurbished.
- Completed significant work on fuel reduction along Black Mountain Access Road.
- During the Lanes Fire (CAFKU010166) the main fire's edge entered into the Beal Fuel break slowing the head of the fire and allowing resources to stop the forward progression of the fire. Without the Beal Fuel Break, the fire would have likely doubled in size and cost.

Battalion 13

- Completed 2,011 defensible space inspections.
- All pre suppression lines were completed.(Highway 180, Sand Creek and Hills Valley)
- Roadside Fire Prevention signs were updated and refurbished.
- Purchased Fire Control Road signs and installation is ongoing.
- During the Pine Fire (CAFKU006701) utilization of White Deer Fire Control Road for equipment access and as a contingency line. Without the Fire Control Road, it would have been difficult to access the upper end of the fire.

Battalion 14

- Started preliminary work on Coalinga City VMP including maps and CEQA.
- Live Fuel Moisture Sampling continuing in the Los Gatos Canyon area.
- Continuing work on Alcalde VMP including land owner agreement, maps and CEQA.
- All Fire Control Roads were graded.
- Completed 223 defensible space inspections(LE 100) in the SRA.

Battalion 15

- Prevention education is ongoing in the City of Mendota. The battalion continues to send monthly fire prevention/safety messages concurrent with the season in monthly mailers to City residents. The battalion continues to participate in community events within the City promoting fire prevention education and arson reporting.
- Battalion preplans continue to be completed and updated; as this is an annual effort within the battalion.
- Weed abatement continues to be successful as we meet our target areas and dates within the Battalion. The battalion strives to meet the weed abatement goals and objectives through communication and cooperation with the Fire Prevention Bureau. Completed 438 Fresno County weed abatement inspections.
- The battalion continues to successfully completed fire prevention education at schools and school visits to the stations in order to instill prevention education to primary aged students.

Battalion 17

- Identified and mapped all draft hydrants in the battalion. All hydrants have been identified and placed on maps.
- Completed 25 % of the preplans in order as identified by importance:
    1. Schools(concurrent with inspections)
    2. Care or Foster facilities (rest homes)
    3. Any Industrial complexes creating mass evacuations ie; cold storage, bulk hazardous material storage etc.
    4. Industrial businesses with large work forces.
- Completed 850 Fresno County Weed Abatement inspections.

Battalion 18

- Battalion personnel have been busy with preplans and have completed 85% of them.
- Completed 268 Fresno County Weed Abatement inspections.
- The majority of the schools in the Battalion are located in Station 83's response area. Station 83 has been very successful in conducting 95% of the school inspections and providing school programs.
- Kings River Plan was provided to Fresno County Sheriff's Department and Reedley Fire Department.

Prevention

- Created online fireworks application process and standard operating procedure guidelines for annual retail fireworks stands.

ANNUAL ACCOMPLISHMENTS REPORTING (2013)

Fire Planning

The Fresno-Kings Unit has increased the number of projects and information being entered into the CalMapper program. We are continuing the process of gathering GIS data for identifying habitable structures, water sources, evacuation routes, and safety areas with the goal to create pre-fire suppression plans. Battalion Chiefs have assisted California State Parks with the Millerton State Park Fire Suppression Plan and the Bureau of Land Management with the San Joaquin River Drainage Modified Suppression Plan.

Investigations and Enforcement

The Fresno-Kings Prevention Bureau responded to 164 calls for service relating to fire responses with the State Response Area and the Fresno County Fire Protection District. Of those 164 calls, the Prevention Bureau investigated 76 structure fires, 64 vegetation fires, and nine vehicle fires. They also responded to approximately 76 calls for law enforcement, 35 citations issued and four arrests. Of those four arrests, two were fire related. One was an arson case; the arsonist went to trail at the end of 2013 and was convicted of arson to an inhabited dwelling. The other arrest was a warrant arrest while at the scene of a fire.

Fire Prevention Engineering

The Fresno-Kings Unit Public Resources Code 4291 (LE100) Inspection Program continues to make progress; in the number of inspections; and in educating the public on how to maintain their defensible space to improve their chances of surviving an advancing wildfire. The Unit maintained a goal of 5000 inspections for the past several years but in 2013 our numbers dropped slightly due to fire activity throughout the state. Engine Companies conducted 3424 inspections throughout the year with voluntary compliance by homeowners. There were no citations issued to the public for compliance.

More than 125 Public Resource Code 4291 Inspections took place within the Fresno-Kings State Responsibly Area. During those inspections such items as roadway length, fuel modification, maintenance of defensible space, and water tanks were inspected to confirm compliance with the regulations.

The District Protection and Planning Office monitor new construction and works to maintain the safety of the public and their property. The services provided involved the preparation of 159 conditioning letters to the Fresno County Building Department, conducted 100 consultation meetings; our newly developed Senior Inspector position conducted 303 plan reviews; Field Inspectors conducted 530 inspections related to new constructions both residential and commercial projects, underground systems, new business inspections, and retail fireworks stands. Fire Inspectors continue to maintain an aggressive weed abatement program where station personnel conduct the initial inspections of all parcels and any follow up on non-compliant parcels is conducted by this office. The Fire District conducted over 2100 parcel inspections in 2013.

Civil Cost Recovery

The Fresno-Kings Unit cost recovery program recovered $8,605.00 related to fires within the Fresno County Fire Protection District and recovered $1,717.00 for fires in the State Responsibility Area. The causes of these fires were the result of negligence and/or violation of law, therefore a letter of demand was issued to the responsible party for reimbursement.

Education and Information

The Fresno-Kings information and public outreach programs provide the department the ability to educate the public and therefore potentially reduce the ignitions within the unit. The fire education program expended over 2500 hours to prevention and educating the public. These efforts will continue to be proactive in providing information to residents that reside in the wildland urban interface, as well as the communities throughout the County of Fresno. The programs also present homeowners with information on how they may participate as shareholders in Fresno and Kings Counties; through the use of safety messages, community groups, town hall meetings, fire safe councils, social media, and local media outlets. During 2013 social media was pushed to the forefront of the bureau's focus while striving to instantaneously communicate with the people that we serve. 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.

Vegetation Management

The Fresno-Kings Unit conducted a 20 acre Vegetation Management Program burn in the spring; this burn was used for training the returning seasonal firefighters. They trained in water conservation techniques, cutting fire line, and firing techniques. In partnership with local fire safe council's, 195 acres were treated. Those acres were treated to reduce the fuel by manual cutting, mechanical removal, piling, burning, and chipping. Within the California Forest Improvement Program, 224 acres were treated. This focus is to ensure adequate high quality timber supplies, the protection, maintenance, and enhancement of a productive and stable forest resource system for the benefit of present and future generations.

Volunteerism

The Fresno-Kings Volunteers in Prevention program was revitalized in 2013. The Fire Prevention Specialist position was vacant for over two years and during that time the program lost momentum. Our program currently has six volunteers that assist with County Fair, school programs, career days, and other functions designed to educate the public on wildfire safety and fire safety in the home.

05/06/2014

Interim Unit Chief
Mark A. Johnson

Date

ANNUAL ACCOMPLISHMENTS REPORTING (2014)

Fire Planning

The Fresno-Kings Unit continues to increase the number of projects and information being entered into the CalMapper program. We are gathering GIS data for identifying habitable structures, water sources, evacuation routes, and safety areas with the goal to create pre-fire suppression plans. Battalion Chiefs have assisted California State Parks with the Millerton State Park Fire Suppression Plan and the Bureau of Land Management with the San Joaquin River Drainage Modified Suppression Plan.

Investigations and Enforcement

The Fresno-Kings Prevention Bureau responded to 160 calls for service relating to fire responses within the State Response Area and the Fresno County Fire Protection District. Of those 160 calls, the Prevention Bureau investigated 71 structure fires, 48 vegetation fires, and 18 vehicle fires. They also responded to approximately 57 law enforcement related calls, 20 citations issued and ten arrests

Fire Prevention Engineering

The Fresno-Kings Unit Public Resources Code 4291 (LE100) Inspection Program continues to make progress; in the number of inspections; and in educating the public on how to maintain their defensible space. The Unit established a goal of 5000 inspections for the past several years but in 2014 our numbers significantly increased from 2013 due to additional staffing supported by the SRA fee. The total inspections for the Unit in 2014 were 11,019. There were no citations issued to the public for compliance in 2014.

More than 170 Public Resource Code 4290/ County Ordinance 15.60, Inspections took place within the Fresno-Kings State Responsibly Area. During those inspections such items as roadway length, fuel modification, maintenance of defensible space, and water tanks were inspected to confirm compliance with the regulations.

The District Protection and Planning Office reviews, inspects, and approves new construction and works to maintain the safety of the public and their property. The services involved the preparation of 156 conditioning/comment letters to the Fresno County Building Department, conducted 248 consultation meetings; conducted 454 plan reviews; Field Inspectors conducted 779 inspections related to new constructions both residential and commercial projects, underground systems, new business inspections, and retail fireworks stands. Fire Inspectors continue to maintain an aggressive weed abatement program where station personnel conduct the initial inspections of all parcels and any follow up on non-compliant parcels is conducted by this office. The Fire District conducted slightly over 1800 parcel inspections in 2014.

Civil Cost Recovery

During the 2014 calendar year, the Fresno-Kings Unit recovered suppression costs totaling $307,204.82 for fires within the SRA from two cases in 2011 and 2012. The Fresno County Fire Protection District collected a total of $7,714.13. The cause of these fires was the result of negligence and/or violation of law, therefore a letter of demand was issued to the responsible party for costs related to extinguishment and investigation of each fire.

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 the ignitions within the Unit. In 2014, the fire education program expended over 2852 hours to prevention and education of the public at over 130 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 1,217 students from Pre-school – 6th 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 and the Alisa Ann Ruch Burn Foundation and Smokey Bear's Five Rules for Fire Prevention taught in conjunction with the USFS. We have also strengthened our relationship with the Cold Springs Rancheria and the Big Sandy Rancheria. We have attended community meetings and educated their tribal members about the Ready, Set, Go program, smoke detectors, 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; through the use of safety messages, community groups, town hall meetings, fire safe councils, social media, and local media outlets. During 2014 social media continued to expand and be pushed to the forefront of the bureau's focus, 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 www.FresnoCountyFire.org. The Unit has also revitalized and expanded the Public Education Roadway Sign Program. In 2014 the program purchased installation material and 100 signs to be rotated throughout the year. This gives ten sites in the State Response Area and five sites within the Fresno County Fire Protection District responsibility. Each site will have six or seven variations that will rotate on a predetermined basis with relevant safety messages and tips, as well as display our website for more information.

Vegetation Management

The Fresno-Kings Unit conducted a fire fighter returnee academy on a Vegetation Management Program (VMP) site in the local response area at Lost Lake during the spring of 2014. This site is adjacent to State Response Area in Battalion 11. The goal was to burn 20 acres of grass. The training was conducted however; the lack of moisture this year resulted in a fuel bed too sparse to carry fire. No CFIP activity occurred in 2014. Pile burning continued on the Comstock VMP in Battalion 11.

A majority of the piles were burned winter and spring 2015 and will be reported next year. 15 acres of piles were created and burned in 2014 on the Greeley Fire Control Road (FCR) adjacent to the town of Miramonte in Battalion 13. The Greeley FCR project is a unit fuels reduction project compliant under a Notice of Exception that has been treated under several funding sources. The existing 150 acre Comstock VMP was re-written, as it had expired, and approved to include the use of live fire. The Miramonte Camp VMP was approved for 86 acres in Battalion 13. The Southern California Edison VMP (SCE) was approved for 8,200 acres in Battalion 12. In 2015, the Fresno-Kings Unit plans to have the Cressman Road VMP approved for 225 acres in Battalion 12. The unit hopes to make prescribed fire entries on the Alcalde, Lost Lake, Comstock, and SCE VMP projects.

Volunteerism

The Fresno-Kings Volunteers in Prevention program currently has ten volunteers that assist with County Fair, school programs, career days, and other functions designed to educate the public on wildfire safety and fire safety in the home.

Fire Hazard Severity Mapping and Mitigation

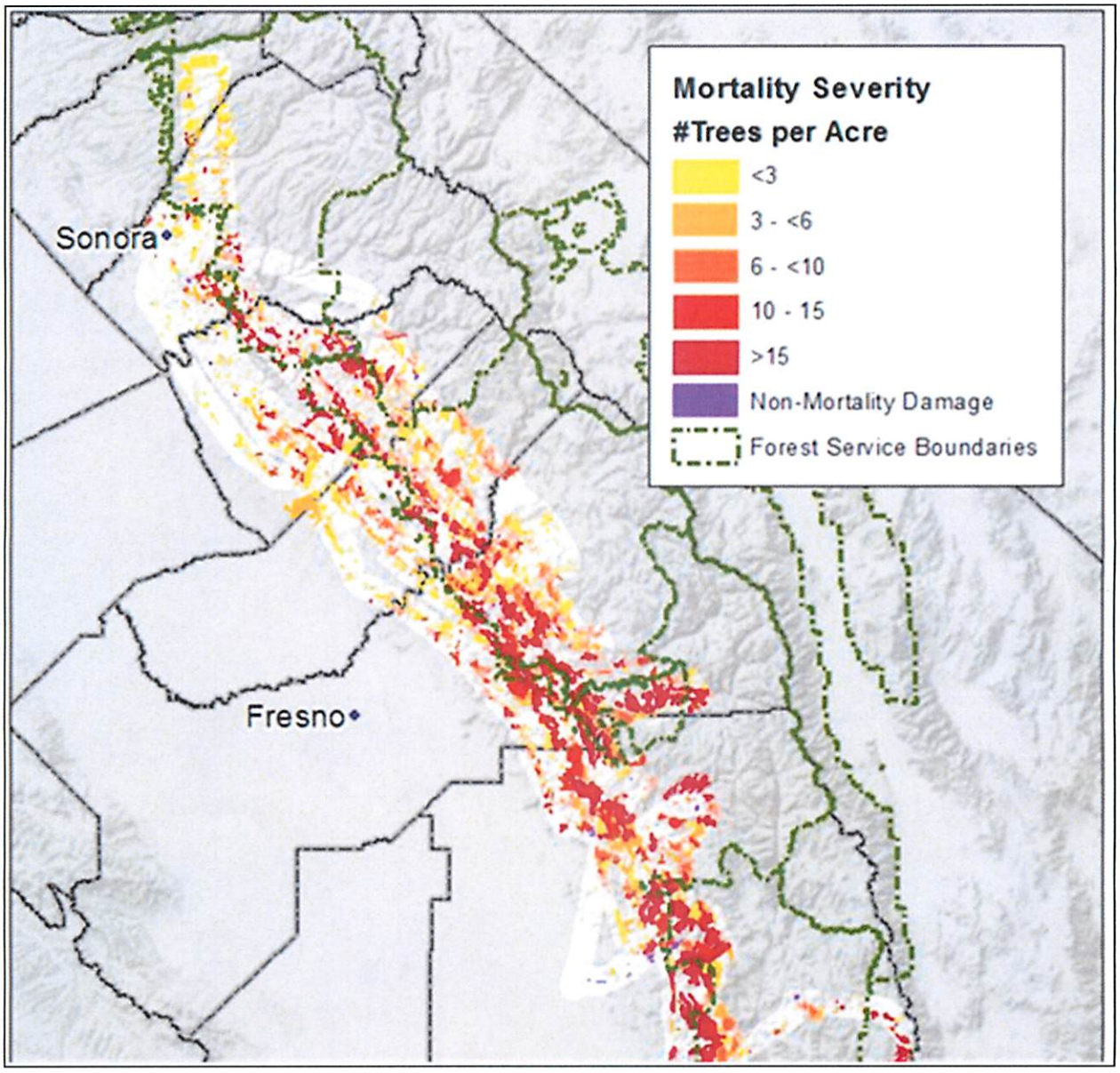
The Fresno-Kings Unit is working with Sacramento CAL FIRE Staff to research and determine feasible solution's to address the forest health and drought issues that are affecting tree mortality. CAL FIRE is currently mapping the tree mortality, collaborating with USFS aerial surveying and CAL FIRE Fire and Resources Assent Program is looking at remote sensing/aerial imagery.

These images show the widespread tree mortality that the Fresno-Kings Unit is facing.

McKenzie Ridge

Blue Canyon

Pine Flat



Overview of flown area and mapped tree mortality and damage

5/01/2015

Unit Chief
Mark A. Johnson

Date