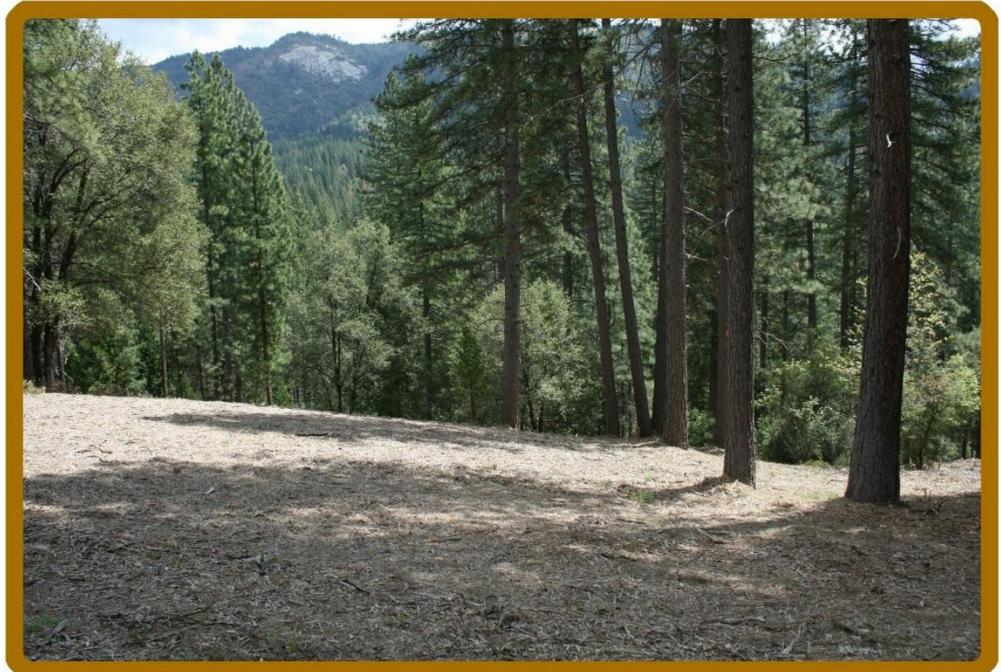
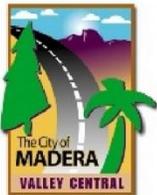




CAL FIRE

Madera-Mariposa-Merced Unit

STRATEGIC FIRE PLAN



MMU - Mission First, Meritorious & Unified

UNIT STRATEGIC FIRE PLAN AMENDMENTS

<u>Date</u>	<u>Section Updated</u>	<u>Page Numbers Updated</u>	<u>Description of Update</u>	<u>Updated By</u>
4/14	Contents Page	ii	2014 Update	P4224
5/14	Signature Page	1	Annual Update	C4200
4/13	Executive Summary	2	Re-Write	C4200
5/13	I	3-6	Re-Write	4200
5/1	II	7-8	Update	P4224
4/13	III	9-10	Re-Write	NK
4/13	IV	11-17	Update	B4220
5/14	V	18-37	Update	All Battalions
4/14	Appendix A	38-42	Update	F4207
4/14	Appendix B	43	Update	C4200
4/13	Appendix C	44-48	Update	JP
4/13	Appendix C-1	49	Update	JP
4/14	Appendix D	50	Update	C4201
4/14	Appendix E	51-54	Update	B4220
4/14	Appendix F	55-56	Update	B4211
4/14	Appendix G	57-60	Update	B4212
4/14	Appendix H	61-63	Update	B4214
4/14	Appendix I	64-66	Update	B4215
4/14	Appendix J	67	Update	B16
4/14	Appendix K	68	Update	B17
4/14	Appendix L	69	Update	B18
4/13	Appendix M	70	None	P4224
4/13	Exhibits: Maps	71-78	None	JP
5/1	Accomplishments	79-81	Re-Write	Various

Table of Contents

<u>Table of Contents</u>	ii
<u>SIGNATURE PAGE</u>	1
<u>EXECUTIVE SUMMARY</u>	2
<u>SECTION I: UNIT OVERVIEW</u>	3
<u>UNIT DESCRIPTION</u>	3
<u>UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES</u>	5
<u>SECTION II: COLLABORATION</u>	7
<u>AGENCIES / FIRE SAFE COUNCILS</u>	7
<u>SECTION III: VALUES</u>	9
<u>A: VALUES</u>	9
<u>B: COMMUNITIES</u>	10
<u>SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES</u>	11
<u>A: FIRE PREVENTION</u>	11
<u>ENGINEERING & STRUCTURE IGNITABILITY</u>	12
<u>INFORMATION AND EDUCATION</u>	13
<u>B. VEGETATION MANAGEMENT</u>	15
<u>SECTION V: PRE- FIRE MANAGEMENT TACTICS</u>	18
<u>DIVISION / BATTALION / PROGRAM PLANS</u>	18
<u>Training Bureau</u>	18
<u>Mount Bullion Camp CC#39</u>	19
<u>Battalion 1: Coulterville Battalion</u>	20
<u>Battalion 2: Mariposa Battalion</u>	24
<u>Battalion 4: Ahwahnee Battalion</u>	26
<u>Battalion 5: Coarsegold Battalion</u>	28
<u>Battalion 13: Madera Valley Battalion</u>	30
<u>Battalion 16: Atwater Battalion</u>	30
<u>Battalion 17: Los Banos Battalion</u>	34
<u>Battalion 18: Merced Battalion</u>	35
<u>Battalion 19: Delhi Battalion</u>	37
<u>APPENDIX A: Pre-Fire Projects</u>	38

<u>APPENDIX B: Unit Goals and Objectives</u>	43
<u>APPENDIX C: History of Fire in MMU</u>	44
<u>APPENDIX C-1: Telegraph Fire – 2008</u>	49
<u>APPENDIX D: Structure Protection/Evacuation</u>	50
<u>APPENDIX E: Battalion 4220</u>	51
<u>APPENDIX F: Battalion 1 Projects</u>	55
<u>APPENDIX G: Battalion 2 Projects</u>	57
<u>APPENDIX H: Battalion 4 Projects</u>	61
<u>APPENDIX I: Battalion 5 Projects</u>	64
<u>APPENDIX J: Battalion 16 Projects</u>	67
<u>APPENDIX K: Battalion 17 Projects</u>	68
<u>APPENDIX L: Battalion 18 Projects</u>	69
<u>APPENDIX M: Mount Bullion Camp CC#39 Projects</u>	70
<u>EXHIBITS: MAPS</u>	71
<u>ACCOMPLISHMENTS</u>	71

SIGNATURE PAGE

Unit Strategic Fire Plan developed for **MADERA-MARIPOSA-MERCED UNIT**:

This Plan:

- Was collaboratively developed. Interested parties, including 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.

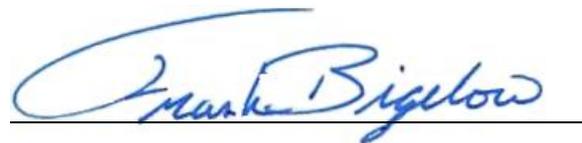


Unit Chief

Nancy B. Koerperich

May 1, 2015

Date



Pre-Fire Engineer

Frank Bigelow

May 1, 2015

Date

EXECUTIVE SUMMARY

The Madera-Mariposa-Merced Unit has written its annual Fire Plan with the intention of establishing goals and priorities that align with **CAL FIRE'S Strategic Plan** and the **California Fire Plan** while identifying goals and priorities specific to the Unit.

The California Fire Plan is the road map for reducing the risk of wildfire. The Madera-Mariposa-Merced Unit's fire plan identifies strategic goals and objectives that target the anticipation and reduction of wildfire within the boundaries of the Unit. For the challenges facing the Unit with excessive tree mortality rates due to bug kill and a fourth year of drought, the Fire Plan will also serve the Unit in determining a plan to address our most dangerous areas and targets of risk within the overall Fire Plan. This fire plan seeks to improve operational effectiveness, scale to budgetary and fiscal circumstances, foster a healthy ecosystem and improve firefighter safety by identifying working projects specific to each Battalion within the Unit. Pre-fire management projects are designed to reduce cost and losses, especially during periods of severe weather. With the use of fire resistant landscaping, mechanical fuels treatment, prescribed fire projects, building construction standards, infrastructure, land use planning, pre-fire safety zones and escape plans the Unit strives to keep what would otherwise be a large, catastrophic fire, to a smaller fire with less intensity, reducing suppression costs and property loss. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative interdependent relationships of wildland fire protection providers, allows for public stakeholders involvement and creates a fiscal framework for policy analysis.

The strategic goals outlined above will be supported by the following objectives:

- Collect, analyze and prepare data to assess communities at risk and in need of fuel reduction or other projects.
- Work with grant writers and stakeholders to secure funds to implement projects.
- Utilize CAL FIRE personnel and resources in conjunction with other public and private efforts to assist with the project work on the ground.
- Educate the public on fire prevention practices that would incorporate fire landscaping and construction to reduce their threat from wildfire along with hazardous fuel reduction projects to keep lives, homes, property and natural resources safe from catastrophic wildfires.
- Teach homeowners the value of removing bug killed and dead and dying trees from the landscape in order to improve the health of the forests and ecosystem, while also improving fire prevention and land clearance methodology.

With these goals and objectives identified, the Fire Plan strives to reduce property loss, damage to our local environment and ecosystems from destructive wildfires, along with a reduction of suppression costs within the Madera-Mariposa-Merced Unit.



Nancy B. Koerperich
Unit Chief
Madera-Mariposa-Merced Unit

SECTION I: UNIT OVERVIEW

UNIT DESCRIPTION

The Unit is comprised of three counties including Madera, Mariposa, and Merced. The Unit is located in Central California between Fresno County to the south and Tuolumne County to the north. The western side of the Unit borders the counties of Santa Clara and San Benito. To the east the Unit borders the Stanislaus National Forest, Sierra National Forest, and Yosemite National Park. Mono County is the next county to the east. The geographic center of the state of California is located within the unit between the communities of North Fork and Italian Bar in Madera County.

The Unit consists of 1,211,000 acres of State Responsibility Area (SRA) lands located on the western slopes of the Sierra Nevada mountain range and the eastern slope of the Diablo mountain range in central California. Major watershed areas significant to the Units fire problem include the San Joaquin River, Merced River, Chowchilla River, the Tuolumne River and associated drainages. These major river drainages dominate the landscape throughout the Unit and are directly related to the location of population, access/egress difficulties, fuel type, fuel loading, fuel continuity, shifting wind patterns and water accessibility all contributing to suppression difficulties and highlighting the fire problem.

Topography varies from steep, rugged mountains and drainages with moderate to heavy vegetative cover to rolling hills of grass and oak woodlands supporting livestock grazing. Fuel loading varies from 2 tons per acre in grass to over 100 tons per acre in timber. Plant species vary by aspect, slope, elevation, and soil type. Annual grasses are found in the lower elevations, with approximately 1,000' vegetation changes to grass and oak woodlands. The introduction of brush intermixing with the grass and oak woodlands occurs between the 1,000' and 2,500' elevation marks. As the elevation approaches 3,000', the brush becomes the more prominent vegetation. As the elevation increases to between 3,000' to 4,500', timber and brush intermix. Above 4500' timber dominates the landscape with mixed conifer.

Madera County

Madera County has a population of 150,000 with a geographic area covering a total area of 2,153.32 square miles. The most populated communities include the cities of Madera, Chowchilla and the community of Oakhurst. Several communities are located in the State Responsibility Area in the mountains to the east, with a significant Wildland Urban Interface threat in the areas of Oakhurst and Bass Lake. The "Chowchilla River Drainage" is a significant fire threat to most of these communities. There are five major highways running through the county including Highways 41, 49, 99, 145, and 152. Highway 41 is the thoroughfare linking the city of Fresno to the "bedroom" community of Oakhurst and Yosemite National Park.

Mariposa County

Mariposa County has a population of 18,000 with a geographic area of 1,462.79 square miles. Mariposa County is known as the "Mother of Counties" and is located at the southern end of California's Mother Lode Region. There are no incorporated cities within the county however there are several communities scattered throughout the county. All the communities are under the influence of either, the Chowchilla, Merced or Tuolumne River drainage regarding threat from fire. A portion of the Sierra National Forest, Stanislaus National Forest and Yosemite National Park are located within the boundaries of Mariposa County. The major thoroughfares within the county are State Highway's 41, 49, 120, 132, and 140.

Merced County

Merced County has a population 255,000 covering an area of 1,971.87 square miles. Much of the county is located within Local Responsibility Area (LRA) lands; however there are pockets of SRA lands. Several thousand acres of range and agricultural ground is located throughout the county's west side, with a great deal surrounding the City of Los Banos. This part of the county is covered mostly in annual grassland however the ground is very steep and access to fires in the SRA can be difficult. The county hosts two nationally protected areas, Merced National Wildlife Refuge and the San Luis National Wildlife Refuge. Both these areas experience an annual fire season. The major thoroughfares within the county are Interstate 5 and State Routes 33, 59, 140, 152, and 165.

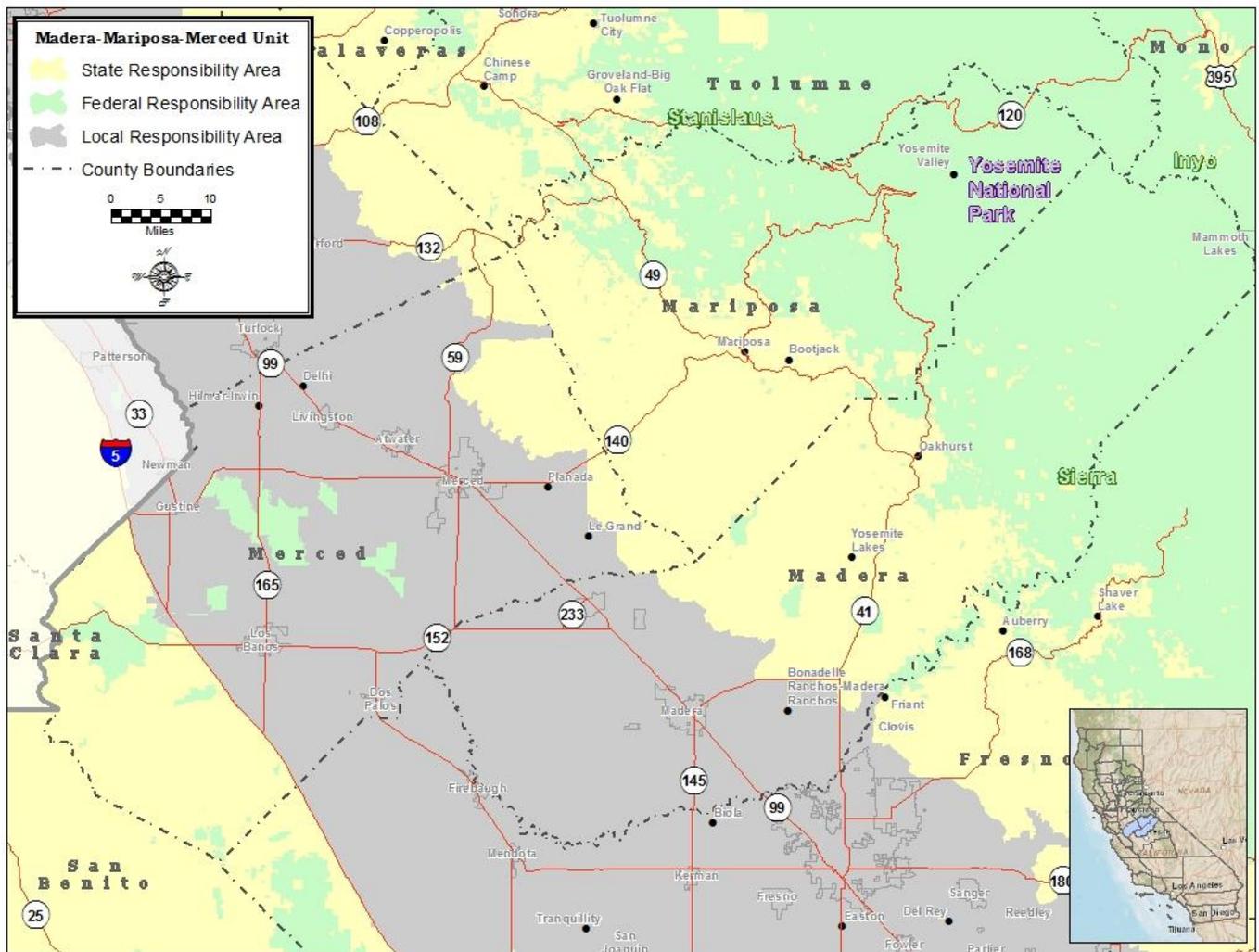
Currently the Unit is in the fourth year of drought, but normally the Unit experiences all four seasons of weather. During the peak fire season, hot and dry weather conditions are present at all elevations. The valley and foothill temperatures average 100 degrees during the day and 65 degrees at night. The

average humidity in the summer months is 15 to 20 percent. As elevations increase within the Unit, temperatures lower and humidity's increase slightly.

There is typically no rainfall from May through mid-October except for occasional thunderstorms. Thunderstorm activity can bring with it the threat of dry lightning and increased fire activity; however, most of the thunderstorm activity occurs in the higher elevations of the Sierra Mountains and typically bring moisture. Rainfall is most prominent during the months of December, January and February with an average annual rainfall of 12 inches for the valley, and between 20 to 45 inches in the higher elevations. Snowfall measurements begin around 3000' and average 7 inches. The drought has caused a significant decrease in rainfall and the snow pack in the Sierras is at 3%. The lack of live fuel moisture will cause added challenges to fire suppression throughout the Unit.

Winds are generally predictable during the fire months. Diurnal surface winds are up canyon during the day and down canyon at night. Prevailing upper level winds are out of the west/northwest. These winds are more intense when they surface at the higher elevations and have a negative impact on fire behavior. It should be noted that western Merced County has its own microclimate with temperatures ranging from 95 to 105 degrees and humidity percentage ranging from the low teens to single digits. The strong northwest afternoon winds that occur from heating of the earth's surface and a strong marine influence bring an increase in humidity and a slight cooling in temperature.

The coastal weather influence, together with periods of extreme fire weather conditions, provides a window for extreme wildland fire behavior in the Unit from late June until measurable rainfall. A history of large and damaging fires have occurred within the Unit during that time of year.



UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

The Madera-Mariposa-Merced Unit has three operational divisions whose boundaries are established by the three county lines. The Unit protects a total area of 3,570,000 acres, and a total population of 284,000 residents. The three divisions include the Mt. Bullion Conservation Camp and eleven Battalions. The key operational preparedness program is the Unit wide "Structure Defense/Evacuation Plan" (see appendix D). Other programs include the Emergency Command Center, Fire Prevention/Law Enforcement, Safety and Risk Management, Training, Resource Management, Volunteers-In-Prevention, Automotive Maintenance and Repair and the many important programs associated with the cooperative fire agreements.

CAL FIRE initial attack resources number 167 full time personnel, 174 seasonal personnel, 250 volunteer personnel assigned within cooperative fire protection agreements, 110 inmate firefighters assigned at Mt. Bullion Conservation Camp and 177 Volunteers In Prevention.

Unit Operational Facilities

State Fire Stations	11
Madera County Fire Stations	18
Merced County Fire Stations	20
Madera City Fire Stations	2
Atwater City Fire Stations	2
Central California Women's Facility Fire Station	1
Mount Bullion Conservation Camp	1

Unit Operational Equipment

State Fire Engines	20
Local Government Fire Engines (under agreement, staffed with CAL FIRE personnel)	53
Rehab Support Units	2
Water Tenders	22
Bulldozers	3
Aerial Ladder Truck	2
Type 1 Rescue Units	2
Rescue Squads	6
Airport Crash Trucks	2
Hazmat Units	2
Mass Decontamination Units (1,500 personnel)	3
Inmate Firefighter Crews	5
Saw Repair Trailer	1

Direct Protection Agreements

- MMU/Sierra National Forest Local Operating Agreement

Cooperative Fire Protection Agreements

- Atwater City Fire Department
- Madera City Fire Department
- Madera County Fire Department
- Merced County Fire Department



Automatic/Mutual Aid Agreements

- Chowchilla City Fire Department
- Dos Palos City Fire Department
- Los Banos City Fire Department
- Fresno City Fire Department
- Fresno County Fire Protection District
- Gustine City Fire Department
- Livingston City Fire Department
- Mariposa County Fire Department
- Mariposa County Public Utility District
- Merced City Fire Department
- Newman City Fire Department
- City of Turlock
- Turlock Rural Fire Protection District
- West Stanislaus County Fire Protection District

Cooperative Fire Agreements for Dispatching

- Atwater City Fire Department
- Dos Palos City Fire Department
- Gustine City Fire Department
- Livingston City Fire Department
- Madera City Fire Department
- Madera County Fire Department
- Mariposa County Fire Department
- Mariposa Public Utility District
- Mercy Ambulance

www.atwater.org

www.ci.chowchilla.ca.us

www.losbanos.org

www.co.fresno.ca.us

www.fresno.gov

www.fresnocountyfire.org

www.cityofgustine.com

www.livingstoncity.com

www.cityofmadera.org

www.madera-county.com

www.mariposacounty.org

www.mariposapud.org

www.co.merced.ca.us

www.mercyambulanceservice.com

www.cityofmerced.org

www.cityofnewman.com

www.ci.turlock.ca.us

www.turlockruralfire.com

www.weststanfire.org

SECTION II: COLLABORATION

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
Mariposa County Fire Safe Council	Executive Director www.mariposafiresafe.net
Eastern Madera County Fire Safe Council	Chairperson www.maderafsc.org
Central Sierra Watershed Committee	Watershed Coordinator www.crcd.org
Yosemite/Sequoia Resource, Conservation & Development Council	Chairperson ysrcandd.org
U.S. Forest Service, Sierra National Forest	FM www.fs.usda.gov/sierra
U.S. Forest Service, Stanislaus National Forest	FMO www.fs.usda.gov/stanislaus
Bureau of Land Management, Mother Lode	Assist Chief www.blm.gov/ca/st/en/fo/folsom.html
U.S. Fish and Wildlife Service	Assist Chief www.fws.gov
Yosemite National Park, National Park Service	Deputy Fire Chief www.nps.gov/yose
National Resource Conservation Service	District Conservationist www.nrcs.usda.gov
California Department Of Forestry and Fire Protection (CAL FIRE)	Unit Chief www.fire.ca.gov
Mariposa Resource Conservation District	Director www.mrcrd.net
Coarsegold Resource Conservation District	Chair www.crcd.org

Madera County Fire Department	Division Chief www.madera-county.com
Madera County Sheriffs Department	Sheriff www.madera-county.com
Merced County Fire Department	Division Chief www.co.merced.ca.us
Mariposa County Fire	Fire Chief Mariposacounty.org
Mariposa County Sheriffs Department	Sheriff mariposacounty.org
Mariposa Public Utility District	Fire Chief www.mariposapud.org
Mariposa County Fire Safe Council	Executive Director www.mariposafiresafe.org
South West Interface SWIFT	Director www.mariposacounty.org

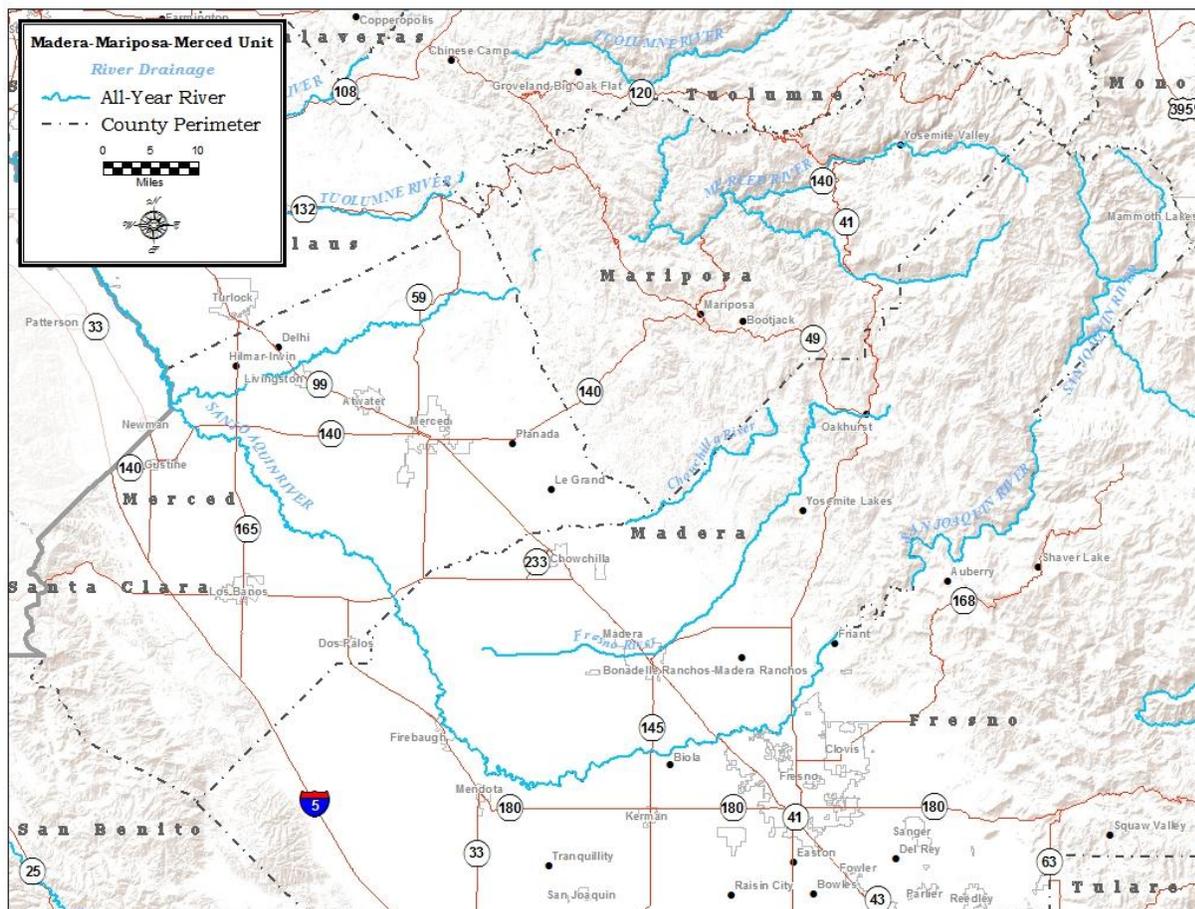
SECTION III: VALUES

A: VALUES

The Madera-Mariposa-Merced Unit is rich in measurable values, including the people and their property, our diverse environment and the many local ecosystems that inhabit our boundaries. When you begin to determine risk, as it relates to values, the threat from fire clearly affects those values at risk. The Unit has determined that values must be prioritized for necessary reporting purposes, but the prioritization does not allow for equality in the fire planning process.

The Unit has engineered its fire plan to include planning to protect and reduce risk to lives and property, timberland, rangeland, agriculture, water, watershed, wildlife and their habitat, cultural, historic and scenic values.

The key to reducing damage to our values at risk from fire, not only includes planning but continuing prevention and education programs in our communities. If prioritization of values at risk includes; how fire is carried, spreads and where the most destruction could occur in a large and damaging fire, that prioritization is the best method to determine if the Unit is placing their time and resources in the highest priority areas for loss. Fire moving out of or into the major river drainages that dominate the Unit's landscape, pose the highest threat to our values at risk.



B: COMMUNITIES**Madera County**

*Ahwahnee	Hidden Valley Estates	Raymond
Arnold Meadow	Indian Lakes	Sierra Highlands
*Bass Lake	Leisure Acres	Sierra Lakes
Bass Lake Annex	Madera	Sky Acres
Bass Lake Heights	Marina View	Sugar Pine
Beasore Meadows	Meadow Springs Ranch	Teaford Meadows
Cascadel Woods	Miami Highlands	Wells/Trabucco
Cedar Valley	*Nipinnawasee	Wishon
Central Camp	*North Fork	Yosemite Forks
Chowchilla	*Oakhurst	*Yosemite Lakes Park
Coarsegold	O'Neals	Sierra Lakes
Goldside	Quartz Mountain	

Mariposa County

Bear Valley	*Fish Camp	*Midpines
Bootjack	*Greeley Hill	*Morman Bar
Bridgeport	Hornitos	Mount Bullion
Catheys Valley	*Hunters Valley	Ponderosa Basin
*Coulterville	*Jerseydale	Yosemite West
Don Pedro	*Lush Meadows	*Yosemite Village
*El Portal	*Mariposa	*Wawona

Merced County

Atwater	Dos Palos	*Gustine
Santa Nella		

* Communities listed as Communities at Risk on the California Fire Alliance website

For more information on Communities at Risk and the California Fire Alliance go to <http://www.cafirealliance.org>

Madera County Community Wildfire Protection Plan:

http://www.madera-county.com/rma/archives/uploads/1221781245_Document_upload_mccwppfinaldocument.pdf

Mariposa County Community Wildfire Protection Plan: <http://www.mariposafiresafe.org>

Yosemite West Homeowners Organization: <http://www.yosemitewest.org/ywcwpp.pdf>

Foresta Community Wildfire Protection Plan: <http://www.wildlandfireassociates.com>

SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES



A: FIRE PREVENTION

Battalion 4220 Program Plan

Currently assigned to the Prevention Bureau are a Battalion Chief, four Fire Captain Specialists, a Fire Prevention Specialist II and an Office Technician. In the Unit there are currently six qualified peace officers. The Unit has three Range Masters and qualification shoots are held monthly.

Following department policy, MMU Prevention staff actively and aggressively investigates fires within the Unit and pursues criminal and civil action against violators of forest and fire laws. The Unit responds to an average of 1,500 fires annually. Of these 1,500 fires an average of 300 wildland fires start in the State Responsibility Areas.

The state legislature has determined that if a person causes a fire through willfulness, negligence, or violation of Law, that person is responsible for their actions and may be liable for the fire suppression costs. Each year the Unit bills hundreds of people for fire suppression costs. Once the investigation is completed and the cost of fire suppression is determined, the Unit works with Region and the Civil Cost Recovery program to identify the responsible person's accountability and begin the process for reimbursement for suppression costs. This is generally done through a "Letter of Demand" which outlines the act of negligence or violation of law that occurred. If the person responsible ignores the demand or denies responsibility, civil litigation is initiated and the matter is settled through the legal process. It is the policy of the Department to actively and aggressively pursue cases in order to recover those costs. The Unit also pursues local civil cost recovery cases for its Cooperative Fire Protection agreements.

The Madera-Mariposa-Merced Unit, over a ten year average, has conducted over 10,000 PRC4291/LE-100 defensible space inspections per year. It also bears noting that in the last 10 years the Unit averaged over 800 hours of public education.

The goal of the Fire Prevention Bureau is to build on past successes while seeking ways to improve upon deficiencies identified throughout the past years. They will continue identifying ways to reduce unwanted wildland fires within our Unit. The Fire Prevention Bureau will maintain relationships with our co-operators such as the Eastern Madera County and Mariposa Fire Safe Councils, South West Interface Team (SWIFT), Madera and Mariposa County Resource Conservation Districts, as well as many other local government and Federal agencies in land use planning and policy decisions. Through training it is a goal of the Bureau to enhance the law enforcement skills of all of its officers. Public contact and perception is important to the Fire Prevention staff and they will continue to seek opportunities to increase the visibility of CAL FIRE.

ENGINEERING & STRUCTURE IGNITABILITY

The Madera County Fire Marshal's Office (Department of Fire Prevention for Development) provides plan review and inspection services to all unincorporated areas of Madera County in order to implement the fire and life safety regulations and building standards established and adopted by the State Fire Marshal and County Board of Supervisors. In addition, the department performs fire and life safety clearance inspections in State Licensed facilities and is charged with annual inspections of schools, motel/hotels, and apartment buildings as well as regular inspections of public assembly buildings and facilities using or storing acutely hazardous materials. The Fire Marshal, works very closely with the Fire Department, and serves as the appointed "County Fire Warden" responsible for ensuring that the regulations stipulated in the California Public Resources Code 4290 are applied to new developments and structures in the SRA of Madera County. <http://www.madera-county.com/firemarshal>

Mariposa County-CAL FIRE Fire Prevention has the responsibility for enforcing Public Resources Code 4290, 4291 and California Fire Code on all use permits, minor use permits, and commercial building permits, lot line adjustments, grading permits, parcel splits, subdivisions, general plan amendments, administrative permits, and rezones countywide. This process is done alongside Mariposa County Building Department and Public Works with Mariposa County Building Department enforcing Chapter 7A of the building code. <http://www.mariposacounty.org> Chapter 7A Building code Link: http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php

Merced County Fire Marshal's Office is a division of the Fire Department. It provides services and support for education, building construction, facilities inspection, daycare inspections, hazard abatement, and Fire Code enforcement. The Fire Marshal provides plan review and performs inspections throughout Merced County in order to implement the fire and life safety regulations and building standards established and adopted by the State Fire Marshal and County Board of Supervisors. <http://www.co.merced.ca.us>

Public Resources Code 4290

These regulations have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in the SRA. The future design and construction of structures, subdivisions, and developments in the SRA shall provide for basic emergency access and perimeter wildfire protection measures as specified in PRC 4290. These measures shall provide for emergency access; signing and building numbering; and vegetation modification. The fire protection standards contained within PRC 4290 shall specify the minimums for such measures.

Click here to view PCR 4290: http://www.fire.ca.gov/fire_prevention/downloads/Title_14.pdf

Public Resources Code 4291

This year the Fire Prevention Fee has funded four Forestry Aide positions used solely for defensible space inspections. The inspectors are able to complete up to 80 inspections a day, greatly improving the number of homes that will be inspected this year. We are hopeful this will become an ongoing program that will be in place for years to come.

To ensure continued maintenance of properties in conformance with the defensible space requirements outlined in PRC 4290 and to assure continued availability, access, and utilization of the defensible space provided during a wildfire, provisions for annual maintenance shall be included in the development plans and/or shall be provided as a condition of the permit, parcel, or map approval. PRC 4291 is the law requiring annual defensible space be provided around all structures in, upon, or adjoining any mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material. Click here to view PCR 4291:

<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=04001-05000&file=4291-4299>

Fire Hazard Severity Zone

Fire Hazard Severity Zones are geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code Sections 51175 through 51189.

The California Code of Regulations, Title 14, section 1280 designates the maps of these geographical areas as "Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California."

INFORMATION AND EDUCATION

The Fire Prevention Specialist II (FPS II) for the Madera-Mariposa-Merced Unit, under the general direction of the Fire Prevention Bureau Chief, has program responsibility for the following:

- School Programs
- Career Day Events
- Fairs
- Exhibits and Displays
- Public Information - News Releases and Interviews
- Juvenile Firesetter Intervention Program Manager
- Juvenile Firesetter Intervention Team Coordinator
- Volunteer In Prevention Coordinator
- Roadside Sign Production
- Parades
- Public Information Officer
- Public Presentations
- Develop Corporate Sponsorships
- Smokey Bear - Fire Safety Programs
- Sparky the Fire Dog- Fire and Life Safety Programs
- Smokey Bear 10K Race
- Order, stock, store, and disseminate fire prevention and public safety materials and supplies
- Develop/create, purchase, stock, and utilize fire and life safety displays
- Vehicle care and maintenance
- Management of Assigned Budget

SCHOOL PROGRAMS

School Programs consist of various portions and/or options including "Team Teaching", "Flannel Board", "9-1-1", "Stop/Drop and Roll", "EDITH and DAN", "Poster Contests", "Friendly Firefighter", "7th and 8th Grade Presentation" and "Station Tours" to be utilized for the proper audience. A minimum of 25 schools are visited by the FPS II and Volunteers In Prevention (VIPs) each year with a total of 1600 to 1800 children in Madera and Mariposa Counties.

Team Teaching is a highly professional program developed by teachers, CAL FIRE personnel, and child psychologists. Team Teaching targets preschool through second grade and the program utilizes Smokey Bear, an internationally recognized fire prevention symbol to teach children not to play with matches, lighters, or fire. Historically the program has been presented to school children in cooperation with local government and/or county fire departments, Fire Safe Councils, and the United States Forest Service.

The Flannel Board Program is designed specifically for preschool children but it can be used for kindergarten also. This program has been met with great success by many teachers. The flannel board is the story of Smokey Bear and a family that drove to the wildland to enjoy the day. The "Don't play with matches, lighters, or fire" theme is introduced to the students and they are told what to do with them if they find them. Each class is tailored to the students to ensure the ability to understand and absorb the information. If possible, personnel from a nearby engine company will don their personal safety gear to show the children what they could expect to see if they were to come into contact with a firefighter. At the end of the program, Smokey is pleased to accept them in his club as "Smokey's Helpers". .

Kindergarten through second grade is the target audience for Team Teaching. This program takes 35 minutes to present per classroom. Team members play Smokey, his helper and are responsible for presenting fire safety messages to the students. They assist with materials; demonstrating and assisting with stop, drop and roll; friendly firefighter; 9-1-1; smoke detector training; and EDITH and DAN information, etc. The program presentation is complete when the class receives a visit from Smokey Bear.

7th and 8th Grade Presentations are given during an assembly at school by the FPS II. The focus is Juvenile Fire setting behaviors and is presented with an Introduction, Icebreaker questions, and the; who, what, when, where and why juveniles set fires. The discussion also includes who becomes involved when a fire is set, and the consequences, economics, and potential reasoning behind juvenile fire setters. A discussion of how juvenile fire setting can be prevented in the community generally leads to a discussion on parenting and bullying issues. This program is provided to 11 elementary schools in Madera and Mariposa counties.

The FPS II also assists in the training of Unit personnel in public fire prevention education programs.

CAREER DAYS

These programs are provided by request only. The FPS II will coordinate, plan, and provide the display and/or presentation materials for the station personnel, appropriate to the age level of the audience, for career day presentations. The FPS II will also attend the event to provide a table top display, information and job bulletins while organizing the event through the Battalion Chief and Station personnel bringing engines and firefighter staff to assist.

FAIRS

The FPS II plans, coordinates, constructs, staffs and manages the Mariposa and Madera County fairs. They provide support, staff and materials for the Los Banos Fair and the Merced County Fair. They are the responsible party for contract agreements, display location, display theme, duration, staff, set up and removal of displays for Mariposa and Madera County Fair. Battalion Chiefs, station personnel, and VIPs assist with having engines and staffing available.

EXHIBITS AND DISPLAYS

The FPS II responds to requests to provide exhibits and displays. They determine the theme, recruit VIPs to assist with staffing, and notify the Battalion Chief and Station personnel of the request. They also construct displays and exhibits together for Fire Prevention Week; Station Open House; Poster Contests; Wildfire Awareness Week; Mt. Heritage Days; Town Hall Meetings; Fairs; Fire Safe Council events; and other community requests. The FPS II oversees and ensures consistency in fire prevention, education, information and the dissemination of forest and fire laws information in the Unit's exhibits and displays.

PUBLIC INFORMATION

Under the direction of the Unit Prevention Bureau Chief or Incident Commander, the FPS II functions as a Public Information Officer for the Unit, to provide information regarding events of public interest, public safety, evacuations conditions, and emergency response situations, etc. by issuing Public Service Announcements, news releases, media briefings, television, radio and print interviews, verbal and other written communication. The FPS II preplans the public service announcements; writes and reviews news releases, and prepares articles for newsletters with the approval of the Unit Chief. They provide, conduct, or arrange for appropriate CAL FIRE personnel to provide live and pre-recorded radio and TV interviews according to departmental guidelines and procedures in the format prescribed by the Communications Section of CAL FIRE. The FPS II ensures that accurate information is expended to the media and works with local PIOs to assist in dissemination of information and works to create and maintain good relationships with the media, the public, and other agencies to ensure adequate distribution of accurate information to the public. The FPS II writes articles or reports for various publications (Departmental or otherwise) to advertise or inform the public, the Department or other agencies of activities, issues or other pertinent information. They distribute news releases to the media and elected officials on various topics such as information relating to an arson arrest, media event, and preparedness levels.

JUVENILE FIRESETTER INTERVENTION SPECIALIST

Under the direction of the Fire Prevention Bureau Chief, the FPS II is responsible for developing and maintaining the Unit's Juvenile Firesetter Intervention Program (JFS). They coordinate the program for the Unit and compile materials, videos, and programs to educate potential juvenile fire setters on the dangers of playing with fire. They respond to requests for intervention interviews assessments from the Madera, Mariposa and Merced County Sheriff's Office, the Madera, Mariposa and Merced County Probation Office, local school administrators, concerned parents and referrals from station personnel and/or Fire Prevention Bureau Staff.

VIP COORDINATOR

The Volunteers-In-Prevention (VIP) of the California Department of Forestry and Fire Protection (CAL FIRE) is an efficient fire prevention and loss reduction education force for California. Each year wildfires burn thousands of acres of California's watershed, timber, and grasslands. As a result, millions of dollars in damage are done to the environment, homes are destroyed, and lives are threatened and sometimes lost. With 95 percent of the wildland fires CAL FIRE responds to each year being the product of negligence, fire prevention and public life safety education are the keys to reducing losses from fires in California.

The VIP program is a vital part of providing this service to the Madera-Mariposa-Merced Unit. The following is a list of activities that VIPs are asked to provide support.

- Fire and Life Safety Education Programs
- Public Information Education.
- LE 100 Inspection Program under PRC 4291
- Red Flag, Holiday, and Arson Patrols
- Communications

The FPS II coordinates and manages the Unit's VIP program; including the recruitment and training of VIPs, identification and tracking of the Units VIP activities, and maintenance of the Unit's VIP database. The VIPs also assist with the process of first and second home clearance inspections in the LE-100 program. The VIPs receive annual LE 100 training if they wish to participate.

ADDITIONAL FIRE PREVENTION SPECIALIST PROGRAMS

The FPS II is responsible for many other education and information programs throughout the Unit including; road sign fire prevention signs, fire prevention poster contests in the schools, public presentations, participation in parades and our extensive Smokey Bear and Sparky the Fire Dog educational programs.

In order to help facilitate our participation in all of these programs, we work with many corporate and local business partners for sponsorship in the programs and purchase of materials. Our generous sponsors include Sierra Telephone and the Sierra Star newspaper, and we work very closely with Pacific Gas and Electric, Smokey Bear Race Committee, Home Depot, Mariposa Feed Store, ABC Channel 30 Television, Intermountain Nursery, Western Sierra Nursery, Chukchansi Resort and Casino and ACE Hardware.

B. VEGETATION MANAGEMENT

For the 2014-2015 Fiscal Year (FY), Resource Management in MMU consists of administration and enforcement of Forest Practice Act, administration of California Forest Improvement Program (CFIP), SRA grant funded projects, Green House Gas Grant Funded Projects, VMP planning California Environmental Quality Act (CEQA) compliance for unit projects and general service forestry.

The Forest Practice Act and Forest Practice Rules govern the harvest of timber from private lands in California. The Rules require a landowner who harvests timber for commercial purposes (i.e. you sell, barter or trade logs or milled lumber to another party) to submit an exemption notice or timber harvesting plan document with the California Department of Forestry and Fire Protection (CAL FIRE). Some of the notices or plans may require the services of a Registered Professional Forester. Listed below are the most common documents required by the state, and the conditions under which each is appropriate.

Less than 3 acre Conversion Exemption

- This conversion exemption is to harvest trees while doing a one-time conversion to a non-timber growing use (i.e. orchard, house site, pasture.) on parcels less than 3 acres. The conversion requires that 100% of the slash be removed. These strict slash removal requirements were designed to minimize fuels in and around residences.

Emergency Notice of Operations

- This emergency allows for the harvest of dead and dying trees to capture fire salvage and insect- and disease-killed trees.

Fuel Hazard Reduction Emergency

- This emergency, adopted in 2004, allows for the immediate harvest of trees where high, very high or extreme fuel hazard conditions and the combination combustible fuel quantity, type, condition, configuration and terrain positioning, pose a significant fire threat on private timberlands. Cutting and removal of hazardous fuels, including trees, shrubs and other woody material, is needed to eliminate the vertical and horizontal continuity of understory fuels and surface fuels for the purpose of reducing the rate of fire spread, fire duration and intensity, fuel ignitability and to achieve a flame length under average severe fire weather conditions that is less than 4 feet in the treated areas.

Christmas tree, dead dying, or diseased fuel wood or split wood products exemption.

- This exemption allows for the immediate harvest of dead, dying or diseased trees of any size, fuel wood or split wood products, in amounts less than 10% of the average volume per acre.

Fire Safe Exemption

- This exemption allows for the removal of ladder fuels and thinning of trees within 150 feet of a permitted structure. All slash is to be treated within 45 days. This activity is encouraged to further the intent of Public Resources Code (PRC) 4290.

Modified Timber Harvest Plan

- This plan allows for the harvest of trees on an ownership of 100 acres or less.

Timber Harvest Plan (THP)

- This plan addresses the harvest of timber on more than 3 acres and is beyond the scope of a modified THP. An approved THP acts as the functional equivalent of an Environmental Impact Report as required by the California Environmental Quality Act (CEQA).

Non-industrial Timber Management Plan (NTMP)

- The long-term timber harvest plan has no termination date and is designed to be utilized by a timberland owner with less than 2,500 acres.

Projects for 2014-2015

For the 2014-2015 FY, approximately 58 resource management projects are proposed in the unit due to a significant increase in dead and dying trees that have occurred in Madera and Mariposa counties.

- Removal of Dead and Dying trees in public nonfederal lands and along state and county road right of ways in SRA.
- Emergency exemptions for fire damaged trees and dead trees within Mariposa and Madera counties.
- Road Brushing along Madera and Mariposa County road right of ways within SRA.
- VMP's in Mariposa and Madera counties.
- Fire prevention projects as funded by the SRA fee and the Green House Gas Fuel Reduction fund within Madera and Mariposa counties.

California Forest Improvement Project (CFIP)

- MMU has ongoing CFIP projects. As funding becomes available these projects will become active.

California Environmental Quality Act (CEQA) Compliance

- The unit seeks 100% CEQA compliance on all projects. Some of the unit's projects requiring CEQA documentation include; fuel reduction projects along identified fuel breaks and road side areas to decrease fire potential in Madera, Mariposa and Merced counties.

Service Forestry and Urban Forestry

- The Unit Forester provides forestry advice upon request to private landowners. This advice includes, but is not limited to recommendations for fuel management and fire safe activities that can be applied to residences. Often times, service forestry calls are related to bark beetle activity in pine trees. Due to the recent concerns with drought and additional bug-killed trees, the Unit Forester has provided written materials for education purposes and encouraged landowners to immediately remove the dead and dying trees and treat the slash as appropriate. Several drought and tree mortality presentations, are planned for local communities, Board of Supervisor and Town Hall meetings.

Unit Vegetation Management Program

- MMU has one pending VMP. It is in the final review stage. For this project to be approved: a new RM-9 needs to be signed, the Confidential Archeology Addendum needs to be included into the project file and the burn prescription needs to be updated. There are 3 VMP's currently being proposed for 2014-2015.

SECTION V: PRE- FIRE MANAGEMENT TACTICS

DIVISION / BATTALION / PROGRAM PLANS

Training Bureau

Battalion Overview

The Madera Mariposa Merced Training Bureau is responsible for training 350 CAL FIRE career firefighting personnel and 250 Madera and Merced County's paid call firefighters. The training provided serves to educate firefighters from their first day on the job for the extent of their career. Additionally the Training Bureau is responsible for identifying the Unit's training needs. This includes CAL FIRE training; federal, state and OSHA mandates; and other fire-related service training. The training is accomplished through various methods: formalized classes at the CAL FIRE academy in Lone, multi-company drills, exercises of the Joint Apprentice Committee program, Firefighter I Returnee academies, HFEO proficiency training, Spring Training Preparedness exercises, and Continuing Professional Training courses.

Training is divided into 3 operational areas – Madera, Mariposa, and Merced:

- Madera training is overseen by an administrative battalion chief assigned to the Madera Division and the volunteers/paid call firefighters receive monthly training from the career firefighting personnel throughout the division.
- Mariposa is the training headquarters for the Unit and is located within the Mariposa Division, staffed by a battalion chief and an office technician. Mariposa tracks all of the training records and schedules yearly training for career staff. Additionally they are responsible for the returnee firefighter academies, spring preparedness exercise, and Continuing Professional Training courses for all state personnel. .
- Merced training is conducted at Merced County Station 62, which is facilitated by a fire captain. Merced training hosts its own academy for new paid call firefighters and provides Continuing Professional Training courses for career staff within Merced County.

Goals & Objectives Statement

The Training Bureau has set several goals to improve firefighting operation efficiency and safety for the Unit.

- Provide educational courses (Continuing Professional Training courses) as appropriate to meet recertification needs and reviews expiration dates to schedule division CPTs accordingly.
- Improve employee performance in their current position through non-mandated, job enhancement training (We provide as many additional classes through our Unit as needed and as possible each year.)
- Produce a training calendar prior to the start of each year, and send it out to the Unit quarterly.
- Ensure that Training Requests have been submitted prior to October 1st of each year.
- Have the Unit's training needs assessment completed prior to February 1st of each year per the Needs Assessment Process as cited in CAL FIRE Handbook 4022
- Review the minimum Incident Command System (ICS) Qualifications Matrix (7700 Handbook) yearly and compare it to the Emergency Response Directory (ERD), to identify any lack of ICS qualified personnel within the Unit.
- Have training prepared for Amador Firefighters; usually takes place the second week of February. Approximately 10 employees are hired.
- Prepare training and preparation of spring transition for the first Firefighter hiring. This usually takes place mid-May and provides training for approximately 25 returning firefighters.
- Prepare training and preparation of second Firefighter hiring. This will bring the Unit to peak staffing levels around mid-June, training approximately 35 additional firefighters.
- Plan Spring Preparedness Exercise. All Schedule "B" engines and personnel participate in a skills and physical fitness evaluation. Usually takes place in June.
- Assist with 4036 training as needed
- Work with individual employees to develop individual training plans.
- Maintain and facilitate the Record Retention Plan of the employees through Target Solutions)
- Identify Unit classes and develop cadres

Mount Bullion Camp CC#39

Overview

Mount Bullion Camp opened as a California Youth Authority fire camp in 1958. In October of 2004 Mount Bullion was converted to an Adult Conservation Camp. Many modifications were made to existing structures to accommodate the one hundred and ten (110) inmate capacity population. Mt. Bullion's fire protection responsibilities fall within the CAL FIRE MMU Unit, which includes Mariposa, Merced and Madera Counties. CAL FIRE and the Department of Corrections and Rehabilitation have an excellent working relationship and have a lot of pride in the camp. They meet twice a week for an open discussion on safety and other issues concerning the smooth operation of the camp.

Inmate Programs

The Hobby Program runs at capacity with eighteen inmates involved. Our educational programs consist of the GED Program, Inmate sponsored Small Business Class, and Coastline Community College courses. We have an ongoing inmate sponsored Small Business Class designed to help inmates start their own business when they reach parole. This class is conducted two to three times a year. We have Coastline Community College courses with a variety of classes offered. College classes are usually offered in the fall and spring semesters.



Battalion 1: Coulterville Battalion

Battalion Overview

Located in the northeast corner of the Madera- Mariposa- Merced Unit, encompassing 274,462 acres and 426 square miles lays the Coulterville Battalion containing a diverse amount of topography and vegetation. The western half of the battalion is range land with light flashy fuels in rolling hills. Once you progress in elevations you notice the changing topography from rolling hills to steeper slopes and canyons in oak woodland. As you travel above the 2,500' elevation you see the transition from oak woodland to major river drainage topography and fuel. The northern Highway 49 corridor drops into and out of the Merced River Drainage. The fuel transitions into the brush model of chamise, white thorn, and manzanita. As you move eastward to the USFS/CAL FIRE DPA line, the fuel transitions into timber. The battalion has several thousand acres of BLM and a great relationship has been established with their personnel. To the east the battalion is bordered by the Stanislaus National Forest. To the west SRA runs into Merced and Tuolumne counties. TCU borders the battalion to the north. Several communities are based in the battalion and are mostly developed along state highways and county roads. State Highway 140 runs east to west and intersects the community of Catheys Valley. State Highway 49 runs north and south and intersects the communities of Bear Valley and Coulterville. County road J132 intersects the communities of Don Pedro, Coulterville, and Greely Hill. Hornitos Road is a county road that connects Hwy 140 into Road J132. This road intersects the community of Hornitos and runs into Merced county and Tuolumne county. While these communities are fairly spread out due to restrictions on land division, there are pockets of subdivisions that create a Wildland Urban Interface challenge. Whispering Oaks and Whispering Oaks West, in Catheys Valley, is a 640 acre development of high end homes while the Don Pedro subdivision is a 4,500 which is split between Mariposa and Tuolumne counties. Historic assets include the Jeffries Hotel in Coulterville, the Trabucco house and General store of Bear Valley, and the Catholic Church and Manuela's in Hornitos. Interspersed throughout the varied topography and vegetation you will find large cattle ranches, federal forest, parks, and recreation areas and vineyards.

Weather patterns in Battalion 1, during declared fire season, consist mostly of diurnal winds that combine with topography to create a predictable north-northwest (NNW) air flow mass. Spring and fall weather patterns are affected by approaching low pressure systems that generally have a southerly flow. When a high pressure establishes itself over California, dry, warm air from the NNW occurs. Late spring and early fall weather changes between low and high pressure. Such changes drastically increase winds in the western side of the battalion and you can see a spread component index of up to 200.

Fire history in the battalion includes some of the largest fires in the Madera Mariposa Merced Unit: the Hunter Fire of 2000, the Creek Fire of 2001, and the Telegraph Fire of 2008. The potential lies in the fuel and topography of the Merced River drainage. This is major river drainage firefighting found throughout the California foothills. Fires in this country have the time, fuel, and topography to establish themselves due to poor access for suppression resources.

Catheys Valley and Hornitos completed LE-100 inspections in their Primary Response Area (PRA), while Coulterville completed their entire target area of Don Pedro. One reason for this success was the inception of the LE-100 mailers. This program jumpstarts the inspection process and, when inspectors are properly trained, it helps the private property owners get started or complete their defensible space.

In conjunction with the Unit's prevention staff to provide a quality school program, Catheys Valley FFS judged and hosted the competition for the best home fire prevention plan. The winners from each class came to the station and were fed hotdogs cooked by the firefighters. Catheys Valley personnel also attended the Fall Festival where Fire Prevention for Kids is the main message.

Goals and Objectives Statement

The goal of the Battalion Prevention Plan is to prevent unwanted wildfire within the battalion boundaries. With dedicated and committed battalion employees, Prevention Bureau Staff, and Pre-Suppression Staff, this prevention plan will be the leading document that supports our Unit Fire Plan and a model for the protection and safety of the citizens of Battalion 1 and the communities it serves.

Accomplish the objectives

- Designate personnel to provide winter time support for ongoing fuels treatment projects being conducted within the battalion.
- Educate the community within the battalion on proper fire hazard reduction through face-to-face contact during annual LE-100 inspections.
- Develop literature, flyers and/or maps to educate the public on wildfire awareness and evacuations.
- Participate with local stakeholders in annual community public education events.
- Provide monthly statistics to fire prevention on activities.
- Provide assistance/information to local Fire Safe Councils and evaluate current statuses of Fuel Breaks as well as continue to plan for future maintenance and future fuel projects.

Measurement

The methods used to accomplish our goal will consist of public education, prescribed fire projects, mechanical fuel reduction and modification, range improvement, fire road maintenance and always an aggressive LE-100 inspection program. The fire station managers will again be the catalyst to carry forth and complete many of the programs. Fire Prevention and Pre-Fire Suppression staff will again be called upon to assist in this year's program.

Information & Education

School Programs

Through the Unit Prevention Bureau, Battalion 1 personnel prepare and present programs to school children, assist school teachers and administrators, either in or out of classroom, and prepare or present fire prevention or conservation education subjects and materials, with emphasis on K-2 students that reside in State Responsibility Area (SRA) lands.

Battalion 1 school programs consist of a coordinated effort between cooperating fire agencies known as "Team Teaching". This allows a great opportunity and potential for stimulating interest in wildfire prevention. The classroom atmosphere makes an ideal place to acquaint children with fire prevention responsibility and form fire-safe attitudes in children.

Fire Prevention Signs

In 2009 the Fire Prevention Bureau developed new prevention signs for roadways throughout the Unit. In 2010 a complete revitalization and addition of new prevention frames for the signs went into effect in Battalion 1. A new prevention sign was added to the intersection of Greely Hill Road and Ernst Road and a new prevention sign is being installed on the Reddington Ranch on the south side of Highway 140. The new prevention signs are rotated based on the Fire Prevention Bureau rotational schedule. Station managers have been diligent in maintaining that rotation. Currently there are 5 Fire Prevention signs in Battalion 1.

- **Catheys Valley**
In cooperation with Company 23 of the Mariposa County Volunteer Fire Department, one prevention sign is located on the south side of Hwy 140 at McCay Community Park.
With appreciated cooperation from the Reddington Ranch, one prevention sign has been installed on the south side of Hwy 140 near the entrance to the ranch.
- **Hornitos**
Current sign is located on the southwest corner of CAL FIRE property at the Hornitos FFS and is visible from Bear Valley Rd., Hornitos area along Bear Valley Road, east of the town of Hornitos.
- **Coulterville**
One sign is located on the southwest corner of CAL FIRE property at the Coulterville FFS and is visible from Hwy 49.
Second sign is located at the intersection of Greely Hill Road and Ernst Rd.
Third sign will be added to a Don Pedro site.

Public Events

All on-duty company officers in Battalion 1 will attend public events in the local community they serve. This participation creates an environment that builds trust and friendship between CAL FIRE employees and the residents of the community. A professional, polite, and friendly attitude will be maintained at these events and fire prevention message is encouraged. If a station is invited to a public event that is not listed, it will be the responsibility of the company officer to decide if attending will have an impact on station management. The following events are attended each year by our on-duty personnel.

- **Coulterville**
 - Coyote Howl
 - Greely Hill Breakfast
 - Coulterville Pancake breakfast
 - Ambulance Association Dinner
 - Joaquin Marietta Day
- **Hornitos**
 - Hornitos Enchilada Feed
 - Flea Market
- **Catheys Valley**
 - Agri-nature trail
 - Coyote Springs Buck-n-Bash
 - Coyote Springs Western Carnival
 - Catheys Valley Elementary Fun Day

Media

Media contact for Battalion 1 has traditionally been through the Unit's Prevention Bureau in the form of a press release or a direct phone call from the Mariposa Division Chief to the editor of the Mariposa Gazette in the event of a specialized training activity. Burn permits are required on May 1st of every year (PRC 4423 (b)). The on-duty Battalion Chief, with approval from the Mariposa Division Chief, may restrict burning hours, burning elevations, and burn pile sizes based on fire weather, fuel conditions, and predicted weather based on fire weather reports from the National Weather Service. These changes are approved through Unit Management and communicated to the public through contact with media outlets determined by the Unit's Prevention Bureau.

Planning, Engineering & Structure Ignitability

Public Resource Code 4291

The CAL FIRE Prevention Bureau begins the LE-100 process by mailing self- inspection letters to residents in Mariposa County for the initial inspection. They are asked to return the mailers to CAL FIRE headquarters when they had completed all tasks related to making their residence LE-100 compliant. When each of the battalion stations receive the mailer from headquarters, they log the address as completed and compliant. Residents of Mariposa County received these mailers by the first week of June. After the mailers are distributed, the station personnel begin inspections; usually during the month of June, or sooner, based on rainfall and fuel conditions. As a result of the drought we have started these inspections in April the last two years. The inspection process is continued by station personnel reviewing each residential structure with a visual inspection and handing out helpful information to homeowners. This year's inspections are again enhanced with the added benefit of Forestry Aide Defensible Space Inspectors (DSI), funded through the SRA Fee. The Defensible Space Inspectors will also go to each residential structure and visually inspect and hand out helpful information to homeowners.

If a residence is found to be out of compliance, we provide a handwritten LE-100 form to the property owner stating each violation, along with a second inspection date based on the amount of work required to become compliant, and/or fourteen days after first inspection. If the residents were not home during the inspection and were out of compliance with PRC 4291 regulations, the station personnel would mail the LE-100 form to the residence via certified mail to confirm reception of violations.

If during inspections a residence was out of compliance, and the station had received a mailer, the visual inspection would be considered as the second inspection. One copy would be given to home owner, either in person or certified mail, along with a copy to prevention to schedule a third inspection.

Defensible Space Inspectors

The Forestry Aid Inspectors goal is to provide each station with 100% completion of first inspections within their area in order for the station personnel to be able to concentrate on the second inspections.

Tracking of inspections

Each of the three stations assigned to Battalion 1 have different means of tracking residences and compliance of structures. The Coulterville fire station uses a County APN listing to identify each property owner within Don Pedro, Coulterville and Greeley Hill. Along with roads and addresses, they have property owner names and mailing addresses, if the owner is not presently living at the residence. After completing field inspections, the station personnel or DSIs, enter all information into the same form and save it on the computer. Catheys Valley and Hornitos use a mapping system that has all residences and mailing addresses within their Initial Attack area.

Coulterville's three target areas

Coulterville station has three target areas for inspections which consist of: Don Pedro, Coulterville and Greeley Hill, and combined, have an area of about 180 square mile of area to cover. In the year 2013, Don Pedro was the main target area. In 2014, the main target area will be moved to the Coulterville area, and in 2015 the target area will be Greeley Hill. Each of these three target areas will be 100% completed, rotating every year.

Fire Safe Council

The Fire Safe Council is a non-profit 501c3 program which is funded by grants through the state and federal governments assists CAL FIRE by providing weed abatement assistance to disabled, elderly, or low-income families. Throughout the communities of Coulterville, Greeley Hill, Don Pedro, Hornitos, and Catheys Valley, approximately 120 people have been helped by the Fire Safe Council program removing and clearing property to the LE-100 guidelines. About 50 people have called the Fire Safe Council to have trees trimmed, brush removed, or requested a chipper to mitigate larger fuel piles they have cleared but are unable to dispose of.

Fire Prevention

Reducing Ignition

The purpose of this document is to identify how Battalion 1 educates the public in preventing unwanted fire, how to safely use fire to reduce unwanted fuels in the Wildland Urban Interface, large scale fuel reduction projects, fire road maintenance for access to unpopulated areas, and how unwanted ignitions can be reduced. A majority of ignitions in the Battalion are related to debris burning, equipment use, and vehicles.

The goal of the battalion is to work through the Unit's Prevention Bureau to address strategies that will reduce these unwanted ignitions. Strategies may include public education by working with local merchants who sell weed- and grass-cutting machines. This should include pamphlets located in their stores that address mowing times, conditions, and maintenance, including spark arresters, to insure a fire safe process to reduce residential fuels.

Debris fires that escape control are generally a matter of carelessness on the homeowner's part. Burning permits are issued and the terms of the permit are not only stated on the permit but are reiterated when the public comes to a CAL FIRE station for a permit. Stressing the importance of common sense goes a long way, especially when several unwanted ignitions came from the dumping of fireplace and woodstove ashes. While incinerators (burn barrels) have been banned for almost a decade, there still needs to be a renewed educational process regarding the ban on incinerators.

To reduce unwanted ignitions by vehicles in Battalion 1 an aggressive road corridor hazard reduction treatment needs to happen along the south side of Highway 140 from the Mariposa-Merced County line east to the Lasgoity Ranch. Cooperation from landowners to disk their property adjacent to Hwy 140, from the Mariposa County Health Department, Cal Trans and CHP could make this possible, thereby creating a defensible fuel break which would benefit landowners, reduce the risk of traffic accidents when a significant fire starts along this corridor, and significantly reduce vehicle caused ignitions.

Battalion 2: Mariposa Battalion

Battalion Overview

Battalion 2 stretches through the Eastern portion of Mariposa County's State Responsibility Area (SRA) with State Highway 49 and 140 intersecting in the town of Mariposa. The communities of Mariposa, Bootjack, Lushmeadows, Ponderosa Basin, Midpines, Mount Bullion and Mormon Bar are within this Battalion. The most populated areas are the communities located on the Highway 49 corridor. The areas of Mariposa, Bootjack, Lushmeadows, Midpines and Ponderosa Basin have grown in recent years with new residential construction. This rate of development created numerous areas in the Battalion that have a high potential for rapid fire spread and loss of structures.

Areas in Battalion 2 that have communities at risk include Ponderosa Basin, Lush Meadows, the Woodland area, Bootjack area, Midpines and the town of Mariposa. The influencing factors involve Bug diseased dead conifers, housing density, timber, fire history, range, and fuel hazard ratings. Most of the Unit's large, damaging fires have originated within these areas. The fires that start in these areas immediately threaten high value/high-risk exposures. The historic ignitions are difficult to manage; therefore, the emphasis of efforts will involve fuel management activities and protection of asset exposures.

Goals & Objectives statement

- Support the Mariposa Fire Safe Council on current and future fuel treatment projects and public outreach.
- Coordinate with local government agencies and their equipment to improve access and egress in identified communities.
- Utilize private vendors to accomplish projects when State resources are limited.
- Complete current projects and identify future targets.
- Maintain an aggressive LE-100 program within target areas.
- Support local and Unit fire prevention activities.
- Evaluate, plan and address the Bark Beetle infestation in stands of timber on State, Local and private lands.

Accomplish the objectives

- Designate personnel to provide winter time support for ongoing fuels treatment projects being conducted within the battalion.
- Utilize County Road Department, when applicable, to meet goals and objectives.
- Utilize Private Vendors, when applicable, to meet goals and objectives
- Educate the community within the battalion on proper fire hazard reduction through face-to-face contact during annual LE-100 inspections.
- Develop literature, flyers and/or maps to educate the public on wildfire awareness and evacuations.
- Participate with local stakeholders in annual community public education events.
- Provide monthly statistics to fire prevention on activities.
- Utilize the Unit Forester to prepare CEQA documents and permission to remove stands of timber that is infected. Utilize infected stand removal for training purposes.

Measurement

The methods used to accomplish our goal will consist of public education, prescribed fire projects, mechanical fuel reduction and modification, range improvement, fire road maintenance, and always an aggressive LE-100 inspection program. The fire station managers will again be the catalyst to carry forth and complete many of the programs. In addition to the fire stations, the Defensible Space Inspector program is aiding in the implementation of the LE-100 program. Fire Prevention and Pre-Fire Suppression staff will again be called upon to assist in this year's program.

Information & Education

- Both Mariposa and Usona Stations participated, along with the Unit's Prevention staff and V.I.P.s, in our Team Teaching venture at local schools and special events within the community such as the Mariposa County Fair and the Butterfly Parade.
- TEAM TEACHING: Our Team Teaching was conducted alongside the Fire Prevention Specialist and V.I.P.s. Most of the Team Teaching occurred at local elementary schools and preschools. The events drew participation from the Mariposa Station, Usona Station and the United States Forest Service. The program's message focuses on kids not playing with matches, Stop drop and roll, and Stay low and Stay out.
- Static display: During the Mariposa County Fair, engine crews from the Mariposa Division rotated into the Unit's prevention booth to assist with delivering the message to the public about the need for 100 feet of clearance around all structures as well as public awareness of CAL FIRE's role as an all risk department.

Planning, Engineering & Structure Ignitability

LE-100 Program

The LE-100 Program in Battalion 2 is quite extensive due to the population density that resides in or around the town of Mariposa, along the Highway 49 South corridor toward the Madera County line, and along Highway 49 North toward the Merced River. Due to the sheer number of structures, each response area is divided into three inspection zones. Both Mariposa and Usona Stations conduct inspections within one zone each year, as depicted in the Battalion 2 LE-100 Priority Area map. See attachment.

The Battalion averages 2,700 inspections, yielding an average of 4,700 structures. One address is considered a single inspection, but the inspection site could have multiple structures such as the residence, detached garages, sheds, barns and pump houses. A detailed inspection matrix is included in the LE-100 section of this report.

Inspections were also conducted by the U.S. Forest Service in their Direct Protection Area (DPA) of State land. Attached guidelines illustrate the inspection process for U.S. Forest Service personnel along with the Battalion 2 guidelines.

The LE-100 program continues to bring to light the need for defensible space to the public, specifically in the wake of the 2008 Telegraph Fire, where 30 dwellings and 100 outbuildings were destroyed. The 2014 Hunter Fire where two structures were lost and the community of Hunters Valley was threatened. And the 2014 Bridge Fire that threatened all of Ponderosa Basin which called for mandatory evacuations for the community. A common response from the public during LE-100 inspections was, "After the Telegraph fire, I need to get on this..." with respect to clearing their property.

With the addition of Forestry Aids the Battalion is in a position to expand the LE-100 inspection process to include two zones rather than one.

Fire Prevention

Fire cause analysis – To reduce ignitions within the battalion we are working with the public through education programs to keep them informed on the potential causes of fire and working with our stakeholders to complete, improve, and start shaded fuel break projects. We will also continue to conduct LE-100 inspections in the communities most threatened by wildfire.



Battalion 4: Ahwahnee Battalion

Battalion Overview

Battalion 4 consists of the communities of Oakhurst, Ahwahnee, Nipinnawasee, Raymond and Bass Lake. Smaller communities include Cedar Valley and Sugar Pine. The Oakhurst basin is currently the most densely populated area in MMU. These areas were identified as having significant asset values with medium and high fuel hazard ranks. Fire prevention efforts will emphasize 100' clearance around all structures and fuel management to mitigate the wildfire hazard in the area. As with most of California, Battalion 4 is currently suffering a major drought. The March 21st 2011 snow storm damaged a significant number of trees in the Oakhurst and surrounding areas. The damage primarily affected the large oak trees that were not able to accommodate 14" of snowfall in a few, short hours. Nearly 100% of the properties in the Oakhurst Basin, Ahwahnee and Nipinnawasee communities lost trees in this storm. This storm and the wind events of November 30th 2011 and December 3rd 2011 resulted in a significant 'blow down' of oak and large pine trees and are a continuing cause for concern. With the exception of Oakhurst which has smaller parcels and neighborhoods and around structures and small parcels in the outlying areas most of the dead and down caused by these storms in the open wildland has not been removed.

This dead and down along with the worst drought in recent history triggered the most destructive fire season in Eastern Madera County since the Harlow Fire in 1961. 35 residence and 3 commercial structures were destroyed on the Junction and Courtney Fires. Reports from firefighters on the Junction and Courtney fires clearly showed the dry fuels, and dead and down vegetation, contributed to the long range spotting and overall control issues on both fires. Bug kill trees will be an additional control problem for this fire season. It is estimated that up to 40% of the Ponderosa Pines will be killed by invasive pestilence in the next year. We are already seeing a significant Ponderosa Pine tree die off in February and March that will continue this summer. With the continued drought, dead trees and the available dead fuel loading this Fire Season has the potential to be worse than 2014.

LE-100 inspections have shown that many properties had not cleared their downed trees. The homes which were inspected still show a large fuel loading of downed trees outside the 100' clearance required. Many of these trees have been on the ground since March of 2011. We are currently asking thru media and local Town hall meetings for residents to clear beyond the 100' required if possible.

Goals & Objectives Statement

The goal of the Battalion Prevention Plan is to prevent unwanted wildfire within the battalion boundaries. With dedicated and committed battalion employees, Prevention Bureau staff, Defensible Space Inspectors and Pre-Suppression staff, this prevention plan will be the leading document that supports our Unit Fire Plan and a model for the protection and safety of the citizens of Battalion 4 and the communities it serves.

Communities at risk in Battalion 4 include the areas of Oakhurst, Nipinnawasee, Ahwahnee, Bass Lake and Raymond. The influencing factors involved in identifying fuel reduction projects include: fire history, housing density, fuel hazard, timber values and range. Fire ignitions have traditionally, not been a problem in these areas. 2014 was the exception to the rule with a number of accidental and intentionally set fires (13) in the Oakhurst area. However, these areas are directly threatened by fires starting in the Chowchilla and Fresno River drainages. Past fires that have threatened or in one case destroyed these communities include the Harlow Fire and the Stumpfield Fire. The Harlow Fire devastated the area in 1961. The Stumpfield Fire in 1996 was almost a repeat of the Harlow Fire, but fortunately was stopped in the Chowchilla River drainage by an aggressive firefighting effort.

Accomplish the objectives

Priorities for the Fire Management plan will include

- Support the Eastern Madera County Fire Safe Council (EMCFSC), the Coarsegold Resource Conservation District (CRCD), the North Fork Resource Conservation District and Sierra Nevada Conservancy with current and future fuel management projects
- Facilitate fuel reduction projects that will widen and open up roads that affect ingress and egress for both the public and emergency equipment
- Educate the public on fire safety and hazard reduction
- Continue an aggressive LE-100 inspection program
- Develop literature, flyers and/or maps to educate the public on wildfire awareness and evacuations.
- Support Unit and local fire prevention activities

Measurement

Priorities for Fire Management plan will include:

- Support the Eastern Madera Fire Safe Council, the North Fork Resource Conservation District and Sierra Nevada Conservancy with current and future fuel treatment projects.
- Educate the public on fire safety and hazard reduction.
- Implement an aggressive LE-100 inspection program.
- Support Unit and local fire prevention activities.
- Establish a pre-suppression plan for fire in the Chowchilla and Fresno River Drainages using the MMU Structure Defense and Evacuation Plan model.

Information & Education

- School Programs, Prevention Signs, Public Events, & Media Events.
- Battalion personnel actively participate in Information & Education, School Programs, Public and Media Events. Fire Prevention signs are in place at each facility and in high visibility locations.

Planning, Engineering & Structure Ignitability

- VMP – No VMPs are currently planned in Battalion Four.
- PRC 4209/4291
- VIP/Cooperators/Stakeholders
Fire Safe Council

The Eastern Madera County Fire Safe Council has been very successful in securing grant dollars and following through with well thought out, effective fuel breaks and thinning projects. A strong cooperative relationship exists with the Eastern Madera County Fire Safe Council, Firewise

Community personnel and CAL FIRE. Efforts between the groups and CAL FIRE are coordinated and mutually supportive.

- The North Fork Resource Conservation District and Sierra Nevada Conservancy
A new relationship with this group will assist in securing grant dollars for additional fuel reduction projects in Eastern Madera County.



Battalion 5: Coarsegold Battalion

Battalion Overview

Battalion 5 is located on the south side of Madera County bordering Fresno County to the south, Sierra National Forest to the east, the valley floor of Madera County to the west and Battalion Four to the north. Battalion Five fuel models transition from annual grasslands, oak woodland with annual grass, brush, and conifers. There are 3 lakes provide year round recreational activities - Hensley, Millerton, and Bass Lake. These lakes provide for year around recreational activity and increase the volume of vehicles and tourist to the areas during the summer months.

There are also several main travel routes through Battalion 5, including;-Highway 41, (south entrance to Yosemite) is the main travel route from Fresno to all communities in the Battalion, Road 200 which provides access from Highway 41 to the communities of O'Neals, North Fork and Bass Lake, and Road 400 which provides access to Hensley Lake, Yosemite Lakes Park and Coarsegold. The Chukchansi Gold Resort and Casino is located in the center of the Battalion. These roadways annually have a high number of fires from roadside ignition.

Like other battalion's in the Unit there exists a significant Wildland-Urban Interface problem within the Battalion. There are several large, well-populated subdivisions that are at risk to large catastrophic fires. These areas include Coarsegold, O'Neal's, North Fork, Cascadel Woods, Bass Lake Annex, Yosemite Lakes Park, Quartz Mountain, Indian Lakes and Hidden Lakes Estates.

There are two CAL FIRE stations within the battalion. Coarsegold station staffs one engine during transition times and two engines during peak season staffing. A bulldozer is staffed year round with winter maintenance being done to all Madera Division CAL FIRE equipment. Rancheria station is staffed with one engine year round under an Amador agreement with Madera County. During peak season a second engine is also staffed.

There is one staffed Madera County station in Indian Lakes which is the primary protection to the Chukchansi Casino. The station is staffed with 2 career personnel and Paid Call/Volunteer firefighters who staff a type 2 Engine. There are also Madera County Paid Call/Volunteer stations in North Fork, O'Neals, Yosemite Lakes Park, and Coarsegold which provide rescue squads, Type 3 and Type 2 engines and water tenders.

This being the fourth year of below normal rainfall, a growing number of Conifers and Oaks are showing signs of distress or dying. Either from the stress of the drought and/or bug kill. This is estimated to be between 25 to 40% of the tree population significantly increasing the fire danger and the potential of ember cast and spot fires.

Goals & Objective statement

The goal of the Battalion Prevention Plan is to prevent unwanted wildfires within the Battalion, with dedicated and committed battalion employees, Prevention Bureau staff, and Pre-Suppression staff. This prevention plan will be the leading document that supports our Unit Fire Plan and a model for the protection and safety of the citizens of Battalion 5 and the communities it serves.

Communities at risk in Battalion 5 include the areas of Hidden Lakes Estates, O'Neals, Yosemite Lakes Park, North Fork, Indian Lakes, Meadow Ridge Estates, Coarsegold, Bass Lake Annex, Quartz Mountain, Cascadel Woods and Central Camp. The influencing factors involved in identifying fuel reduction projects include: fire history, housing density, fuel hazard, timber values and range

Accomplish the objectives

Priorities for the Fire Management plan will include

- Support the Eastern Madera County Fire Safe Council (EMCFSC), the Coarsegold Resource Conservation District (CRCD) with current and future fuel management projects
- Facilitate fuel reduction projects that will widen and open up roads that affect ingress and egress for both the public and emergency equipment
- Educate the public on fire safety and hazard reduction
- Continue an aggressive LE-100 inspection program
- Develop literature, flyers and/or maps to educate the public on wildfire awareness and evacuations.
- Support Unit and local fire prevention activities
- Establish pre-suppression plan in the San Joaquin River Drainage using the MMU Structure Defense and Evacuation Plans

Measurement

Designate personnel to provide winter-time support for ongoing fuel management projects being conducted within the Battalion.

Information & Education

Battalion 5 personnel actively participate in Information & Education, School programs, Public and Media Events. They continue to take every opportunity for education by attending all community meetings in each of their areas

Planning, Engineering & Structure Ignitability

The VMP Coordinator gets into contact with landowners who control strategically significant land and coordinates a mutually beneficial brush removal. Additional lands placed under contract are primarily owned by cattle ranchers desiring to convert their brush covered lands to grazing lands. To enhance the effectiveness of this project CAL FIRE burns the resulting piles providing a mutual benefit to the ranchers, in the form of additional/improved grazing land, and the Department, in the form of trained and tested operators. A collateral benefit to CAL FIRE is significant fuels reduction within the training areas which are located primarily in Madera County



Battalion 13: Madera Valley Battalion

Battalion Overview

The Madera Valley Battalion is located in the western half of Madera County. The eastern portion of Battalion 13 meets Battalions 4 & 5 along the Madera Canal, with the northern portion of the battalion bordering the Merced County line and the southern boundary meeting the Fresno County line, which is divided by the San Joaquin River. The State Responsibility Area (SRA) portions of the Battalion are in the southeastern corner. Fuel type is mainly annual grass and the topography is rolling foothills.

The weather pattern in Battalion 13 during the summer months typically is hot and dry and high temperatures range from the 90s to 100s on a regular basis, with monsoonal moisture occasionally causing dry lightning a couple times throughout the summer.

Fire history in Battalion 13's SRA is very limited since the area has limited rural roads with few structures. Fires have been started by lightning and farming equipment usage. There have also been a few fires over the years caused by electrical power distribution.

Goals & Objectives Statement

- Educate the public on fire safety and hazard reduction.
- Implement an aggressive LE-100 inspection program.
- Support Unit and local fire prevention activities.

Accomplish the Objectives

- Educate the ranch owners within the Battalion on proper fire hazard reduction through face-to-face contact during annual LE-100 inspections.
- Develop literature, flyers and/or maps to educate the public on wildfire awareness and evacuations.
- Provide monthly statistics to Fire Prevention on activities.

Measurement

- The LE-100 program covers 100% of the known structures in the Battalion.

Information & Education

Battalion 13 stations participate in numerous community events to promote fire prevention and awareness. Some of these programs are:

- Madera County Fair
- School presentations to K-3 grades

Planning, Engineering, & Structure Ignitability

- Identifying land owners who may be at risk of property loss in the hopes of establishing fuel breaks.
- Work with Pre-Fire Engineering to build an evacuation map for the SRA portions of Battalion 13. It's not in the evacuation plans documentation as of yet.

Fire Prevention

- Conduct LE-100 inspections in the SRA to make sure all residents are in compliance with PRC-4291
- Work with Madera County Weed Abatement to ensure that all residents are following the county weed abatement standards.



Battalion 16: Atwater Battalion

Battalion Overview

Communities within Battalion 16 include the towns of Winton, Cressey, and Snelling. The area around the City of Atwater is within Battalion 16 and includes the McSwain area and Castle Park. The Franklin/Beachwood area makes up the east side of Battalion 16 near the City of Merced. Battalion 16 also has SRA (State Response Area) within its Boundaries near the Town of Snelling and on the eastside of Snelling Highway. The areas around the town of Snelling and Merced Falls have the highest fire risk in the battalion. These areas have a history of significant wildland fires with structures being lost.

Battalion 16 is unique in that it has five fire stations and has three major programs within its jurisdiction. Fire stations are located in the towns of Winton, Cressey, Snelling, Castle and Atwater. Castle Station 62, located at the old Castle Air Force Base houses two important county programs. These two programs are the Aircraft Rescue Fire Fighting Program (ARFF) and the Hazardous Material Team. The ARFF program has been tasked with protection of the new USFS Aircraft agreement with Very Large Air Tankers (VLAT) are stationed at Castle for firefighting in central California. The third major program is the Fire Training Program located at Castle Park.

Goals & Objectives statement

- Support Unit and local fire prevention activities.
- Educate the public on the new fireworks ordinance allowing for the use of Safe and Sane fireworks in the County in order to minimize the fire threat in the unincorporated areas of the County, and areas neighboring the SRA
- Aggressively pursue 100% LE-100 inspection compliance within Battalion 16 SRA areas.
- Place prevention signs throughout Battalion 16 to educate the public on fire safety.
- Support the area with current and future fuel treatment projects.
- Improve access to all SRA areas within Battalion 16 to include the Snelling Highway, La Paloma Road, La Grange Road, the Merced River and Merced Falls Road.
- Network with property owners, Merced Irrigation District, and Pacific Gas & Electric to establish and maintain these fuel breaks.

Accomplish the objectives

- Educate the community within the battalion on proper fire hazard reduction through face to face contact during annual LE-100 inspections.
- Develop literature, flyers and/or maps to educate the public on wildfire awareness and evacuations
- Participate with local stakeholders in annual meetings and community public education events.
- Provide monthly statistics to fire prevention on activities.
- Utilize newly purchased equipment to update and maintain the Weed Abatement program within the county.

Measurement

- Educate the community within the Battalion on proper fire hazard reduction through face-to-face contact during annual LE-100 inspections.
- Participate with local stakeholders in annual meetings and community public education events.
- Provide monthly statistics to fire prevention on activities.

Information & Education

Battalion 16 station personnel, along with Merced County Paid Call Firefighters (PCF's) visited all the local elementary schools and pre-schools. Smokey Bear and Sparky the Fire Dog were both utilized to get the children to grasp fire safe concepts. Smokey Bear color books and other prevention materials were distributed throughout the schools. The events message focused on kids not playing with matches, Stop Drop and Roll, and Stay low and Stay out.

During the Merced County Fair, PCF's from Station 61, Station 63, Station 64, and Station 65 rotated into the prevention booth to assist with delivering a focused message for kids as well as adults focusing on fire safety around the home. Placement and maintenance of smoke detectors and CO2 detectors were emphasized to the public.

Fire Prevention

Conduct annual weed abatement inspections in the LRA. Merced County Roads Dept. sprays/mows the weeds on the roadside shoulders on Snelling Road, Hwy 59, Merced Falls Road, and La Grange Road to prevent roadside starts.

Hazardous Materials Program

- Hosted and Instructed the CSTI Hazardous Materials Assistant Safety Officer Class.
- Completed Pipeline training with Kinder Morgan.
- Completed Area Plan Review training.

Aircraft Rescue Fire Fighting Program

- Acquired 2 training airplanes
- Acquired 13 pairs of High Proximity boots (purchased with Firefighters Fund Grant)
- Provides fire suppression coverage for the USFS when wildfire aircraft are stationed at Castle.



Battalion 17: Los Banos Battalion

Battalion Overview

Communities at Risk in Battalion 17 include the areas of Santa Nella and San Luis Hills. The influencing factors involved in identifying fuel reduction projects include: Fire history, housing density, fuel hazard, and range value. Fire ignitions have traditionally been an issue near roadways and campgrounds in the area and fast moving grass fires have threatened these communities or their interests in the past.

Additional Communities at Risk in Battalion 17 include Dos Palos, Dos Palos "Y", Gustine, Los Banos, and Volta. These areas were identified as having moderate to significant asset values with Light to medium fuel hazards. Fire prevention efforts will emphasize structure clearance and fuel management to mitigate the wildfire hazard in the area.

Goals and Objectives Statement

- Support the area with current and future fuel treatment projects.
- Educate the public on fire safety and hazard reduction.
- Educate the public on the new fireworks ordinance allowing for the use of Safe and Sane fireworks in the County in order to minimize the fire threat in the unincorporated areas of the County, and areas neighboring the SRA.
- Implement an aggressive LE-100 inspection program.
- Support Unit and local fire prevention activities.
- Complete annual Weed Abatement project within the Merced County Schedule "A" portion of the battalion.

Accomplish the Objectives

- Educate the community within the battalion on proper fire hazard reduction through face to face contact during annual LE-100 inspections.
- Develop literature, flyers and/or maps to educate the public on wildfire awareness and evacuations.
- Participate with local stakeholders in annual meetings and community public education events
- Provide monthly statistics to fire prevention on activities.
- Utilize newly purchased equipment to update and maintain the Weed Abatement program within the county.

Measurement

- Educate the community within the Battalion on proper fire hazard reduction through face-to-face contact during annual LE-100 inspections.
- Participate with local stakeholders in annual meetings and community public education events.



Battalion 18: Merced Battalion

Battalion Overview

The Merced Battalion is located in the Merced area of Merced County; the Eastern portion of Battalion 18 bumps up to the Mariposa County line, with the Southern portion of the battalion bumping the Madera County line. The State Responsibility Area (SRA) Portions of the Battalion are on the Eastern portion of the Unit and the fuel type is mainly annual grass, with topography of mainly rolling foothills.

The weather pattern in Battalion 18 during the summer months typically are hot and dry, and have high temperatures ranging from 90's to 100's on a regular basis, with monsoonal moisture occasionally causing dry lightning a couple of times throughout the summer.

Fire History in Battalion 18 is varied. Many of the fires have been started by lightning. This area is mainly used for cattle ranching, so the occasional fire is started by equipment. With rural roads in the area, we have had fires start near roadways.

Assets at risk in Battalion 18 consist of mainly cattle ranches. The communities of LeGrand and Planada are located just to the west of the SRA boundaries, and could be impacted.

Communities at risk in Battalion 18 include the areas of McKee, Planada, and Le Grand. The influencing factors involved in identifying fuel reduction projects include: fire history, housing density, fuel hazard, and range value. Fire ignitions have traditionally been an issue near roadways and throughout watershed areas due to lightning activity in the area. Fast moving grass fires have also threatened these communities, or their interests, in the past.

Additional communities at risk in Battalion 18 include North and East Merced, and El Nido. These areas were identified as having moderate to significant asset values with light to medium fuel hazards. Fire prevention efforts will emphasize structure clearance and fuel management to mitigate the wildfire hazard in the area.

Goals & Objectives Statement

- Support the area with current and future fuel treatment projects.
- Educate the public on fire safety and hazard reduction.
- Educate the public on the new fireworks ordinance allowing for the use of Safe and Sane fireworks in the County in order to minimize the fire threat in the unincorporated areas of the County, and areas neighboring the SRA
- Implement an aggressive LE-100 inspection program.
- Support Unit and local fire prevention activities.

Accomplish the Objectives

- Educate the community within the battalion on proper fire hazard reduction through face-to-face contact during annual LE-100 inspections.
- Develop literature, flyers and/or maps to educate the public on wildfire awareness and evacuations.
- Participate with local stakeholders in annual meetings and community public education events.
- Provide monthly statistics to fire prevention on activities.

Measurement

- The LE-100 program covers 100% of the known structures in the battalion.
- Battalion personnel logged over 100 hours of time spent on prevention-related activities.

Information & Education

Battalion 18 stations participate in numerous community events to promote fire prevention and awareness. Some of these programs are:

- Merced County Fair
- School presentations K-3 grades

Planning, Engineering, & Structure Ignitability

- Annual meetings are held with all of the known agencies in the area to promote and foster good working relationships and collaboration within the Battalion.
- Plans are being discussed to set up Auto Aid agreements with agencies both within and outside of the battalion.
- Plans with the University of California Merced Campus to enter into an agreement to assist with a Vegetation Management Program on their 6500 acre “Merced Vernal Pools and Grassland Reserve Natural Reserve System” all located in SRA.

Stakeholders in the area include

- UC Merced
- Flying M Ranch
- Hewlett Packard
- Cunningham Ranch
- Merced County Parks and Recreation (Lake Yosemite)

Fire Prevention

- Conduct LE-100 inspections in the SRA to make sure all residents are in compliance with PRC-4291
- Work with Merced County Prevention to ensure that all residents are following the county weed abatement standards.



Battalion 19: Delhi Battalion

Battalion Overview

Communities at Risk in Battalion 19 include the Delhi, Hilmar, Balico, Stevenson and the City Of Livingston. These communities are all within the LRA in the County of Merced. These areas were identified as having moderate to significant asset values with Light to medium fuel hazards. Fire prevention efforts will emphasize structure clearance through the Merced County Weed Abatement Program. Within Battalion 19 are three major stake holders, E.J. Gallo, Foster Farms and Hilmar Cheese Plant.

Goals and Objectives Statement

- Support adjacent battalions with current and future fuel treatment projects
- Educate the public on fire safety and hazard reduction
- Educate the public on the new fireworks ordinance allowing for the use of Safe and Sane fireworks in the County in order to minimize the fire threat in the unincorporated areas of the County, and areas neighboring the SRA.
- Support Unit and local fire prevention activities
- Complete annual Weed Abatement project within the Merced County Schedule "A" portion of the battalion

Accomplish the Objectives

- Educate the community within the battalion on proper fire hazard reduction through face to face contact during annual weed abatement inspections
- Develop literature, flyers and/or maps to educate the public on wildfire awareness and evacuations.
- Participate with local stakeholders in annual meetings and community public education events
- Provide monthly statistics to fire prevention on activities
- Utilize newly purchased equipment to update and maintain the Weed Abatement program within the county

Measurement

- Educate the community within the Battalion on proper fire hazard reduction through face-to-face contact during annual LE-100 inspections.
- Participate with local stakeholders in annual meetings and community public education events.

APPENDIX A: Pre-Fire Projects

CalMAPPER Project ID	Project Name	Project Status	Project Type	Activities GIS_Acres
4200-2014-FPL-001	Merced College Tree Removal	Active	FPL	0.00
4200-2009-CFP-003	Crook's Mountain Fuel Break South	Complete	CFP	0.00
4200-2008-CFP-001	Wilfred L Von der Ahe JR Forest Preservee	Complete	CFP	0.00
4200-2009-CFP-002	Crook's Mountain North	Complete	CFP	0.00
4200-2009-CFP-001	Crooks Mountain South	Complete	CFP	0.00
4200-2008-CFP-002	Massetti CFIP	Complete	CFP	0.00
4200-2008-CFP-003	Balmain Trust CFIP	Complete	CFP	0.00
4200-2006-CFP-004	Jersey Dale Ranch CFIP	Complete	CFP	0.00
4200-2008-FPL-032	Rd 222	Maint	FPL	0.00
4200-2011-FPL-019	Rd 200	Maint	FPL	0.00
4200-2010-FPL-026	Rd 210	Maint	FPL	0.00
4200-2008-FPL-034	Rd 274	Maint	FPL	0.00
4200-2008-FPL-033	Rd 225	Maint	FPL	0.00
4200-2010-FPL-025	Rd 211	Maint	FPL	0.00
4200-2011-FPL-021	Rd 426	Maint	FPL	0.00
4200-2011-FPL-022	Rd 620	Maint	FPL	0.00
4200-2010-FPL-023	Rd 223	Maint	FPL	0.00
4200-2009-FPL-026	Rd 420	Maint	FPL	0.00
4200-2011-FPL-018	E Longview Ln	Maint	FPL	0.00
4200-2011-FPL-017	Rd 417	Maint	FPL	0.00
4200-2009-FPL-018	Veater Ranch Rd	Maint	FPL	0.00
4200-2008-FPL-028	Rd 628	Maint	FPL	0.00
4200-2009-FPL-025	Quartz Mountain Rd	Maint	FPL	0.00
4200-2011-FPL-020	Rd 432	Maint	FPL	0.00
4200-2012-FPL-013	Indian Springs Rd	Maint	FPL	0.00
4200-2009-FPL-014	John West Rd	Maint	FPL	0.00
4200-2008-FPL-031	Rd 224	Maint	FPL	0.00
4200-2008-FPL-029	Rd 621	Maint	FPL	0.00
4200-2008-FPL-030	Rd 601	Maint	FPL	0.00
4200-2009-FPL-013	Pinchot Dr	Maint	FPL	0.00
4200-2012-FPL-017	Ponderosa Wy	Maint	FPL	0.00
4200-2009-FPL-016	Timberview Rd	Maint	FPL	0.00
4200-2012-FPL-011	Rd 425A	Maint	FPL	0.00
4200-2011-FPL-025	Rd 632	Maint	FPL	0.00
4200-2012-FPL-010	N Eastwood Dr	Maint	FPL	0.00
4200-2011-FPL-016	W Longview Ln	Maint	FPL	0.00
4200-2010-FPL-031	Miami Highlands Dr	Maint	FPL	0.00

CalMAPPER Project ID	Project Name	Project Status	Project Type	Activities GIS_Acres
4200-2009-FPL-027	Mudge Ranch Rd	Maint	FPL	0.00
4200-2009-FPL-024	Rainbow Dr	Maint	FPL	0.00
4200-2009-FPL-022	Cavin Ln	Maint	FPL	0.00
4200-2009-FPL-021	River Falls Rd	Maint	FPL	0.00
4200-2010-FPL-028	Valley Oak Dr	Maint	FPL	0.00
4200-2009-FPL-015	Yosemite Pines Dr	Maint	FPL	0.00
4200-2012-FPL-012	Spook Ln	Maint	FPL	0.00
4200-2009-FPL-019	Wilcox Dr	Maint	FPL	0.00
4200-2010-FPL-030	Wallu Ln	Maint	FPL	0.00
4200-2011-FPL-024	Stillmeadow Dr	Maint	FPL	0.00
4200-2010-FPL-029	Mcdaniel Dr	Maint	FPL	0.00
4200-2011-FPL-015	Shady Oak Dr	Maint	FPL	0.00
4200-2010-FPL-027	Suncrest Dr	Maint	FPL	0.00
4200-2009-FPL-023	Sunset Dr	Maint	FPL	0.00
4200-2009-FPL-020	Maples Ln	Maint	FPL	0.00
4200-2012-FPL-015	Forest Park Ln	Maint	FPL	0.00
4200-2009-FPL-028	Harmony Ln	Maint	FPL	0.00
4200-2012-FPL-014	Moonray Ln	Maint	FPL	0.00
4200-2009-FPL-017	Rd 434	Maint	FPL	0.00
4200-2012-FPL-016	Lone Olive Ln	Maint	FPL	0.00
4200-2011-FPL-023	Elliott Dr	Maint	FPL	0.00
4200-2010-FPL-024	Rd 331	Maint	FPL	0.00
4200-2011-FPL-001	El Portal Fuel Break	Maint	FPL	0.00
4200-2011-FPL-014	White Rock Road	Maint	FPL	0.00
4200-2007-FPL-002	Ben Hur Rd	Maint	FPL	0.00
4200-2007-FPL-012	Hornitos Road	Maint	FPL	0.00
4200-2007-FPL-018	Old Hwy S	Maint	FPL	0.00
4200-2009-FPL-007	Greeley Hill Road	Maint	FPL	0.00
4200-2010-FPL-006	Dogtown Road	Maint	FPL	0.00
4200-2007-FPL-022	Triangle Road	Maint	FPL	0.00
4200-2008-FPL-019	Indian Peak Road	Maint	FPL	0.00
4200-2007-FPL-013	Merced Falls Road	Maint	FPL	0.00
4200-2008-FPL-015	El Portal Road	Maint	FPL	0.00
4200-2007-FPL-016	Oak Grove Road	Maint	FPL	0.00
4200-2007-FPL-019	Old Toll Road	Maint	FPL	0.00
4200-2008-FPL-011	Chowchilla Mtn Road	Maint	FPL	0.00
4200-2010-FPL-019	Silver Bar Road	Maint	FPL	0.00
4200-2007-FPL-004	Buck Meadows Rd	Maint	FPL	0.00
4200-2007-FPL-023	W Whitlock Road	Maint	FPL	0.00
4200-2010-FPL-020	Usona Road	Maint	FPL	0.00

CalMAPPER Project ID	Project Name	Project Status	Project Type	Activities GIS_Acres
4200-2012-FPL-001	Banderilla Dr	Maint	FPL	0.00
4200-2010-FPL-010	Jerseydale Road	Maint	FPL	0.00
4200-2007-FPL-014	Miami Mtn Road	Maint	FPL	0.00
4200-2007-FPL-007	Darrah Road	Maint	FPL	0.00
4200-2010-FPL-015	Penon Blanco Road	Maint	FPL	0.00
4200-2007-FPL-009	E Whitlock Road	Maint	FPL	0.00
4200-2011-FPL-008	Granite Springs Road	Maint	FPL	0.00
4200-2007-FPL-001	Allred Rd	Maint	FPL	0.00
4200-2011-FPL-005	Colorado Road	Maint	FPL	0.00
4200-2011-FPL-011	Ranchito Drive	Maint	FPL	0.00
4200-2010-FPL-007	Forest Drive	Maint	FPL	0.00
4200-2011-FPL-009	Incline Road	Maint	FPL	0.00
4200-2010-FPL-018	Silva Road	Maint	FPL	0.00
4200-2009-FPL-006	E Westfall Road	Maint	FPL	0.00
4200-2009-FPL-011	Sherlock Road	Maint	FPL	0.00
4200-2007-FPL-005	Cuneo Road	Maint	FPL	0.00
4200-2012-FPL-002	Bondurant Mine Rd	Maint	FPL	0.00
4200-2010-FPL-022	Woodland Drive	Maint	FPL	0.00
4200-2009-FPL-005	Converse Road	Maint	FPL	0.00
4200-2008-FPL-026	Yaqui Gulch Road	Maint	FPL	0.00
4200-2008-FPL-018	Harris Road	Maint	FPL	0.00
4200-2007-FPL-020	Piney Creek Road	Maint	FPL	0.00
4200-2011-FPL-007	Ernst Road	Maint	FPL	0.00
4200-2009-FPL-004	Carleton Rd	Maint	FPL	0.00
4200-2011-FPL-006	Dexter Road	Maint	FPL	0.00
4200-2012-FPL-005	Priest Coulterville Road	Maint	FPL	0.00
4200-2010-FPL-012	Meadow Lane	Maint	FPL	0.00
4200-2007-FPL-021	Tip Top Road	Maint	FPL	0.00
4200-2007-FPL-011	Hirsch Road	Maint	FPL	0.00
4200-2009-FPL-002	Boyer Rd	Maint	FPL	0.00
4200-2008-FPL-007	Agua Fria Rd	Maint	FPL	0.00
4200-2007-FPL-008	Detwiler Road	Maint	FPL	0.00
4200-2008-FPL-012	Clouds Rest	Maint	FPL	0.00
4200-2008-FPL-024	School House Road	Maint	FPL	0.00
4200-2008-FPL-027	Yosemite Oaks Road	Maint	FPL	0.00
4200-2010-FPL-002	Carter Rd	Maint	FPL	0.00
4200-2010-FPL-001	Carstens Rd	Maint	FPL	0.00
4200-2012-FPL-004	Hernandez Drive	Maint	FPL	0.00
4200-2011-FPL-010	Lazo Way	Maint	FPL	0.00
4200-2011-FPL-012	Trower Road	Maint	FPL	0.00

CalMAPPER Project ID	Project Name	Project Status	Project Type	Activities GIS_Acres
4200-2012-FPL-008	Villa Real Drive	Maint	FPL	0.00
4200-2010-FPL-021	Wagner Road	Maint	FPL	0.00
4200-2008-FPL-025	Worman Road	Maint	FPL	0.00
4200-2011-FPL-002	Azucena Ct	Maint	FPL	0.00
4200-2007-FPL-017	Old Hwy N	Maint	FPL	0.00
4200-2007-FPL-015	Miller Road	Maint	FPL	0.00
4200-2011-FPL-004	Chicharra Way	Maint	FPL	0.00
4200-2007-FPL-003	Blanchard Rd	Maint	FPL	0.00
4200-2012-FPL-006	Silver Lane	Maint	FPL	0.00
4200-2008-FPL-016	Grillo Drive	Maint	FPL	0.00
4200-2012-FPL-007	Snyder Ridge Road	Maint	FPL	0.00
4200-2008-FPL-020	Maravilla Drive	Maint	FPL	0.00
4200-2010-FPL-013	Mt Ophir Road	Maint	FPL	0.00
4200-2011-FPL-013	Wass Road	Maint	FPL	0.00
4200-2008-FPL-013	Coachman Road	Maint	FPL	0.00
4200-2010-FPL-004	Chapulín Way	Maint	FPL	0.00
4200-2008-FPL-009	Bear Trap Dr	Maint	FPL	0.00
4200-2008-FPL-022	Parmabelle Road	Maint	FPL	0.00
4200-2007-FPL-010	Hamilton Station Loop	Maint	FPL	0.00
4200-2008-FPL-014	El Capitan	Maint	FPL	0.00
4200-2009-FPL-012	Violeta Way	Maint	FPL	0.00
4200-2010-FPL-014	Old Converse Road	Maint	FPL	0.00
4200-2008-FPL-008	Ahwahnee St	Maint	FPL	0.00
4200-2011-FPL-003	Brooks Rd	Maint	FPL	0.00
4200-2010-FPL-003	Castano Way	Maint	FPL	0.00
4200-2008-FPL-023	Rainbow Road	Maint	FPL	0.00
4200-2009-FPL-009	Gusano Way	Maint	FPL	0.00
4200-2010-FPL-005	Clavel Way	Maint	FPL	0.00
4200-2008-FPL-021	Mykleoaks Road	Maint	FPL	0.00
4200-2010-FPL-008	Hormiga Way	Maint	FPL	0.00
4200-2009-FPL-010	Narcisco Way	Maint	FPL	0.00
4200-2010-FPL-009	Jasmin Way	Maint	FPL	0.00
4200-2012-FPL-009	Cedar Lane	Maint	FPL	0.00
4200-2010-FPL-016	Railroad Ave	Maint	FPL	0.00
4200-2008-FPL-010	Brook Rd	Maint	FPL	0.00
4200-2010-FPL-017	Rosa Court	Maint	FPL	0.00
4200-2009-FPL-008	Gusano Court	Maint	FPL	0.00
4200-2010-FPL-011	Liro Court	Maint	FPL	0.00
4200-2012-FPL-003	Gaza Way	Maint	FPL	0.00
4200-2008-FPL-017	Gusanillo Court	Maint	FPL	0.00

CalMAPPER Project ID	Project Name	Project Status	Project Type	Activities GIS_Acres
4200-2008-CFP-006	Anderson CFIF	Maint	CFP	0.00
4200-2008-FPL-006	Guadalupe_Fire_Road	Maint	FPL	0.00
4200-2008-FPL-003	Waterloo Fire Road	Maint	FPL	0.00
4200-2006-FPL-003	Stumpfield Watts Shaded Fuel Break	Maint	FPL	0.00
4200-2009-FPL-001	Lush Meadows	Maint	FPL	0.00
4200-2007-FAS-006	Road 628 Fuel Break	Complete	FAS	0.00
4200-2008-FPL-005	Road 620 Fuel Break	Complete	FPL	0.00
4200-2008-CFP-005	8CA05660	Complete	CFP	0.00
4200-2008-CFP-004	08-MRD-MAR-1118	Maint	CFP	0.00

APPENDIX B: Unit Goals and Objectives

Goal Statement

The Madera-Mariposa-Merced Unit has developed its fire plan to align with the CAL FIRE “Strategic Plan” and the “California Fire Plan”. The Unit’s specific goals target anticipation and reduction of wildfires within the boundaries of the three counties and are as follow:

- Improve operational effectiveness
- Scale to budgetary and fiscal circumstances
- Foster a healthy ecosystem
- Improve firefighter safety

Objectives

Utilizing Battalion project planning, the Unit’s goals will be supported by the following objectives:

- Collect, analyze and prepare data to assess communities at risk and in need of fuel reduction or other projects.
- Work with grant writers and stakeholders to secure funds to implement projects.
- Utilize CAL FIRE personnel and resources in cooperation with other public and private efforts to assist with work projects on the ground.
- Educate the public on fire prevention practices that would incorporate fire landscaping and construction to reduce their threat from wildfire along with hazardous fuels reduction projects to keep lives, homes, property and natural resources safe from catastrophic wildfires.



APPENDIX C: History of Fire in MMU

The Role of Fire and the Ecosystem

To understand the threat of wildfire to our communities, we must first understand wildfire itself and the role it plays in our ecosystem. In ecological terms, wildfire is far from the devastating demon of common perception, ravaging the forest and its inhabitants. Only since the intrusion of present civilization and its altering of the natural cycle have wildfire's undesirable characteristics surfaced.

Fire, as a result of lightning and geological activity, is a natural occurrence in our ecosystem. Charcoal deposits, found in Sierra lakebed sediment samples, indicate that fire has long been an important component of the Sierra Nevada environment, predating the current vegetation types now associated with our landscape. The greatest charcoal concentrations found at one local site appear during the warm period following the end of the Pleistocene period about 10,000 years ago. This same interval is the one in which the Sierra's vegetation types at the middle and lower elevations evolved from the subalpine species of that period to the mixed conifer forests of today. From that point on, charcoal continues to be routinely present in sediment core samples.

The Sierra's fire history of the last several thousand years can be traced through existing vegetation. Growth ring samples taken from the giant sequoias show the period between natural fires, referred to as fire return intervals (FRI), were never longer than 30 years for a period of more than two thousand years. Only during the last 100 years has this pattern been broken and fire excluded from the growth process in many of the groves. The frequency of fire indicated by these tree ring scars appears to be a product of both the sample's elevation and variations of temperature and moisture. Low precipitation years and lower elevation yielded the highest fire occurrence.

Only two studies are available that reflect fire frequency in the blue oak-gray pine woodlands of the lower elevations. Scott Mensing of the University of California Berkeley, after studying fire scars on blue oaks in the Tehachapi Mountains, found an average FRI of 9.6 to 13.6 years. In the foothills east of Marysville, McClaren and Bartolome found FRIs from 8 to 49 years for the years prior to 1848. The reason for this relatively long interval in the latter study is unexplained, especially in light of studies conducted on the nearby black oak-ponderosa pine forests, which generally have a FRI of two to three years. Perhaps the light fuel (grass) coupled with low fire intensities was insufficient to leave detectable scars on the study samples.

The fire return intervals of chaparral, such as the chamise found in the Merced River Canyon of northern Mariposa County, appear to be highly dependent on individual circumstance. Elevation, drought, and slope aspect are among the factors influencing the frequency of fire in this vegetation type. The primary component to determine fire return intervals in chamise, however, seems to be fuel dynamics. This relates to the amount of total fuel available in a stand, the product of the stand's age (dead to live component) and environment. Generally FRIs have been estimated to be from twenty to a hundred years. Large, severe fires tend to occur in brush stands over thirty years old. The longest fire return intervals, 50 to 100 years, occurred in chaparral stands at elevations above 4000 feet.

Vegetation Type	Pre-1860 FRI	20th Century FRI
Foothill Hardwood and Grassland	10	78
Ponderosa Pine	4	192
Foothill Chaparral	30	0

The Historic Use of Fire

It is now generally recognized that Native Californians considerably influenced the fire frequency of California's mountains, especially in the foothills. Native Americans inhabited the Sierra Nevada for at least the last 9,000 years. By the 1600s, the drainages of the Chowchilla, Fresno, and Merced Rivers had a combined population of 22,500 natives representing at least three tribes. These Indians utilized fire to open up lands for hunting and to promote the regrowth of plants used in various facets of daily life. An October 1774 entry in the diary of Captain Fernando Rivera y Moncada confirms this:

"[The Indians] are wont to cause these fires because they have the bad habit, once having harvested their seeds, and not having animals to look after except their stomachs, they set fire to the brush so that new weeds may grow to produce more seeds, and also catch rabbits that get confused and overcome by smoke".

The first fire prevention law, in what was to become California, was a result of this burning. Issued by Governor Jose Joaquin de Arrillaga in 1793, it read in part:

"With attention to the widespread damage which results from the burning of fields, customary up to now among Christian and Gentile Indians in this country, whose childishness has been duly tolerated, and as a consequence of various complaints that I have had of such abuse, I see myself required to have the foresight to prohibit burning for the future (availing myself, if it is necessary, of the rigors of the law) all kinds of burning, not only in the vicinity of the towns but even in the most remote and distances, which might cause some detriment, whether it be by Christian Indians or by Gentiles who have some relationship or communication with our missions".

It is doubtful that this edict had much of an impact on the natives of the Sierra Nevada foothills. Locally, a Culture Element Distribution Survey conducted in 1936 by the University of California found that all three of the tribes (Chukchansi, Mono and Southern Miwok) in the Madera and Mariposa County foothills used fire as a tool for hunting and improving crops of native plants. Jack Rhoan, a local Native American (Chukchansi and Southern Miwok) recalled in a 1948 interview that when he was a boy in the 1870s, the Indians throughout the region (eastern Madera and Mariposa counties) set fire to the brush after the seeds had been gathered (approximately July). "The men started the fires and the women watched to see that it did not approach the homes. When it did, it was beaten out. It burned the hills, all over, clean through to the next one." The trees, which were green did not ignite easily, however "dead trees and logs were all cleaned up that way".

Despite the apparent widespread use of fire by the Indians, any references to problems with uncontrolled fires are conspicuously absent. In researching the volumes of information available on the native people of California, no mention of fire being considered a threat was found. From this, one can only deduce that while wildfires did occur with relative frequency, they were not of an intensity to cause the widespread destruction we now associate with them.

The Euro-American settlement in the 1850s began an alteration of the long established wildfire occurrence cycle. The influx of miners as a result of the gold rush brought an increase in fire ignitions. J. Goldborough Bruff, an early miner in California, reported in an October 1849 diary entry that the "woods [are] alight with many crackling fires" and "Fallen pines afire near us, we passed numerous fires of this kind, and the hills are light with them. Prospectors and Indians caused them". This account is substantiated by scars in the growth rings of the Blue Oaks near Fort Tejon in Kern County, which indicate that fire frequency there peaked in the 1850's.

The vegetation of California's mountains was changed in other ways as well. The miners also had an insatiable demand for wood. Heating and cooking fires, buildings, mine timbers, and fuel for steam engines all relied on the local vegetation as a wood supply. East of Coulterville, the Red Cloud Mine alone was using 4 ½ cords of wood per day in 1888 to power its stamp mill. With dozens of similar mines operating in Mariposa and Madera counties, the changes in the natural vegetation must have been dramatic. Little regard was given to the residual material left after cutting, and this accumulation of limbwood and other unusable material lent itself to more severe wildfire intensity. Interestingly, contemporary newspaper accounts give only passing mention to these uncontrolled fires, usually incidental to smoke conditions or the occasional loss of an isolated structure. Wildfires seem to have

been an accepted and common nuisance during this period, with attention only given to them when they threatened a community or other resource.

The Shift to Fire Suppression

Sheep and cattle grazing after the 1870s also became a major factor influencing fire frequency and intensity. While it is well documented that literally millions of sheep grazed in the upper Sierra meadows from the 1860's to 1900, little information is available regarding impacts on the lower, foothill environments. These areas, considered desirable as rangeland, were often fenced and used for cattle grazing. Menning's study of blue oak tree rings in the Tehachapi Mountains found a period of 60 years, from the 1860s to the 1920s with no fire scars. This period coincided with the introduction of grazing in the area. It is likely that the establishment of these herds at the lower elevations placed a value on forage, which in turn led to the first local attempts at fire suppression. The grazing also removed dry grasses that allowed the spread of fire.

The first state laws concerning wildfire prevention were written in 1872. They made the burning of state or federal land (excluding private land) a misdemeanor punishable by a fine of \$1000 or a year in jail, or both. The new laws also deemed that "every person who willfully or negligently sets on fire, or causes or procures to be set on fire any woods, prairies, grasses, or grain on *any* lands is guilty of a misdemeanor. Conspicuously, this latter law, which applied to private lands, contained no punishment for the offense. Both laws predated the establishment of National Forests and the majority of un-owned land in California was in state government's hands. It was not until the 1905 passage of the Forest Protection Act that burning of private lands during the summer season became truly prohibited.

On the federal level, the end of 1800s saw the establishment of "Forest Reserves" which eventually evolved into our present national forest system. Laws to protect these lands from fires were first written in 1897 and amended in 1900. True fire protection on the forests however, began just after the turn of the century with the appointment of Fire Guards to patrol the reserves for fires and fire hazards. In the event of a fire, private citizens, most often loggers and ranchers, would be pressed into service to extinguish the blaze.

The California Forest Protection Act of March 18, 1905 created a similar protection system for lands outside of the federal reserves. This law allowed the appointment of a State Forester and the creation of *fire districts* encompassing from one to four counties. Each district was to have its own volunteer fire warden appointed by the State Forester. Counties desiring additional protection could fund paid fire wardens. The fire warden was charged with preventing and suppressing all fires in the "woods, brush, prairies, grass, grain, or stubble" lands of the state. To carry out this task the warden was given all the powers of a peace officer to arrest perpetrators. As with their federal counterparts, they had the right to impress citizens into fire suppression work. In fact, many of the federal fire guards were enlisted as county wardens as well, thus gaining them law enforcement power not provided by federal policy.

Why the shift to fire exclusion after so many centuries of naturally occurring fire? The primary reason was the increased value of standing timber now that a market for lumber was available. It was perceived that fire scarred mature trees and destroyed seedling and young growth. A certain amount of truth existed in this belief. By 1900 the residue from earlier logging operations was creating hotter, more destructive fires than the earlier, natural fires. Any regrowth of timber occurring in these harvested areas was likely to be destroyed and scarring of mature trees probably occurred as well. In the lower foothill region, grasslands were becoming increasingly valuable for cattle grazing. In fact a loosely organized group of citizens, The Stockmen's Protective Association, was organized in 1904 to "promote the stock and range interest of its members, especially for protection against fire. This group funded the first state operated lookout station on Mount Oso, west of Patterson in Stanislaus County. That same year, 1904, 800,000 acres of California burned in wildfires adding further impetus to the perceived need for fire protection.

There was, however, local dissension regarding burning restrictions. This came from both ranchers who burned their summer pastures in the forest to prevent the encroachment of brush and timber upon the meadows, and from timbermen, who burned logging slash to eliminate hazards and allow new timber growth. The State Forester's office was not to be swayed however. In his 1912 Biennial Report, Forester G.M. Holmes readily dismissed "light burning". "The forest floor, so necessary for the retention of water is destroyed; seedlings and small trees are killed and the ground is unsuited for the germination of seeds.

The cost is prohibitive. It would cost about \$9,000,000 to burn over our forest area once. Such a practice should be prohibited law.”

The exclusion of fire from California’s wildland continued, at least on paper, until 1945. Despite the best efforts of the fire wardens and fire guards, uncontrolled fires continued to occur. The Sierra National Forest has maintained a map of these fires since 1908 (Figure 1). Though few of the fires occurring in the lower foothills were mapped, one can get an idea of the scope of the burning that took place. Though it appears fires were widespread, the fire return interval for the region had increased considerably from the eight to nine year intervals, common prior to Euro-American civilization.

Government Involvement with Burning

Throughout the 1930s and early 1940s the California Division of Forestry (CDF) had been heavily lobbied by the cattle industry to conduct range improvement burns for the purpose of converting brush lands into grazing forage. When these lobbying efforts failed ranchers often took it upon themselves to burn outside of the law. To appease the situation, several tests on the effectiveness of brush burning as a land clearing tool were conducted at various locations in California. One of these areas was located in eastern Madera County near Ahwahnee. Burning, chemicals, and goats as brush removal agents were all tested. Based on the results of these experiments, the restrictions on large scale controlled burning were gradually loosened. By 1950 range improvement burning was common in the foothills of both Madera and Mariposa counties.

The formal Range Improvement Program was carried out by the cooperative groups of ranchers organized into “Brush Burning” associations. These associations, which met regularly, planned out burns months ahead of time. Through cooperative efforts, control lines were constructed, crews were assembled and logistical needs met. A local rancher was appointed “fire boss” and coordinated the operation. The association to ensure its safety reviewed each proposed burn. The local CDF representative would also participate in this review, and when everything was in order, a permit was issued. The local ranchers completed nearly all the work with CDF’s involvement generally limited to providing standby crews in case of an escape.

Burns were done each summer throughout the 1950s and 60s. Individual burns ranged from 40 acres to over 12,000 acres. Altogether, over 137,000 acres in Madera county and 224,000 acres in Mariposa county were burned under the Range Improvement Program (Figure 6). No records are available for burns occurring on the west side of Merced County. Increasing threat of liability coupled with more stringent air pollution control laws eventually led to the programs demise. The last local burn was conducted in 1975 on Schaubach Ranch near Highway 41 and County Road 406. To circumvent the legal problems that terminated the Range Improvement program, CDF developed the Chaparral Management Program in the 1970s. This program, which became the present day Vegetation Management Program (VMP) placed the responsibility on CDF, now referred to as the California Department of Forestry & Fire Protection (CAL FIRE), to prepare environmental review of each burn, assume liability, and perform most of the work associated for the burn. This program has been responsible for burning 17,970 acres in Madera and Mariposa counties (Figure 8).

Since the 1930s, fire suppression capabilities have been increasing as well. Effectiveness of these efforts was limited during the first few decades of the century. The Great Depression however, created an available pool of labor, which was soon harnessed for the task of fighting wildfires. Work camps were established locally by CAL FIRE at Coarsegold, Grub Gulch, Mariposa and Coulterville. Civilian Conservation Corp (CCC) camps under the auspices of the U.S. Forest Service were also strategically located throughout the Sierra National Forest. These crews provided the areas first professional organized forces. While World War II brought about the demise of the public work crews, it saw, under the auspice of Civil Defense, the creation of a year round, professional wildland fire fighting force of a sufficient size to accomplish the task. This organization has continued to evolve into our present day wildland fire agencies. We have eliminated wildfire, as the pre Euro-American ecosystem knew it. The placement of our assets in its path, and the values we have tied to resources, such as timber and aesthetics, have made it too great a risk to live with. Ironically, its exclusion has only served to increase the risk to the values we are trying to protect. Like a dam without an outlet, the flammable vegetation in our environment continues to build up. Eventually a point will be reached at which the intensity of a wildfire will be beyond the ability of our suppression resources to handle. When this dam breaks the loss of assets and resources is inevitable.

Madera Mariposa-Merced Unit Major Fires

Undoubtedly the most disastrous wildfire to strike the Madera and Mariposa Counties was the Harlow Fire of July 1961. The Harlow burned 43,329 acres in Madera and Mariposa counties, destroyed 104 structures, and claimed two lives. What was truly remarkable about this fire was how fast it spread. In two hours it burned 20,000 acres making it one of the fastest burning fires ever recorded in the United States.

Perhaps the largest, modern fire event in Mariposa County occurred in mid-July 1939. That year an unusually heavy grass crop had dried and then been subjected to a late spring rain. This had caused the dried grass to partially decompose, creating a fuel that "carried fire as if it were gasoline" according to one witness. In a ten day period 5 major fires burned through the county. One fire started on Bear Creek west of Bear Valley and burned over Mt. Bullion before being stopped on Whitlock Road. North of Catheys Valley, on Guadalupe Mountain, another fire swept southwest from Catheys Valley through the Bridgeport district to White Rock Road. In Bootjack yet another fire burned out the area surrounded by Triangle Road on the north and east, Highway 49 on the south, and Highway 140 on the west. Simultaneously, a fire in the Merced River Canyon burned 8,000 acres. All told, in those ten days, nearly 100,000 acres of Mariposa County burned.

Madera County was by no means spared from similar conflagrations. In 1906 a fire started on the Fresno River near the present intersection of Yosemite Springs Parkway and Road 400 and burned to the San Joaquin River near North Fork. A similar fire in 1916 started and burned from the present Hensley Lake to the San Joaquin River south of North Fork.

The conditions that created havoc in Mariposa County in 1939 were also shared with Madera County. A fire started by a construction blast near Picayune south of Coarsegold burned westward to the San Joaquin River, while another fire, the Point Source Fire, started northeast of North Fork near Chawanakee and burned to Kaiser Pass. This latter fire destroyed an estimated 61 million board feet of timber on over 20,000 acres of land.

When these fires occurred, our mountains had fewer residents or suppression resources. Since then, firefighting capabilities have increased tremendously but so have the number of homes in the wildland. Any of the aforementioned fires, or even a portion of one, would quite easily today claim the infamous title of our communities' most destructive fire.

Fire Season 2008

The fire season of 2008 proved to be one of MMU's most active and destructive. The year started off with the lightning event that passed through California on June 21, 2008. The fires that ensued stretched the state's resources beyond critical levels. Many fires were left burning around the state because of a lack of firefighting resources. MMU was able to control all the fires within two days except one called the Oliver Fire. The Oliver Fire broke out in Sierra National Forest and threatened the community of Ponderosa Basin. After a team was activated and a Unified Command was in place the fire was brought under control at 2789 acres.

The largest fire of the year, and most destructive in recent unit history, was the Telegraph Fire. The Telegraph Fire started July 25, 2008, at approximately 1510 hours near the banks of the Merced River, two miles west of Telegraph Hill in Mariposa County. The fire was started in such a remote, inaccessible area that fire crews were unable to gain access to the fire. Burning in steep, rugged terrain in a remote part of the county, the fire consumed over 18,000 acres in the first day and a half alone. The Telegraph Fire was a 50-year fire event for Mariposa County. Not since the early 1960s were so many acres burned in such a short period of time. In addition to the topography, other significant environmental factors that influenced the extreme intensity and spread of this fire were low humidity, heavy fuel loads and historically low live and dead fuel moistures resulting from 2 consecutive years of record drought. One week later, the fire was contained at 34,091 acres. It was started by individual's target shooting along the Merced River at the end of Mosher Road. The final cost of the Telegraph Fire was almost 23 million dollars.

APPENDIX C-1: Telegraph Fire – 2008

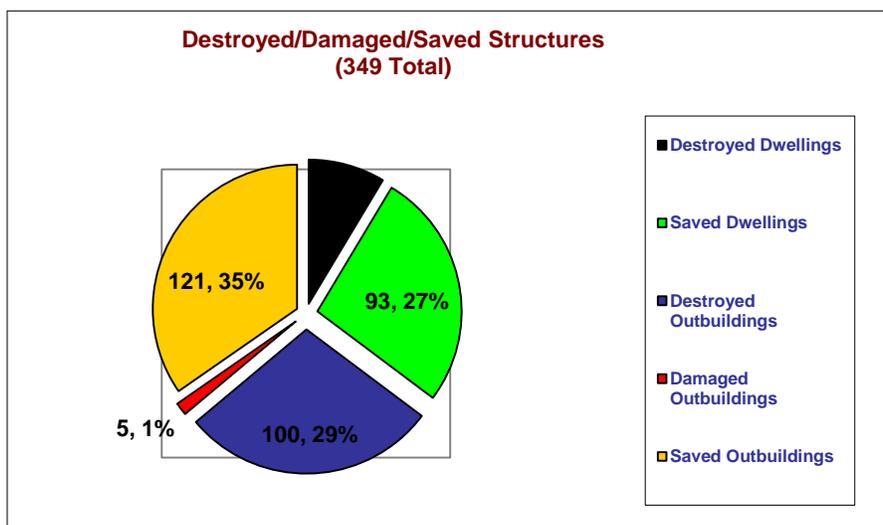
Telegraph Damage Assessment

Within the fire perimeter, 105 sites were located, inspected and documented for damage, structure construction type, defensible space, and driveway access. The Telegraph Fire directly threatened over 349 structures. Of these, 130 were destroyed, 5 received partial damage, and 214 were not damaged. (See figure below for number of structure types destroyed.)

DWELLING CONSTRUCTION (SIDING MATERIALS)					
	Wood (W)	Metal (Me)	Masonry (Ma)	Other (O)	Unknown (U)
DESTROYED (30)	17 (57%)	2 (7%)	6 (20%)	1 (3%)	4 (13%)
SAVED (93)	79 (85%)	6 (6%)	6 (6%)	2 (2%)	0

The data shows that within the area inspected 40% of dwellings (a total of 49) exposed to the fire had appropriate defensible space as required by PRC 4291. Defensible space was lacking on all but 1 of the 30 dwellings destroyed in the fire.

The remainder of the data presents property type and construction materials information in a tabular format, from which the reader can make comparisons.



DWELLING CONSTRUCTION (ROOFING MATERIALS)						
	Composition (C)	Metal (Me)	Wood (W)	Masonry (Ma)	Other (O)	Unknown (U)
DESTROYED (30)	16 (53%)	6 (20%)	0	2 (7%)	0	6 (20%)
SAVED (93)	60 (65%)	28 (30%)	1 (1%)	3 (3%)	0	1 (1%)

PROPERTY TYPE	DESTROYED	DAMAGED	SAVED
Dwellings (123)	30 (24%)	0	93 (76%)
Outbuildings (226)	100 (44%)	5 (2%)	121 (54%)
Vehicles (68)	60 (88%)	8 (12%)	N/A

APPENDIX D: Structure Protection/Evacuation

MADERA-MARIPOSA-MERCED UNIT

Structure Defense/Evacuation Plan

Purpose

Produce a pre-fire planning document to better protect the life and property within the boundaries of the Madera-Mariposa-Merced Unit.

Goal Statement

Under agreement with CAL FIRE Madera-Mariposa-Merced Unit, the Mariposa County Sheriff's Department and the Madera County Sheriff's Department, provide a pre-fire planning process to defend structures against uncontrolled wild fires and an evacuation process to move and house those individuals needing assistance.

Objectives

- Provide a structure defense/evacuation plan for each community in Mariposa and Madera Counties.
- Utilize "lead sheets" to provide specific information regarding each community to better assist in suppression, structure defense and evacuation efforts.
- Develop a mapping process to assist responding personnel in suppression, structure defense and evacuation efforts.



APPENDIX E: Battalion 4220

FIRE CAUSE ANALYSIS

With the Unit averaging 1,500 fires per year, the goal of the Fire Prevention Bureau is to reduce fire causes through prevention, intervention, and enforcement. We hope to accomplish this through public education by the FPS II, intervention by the engine companies with LE 100 inspections, and enforcement conducted by the Prevention Bureau's law enforcement officers.

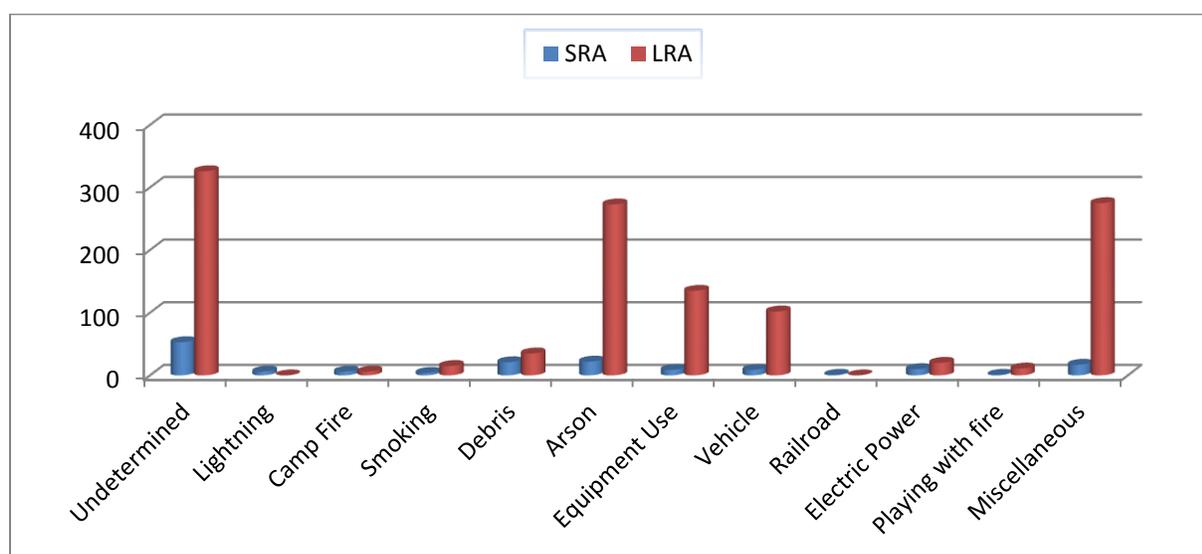
2014 Fire Season Ignition Statistics

MMU Large Fires – 2014

Fire Name	Acreage	Suppression Cost - <i>estimated</i>
Hunter	620	\$6,245,749.27
Valley	110	\$912,838.41
Haigh	110	\$1,148,134.13
Junction	620	\$4,695,777.67
Bridge	270	\$4,388,873.70
Courtney	290	\$4,388,914.75

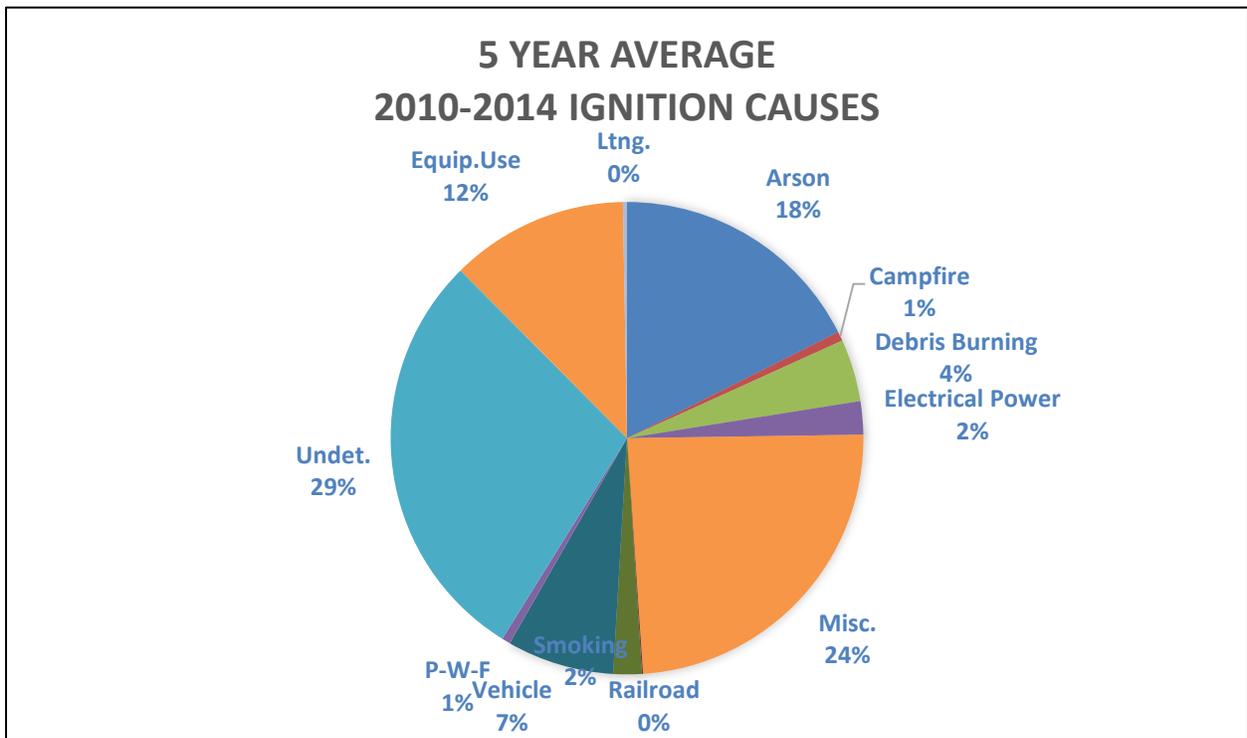
Fire Cause 2014

Cause	SRA	LRA
Undetermined	53	273
Lightning	3	0
Camp Fire	6	6
Smoking	4	15
Debris	21	35
Arson	22	273
Equipment Use	9	135
Vehicle	9	102
Railroad	1	0
Electric Power	10	20
Playing with Fire	1	11
Miscellaneous	17	275



Wildland Fire Cause 2010-2014

Cause	2010	2011	2012	2013	2014
Undetermined	578	135	155	414	379
Lightning	4	7	5	6	3
Camp Fire	37	21	24	15	12
Smoking	15	19	46	37	19
Debris	81	64	164	57	56
Arson	144	428	269	281	295
Equipment Use	74	94	52	175	144
Vehicle	105	256	126	316	111
Railroad	6	4	4	3	1
Electric Power	77	33	105	51	30
Playing with Fire	25	56	45	11	12
Miscellaneous	160	310	335	144	292



4290 Inspections – 2014

SRA - Mariposa

Permit Inspections	67
Land Divisions	2
Major Subdivision	3
GPZA	0
Conditional Use	1
Zoning	1
Certificate of Compliance	3

2014 Defensible Space Inspector Program Totals				
	1st Inspections	2nd Inspections	3rd Inspections	Contacts
Ahwahnee	42	2	2	0
Bass Lake	2419	27	8	117
Coarsegold	1428	74	7	12
Coulterville	1053	27	4	0
Mariposa	731	25	3	27
Oakhurst	1947	11	4	117
Rancheria	987	8	8	55
Raymond	44	0	0	0
Usona	1245	11	3	44
Total	9896	185	39	372

2014 Yearly Total (minus DSI totals)									
	# Inspections	Hours	# Cites	# Violations	# Ed Contacts	# Ed Hours	Other Hours	Burn Permits	News Releases
Batt 1	444	10.8	1	16	146	43	2	141	
Coulterville	350	5.75	1	7	101	3	2	141	
Hornitos	94	5	0	9	0	0	0	0	
Catheys Valley	0	0	0	0	45	40	0	0	
Batt 2	158	19	0	0	1237	53.5	6	497	
Mariposa	53	18	0	0	1190	44.5	3	431	
Usona	105	1	0	0	47	9	3	66	
Batt 4	264	39	0	23	3745	206	249	1873	
Bass Lake	1	1	0	0	844	36	46	202	
Raymond	234	32	0	23	110	4	22	106	
Ahwahnee	19	4	0	0	1335	90	122	261	
Oakhurst	10	2	0	0	1456	76	59	1304	
Batt 5	276	34	1	15	350	32	0	255	
Sta 8	0	0	0	0	150	7	0	17	
Rancheria	121	14	1	1	5	7	0	190	
Coarsegold	155	20	0	14	195	18	0	48	
Batt 17	0	6	150	0	432	12.5	0	0	
Los Banos	0	6	150	0	432	12.5	0	0	
Prevention	2	0	0	0	13125	0	0	0	9
Unit Totals	1144	109	152	54	19035	347	257	2766	9

APPENDIX F: Battalion 1 Projects

Fire Roads Battalion 1 Fire Road System

Over the last 10 years in Battalion 1 we have been successful in reestablishing fire roads. We strive to maintain the roads, the trust and the commitment from the private landowners and federal government agencies. This has been a long process that has been successful due to the fact that equipment and personnel were re-committed to fire road improvements after the "49" fire in 1999 and once again on the "Telegraph" fire of 2008. Re-contacting landowners along the "Buckhorn" and other fire roads and providing road maintenance have provided an enormous safety and operational benefit during fire suppression efforts. This year we will attempt to expand this program and continue to regain the upper hand on fire road improvement. With the development of the "Old Highway" fire road project, the Battalion has tied the Guadalupe Ridge Road to the old highway in the Catheys Valley area. In the past this type of fire road development has not received the type of support needed for completion.

Listed below and supported with topographical maps are the fire roads and their current status that run through Battalion 1.

Buckhorn Fire Road:

- Verbal agreements have been secured with surrounding landowners to allow for annual maintenance. The A-19 will be updated with the new A-719 as soon as it is available. FC32 documentation for crew work has been completed. This is a critical fire road within the Battalion and this need to get done. It is 9.5 miles in length. See attached map.

Crown Lead Fire Road:

- Because it has not been properly maintained in years, Crown Lead Fire Road is a CAL FIRE road in dire need of maintenance. It is 4 miles in length. This road has been identified under a grant submittal project for funding to support the needed maintenance. See attached map.

Van Ness Fire Road:

- It runs from the end of Cornetts Entrance to White Rock Road. Currently the Catheys Valley "RAWS" station is located at the McGonigle Ranch on this fire road of 7 miles in length. This Fire Road is scheduled for routine grading and maintenance as needed, and is evaluated each spring. See attached map.

Tim Brush Fire Road:

- Annual maintenance for this road is provided by CAL FIRE. It is 4.5 miles in length. Currently we can only maintain on the ridge of this fire road due to the BLM installing a non-opening gate before the fire road runs into wild and scenic habitat. Severe maintenance is needed on the downhill switchback that runs to the North Fork drainage. See attached map.

Black Mountain Fire Road:

- Annual maintenance of this road is provided by CAL FIRE. Road is 4.25 in length. Currently working on a solution to repair the uphill grade, 1.0 mile east of the North Fork of the Merced River, which was washed out the winter after the Telegraph fire. See attached map.

Hunters Valley Access Road:

- Annual maintenance is provided by CAL FIRE. Road is 1.0 miles in length. This fire road received maintenance in 2008 and has held up nicely but continued maintenance is required.

Peno Blanco Lookout Road:

- This road runs from Highway 49 to Granite Springs Road. It provides access to the Peno Blanco Lookout and because of its location seconds as a fire road. It is a CAL FIRE maintained road. This road has been identified under a grant submittal project for funding to support the needed maintenance See attached map.

Greely Hill VMP:

- This is a joint project with BLM; the proposed area includes both BLM and private lands. The project area is adjacent to the Ponderosa fuel break and would greatly enhance the protection that the fuel break provides to the community of Greely Hill. Working Mariposa County Fire Safe Council this year to secure funding for support of building fire breaks and reduction of fuels along the Greely Hill Road from Ponderosa Way to Priest Coulterville Road about 2 miles long. Will be working with the private land owners through the CALFIRE 719 and/or RM75 processes as well as BLM along their portion to secure permissions and funding to support the much needed prep work on this VMP project. (See Attached Map)

Buck Horn VMP:

- This project is similar to the Greely Hill VMP in that it is a joint effort with BLM. The proposed project will include both BLM and private lands. The Northern portion of the Buck Horn Fire road is a mix of private and BLM land that runs parallel to State Hwy 49. In the summer time HWY 49 is a road that is highly traveled by tourist coming and going from Yosemite National Park. There is a long history of fire activity along this corridor with the main ignition source being the high vehicle traffic. This project would eliminate and thin the brush on the East side of Hwy 49.

Fly Away Ridge:

- Fly Away Ridge is a ridge that runs parallel to State Hwy 49 south of the Buck Horn Fire Road. Putting a fire road or fuel break on this Ridge would help slow fires that come off of HWY 49 and prevent fires from getting established in the Merced River Drainage. This would need to be a joint project with BLM as a vast majority of the land is BLM.

Brushing of Roads in Greely Hill:

- This is a joint venture with Mariposa County Roads, this project clears the right of way of overgrown brush. This allows for emergency equipment and citizens to be using the roads simultaneously (ingress and egress)

Greely Hill Coulterville Chipping:

- This project is a joint effort with the Mariposa County Fire Safe council and allows for the clearing of brush and trees on private property of those who could not perform the work due to a variety of reasons. This project enhances the defensible space of the homes at risk in both the communities of Greely Hill and Coulterville.

Removal of Dead bug kill and drought stressed trees:

- This is a joint effort with the Mariposa County Fire Safe Council through grant process that if funded will allow for removal of dead bug kill and drought stricken trees. This effort will be critical in the reduction of flammable large fuels that can lead to the spread of large and damaging fires.

Fuel Reduction

- SWIFT fuel reduction projects in Battalion 1 have been a cooperative effort through state, federal, and local stakeholders. These stakeholders developed a group called SWIFT (South West Inter Face Team). SWIFT meets once a month to give updates, progress, and come up with new fuel reduction projects that will create a strategic fire defense system designed to reduce the loss of life, property, and the severity of major fires in the northern section of Mariposa County, the southern section of Tuolumne County, the US Forest Service lands, Bureau of Land Management lands, and National Park Service lands.
- Local stakeholders include Mariposa County Fire Department, Tuolumne County Fire Department, Groveland Fire Department, Tuolumne County RCD, District, Mariposa Fire Safe Council, Yosemite Foothills Fire Safe Council, Pine Mountain Lake Association, and Hetch Hetchy Water and Power.
- Currently there are three major shaded fuel break projects, three road corridor hazard reduction treatments, two direct residential area fire protection actions, two forest health and fuel reduction projects, two VMP projects, and a strategic water system support project.

APPENDIX G: Battalion 2 Projects

There are no prescribed burns being pursued. However, with the re-commitment to the Natural Resource side of the Department current fuel reduction projects are getting re categorized as Vegetation Management Projects (VMP). This will give us the option to create shaded fuel breaks and either maintain by prescribed burning, chemical herbicide treatments, or continue to manually brush and burn. Fire road maintenance is progressing with the completion of Guadalupe Fire Road and Stumpfield Road to the English Ranch. Watt Road project is still in the works and will be re-addressed in 2016. Discussion with the Sierra National Forest in regards to maintaining Forest Roads in the State Direct Protection Area (DPA) is ongoing. A summary of the fire road projects will be mentioned later in this document.

Stumpfield Road Fuel Break

- A 6 mile long, 300 feet wide, shaded fuel break along Stumpfield Mountain Road South of Mariposa adjacent to the Chowchilla River Drainage.
- Facilitated by the Mariposa Fire Safe Council through funding from Prop 40 Community Action Grant.
- Environmental Compliance review was conducted in spring 2007 and 2008.
- Project was started during spring of 2008 with mastication equipment working in specific areas that were considered suitable for mechanized equipment.
- Private hand crews were used to identify and create buffers around endangered elderberry bushes. These crews also achieved fuel reduction in the sensitive riparian areas.
- Project was temporarily stopped due to a Proposition 40 funding freeze by the State of California.
- Funding Restored fall of 2009.
- Project restarted October 2009 using CAL FIRE/ CDCR hand crews.
- Chemical herbicide treatment for maintenance has been approved.
- A full review of the project with updated CEQA and CAL FIRE-719's will commence in the Fall of 2015 with a projected date of completion of Fall 2016.

Watt Road Fuel Break

- A 1.5 mile long, 300 feet wide, shaded fuel break along Watt Road South of Mariposa and East of the Stumpfield Mountain Road fuels treatment area, adjacent to the Chowchilla River Drainage.
- Facilitated by the Mariposa Fire Safe Council through funding by Prop 40 Community Action Grant. Environmental Compliance review was conducted in spring 2007 and 2008.
- Project was started during spring of 2008 with mastication equipment working in specific areas that were considered suitable for mechanized equipment.
- Private hand crews were used to identify and create buffers around endangered elderberry bushes. These crews also achieved fuel reduction in the sensitive riparian areas.
- Project was temporarily stopped due to a Proposition 40 funding freeze by the State of California.
- Funding Restored fall of 2009.
- Project restarted October 2009 using CAL FIRE/CDCR hand crews.
- Chemical herbicide treatment for maintenance has been approved.
- A full review of the project with updated CEQA and CAL FIRE-719's will commence in the Fall of 2015 with a projected date of completion of Fall 2016.

Lushmeadows Fuel Break

- A 9 mile long, 300 feet wide, shaded fuel break starting at Whispering Pines Drive (off Darrah Rd.) up to the ridgeline that parallels Clouds Rest Drive on the west aspect of the Lushmeadows Subdivision. Following a strategic ridge line the fuel break heads south of Lushmeadows and parallel's Tip Top Road to the west (through private parcels and ends at Wass Road and Highway 49. The project will protect the communities of Lushmeadows, Usona, and Ponderosa Basin.
- Facilitated by the Mariposa Fire Safe Council through funding by Prop 40 Community Action Grant. Environmental Compliance is complete.
- Project began during spring of 2010 with mastication equipment working in specific areas that were considered suitable for mechanized equipment. Project will be complete in the Spring of 2014.

- CAL FIRE/CDCR hand crews will be utilized to establish the 300 foot shaded fuel break in areas unsuitable for mastication equipment. These crews will establish the desired fuel reduction in the sensitive riparian areas and in steep terrain.
- Project is completed and is in maintenance status.

Boyer VMP

- In conjunction with the Lushmeadows fuel break, the Boyer VMP is a two phase project. The first phase runs down the prominent ridgeline from Illuette Falls (off Clouds Rest) to Sherrod Road and spits to Homestead Drive.
- The second phase will be a cut, pile and burn on both sides of Homestead Drive into Boyer Road out to Highway 49 South.
- Phase one has been approved through the California Environmental Quality Act (CEQA) and the 719's process is complete.

Grist Fire Road

- Improvement of existing fire road that runs 2.5 miles along Grist Road, south of Mariposa.
- Facilitated by local property owners working in conjunction with battalion personnel and CAL FIRE Sacramento.
- Project work is ongoing at approximately 45% complete with additional crew days needed.

Mount Ophir Fuels Reduction Project

- 1300 acres near Old Toll Road and Hwy. 49 North, northwest of Mariposa.
- Fuels reduction will be accomplished through mechanized equipment and hand crew work.
- MMU hand crews and engine crews, under the permission of the property owner, have been utilizing this property for a training area and have contributed to the fuels being reduced within the area.
- Project work is ongoing.

Colorado Road Fuel Break

- Mariposa Fire Safe Council Project
- A 300 foot wide shaded fuel break along Colorado Road between Hwy. 140 and Whitlock Road.
- Treatment types will include mechanical mastication, hand brushing and tree limbing
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews, County Road Department and winter time pile burning.
- This project would protect residents along Colorado Road, Rancheria Creek Road, and Davis Road.
- Awaiting a funding source.

Dubberke Fuel Reduction Project

- A proposed fuel break on the east side of the town of Mariposa starting at the Stockton Creek Watershed running north to Highway 140.
- Treatment types will include mechanical mastication, hand brushing and tree limbing
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews and winter time pile burning.
- In the conceptual phase at this time.

Starchman Fuel Break

- A proposed fuel break that runs from Trabucco road south to Stockton Creek and will tie into Stockton Creek Road.
- CEQA and 719 process to begin Fall of 2015.

Feliciano Strategic Fuel Treatment

- A proposed fuel break from U.S. Forest Service fuel break on Feliciano Mountain to Highway 140 at Bear Creek Bridge.
- Treatment types will include mechanical mastication, hand brushing, and tree limbing
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews, and winter time pile burning.

- The project would protect the east side of Midpines from a fire that is coming up out of the Merced River Canyon and/or Bear Creek drainage.
- Property ownership is almost entirely Bureau of Land Management.
- Mariposa Fire Safe Council Project
- Contingent on funding with a Sierra Nevada Conservancy Grant (\$200,000)

Fish Camp Strategic Fuel Reduction Project

- A proposed fuels reduction project to include State Responsibility Area in and around the community of Fish Camp in Mariposa County.
- Treatment types will include mechanical mastication, hand brushing, and tree limbing
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews, and winter time pile burning.
- Use of California Forest Improvement Project (CFIP) funding on parcels meeting requirements.
- In the conceptual phase at this time.

Mariposa Fuel Reduction Project

- A proposed fuel break on the west side of the town of Mariposa starting at Highway 140 running north to Highway 49. (Phase 1).
- A proposed fuel break on the north side of the town of Mariposa starting at Highway 49 running east to Highway 140. (Phase 2).
- Treatment types will include mechanical mastication, hand brushing, and tree limbing
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews, and winter time pile burning.
- In the conceptual phase at this time.

Midpines / Mt. Bullion Fuel Break

- A 400-500 acre proposed shaded fuel break to follow a path of ridge tops and established fire line from Midpines to Mt. Bullion.
- Will use fire control and contingency fire lines that were utilized during the Telegraph Fire and were found to be strategically appropriate.
- Treatment types will include mechanical mastication, hand brushing, and tree limbing
- Fuels reduction to be accomplished through the usage of mechanized equipment, hand crews, and winter time pile burning.
- In the conceptual phase at this time.

Midpines Interior Strategic Fuel Reduction Project

- A proposed fuels reduction project bounded by Colorado Road, Rumley Mine Road, Telegraph Road, Sherlock Road, East Whitlock Road, and Highway 140.
- Treatment types will include mechanical mastication, hand brushing, and tree limbing
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews, County Road Department and winter time pile burning.
- Use of California Forest Improvement Project (CFIP) funding on parcels meeting requirements.
- Use of Fuel Hazard Reduction Emergency funding on parcels meeting requirements.
- In the conceptual phase at this time.

Silver Bar Fuel Break

- A 120 acre proposed shaded fuel break to follow Silver Bar Road in Mariposa County.
- Treatment types will include mechanical mastication, hand brushing, and tree limbing
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews, County Road Department and winter time pile burning.
- In the conceptual phase at this time.

Vanderau VMP

- A fuels reduction project on 180 acres of a 429 acre parcel located northeast of Mariposa, adjacent to the Stockton Creek Watershed area. This area had a high dead to live fuel ratio present due to chemical treatment from property owner.
- Fuels reduction completed through mechanized equipment, crew brush clearance, and pile burning.

Wood for Seniors Program established

- A program designed to aid seniors in obtaining cut and split firewood for free.

Long VMP

- A 4000 acre ranch southwest of Mariposa adjacent to the Stockton Creek Drainage.
- Several VMP burns have been conducted over the years with the last one in 2004.

Stockton Creek Fuels Reduction

- Several acres of brush clearing and piling along the Stockton Creek Watershed north and east of Mariposa.
- Project was facilitated by the Mariposa Resource Conservation District (RCD) for \$300,000.
- Project was completed in 2003 and is in need of maintenance.

Basin VMP

- A 400 acre fuels reduction project in Ponderosa Basin Subdivision south of Mariposa.
- Fuels reduction was accomplished through crew brush clearance/pile burning.
- Project was completed in 2003 and is in need of maintenance.

Ponderosa Basin Strategic Fuel Treatment

- A 300 foot shaded fuel break approximately 1 ¼ miles long.
- Total treatment area is 105 acres.
- The treatment will be along a strategic ridge line adjacent to the community of Ponderosa Basin.
- Fuel Break ties in with CAL FIRE's Ponderosa Basin VMP and U.S Forest Service Sunny Meadows Project.
- Treatment types will include mechanical mastication, hand brushing, and tree limbing.
- The Mariposa County Fire Safe Council facilitated work through a 2008 U.S. Forest Service grant of \$131,670.
- Completed 2009

Guadalupe Fire Road

- A shaded fuel break following Guadalupe Fire Road
- The treatment is along the strategic ridge line of Guadalupe Mountain.
- Needs Maintenance.

APPENDIX H: Battalion 4 Projects

Fire Roads

Listed below are the fire roads and their current status for Battalion Four.

- **Potter Ridge Fire Rd**
Verbal agreements have been secured with surrounding landowners to allow for annual maintenance. This road was graded by CAL FIRE in the winter of 2011 and is in good condition. An FC32 for crew work has been completed for clearing overgrown sections of the road. This road parallels and is encompassed by the Potter Ridge fuel break in several areas.
- **Metcalf Gap Fire Rd**
This road is in need of maintenance and brush clearing. It ties into Battalion 2 – Watt Rd fuel break in the Chowchilla River Canyon. An FC32 for crew work has been completed for clearing overgrown sections of the road. This is a critical road for access into the Chowchilla River Canyon.
- **Shannon Fire Rd**
The Raymond Granite Quarry has purchased the majority of the Shannon Fire Rd, and they have maintained this road and the surrounding roads at a very high level. CAL FIRE locks are no longer on any of the gates, but quarry personnel are available to allow access. The shallow water crossing at the Fresno River (near Rd 400) is largely impassable to fire equipment.
- **Old Dupzik Fire Rd**
This road has not been maintained in the last 15 – 20 years and the agreements with the property owners have been allowed to lapse. This road runs between Rd 600 (Leland Gulch) and Rd 415 (Wells Rd). The Old Dupzik Fire Rd is the only access to the Fresno River Drainage west of Deadwood Mountain and south of the community of Ahwahnee.

Fuel Reduction

Mudge Ranch (Road 420) Fuel Break & Fresno Flats (East of Hwy 41)

- A three mile long, 300' wide shaded fuel break south of Oakhurst.
- Facilitated by the Eastern Madera County Fire Safe Council through funding by the United States Forest Service, (USFS).

Road 620 Phase 1 Fuel Break (Roundhouse 1 & 2)

- A seven mile long, 300' wide shaded fuel break northeast of Ahwahnee.
- Facilitated by the Eastern Madera County Fire Safe Council through funding by Prop-40 Community Action Grant, (CAG).

New Road 620 Phase 2 Fuel Break (Old Nip)

- A three mile long, 300' wide shaded fuel break north of Ahwahnee.
- Project starts at the intersection of Road 620 & Road 628 and ends at Worman Road and Highway 49.
- Facilitated by the Eastern Madera County Fire Safe Council and funded by Prop-40 Community Action Grant (CAG).

Road 620 Phase 3 Fuel Break

- A proposed fuel break to allow for fuel breaks from Road 620 Bissett Station Rd south along the Miami Creek and Carter Creek drainages.
- Currently these drainages do not have accessible control points for fires coming from the Chowchilla or Fresno River drainages (Harlow Fire burn pattern).
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews and winter time pile burning.

John West Rd (Badger Gap) Fuel Break

- This fuel break and fuel thinning covers the road network off of John West Rd in the Oakhurst area. The area sits in drainage above the Oakhurst basin and has a single access road that is overgrown with vegetation.
- Treatment types have included mechanical mastication, hand brushing and tree limbing.
- Fuels reduction has been accomplished through the use of mechanized equipment, hand crews and winter time pile burning.

Hwy 41 Deadwood Summit Fuel Break

- A proposed fuels reduction project to allow for fire safe clearance along the CAL Trans right-of-way north of the Deadwood summit into the town of Oakhurst.
- Hwy 41 in this area is an overgrown midslope road that represents the primary ingress and egress thoroughfare for eastern Madera County.
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews and winter time pile burning or chipping
- Coordination with CAL Trans as a project sponsor and traffic control will be essential.
- It will be necessary to limit the impact to traffic along this busy thoroughfare.

Fresno River – Oakhurst town site

- The Fresno River in Oakhurst proper is overgrown and is a continuous fuel bed along the banks of the river.
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews and winter time pile burning.
- In the conceptual phase at this time.
- Project sponsor is being sought for this project

Sugar Pine Strategic Fuel Reduction Project

- A proposed fuels reduction project to include State Responsibility Area (SRA) in and around the community of Sugar Pine in Madera County.
- Treatment types will include mechanical mastication, hand brushing and tree limbing.
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews and winter time pile burning.
- Use of California Forest Improvement Project (CFIP) funding on parcels meeting requirements.

Bass Lake Interior Strategic Fuel Reduction Project

- A proposed fuels reduction project bounded by Road 274 (Crane Valley Road) and the Bass Lake shoreline.
- Treatment types will include mechanical mastication, hand brushing and tree limbing.
- Fuels reduction to be accomplished through the use of mechanized equipment, hand crews and winter time pile burning.
- Use of California Forest Improvement Project (CFIP) funding on parcels meeting requirements.
- Use of Fuel Hazard Reduction Emergency funding on parcels meeting requirements.

Cedar Valley Fuel Reduction Project

- Eastern Madera County Fire Safe Council Project
- A 300 foot wide shaded fuel break along Cedar Valley Road.
- A 300 foot shaded fuel break located strategically around the community of Cedar Valley.
- The fuel breaks is on State Responsibility Area (SRA) and enhance existing U.S. Forest Service fuel reduction projects in the Cedar Valley area.
- Treatment types include mechanical mastication, hand brushing and tree limbing.

Crook's Mountain Fuel Break

- A twelve mile long, 300' wide shaded fuel break northwest of Oakhurst, (See Figure_).
- Facilitated by the Eastern Madera County Fire Safe Council through Prop-40 Community Action Grant Funds.

Massetti Range Improvement (RI) Burns

- A series of eight (8) RI burns starting in the mid-1990s through 2007.
- Area southwest of the town of Oakhurst, (See Figure_).
- Funded through Prop-40 California Forest Improvement Program (CFIP).

Metcalf Gap

- Proposed Fuel reduction 100' shaded fuel break from Hwy 49 to the Chowchilla River. Utilizing MCFSC grant funding or SRA fee moneys. This proposed fuel break is in the footprint of the Harlow fire of 1961 protecting the communities of Nipinawasee and Ahwahnee.

APPENDIX I: Battalion 5 Projects

Cascadel Woods Fuel Reduction / Shaded Fuel Break

- Currently CAL FIRE crews are working with Madera County to maintain the open spaces (County Recreational) areas of the Cascadel Woods community. This project includes fuel reduction and maintenance of over 40 acres. This is being done to reduce fuel loading and create Temporary Refuge Areas (TRA's) for residence and fire crews. The past project was completed in 2012 by the Eastern Madera County Fire Safe Council.
- Madera County is currently working on an easement agreement with the USFS to open an emergency fire exit/access from the Cascadel Drive to Mammoth Pools Road. Annual maintenance of clearing and brushing along with grading will need to be conducted.
- Continued maintenance will need to be conducted on both phases of the past project but also Cascadel Road.
- This project was completed by the Eastern Madera County Fire Safe Council.
- Phase 1 – Reduce fuel loading on 160 acres located strategically around the community of Cascadel Woods.
- Phase 2 – Install and maintain a 300 foot shaded fuel break on Cascadel Road (Madera County Road 233) from the Mammoth Pool Road (Madera County Road 225) to the community of Cascadel Woods. This fuel break will be on State Responsibility Area (SRA) and enhance existing United States Forest Service fuel reduction projects in the Cascadel Woods area. Fuel treatments will include mechanical mastication, hand brushing and tree limbing. Fuel reduction will be accomplished through mechanized equipment, hand crews, and winter time pile burning.
- Continued construction and maintenance of the fuel break along Cascadel Road through spraying; brushing/pile burning is needed on an annual basis.

Quartz Mountain Fuel Break

- A nine mile long, 300 foot wide shaded fuel break below Pacific, Gas and Electric (PG&E) high voltage power lines was completed in 2010.
- The project has increased the previous 90 foot wide fuel break to a 300 foot wide fuel break.
- Project starts west of the Indian Lakes Subdivision (Quartz Mountain) and ends at State Highway 41 and the Deadwood Fuel Break on the Veater Ranch.
- Continued maintenance through spraying and brushing/pile burning is needed on an annual basis.

Waterloo Fire Road

- The Waterloo Fire Road (Veater Ranch Road) is paved from State Highway 41 to the Veater Ranch. Once you pass the Veater Ranch, the road changes to Arena Way and runs across the top of the ridge on the east side of the Indian Lakes Subdivision. The Waterloo Fire Road takes off of Arena Way and goes into the north fork of Fine Gold Creek before going midslope on the north side. It crosses the north fork of Fine Gold Creek again on the south end of the Veater Ranch.
- Fuel treatments can include hand brushing and tree limbing.
- Agreements need to be updated with current property owners to ensure access to CAL FIRE resources. Continued
- Continued maintenance through spraying and brushing/pile burning is needed on an annual basis.

CAL FIRE Fire Road 20 and CAL FIRE Fire Road 21 (AKA Fish Creek Fire Road)

- These roads were established to contain a fire that comes out of the San Joaquin River drainage and threatens the town of North Fork, the residents of Leisure Acres, and the many homes that sit on the south side of Madera County Road 200. Historically these two fire roads ran through large ranches and were maintained annually. Today these fire roads have either grown over, been abandoned, or are on smaller parcels that belong to several different landowners.
- We are currently working to obtain landowner support for the projects.
- Fuel reduction will be accomplished through the use of mechanized equipment, hand crews, and winter time pile burning. CAL FIRE engine crews, hand crews, and dozers (where applicable) will be utilized to reduce fuels along the fire road.
- This project will require funding for gates, culverts, and gravel. CAL FIRE dozer, backhoe, dump trucks, and graders will be utilized to repair and maintain the fire roads.
- Cooperation with non-profit organizations will be needed to obtain grant funding.

Old Dupzik Fire Road (Blue River 3 Consolidated Fuel Breaks)

- The Eastern Madera County Fire Safe Council has obtained grant funding for this project in three phases. This project once completed will establish 10 miles of fuel breaks. The project will reduce fuel loading and shaded fuel breaks on over 121 acres of land.
- Phase 1 Gold Creek – Will construct a fuel break from Ward Road, south of Road 200 and west back to Road 200 at Gold Creek. This will establish a fuel break around the CAL FIRE Rancheria Station and neighboring USFS lands along with private properties. This phase is 2.5 miles long by 100' wide reducing 30 acres of heavy fuel load. Treatments will include hand-crew brushing and cutting, pile burning and chipping.
- Phase 2 Ward Mountain – Will construct a fuel break from Ward Mountain (Road 220) north and west to the Flying "O" Ranch Road. This phase is 3 miles long by 100' wide and will reduce fuel on 36 acres providing protection to the Indian Lakes and Quartz Mountain subdivisions.
- Phase 3 Fresno River – Will construct a fuel break from Wells Road north to the Fresno River and south to Road 600. This phase is 4.5 miles long by 100' wide clearing 55 acres of overgrown brush. Providing protection to the communities of Coarsegold, Oakhurst and Ahwahnee.

North Dome Fire Road

- This road was established during the arson series of 2013 in Yosemite Lakes Park where more than 30 fires were started in the area. This road connects Revis Road and North Dome Drive.
- Grader and Backhoe work has been completed to make the road drivable for emergency equipment along with establishing a fuel break between residential homes.
- Continued work will require grading, spraying, brushing and pile burning on an annual basis.

Road 274 Roadside Maintenance/Fuel Break

- This project follows road 274 between North Fork and Browns Ditch. This was a control line for the North Fork Fire in 2001.
- This project has been funded and is currently being managed by the Eastern Madera County Fire Safe Council.
- Maintenance will be required on an annual basis to include spraying, brushing/pile burning.

Fire Prevention Sign Locations

- Signs are currently located on Road 200 between Hwy 41 and the community of North Fork, two locations. Another is located on Yosemite Springs Parkway.
- New electronic Fire Prevention signs have been introduced in strategic locations throughout Merced County including at Merced County Fire Station 81.
- Identify new locations for posting Fire Prevention Signs in the lower areas of the Battalion along the SRA borders. Possible locations include, Highway 41 and Highway 145, Road 206 and Road 211, Road 400 below Lilly Mountain. Exact locations need to be identified with property owner agreements and or encroachment permits being requested.

APPENDIX J: Battalion 16 Projects

Snelling Highway (G Grade) Rangelands Fuel Break

- The Snelling Highway Fuel Break is a twenty foot fuel break that parallels both sides of the Snelling Highway from the intersection of Snelling Highway and La Paloma Road to Robinson Road near the community of Snelling.
- The fuel break protects grasslands on both sides of the highway from fires caused by vehicle traffic. The fuel break helps keep roadside vegetation fires small, giving fire personnel time to reach the scene and extinguish the fire.
- The firebreak protects SRA lands to the east and LRA lands to the west. Completion of the fuel break will require Battalion 16 personnel to network with property owners to establish and maintain it.

Merced River Fuel Break

- The Proposed Merced River Fuel Break is a thirty foot fuel break that follows the Merced River from Highway 59 passing over the Snelling Highway and ending at Hornitos Road in Mariposa County.
- The fuel break protects SRA grasslands from problematic fires that routinely occur in the Snelling rock tailings.
- The fuel break helps keep a large rangeland fire from entering the heavy fuels of the Merced River.
- The firebreak protects the community of Snelling and SRA lands to the south of the Merced River.
- Completion of these fuel breaks will require Battalion 16 personnel to network with property owners to establish and maintain these fuel breaks.

Snelling/Rock Tailings Fuel Breaks

- The Proposed Snelling/Rock Tailings Fuel Breaks is a series of thirty foot fuel breaks that dissect the Merced River rock tailings area on the north side start routinely along the Merced River by hikers or fishermen. The area accessing the Merced River.
- The fuel breaks help keep a large rangeland fire from entering the heavy fuels of the Merced River.
- The firebreak protects the community of Snelling and SRA lands to the south of the Merced River.
- Completion of these fuel breaks will require Battalion 16 personnel to network with property owners to establish and maintain these fuel breaks.

APPENDIX K: Battalion 17 Projects

Current Projects

Billy Wright Fire Road

- A fourteen and one half mile long fire road from Jasper Sears Road to Burch Haven.
- Facilitated by CAL Fire.
- Fire roads to be maintained through the use of mechanized equipment.

Sweeny Fire Road

- A thirteen and one half mile long fire road from Billy Wright Road to Arburua Road.
- Facilitated by CAL Fire.
- Fire roads to be maintained through the use of mechanized equipment.

Future Projects

Langdon Canyon Fire Road

- A seventeen mile long fire road from Arburua Road to Paul Negra Road.
- Facilitated by CAL Fire.
- Fire roads to be maintained through the use of mechanized equipment.

Laguna Seca Fire Road

- A seven mile long fire road from I-5 to Langdon Canyon Road.
- Facilitated by CAL Fire.
- Fire roads to be maintained through the use of mechanized equipment.

Past Projects

I-5 Corridor Fuel Break

- A thirty two mile long, 15' wide disked fuel break on the West side of I-5.
- Facilitated and paid for by landowners to protect range land.
- Fuels reduction to be accomplished through the use of mechanized equipment.

152 Corridor Fuel Break

- A ten mile long, 15' wide disked fuel break on the North and South sides of Highway 152 from San Luis Creek to Dinosaur Point Road .
- Facilitated by State Parks.
- Fuels reduction to be accomplished through the use of mechanized equipment.

San Luis Creek Fuel Break

- A four mile long, 15' wide disked fuel break from the North side of Highway 152 at the Romero's Visitor Center to the North access to San Luis Creek Recreational area.
- Facilitated by State Parks.
- Fuels reduction to be accomplished through the use of mechanized equipment.

San Luis Hills Fuel Break

- A one and one half mile long, 15' wide disked fuel break from the South side of Highway 152, around the San Luis Hills sub-division, to San Luis Drive.
- Facilitated and paid for by landowners to protect range land.
- Fuels reduction to be accomplished through the use of mechanized equipment.

APPENDIX L: Battalion 18 Projects

State Highway 140 Fuel Break

- A twenty foot fuel break on both sides of State Highway 140 from Cunningham Road to the Merced / Mariposa county line
- Facilitated and paid for by landowners to protect range land
- Fuels reduction to be accomplished through the use of mechanized equipment

Cunningham Road Fuel Break

- A twenty foot fuel break on the east side of Cunningham Road from South East Bear Creek to Mariposa Creek
- Facilitated and paid for by stakeholders to protect range land
- Fuel reduction to be accomplished through the use of mechanized equipment
- This is the separation between LRA and SRA along the Cunningham Road corridor

White Rock Road Fuel Break

- A twenty foot fuel break along White Rock Road from Merced / Mariposa County line to Santa Fe Road, on the south and east side of the road
- Facilitated and paid for by stakeholders to protect range land
- Fuels reduction to be accomplished through the use of mechanized equipment
- This is as directed – some parcels are in agricultural crop production along the White Rock corridor.

UC Merced

- Merced Vernal Pools and Grassland Reserve Natural Reserve System Management

APPENDIX M: Mount Bullion Camp CC#39 Projects

Federal Forest Projects

- Forest Restoration
- Fire Breaks
- Weed Abatement

County Projects

- Fire Breaks
- Water Shed Management
- Utility District Brush Clearing
- Weed Abatement
- Parks and Recreation restoration
- School Clean Up
- Roadside Clearing
- Tree Clearing and Trimming

City Projects

- Fire Breaks
- Water Shed Management
- Utility District Brush Clearing
- Weed Abatement
- Parks and Recreation restoration
- School Clean Up

National Park Projects

- Forest Restoration
- Fire Breaks
- Weed Abatement.

State Projects

- Fire Breaks
- Water Shed Management
- Utility District Brush Clearing
- Weed Abatement
- Parks and Recreation restoration
- School Clean Up
- Roadside Clearing and Tree Clearing

The camp also provides fire wood to senior citizens and low income families through the Mariposa County Department of Community Services

VMPs

- Lushmeadows/Tip Top Fuel Break
- Ponderosa Fuel Break
- Watts/Stumpfield Fuel Break
- Kinsman Flat VMP

Madera County Fire Safe Council

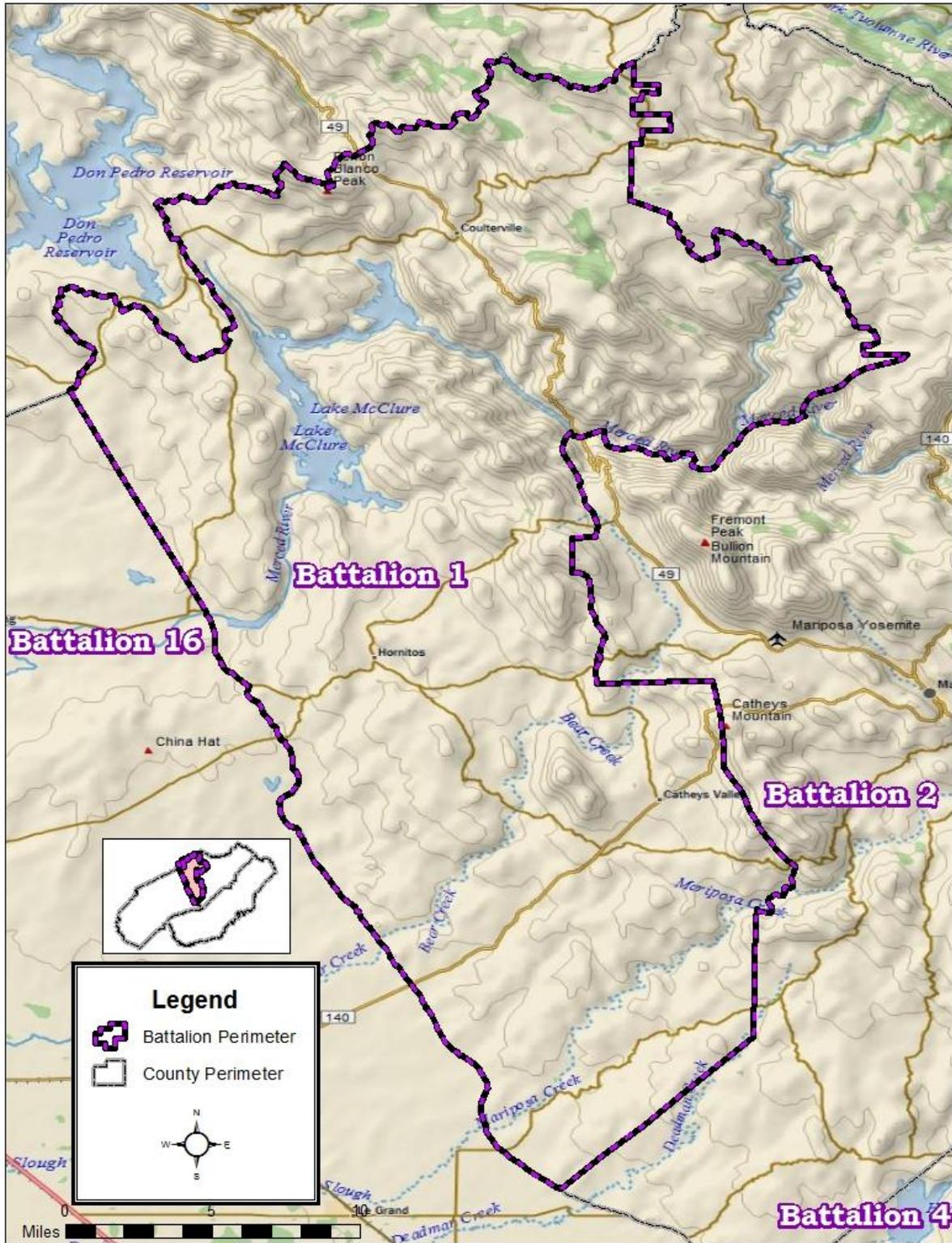
- John West and Jean Rd AKA Six Mile, brush clearing
- RD 425 B brush clearing
- Cascadel Woods Fuel Break
- Rd 620 AKA Stagecoach Rd Fuel Break

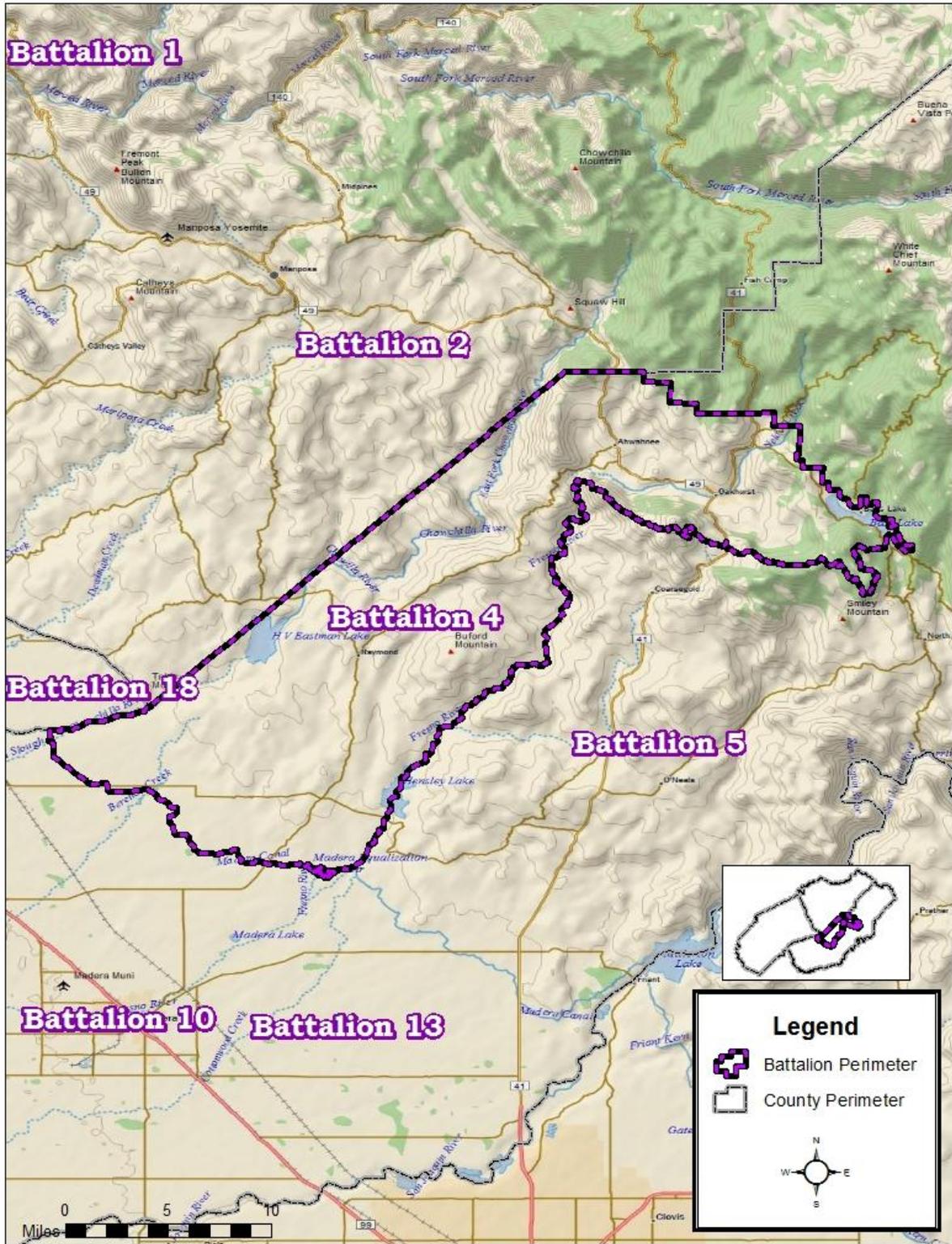
EXHIBITS: MAPS

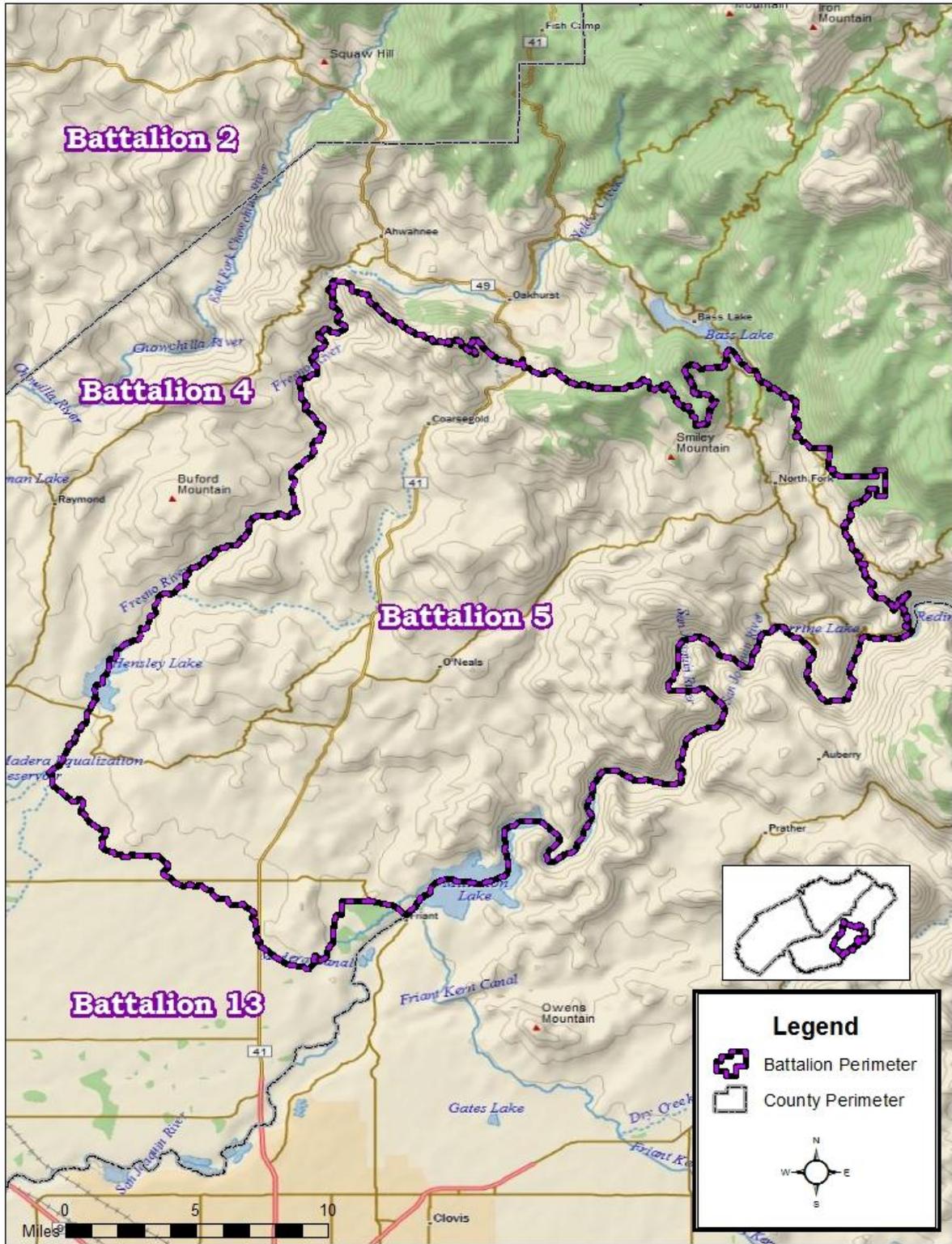
Figure A: Unit Map

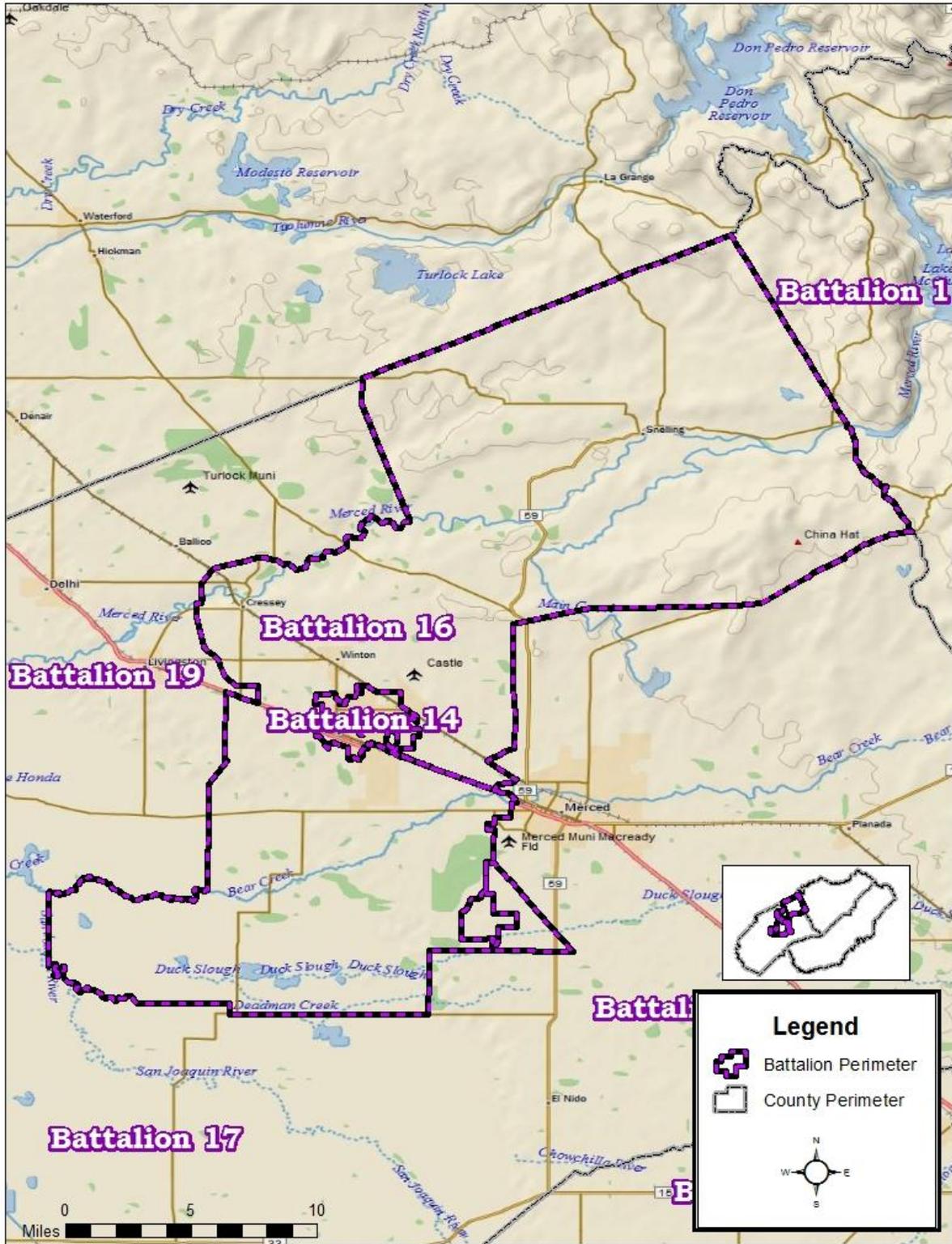


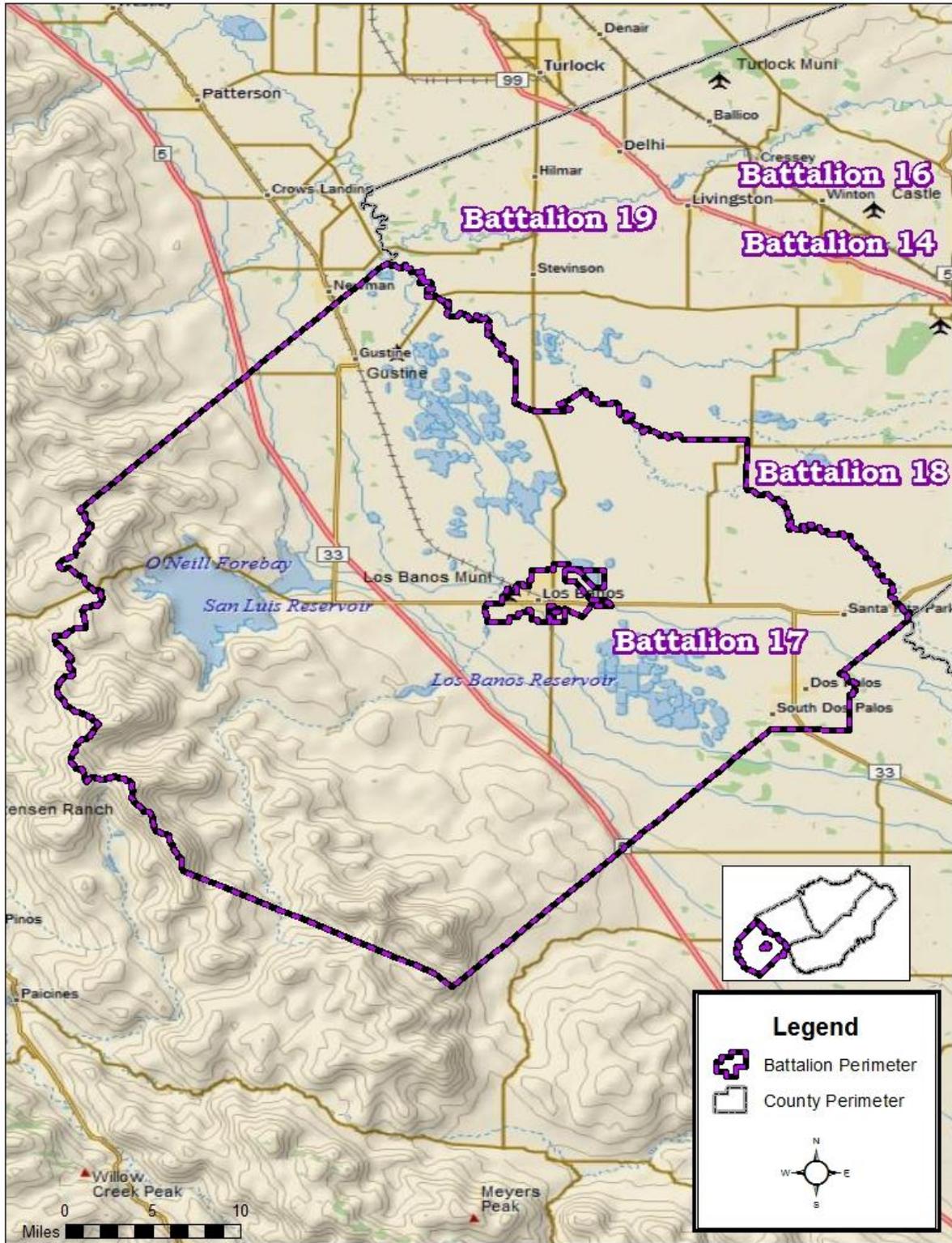
Figure B: Battalion Maps

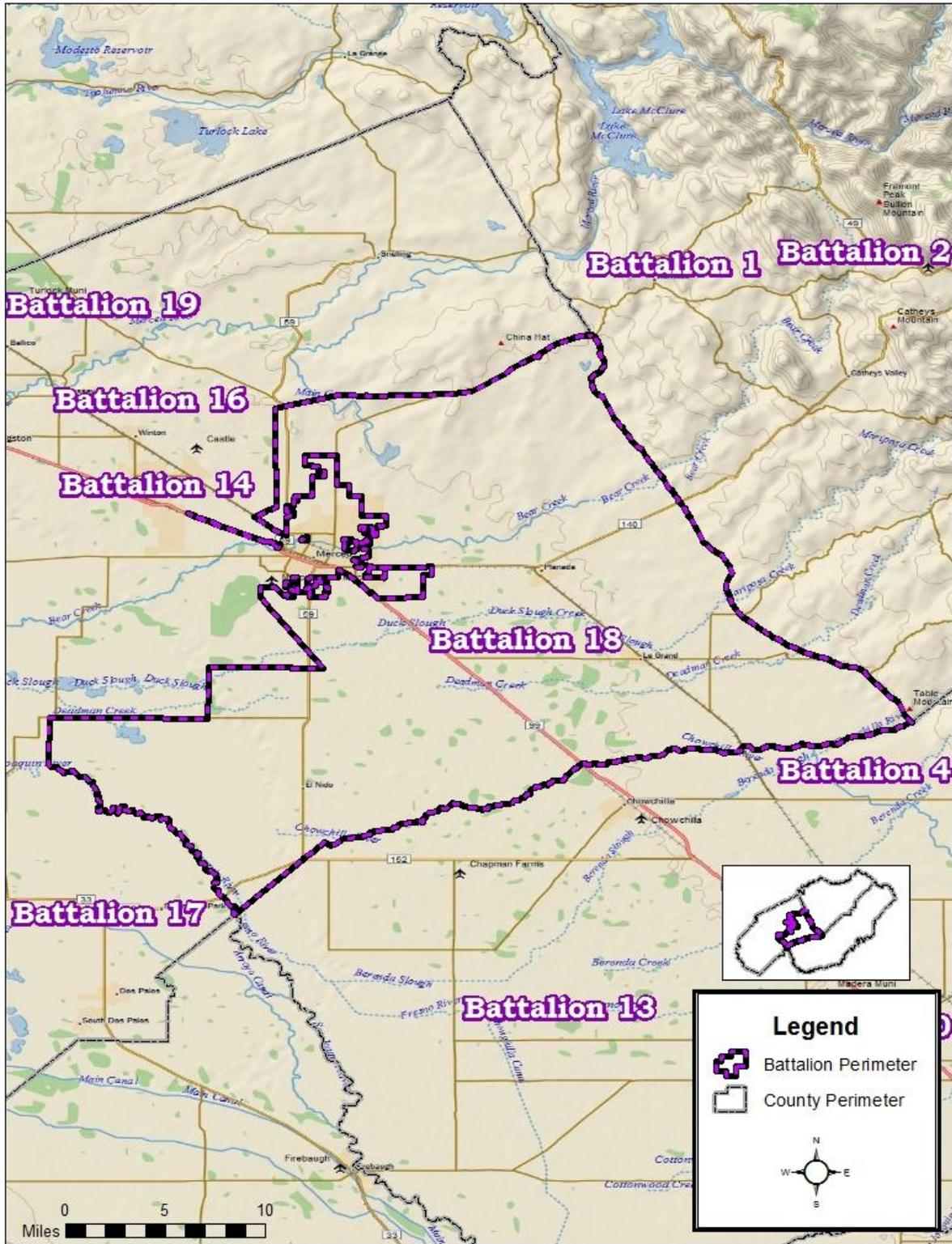












Annual Accomplishments Reporting

Fire Planning

Last year the Unit began the lengthy task of updating and revalidating our evacuation maps for Madera, Mariposa, and Merced counties. Every station in the Unit continues the ongoing process of pre-planning their first in area. The Mariposa Division teamed up with the Mariposa Fire Safe Council to prepare a public document we have called the Emergency Preparedness Brochure. The brochure is full of vital information to have during an emergency, including an evacuation map specific to each community in the Mariposa Division. We are seeking additional grant funding opportunities to begin this vital prevention effort in Madera and Merced Counties.

Investigations and Enforcement

In 2014 the Madera-Mariposa-Merced Prevention Bureau responded for cause and origin investigations on 99 fires of various natures and 34 responses to various calls for assistance. Three serial arsonists were arrested. One arsonist was found guilty of lightning 13 fires; the other two arrested arsonist were charged and are awaiting trial. Two additional arson fires and unlawfully causing a fire are still pending litigation.

Wildland Fire Prevention Engineering

Throughout the Unit we completed 11040 inspections and had a total of 187 violations to address. The Unit issued 48 citations and efforts totaled 1437 hours. We issued 2766 burn permits in 2014.

Civil Cost Recovery

MMU Fire Prevention Bureau had initiated 21 Cost Recovery cases in an effort to regain monies spent in fire suppression activities due violation of law or negligence. Due to Recovery cases now being handled by Region Office, 10 MMU cases were sent to Region for collection, leaving only Court Ordered Restitution payments to be collected at the unit level. These cases are reflected in both "Cases collected this year" and "Criminal court-ordered restitution cases". Cases dropped at the unit level were due to incarceration, death and fleeing the state.

Education and Information

In cooperation with the USFS we have provided the "Team Teaching" Smokey Bear fire prevention education program to all the elementary schools in the SRA. The program covers Kindergarten through third grade, with a seventh grade program directed at Wildland Fire Risk. We also supply all of the identified preschools in the SRA with a flannel board, age appropriate, educational program. The MMU school program serves approximately 2000 children.

We coordinate the Mariposa Fair display each year with the Mariposa Fire Safe Council and the USFS. We have been successful in providing fire and life safety information and education to over 5000 guests annually, utilizing the Unit VIP's, USFS personnel and FSC staff. In addition we have displayed USFS and CAL FIRE engines with personnel, while also providing first aid from our personnel working the display.

The computer skills of a talented VIP made it possible to update and keep current the unit PRC 4291 mailer, which is distributed to over 26,000 residents in the SRA.

This year we were able to add additional signs to our Road Side Sign project supplying many CAL FIRE stations with updated/new road side signs. Each station has a variety of signs to display for year round fire prevention topics. The project has not reached the maintenance phase as we purchase a few signs per year to keep the inventory current and in display condition.

The annual display at the Madera Fair is created and staffed by the Fire Prevention Specialist II, Madera County Fire Department Explorers and VIP's. This display provides a comprehensive fire and life safety message to over 15,000 guests.

The Fire Prevention Specialist provides a well-organized Juvenile Fire setter Intervention Program. This program provides service to between 15 and 40 juveniles annually.

We continue to partner with USFS, CHP, California Land Management, and Madera County Sheriff's Department to host the annual Smokey Bear Run/Walk 5K. This event attracts between 500 and 700 runners and delivers fire and life safety information area wide in its advertisements and recruitment efforts. Race day provides the entire community with fire and life safety awareness and education.

We distribute around 25 news releases each year in addition to radio interviews, special spots on TV, and 2 annual 15 minute radio spots on public radio in Merced. The Unit has a PIO response for emergency incidents and the Fire Prevention Specialist maintains contacts with other Unit PIO's such as, the Madera Sheriff PIO, Mariposa County OES and Health Dept. PIO's. Under the ISP umbrella we developed PIO Job Aids for our call centers and began the task of updating our call taker training. The Unit VIP's played a vital role in staffing the call center during the larger fires experienced during the year. VIP's also assisted with community outreach fire information efforts, including distributing One Less Spark materials to over 75 businesses.

The Unit HAM radio VIP's patrol selected hazardous areas during declared critical fire weather and on holidays to provide an effective fire prevention and loss reduction education force. They also provide extra "eyes and ears" in areas threatened by arsonists and fireworks. The patrols were activated for July 4 and July 5, 2014 fielding ten mobile patrol units and one base station covering 2,900 miles and providing 345 hours of donated time.

The VIP program has provided staffing for over 25 public fire and life safety education events.

Vegetation Management

Fuel reduction and fire prevention projects funded from SRA fee and Greenhouse Gas Reduction Funds are moving forward. One SRA grant for \$161,408.00 was awarded to the Mariposa Fire Safe Council for brushing along Non-maintained County Roads for Madera and Mariposa. Additional project grants for the Greenhouse Gas Reduction Funds are being considered for Mariposa and Madera County. Work has begun for the Boyer Vegetation Management Plan (VMP) and additional VMP's may be created to aid in vegetation management in cooperation with landowners. Drought and Beetle killed trees are increasing in the unit and education and awareness of programs and policies are being presented to the public.

The VIP program and fire station support allow us to participate in Earth Day, Mt. Heritage Days, rodeos, Smokey Bear 10K Run/Walk, Butterfly Festival, Safe At Home, Kids in the Park, Cascadel Woods Fire Safe Festival, parades, Christmas Programs and many more events. The Smokey Bear 10K Run/Walk donates funds to purchase Carbon Monoxide alarms to residents in Eastern Madera County. This provides approximately 250 residents each year with a free Carbon Monoxide alarm.

Volunteerism

The Volunteer In Prevention program is also in a rebuilding phase with recruitment an ongoing issue. We have 20 new VIP's in addition to an active core group of volunteers. The HAM Radio Communication VIP's have doubled in size this past year with the addition of HAM communicators from the Mariposa area. The group is very active and provides the Unit with Red Flag Patrol coverage and annual Fourth of July Patrols throughout Madera and Mariposa Counties. Since the Fourth of July patrols began, we have realized a decline in illegal fireworks use, and ignitions from fireworks in the SRA. The addition of the Mariposa HAMS will allow us to patrol additional areas of Mariposa County including Lake Don Pedro and Lake McClure.

The MMU VIP's are trained as call takers and community outreach information officers. They are activated when needed to open the call center and provide accurate and timely fire and or disaster information to the public. The VIP's also travel specified routes to distribute information and/or staff information display boards. This VIP team has been activated this past year twice and has provided information to thousands of citizens.

Fire Hazard Severity Mapping and Mitigation

Last year we completed our Structure Defense Evacuation Plan maps and lead sheets for Madera and Mariposa Counties. These maps and sheets are given to all chief officers and Law Enforcement to use during emergency incidents for seamless teamwork.



Nancy B. Koerperich
Unit Chief – Madera-Mariposa-Merced

June 1, 2015

Date