Bureau of Land Management
Folsom Field Office

Fire Management Plan
2004
(Updated 2008)

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ACRONYMS

ACEC	Area of Critical Environmental Concern
ACEC	Area of Critical Environmental Concern
AMR	Appropriate Management Response
AOP	Annual Operating Plan
BA	Biological Assessment
BI	Burning Index
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BO	Biological Opinion
CAR	Communities at Risk, At-risk Communities, Communities of Interest
CASO	California State BLM Office
CC	Condition Class
CCICC	Central California Interagency Coordination Center
CDFG	California Department of Fish and Game
CDF	California Department of Forestry and Fire Protection
CenCal	Central California BLM Region
CWPP	Community Wildfire Protection Plan
CX	Categorical Exclusion
DNA	Determination of NEPA Adequacy
EA	Environmental Analysis
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESR	Emergency Stabilization and Rehabilitation
FFO	Folsom Field Office
FIL	Fire Intensity Level
FMAP	Fire Management Activity Plan
FMO	Fire Management Officer
FMP	Fire Management Plan
FMU	Fire Management Unit
FPA	Fire Program Analysis
FPA-HA	Fire Program Analysis – Historical Analysis

FPA -PM	Fire Program Analysis – Preparedness Module
FPD	Fire Protection District
FPU	Fire Planning Unit
FR	Fire Regime
FRCC	Fire Regime Condition Class
FWFMP	Federal Wildland Fire Management Policy
FWS	U.S. Fish and Wildlife Service
GACC	Geographic Area Coordination Center
HCP	Habitat Conservation Plan
HFI	Healthy Forest Initiative
HFR	Historic Fire Regime
HFRA	Healthy Forest Restoration Act
ICS	Incident Command System
IIAA	Interagency Initial Attack Assessment
IM	Internal Memorandum
LUP	Land Use Plan
MEL	Most Efficient Level
MFP	Management Framework Plan
MIST	Minimum Impact Suppression Tactics
MOU	Memorandum of Understanding
MSCP	Multiple Species Conservation Program
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFDRS	National Fire Danger Rating System
NFMAS	National Fire Mgmt Analysis System
NFP	National Fire Plan
NFRP	Normal Year Fire Rehabilitation Plan
NHPA	National Historical Preservation Act
NIFC	National Interagency Fire Center
NOAA	National Oceanic Atmospheric Administration
NPS	National Park Service
NWCG	National Wildfire Coordination Group
PCHA	Personal Computer Historical Analysis

RAWS	Remote Automated Weather Stations
RFA	Rural Fire Assistance
RFD	Rural Fire Department
RL	Representative Location
RMP	Resource Management Plan
RNA	Research Natural Area
ROD	Record of Decision
SEAT	Single Engine Airtanker
SHPO	State Historic Preservation Office
SSS	Special Status Species
TE&S	Threatened, Endangered, and Sensitive Species
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
W&S	Wild and Scenic River
WFSA	Wildland Fire Situation Analysis
WFU	Wildland Fire Use
WHMA	Wildlife Habitat Management Areas
WIMS	Weather Information Mgmt System
WSA	Wilderness Study Area
WUI	Wildland-Urban Interface

I. INTRODUCTION

A. Purpose

The purpose of the Bureau of Land Management (BLM) Folsom Field Office Fire Management Plan (F-FMP) is to identify and integrate all wildland fire management guidance, direction, and activities required to implement national fire policy, the National Fire Plan, and the Healthy Forest Restoration Act (HFRA)/Healthy Forest Initiative (HFI). The FFO-FMP will also reflect and integrate fire management direction from the current Sierra Planning Area Management Framework Plan (as amended) and the Folsom Resource Management Plan (currently under preparation and scheduled to be completed in 2007), subsequent amendments to this RMP, and other applicable Folsom Field Office's Special Management and/or Activity Plans. The existing MFP does not contain specific fire related planning decisions. The F-FMP will be prepared using existing knowledge and professional judgment and will be amended when the RMP is completed to provide more specific land use planning decisions and guidance for fire management decisions. Existing management direction which includes the MFP and various implementation plans allows for fire to be restored as an integral part of ecosystems to meet resource management objectives and improve protection of human life and property through the reduction of hazardous fuels. The F-FMP will provide clear management direction for fire and resource personnel. This management direction may be modified upon completion of the RMP. In the meantime, there is adequate information to develop fire management strategies.

This Fire Management Plan (FMP) identifies resource values and conditions pertaining to fire management in the BLM and Folsom Field Office (FFO). The FMP recommends strategies for:

- Wildland Fire Suppression
- Wildland Fire Use (WFU)
- Prescribed Fire
- Non-Fire Fuels Treatment
- Emergency Stabilization and Rehabilitation (ESR)
- Community Assistance/Protection

The fire management strategies presented here will be considered in preparation of the Annual Work Plan and development of annual budget requests. Proposed actions, alternatives, and environmental analyses in compliance with the National Environmental Policy Act (NEPA) will be derived from these strategies and will be used in the development of site-specific projects. The information in this plan may strengthen cumulative effects analysis when planning and analyzing site-specific projects. In addition, this FMP lays the foundation for future collaborative efforts involving interagency partners and state and local cooperators.

This FMP also provides quantified information for the Fire Program Analysis (FPA) planning process. FPA is the interagency fire planning model that will be used to project the budget and personnel needs for the FFO and all other fire management organizations administered by the U.S. Departments of the Interior (USDI) and Agriculture (USDA). The FPA process is being implemented in two phases. The FMP will provide information for both Phase I and Phase II of

FPA. These FPA phases will develop program budgets and organizations for all fire management functions, which includes wildland fire preparedness, initial attack, wildland fire use, large fire suppression, fuels management, community education/assistance and fire prevention activities. Additional information regarding FPA is available at http://fpa.nifc.gov.

The fire suppression information presented in this FMP will be updated annually to ensure that the most current information is available for use in the FPA resource and budget allocation process. The fire management strategies and priorities recommended in this FMP will be updated as appropriate to reflect current issues and conditions.

National Direction for Fire Management Planning
The purpose of this Fire Management Plan (FMP) is to incorporate newly developed fire and fuels management strategies and tactics into a document which supports the land and resource management goals and objectives of the Folsom Field Office Resource Management Plan (RMP). In addition, to comply with the Federal Wildland Fire Management Plan Policy and Program Review (1995 and 2001) and the National Fire Plan's A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy and Implementation Plan (2002), all federal lands with burnable vegetation must be covered under an approved FMP. Federal policy requires that Fire Management Plans be developed for all acres of burnable vegetation on Federal land, and that they be linked closely with approved RMP's. This FMP was developed in compliance with the Interagency Fire Management Plan Template, to ensure that FMP's prepared by the USDI and USDA have consistent content and format.

B. Relationship to Environmental Compliance

This FMP has been developed in a collaborative manner with Fire Planning Unit (FPU) agency partners to implement decisions made in the BLM Field Office Land Use Plan[1], inclusive of subsequent plan amendments and implementation-level activity plans (herein referred to as the "land use plan"). Impacts of fire suppression, hazardous fuels reduction, and burned area rehabilitation activities on public lands administered by the BLM have been previously analyzed at a programmatic level in the environmental impact statement (EIS) that accompanies the land use plan and in the tiered NEPA compliance (EA or EIS) documents for subsequent land use plan amendments and relevant activity plans.

Inclusion of decisions made in the land use plan into this FMP meets all National Environmental Policy Act (NEPA) requirements. Prior development of these decisions through the BLM Resource Management Planning process also assures that requirements for compliance with other Federal and State laws and regulations or consistency with State and local government plans have been achieved. The decisions and analysis contained in the land use plan did not address the other public lands administered by the Forest Service, National Park Service, or the U.S. Fish and Wildlife Service, which are included in this Fire Planning Unit.

[1] BLM manages public lands under Management Framework Plans (MFP's), Resource Management Plans (RMP's) and General Management Plans (GMP's). In some cases, a BLM Field Office may have one or all plan types within their jurisdiction. In order to reduce confusion, these plans are collectively referred to as Land Use Plans (LUP's).

This FMP is a strategic document that does not make resource management decisions or project-specific implementation decisions and is categorically excluded from further NEPA analysis under 516 DM 2, Appendix 1, Chapter 2, 1.10: "Policies directives, regulations and guidelines of an administrative, financial, legal, technical or procedural nature; or the environmental effects of which are too broad, speculative or conjectural to lend themselves to meaningful analysis and will be subject later to the NEPA process, either collectively or case-by-case".

The FMP is a working reference to provide continuity of operations for wildland fire management, hazardous fuels treatments, and burned area rehabilitation activities that occur within the Field Office's administrative jurisdiction within the FPU. The FMP provides the necessary baseline information to generate out-year budgets through the Fire Program Analysis (FPA) for preparedness, suppression, fire use and fire rehabilitation within the FPU. The FMP will be reviewed annually and revised as needed to ensure that the strategic guidance provided in the plan is assisting the Field Office in meeting its resource management and fire/fuels management goals, and objectives and actions outlined in the land use plan.

Land Use Plan Conformance

General fire and resource management objectives and strategies included in this FMP will be analyzed in the Folsom RMP EIS and in NEPA documents supporting other activity level plans. While the Fire Planning Unit may include lands administered by other agencies (NPS, USFWS or Forest Service) the NEPA analysis does not cover these actions, other than through analysis of cumulative effects, where applicable.

All objectives and fire management strategies outlined in the FMP are in conformance with the goals, objectives, management actions, and terms and conditions of the supporting land use plan. Revisions, additions, and adjustments to the FMP that are in conformance with the land use plan may be made at any time as a result of annual review of the FMP. As required, additional NEPA analysis will be conducted on any revision, addition, or adjustment that is not adequately analyzed in other planning/NEPA documents incorporated into the FMP or that establish new land use plan objectives.

FMP Implementation

Prior to implementing fire management projects on-the-ground, including projects that may be planned in cooperation with other agencies, additional environmental analysis for compliance with NEPA, ESA and other federal and state laws and regulatory requirements, such as the National Historic Preservation Act, the Clean Water Act and the Clean Air Act may be required.

In addition to formal and informal consultation required under the Endangered Species Act, the Joint Counterpart Regulations, issued in 2003, allow BLM to proceed with proposed actions that support the National Fire Plan, and which are "not likely to adversely affect" listed species or designated critical habitat, without consulting with or obtaining written concurrence from the Services, U.S. Fish and Wildlife Service and/or NOAA Fisheries. The process must follow the interagency agreement, which details requirements for BLM staff training and certification, and project documentation and reporting (for details, refer to: *Alternative Consultation Agreement to*

Implement Section 7 Counterpart Regulations, Bureau Of Land Management, National Marine Fisheries Service, and U.S. Fish and Wildlife Service).

C. Collaboration

The F-FMP is a strategic document identifying interim fire management direction. The long term fire management direction will come through the amendment to the F-FMP when the Folsom RMP is completed and analyzed in an environmental impact statement. The RMP is being developed with input from and consultation with representatives from: the ten county board of supervisors; state agencies including the California's Department of Fish and Game (DFG), Department of Water Resources (DWR), Division of Forestry and Fire Protection (CDF), Department of Conservation and others; the US Fish and Wildlife Service (FWS), Forest Service (FS), the Bureau of Reclamation (BOR), the Corps on Engineers (COE); The Nature Conservancy, several Indian tribes, numerous conservation organizations; and homeowners associations and interested citizens. The F-FMP meets the national requirement that all BLM administered lands subject to wildland fires are managed under a current FMP. The F-FMP will also meet regulatory compliance requirements with the National Environmental Policy Act as it is a strategic document that does not make resource management decisions or project specific implementation decisions and therefore is categorically excluded from further NEPA analysis (Categorical Exclusion 516 DM2, Appendix 1, Chapter 2, 1.10). Prior to implementing fire management projects on-the-ground, additional environmental analysis and compliance with other federal and state regulatory requirements such as the National Historic Preservation Act, the Endangered Species Act, the Clean Water Act and the Clean Air Act will be required.

D. Authorities

The Federal Land Policy and Management Act of 1976 (FLPMA; Public Law 94-579; 43 U.S.C. 1701) establishes the primary authority and provides guidance for how the public lands are to be managed by the BLM. In managing public lands on the basis of multiple use and sustained yield, FLPMA requires that the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource and archeological values be protected.

Authority is delegated from the Secretary of the Interior to the Director of the Bureau of Land Management for the operation of a fire management program on public lands under the jurisdiction of the Bureau. Departmental Manual 910 and BLM Manual 9200 codify this delegation of authority.

Additionally, this FMP has been developed to fully comply with the following legislative efforts:

- Protection Act of September 20, 1922 (42 Stat. 857; 16 U.S.C. 594)
- McSweeney-McNary Act of 1928 (45 Stat. 221; 16 U.S.C. 487)
- Economy Act of June 30, 1932 (47 Stat. 417; 31 U.S.C. 1535)
- Taylor Grazing Act of June 28, 1934 (48 Stat. 1269; 43 U.S.C. 315)

- O. and C. Act of August 28, 1937 (50 Stat. 875; 43 U.S.C. 1181e)
- Federal Property and Administrative Service Act of 1949 (40 U.S.C. 471; et seq.)
- Reciprocal Fire Protection Act of May 27, 1955 (69 Stat. 66; 42 U.S.C. 1856a)
- National Historic Preservation Act (NHPA; 1966)
- National Environmental Policy Act (NEPA; 1969)
- Endangered Species Act (ESA; 1973)
- Disaster Relief Act of May 22, 1974 (88 Stat. 143; 42 U.S.C. 5121)
- Federal Fire Prevention and Control Act of October 29, 1974 (88 Stat. 1535; 15 U.S.C. 2201)
- Federal Land Management and Policy Act of 1976 (FLPMA) (Public Law 94-579; 43 U.S.C. 1701)
- Archaeological Resources Protection Act (ARPA; 1979)
- Federal Grant and Cooperative Agreement Act of 1977 (P.L. 950224, as amended by P.L. 97-258, September 13, 1982 (96 Stat. 1003; 31 U.S.C. 6301 thru 6308)
- Supplemental Appropriation Act of September 10, 1982 (96 Stat. 837)
- Wildfire Suppression Assistance Act of 1989 (P.L. 100-428, as amended by P.L. 101-11, April
- Interim Management Policy and Guidelines for Lands Under Wilderness Review (1995)
- Department of the Interior and Related Agencies Appropriations Act (P.L. 103-32)
- National Fire Plan (USDA and USDI 2,000a)
- Review and Update of the 1995 Federal Wildland Fire Management Policy (USDA and USDI
- 10 Year Comprehensive Strategy Implementation Plan (USDA and USDI 2002)
- 10 Year Comprehensive Strategy (USDA and USDI 2001b)
- Burn Area Emergency Stabilization and Rehabilitation Handbook (USDA and USDI 2002)
- Protecting People and Sustaining Resources in Fire-Adapted Ecosystems: A Cohesive Strategy
- Healthy Forests: An Initiative for Wildfire Prevention and Stronger Communities.
- Healthy Forest Restoration Act
- BLM Handbook 9211-1 (USDI DRAFT 1997)
- BLM Prescribed Fire Management Handbook: H-9214-1 (USDI 2,000)
- United States Department of the Interior Manual (910 DM 1.3)

- 1995 Federal Wildland Fire Management Policy
- 2001 Updated Federal Wildland Fire Management Policy (1995 Federal Wildland Fire Management Policy Update)
- 1998 Departmental Manual 620 Chapter 1, Wildland Fire Management General Policy and Procedures

II. RELATIONSHIP TO LAND MANAGEMENT PLANNING/FIRE POLICY

This chapter outlines the national policy, regional guidance, BLM state policy, and local land use planning guidance that provide direction for this FMP.

A. Relationship to Fire Policy

The Federal Wildland Fire Management Policy
The Federal Wildland Fire Management Policy (FWFMP) was developed by the Secretaries of the USDI and USDA in 1995 to respond to dramatic increases in the frequency, size, and catastrophic nature of wildland fires in the United States. This policy was reviewed and reaffirmed by the Secretaries in 2001. The FWFMP identified the need for a new approach to fire management on federal lands and led to the development of the National Fire Plan (NFP).

This FMP adheres to the following established fire policy:

- BLM Manual Section 1740 and BLM Manual Handbook H-1740-1 – provides guidance and procedures for management and treatment of renewable resources, including utilization of management prescribed fire and emergency fire rehabilitation.
- BLM Manual Section 1752 – provides guidance for emergency fire rehabilitation. Emergency fire rehabilitation measures to prevent accelerated soil erosion and establishment of noxious weeds are incorporated. Fire line rehabilitation would include restoration of surface contours and closure to vehicles.
- BLM Handbook 9214, "Prescribed Fire Management" describes authority and policy for prescribed fire use on public lands administered by the Bureau of Land Management.
- 43 CFR 9212.0-6 Policy – It is the policy of the BLM to take all necessary actions to protect human life, the public lands and the resources and improvements thereon through the prevention of wildfires. Wherever possible, the Bureau of Land Management's actions will complement and support State and local wildfire prevention actions.
- September 2000, "Managing the Impacts of Wildfires on Communities and the Environment."
- October 2000, National Cohesive Strategy – goal is to coordinate an aggressive, collaborative approach to reduce the threat of wildland fire to communities and to restore and maintain land health (www.fireplan.gov).
- August 2001, Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment -10 Year Comprehensive Strategy and May 2002, Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10 Year Comprehensive Strategy – Implementation Plan – provide a suite of core principles and four goals. The core principles include the concepts of collaboration, priority setting, and accountability. The four goals are:

    1. Improve Prevention and Suppression
    2. Reduce Hazardous Fuels

3. Restore Fire Adapted Ecosystems
4. Promote Community Assistance

The strategy provides a foundation for wildland agencies to work closely with all levels of government, tribes, conservation, and commodity groups and community-based restoration groups to reduce wildland fire risk to communities and the environment.

- May 2002, "Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10 Year Comprehensive Strategy – Implementation Plan"
- August 2002, "Healthy Forests – An Initiative for Wildfire Prevention and Stronger Communities."
- December 2003, "Healthy Forest Restoration Act" – provides improved statutory processes for hazardous fuel reduction projects.
- January 2004, "Interagency Standards for Fire and Fire Aviation Operations" describes policy and operations for all fire related activities in the DOI and USDA.
- Interagency Standards for Fire and Fire Aviation Operations – describes policy and operations for all fire related activities in the DOI and USDA, as amended annually.

Additionally, the 2001 Review and Update of the 1995 Federal Wildland Fire Management Policy states:

1. Safety – Firefighter and Public Safety is the first priority. All Fire Management Plans and activities must reflect this commitment.
2. Fire Management and Ecosystem Sustainability – The full range of fire management activities will be used to help achieve ecosystem sustainability, including its interrelated ecological and social components.
3. Response to Wildland Fire – Fire, as a critical natural process, will be integrated into land and resource management plans and activities on a landscape scale, and across agency boundaries. Response to wildland fire is based on ecological, social, and legal consequences of the fire. The circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and values to be protected dictate the appropriate management response to the fire.
4. Use of Wildland Fire – Wildland fire will be used to protect, maintain, and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role. Use of fire will be based on approved Fire Management Plans and will follow specific prescriptions contained in operational plans.
5. Rehabilitation and Restoration – Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health, and safety, and to help communities protect infrastructure.
6. Protection Priorities – The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be based on the values to be protected, human health and safety, and the costs of protection. Once people

have been committed to an incident, these human resources become the highest value to be protected.

7. Wildland Urban Interface – The operational roles of federal agencies as partners in the Wildland Urban Interface are wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of tribal, State, or local governments. Federal agencies may assist with exterior structural protection activities under formal Fire Protection Agreements that specify mutual responsibilities of the partners, including funding. (Some federal agencies have full structural protection authority for their facilities on lands they administer, and may also enter into formal agreements to assist State and local governments with full structural protection.)
8. Planning – Every area with burnable vegetation must have an approved Fire Management Plan. Fire Management Plans are strategic plans that define a program to manage wildland and prescribed fires based on the area's approved land management plan. Fire Management Plans must provide for firefighter and public safety; include fire management strategies, tactics, and alternatives; address values to be protected and public health issues; and be consistent with resource management objectives, activities of the area, and environmental laws and regulations.
9. Science – Fire Management Plans and programs will be based on a foundation of sound science. Research will support on-going efforts to increase our scientific knowledge of biological, physical, and sociologic factors. Information needed to support fire management will be developed through an integrated interagency fire science program. Scientific results must be made available to managers in a timely manner and must be used in the development of land management plans, Fire Management Plans, and implementation plans.
10. Preparedness – Agencies will ensure their capabilities to provide safe, cost-effective fire management programs in support of land and resource management plans through appropriate planning, staffing, training, equipment, and management oversight.
11. Suppression – Fires are suppressed at minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.
12. Prevention – Agencies will work together and with their partners and other affected groups and individuals to prevent unauthorized ignition of wildland fires.
13. Standardization – Agencies will use compatible planning processes, funding mechanisms, training and qualification requirements, operational procedures, values to be protected methodologies, and public education programs for all fire management activities.
14. Interagency Cooperation and Coordination – Fire management planning, preparedness, prevention, suppression, fire use, restoration and rehabilitation, monitoring, research, and education will be conducted on an interagency basis with the involvement of cooperators and partners.
15. Communication and Education – Agencies will enhance knowledge and understanding of wildland fire management policies and practices through internal and external communication and education programs. These programs will be continuously improved

through the timely and effective exchange of information among all affected agencies and organizations.

16. Agency Administrator and Employee Roles – Agency administrators will ensure that their employees are trained, certified, and made available to participate in the wildland fire program locally, regionally, and nationally as the situation demands. Employees with operational, administrative, or other skills will support the wildland fire program as necessary. Agency administrators are responsible and will be held accountable for making employees available.
17. Evaluation – Agencies will adopt and implement a systematic method of evaluation to determine effectiveness of projects through implementation of the 2001 Federal Fire Policy. The evaluation will assure accountability, facilitate resolution of areas of conflict, and identify resource shortages and agency priorities.

Appropriate Management Response

The FWFMP establishes the concept of Appropriate Management Response (AMR), which is further defined in *The Interagency Strategy for the Implementation of the Federal Wildland Fire Management Policy* (USDA and USDI, 2003). This policy states: "A wildland fire that is not a prescribed fire requires an AMR. The AMR, which can range from aggressively suppressing the incident as a wildland fire, to managing the incident as a WFU event, is guided by the strategies and objectives outlined in the RMP reflecting land and resource values and objectives. The FMP outlines fire management activities and procedures to accomplish those objectives. The objective of a WFU project is to obtain resource benefits whereas a wildland fire is to be extinguished at minimum cost."

Examples of AMR's include:

- Prompt aggressive suppression response to control the fire as quickly as possible and keep burned area to a minimum, such as within the Wildland Urban Interface (WUI), developed recreation sites and facilities, and critical resource or cultural areas where wildfire is not desired.
- Aggressive suppression on one portion of a wildland fire and monitoring on another portion of the same fire.
- Monitoring a wildland fire provided topographic, weather, and fuel conditions reflect a minimal threat to private and other agency owned lands, resource objectives are being met, and safety considerations are best mitigated.

The National Fire Plan

The Secretaries of USDI and USDA initiated the National Fire Plan (NFP) in 2000 to address the needs identified in the FWFMP. The NFP is not an actual document, but a nationally coordinated effort to protect communities and natural resources from the harmful effects of increasing wildland fire occurrence and severity in the United States. The NFP establishes the overarching purpose and goals, which are articulated and carried forward through the 10-Year Comprehensive Strategy (USDI, USDA 2001), the Cohesive Strategy for Protecting People and Sustaining Natural Resources (USDA 2000), and other supporting documents. The four primary goals of the NFP are:

- Improve fire prevention and suppression
- Reduce hazardous fuels
- Restore fire-adapted ecosystems
- Promote community assistance

The 10-Year Comprehensive Strategy
The 10-Year Comprehensive Strategy was prepared in 2001 by the USDI, USDA, and the Western Governor's Association to provide a more detailed framework for accomplishing the goals of the NFP. This strategy emphasizes a collaborative, community-based approach to address wildland fire issues and identifies guiding principles and management actions for agencies to follow in implementing the NFP. The guiding principles of the Comprehensive Strategy include:

- Public and firefighter safety is the first priority in all fire management.
- Prioritize hazardous fuels reduction where the negative impacts of wildland fire are greatest.
- Prevent invasive species and restore watershed function and biological communities through short-term rehabilitation.
- Restore healthy, diverse, and resilient ecological systems to minimize uncharacteristically severe fires on a priority watershed basis through long-term restoration.
- Promote better fire prevention planning and actions in local communities through technical assistance and cost-sharing incentives.

The Cohesive Strategy for Protecting People and Sustaining Natural Resources
The Cohesive Strategy for Protecting People and Sustaining Natural Resources was prepared in 2000 by the USDA. It projects the quantity and rate of fuels reduction treatments required on a landscape scale to restore fire-adapted ecosystems and protect communities from increasing wildland fire. The Cohesive Strategy estimates fuels reduction treatments needing to increase fivefold in order to achieve these goals. It also concludes that treatments are needed both within and outside the WUI.

Fire Regime Condition Class
The Cohesive Strategy establishes a classification system, known as the Fire Regime Condition Class (FRCC), which describes the amount of departure of an area or landscape from the historic to present conditions. This departure from the natural state may be a result of changes in one or more ecosystem components such as fuel composition, fire frequency, or other ecological disturbances. As mandated by national direction, this FMP will utilize the FRCC classification system to rank existing ecosystem conditions and prioritize areas for treatment. As taken from the Cohesive Implementation Strategy, FRCC is defined as follows:

> **Fire Regime Condition Class 1 (FRCC1): "**…Fire Regimes in this Condition Class are within historical ranges. Thus, the risk of losing key ecosystem components from the occurrence of fire remains relatively low. Maintenance management such as prescribed fire, mechanical treatments, or preventing the invasion of non-native weeds, is required to prevent these lands from becoming degraded."

Fire Regime Condition Class 2 (FRCC2): "Fire Regimes on these lands have been moderately altered from their historical range by either increased or decreased fire frequency. A moderate risk of losing key ecosystem components has been identified in these lands. To restore their historical Fire Regimes, these lands may require some level of restoration as through prescribed fire, mechanical or chemical treatments, and the subsequent reintroduction of native plants."

Fire Regime Condition Class 3 (FRCC3): "These lands have been significantly altered from their historical range. Because Fire Regimes have been extensively altered, risk of losing key ecosystem components from fire is high. Consequently, these lands verge on the greatest risk of ecological collapse. To restore their historical Fire Regimes before prescribed fire can be utilized to manage fuel or obtain other desired benefits these lands may require multiple mechanical or chemical restoration treatments, or reseeding."

Historic Fire Regime
The Cohesive Strategy utilizes the concept of Historic Fire Regime (HFR). These regimes represent fire intervals prior to Euro-American settlement and are calculated and classified by analyzing natural vegetation, known fire cycles, and fire history data. Based on the FRCC and HFR classifications, the Cohesive Strategy established the following national priorities for implementing vegetation treatments:

- Treat vegetation types within HFR Groups I, II, and III,
- Treat lands that have been either significantly altered (CC3) or moderately altered (CC2) from their historic range, and
- Treat at least 2% of an agency's administered lands annually.

Special Status Species Policy and Guidance

Endangered Species Act of 1973 (16U.S.C. 1531 *et seq.*), as amended.
Provisions of the ESA, as amended, apply to plants and animals that have been listed as endangered or threatened, those proposed for being listed, and designated and proposed critical habitat.

Sikes Act of 1974, Title II (16 U.S.C. 670g *et seq.*), as amended.
This Act directs the Secretaries of Interior and Agriculture to, in cooperation with the State agencies, develop plans to develop, maintain, and coordinate programs for the conservation and rehabilitation of wildlife, fish and game. Such conservation and rehabilitation programs shall include, but not limited to, specific habitat improvement projects, and related activities and adequate protection for species considered threatened or endangered.

BLM Special Status Species Policy
It is national policy to:

1. Conserve federally listed and proposed threatened or endangered species and the habitats on which they depend.

2. Ensure that actions requiring authorization or approval by the BLM are consistent with the conservation needs of Special Status Species (SSS) and do not contribute to the need to list any SSS, either under provisions of the ESA or other provisions of this policy.

The terms conserve and conservation in this national policy and pursuant to the ESA are defined as the use of all methods and procedures necessary to improve the status of federally listed species and their habitats to a point where the provisions of the ESA are no longer necessary. Fire management planning and activities on site-specific projects should consider the following where ESA species occur:

1. Recovery or conservation plans and activities that promote species recovery in the RFO.
2. Terms and conditions of consultation with the USFWS, NOAA Fisheries, and CDFG to promote species recovery in the RFO.
3. Where and how fire management activities can conserve SSS, especially ESA listed proposed and candidate species.

BLM Manual 6840.06 – BLM Sensitive Species Policy
BLM policy is to provide sensitive species with the same level of protection as is provided for candidate species in BLM Manual 6840.06 C, that is to "ensure that actions authorized, funded, or carried out do not contribute to the need for the species to become listed". The Sensitive Species designation is normally used for species that occur on Bureau administered lands for which BLM has the capability to significantly affect the conservation status of the species through management.

National BLM Cultural Resource Policy
Cultural resources are recognized as fragile, irreplaceable resources with potential public and scientific uses, and represent an important and integral part of our Nation's heritage.

It is national policy to:

1. Manage cultural resources under BLM jurisdiction or control according to their relative importance, to protect against impairment, destruction, and inadvertent loss, and to encourage and accommodate the uses determined appropriate through planning and public participation.
2. Manage cultural resources under cultural resource statues, the multiple use principles and other direction contained in FLPMA, and the planning and decision-making processes as are followed in managing other public land resources.
3. Ensure that tribal issues and concerns are given consideration during planning and decision-making, including fire management planning and decision-making for specific fire management projects.

This policy is not limited to BLM activities that affect Federal lands. It is the responsibility of the BLM to assure that its actions and authorizations are considered in terms of effects on cultural resources located on non-Federal lands. Fire management planning and activities on site-specific projects that involve non-Federal land shall consider this responsibility.

B. Land Use Plan Guidance

The Folsom Field Office has lands in two Fire Planning Units (FPU). The northern FPU, **LEFT**, consists of **L**ake Tahoe Basin, **T**ahoe National Forest, **E**l Dorado National Forest, and eight of the **F**olsom Fire Management Units (FMUs). The southern FPU includes Stanislaus National Forest, Sierra National Forest, Yosemite National Park, and six Folsom FMUs.

The Field Office area is also divided by the California Department of Forestry and Fire Protection (CDF) into four units by county. The appropriate CDF unit is identified in the fire management unit descriptions.

The F-FMP derives overall program guidance from the following local Field Office plans:

- 1988 Sierra Management Framework Plan.
- 1985 Merced River Fire Management Plan
- 1991 Merced Wild and Scenic River Management Plan
- 1985 Red Hills Management Plan
- 1994 'Inimim Forest Management Plan
- 2004 South Fork American River Management Plan
- 2004 Round Mountain/Rock Creek Forest Management Plan

Wildland fire management activities within the FFO will assist in meeting the following management goals, standards, and guidelines from the plans listed above.

Goals, Standards, Objectives, and/or Desired Future Condition

<u>Fire Suppression:</u>

- Protect sensitive areas from inappropriate fire.
- Provide suppression oversight to cooperating agencies.
- Protect sensitive cultural resources.

<u>Fire Prevention and Education:</u>

- Employ fire prevention strategies that reduce human ignition occurrence in campgrounds and transportation corridors.
- Educate the public as to fire's natural role in ecosystems.
- Work with communities, fire safe councils, and other agencies to identify hazards and risk mitigation strategies.

Ecological Processes:

- Protect riparian/wetland areas and improve degraded vegetation for long-term health
- Manage for healthy populations of native wildlife in their natural habitat.
- Manage the habitat for Special Status Species of plants and animals to maintain viable populations and the ecosystems upon which they depend.
- Manage land treatments to conserve site moisture and to protect long-term stream health from increased runoff damage.
- Establish a fire effects monitoring system that inventories pre-burn species composition and resulting post fire response, over time.

Fuels Management:

- Maintain air quality to meet or exceed applicable federal and state standards and regulations.
- Reduce fire risk to Wildland Urban Interface (WUI) communities.
- Restore and maintain the structures, species composition, and processes of native ecological communities and existing ecosystems.
- Use management tools such as mechanical thinning, prescribed fire, biological, cultural and/or chemical treatments to make forests dominated by shade-intolerant species more resilient to fire, insects, and disease.
- Use fire as a management tool to improve the ecological condition of the resource area.

C. Wilderness/Wilderness Study Areas

The FMP will adhere to all wilderness rules, policies, and guidelines related to fire and fuels management with Wilderness areas and Wilderness Study Areas. This FMP will develop consistent overall fire and fuels management strategy for wilderness managed by the Folsom Field Office.

D. Areas of Critical Environmental Concerns

The FMP will also adhere to Area of Critical Environmental Concern (ACEC) prescriptions identified in completed ACEC activity plans.

III. WILDLAND FIRE MANAGEMENT STRATEGIES

A. General Management Considerations

In order to comply with direction provided in current National Fire Plan guidance, LUP's, ACEC Plans, interim Wilderness Plans, the Folsom Field Office will implement the following fire management guidance:

- Protect sensitive and high risk areas from inappropriate fire.
- Use fire to restore and/or sustain ecosystem health based on sound scientific principles and information, balanced with other societal goals, including public health and safety and air quality.
- Coordinate with CDF for an Appropriate Management Response (defined below) to wildland fires to allow for the natural dynamics of fire on the ecosystem, control costs, provide for firefighter and public safety, minimize damage from suppression operations, and create landscapes resistant to the damages associated with high intensity fire, considering benefits and values to be protected consistent with resource objectives, standards, and guidelines.
- Meet management goals and objectives through the use of prescribed fire, mechanical, biological, and cultural treatments.
- Work collaboratively with Communities-At-Risk and Communities-of-Interest within the WUI to develop plans for wildland fire risk reduction. The Federal Register Notice list of Communities-At-Risk is available at http://www.fireplan.gov/communities_at_risk.cfm and is not totally inclusive of all communities. (The new list is now coordinated through the California Fire Alliance at http://www.cafirealliance.org/)
- Work collaboratively with federal, state, and local partners to develop cross boundary management strategies and prioritize cross agency fire management activities.

As a federal land management agency, the FFO will be using the National Fire Program Analysis. The following fire program elements are used in this FMP/Strategy, and are used in the national interagency fire budget software called 'Fire Program Analysis' (FPA):

FPA- Fire Program Analysis: FPA is a single, uniform, performance based system for interagency preparedness and fire management program planning and budgeting. FPA will provide land managers with a tool to determine the most cost-effective wildland fire management program that meets the full scope of program objectives. The FPA will replace other agency systems such as FirePro and IIAA (BLM program). The FPA system preparedness module will be the first in a series of modules to be developed over the next few years. Additional FPA system modules will address extended attack, hazard fuels reduction, and prevention.

FPU – Fire Planning Unit: The FPU defines a geographic planning area. It can include a single or multiple RMP planning area(s), cross-jurisdictional boundaries including adjacent BLM office lands, and/or other partners. The FPU is a key component of the FPA software program. FPA uses an FPU as the basic geographic area for fire management analysis. An FPU consists of one or more Fire Management Units.

The FFO manages public lands within two interagency FPUs for California.

Fire Planning Unit Descriptive Name	FPU Member (Field Unit Name)	Agency Lands in the FPU (acres)
California FPU #6 (LEFT FPU)	**Folsom Field Office, BLM**	89,769
	Eldorado National Forest, USFS	596,724
	Lake Tahoe Basin Management Unit, USFS	160,569
	Tahoe National Forest, USFS	852,759
California FPU #7	**Folsom Field Office, BLM**	141,014
	San Luis National Wildlife Refuge Complex, USFWS	41,845
	Yosemite National Park, NPS	761,236
	Sierra National Forest, USFS	1,392,000
	Stanislaus National Forest, USFS	895,500

FMU – Fire Management Unit: An FMU is any land management area definable by objectives, management constraints, topographic features, access, values to be protected, political boundaries, fuel types, major Fire Regime groups, and so on, that set it apart from the management characteristics of an adjacent FMU. Fire Management Units are scalable, and can be separated geographically. Each FMU should be unique as evidenced by management strategies, objectives and attributes.

The FPA states that each FMU should be assigned a classification type to define its primary resource management strategy. The types are:

- Wildland Urban Interface (WUI)
- Special Management Areas (SMA)
- Areas of Critical Environmental Concern (ACEC)
- Research Natural Areas (RNA)
- High Value Habitat (HVH)
- Cultural/Historic/Paleontological (CHP)
- Vegetation (VEG)
- Wilderness (WLD)
- Wilderness Study Areas (WSA)

FMUs have dominant management objectives and pre-selected fire suppression strategies assigned to accomplish these objectives. Fire management objectives and suppression strategies for wildland fire ignitions in the FFO are defined in terms of appropriate management responses of containing unplanned ignitions at X acres XX% of the time, as well as wildland fire tolerance, in terms of total burned acres over a 10 year period for each FMU.

Note: see Chapter III, Section D for detailed strategy descriptions of the FFO FMUs.

In order to comply with direction provided in current planning documents the following general wildland fire management guidance was developed:

- Use fire to restore and/or sustain ecosystem health based on sound scientific principles and information, balanced with other societal goals, including public health and safety, and air quality.
- Identify appropriate management response (AMR) goals, objectives, and constraints by, specific Fire Management Units (FMU) within the FFO. All wildland fire management activities will be managed as described in the FMU guidance outlined in Chapter III, Section D.
- Coordinate with the CDF to agree upon an AMR on all wildland fires, with emphasis on minimizing the loss of life and damage to private property, minimizing environmental damage due to suppression efforts, considering firefighter and public safety, and keeping suppression costs down.
- Meet management goals and objectives through the use of prescribed fire, mechanical treatment, wildland fire for resource benefit, chemical treatment, biological treatment, and cultural treatment.
- Work collaboratively with the 58 communities at risk within WUI zones in our Field Office area. The Federal Register Notice list is located at: http://www.fireplan.gov/and www.fireplan.gov/reports/351-358-en.pdf and is not totally inclusive of all communities.
- Work collaboratively with federal, state, and local partners to develop cross boundary management strategies and prioritize cross agency fire management actions.

B. Wildland Fire Management Goals

As stated in Chapter II, the Folsom Field Office Fire Management Plan will reflect the wildland fire management goals that are identified in the 1995/2001 Federal Wildland Fire Policy, the National Cohesive Strategy and the 10 Year Comprehensive Strategy.

The 10 year Comprehensive Strategy provides a suite of core principles and fire management goals that identifies an aggressive, collaborative approach to reduce the threat of wildland fire to communities and to restore and maintain land health. The four primary goals are:

1. Improve Prevention and Suppression
2. Reduce Hazardous Fuels
3. Restore Fire Adapted Ecosystems
4. Promote Community Assistance

The FFO will conduct all wildland fire management actions in compliance with the 1995 Federal Wildland Fire Policy and the 2001 Federal Wildland Fire Policy Update guiding principles. These principles are:

- Firefighter and public safety are the highest priority in every fire management activity.
- Assess risk to communities in terms of direct wildland fire impact and economic values, and implement effective programs to mitigate that risk through collaborative planning and projects.
- Implement the full range of wildland fire and fuels management practices, including prescribed fire, mechanical, chemical, biological, and cultural treatments that will move all affected landscapes toward desired future condition as described in the RMP.
- Establish partnerships with all interagency cooperators to facilitate coordinated fire management activities.
- Keep CDF informed and aware of all fire management decisions related to the suppression of wildland fires in the FFO.
- Encourage close coordination and collaboration among specialists within and among federal, interested organizations, private landowners, state, and local partners.
- Develop and use the best scientific information (including fire science, vegetation, ecology, watershed, public safety etc.) available to deliver technical and community assistance to support ecological, economic, and social sustainability.
- Allow wildland fire to protect, maintain, and enhance resources, and as nearly as possible be allowed to function in its ecological role when appropriate for the site and situation.
- Create an integrated approach to fire and resource management.

Specific fire programmatic direction for each Fire Management Unit (FMU) of the FFO is outlined in Chapter III Section D of the F-FMP.

C. Wildland Fire Management Options

Wildland fire management options for the Folsom Field Office will typically include the following:

- Wildland Fire Suppression – Appropriate Management Response
- Prescribed fire
- Non-Fire Fuels Treatment that include mechanical, biological and chemical
- Post Fire Rehabilitation and Restoration
- Community Protection, Community Assistance and Rural Fire Assistance

The FFO will provide an appropriate management response (AMR) on all wildland fires. California Department of Forestry and Fire Protection (CDF) provide all initial attack on BLM public lands in FFO as per an interagency fire agreement between BLM and the State. Because CDF has initial attack responsibilities, the FFO and CDF will coordinate and agree upon an

AMR on all wildland fires, with emphasis on; minimizing the loss of life and damage to private property, providing for firefighter and public safety, minimizing environmental damage due to suppression efforts, and keeping suppression costs relative to values at risk. The use of appropriate management response will allow management to design preplanned wildland fire responses to meet objectives established in the resource management plan. Ultimately, CDF has overall jurisdictional initial attack responsibilities on Bureau lands, and will respond as equipment availability and immediate fire conditions warrant, within the guidelines provided in this FMP and the approved annual operating plans.

D. Description of Wildland Fire Management Strategies by Fire Management Unit

There are fourteen FMUs within the FFO. Within each FMU only a small percentage of the land is administered by the BLM. There are approximately 1,000 separate parcels of public land in the fourteen FFO FMUs.

Fire Management Objectives Common to All FFO FMUs
The following fire management objectives apply to all FFO fire management units:

1. Suppress all fires with an aggressive attack, with the goal of suppressing 90% of all wildland fires at less than ten acres.
   1. a. Planning Document Reference: past Fire Management Plan

2. Reduce heavy fuel loads particularly in the wildland urban interface.
   2. a. Planning Document Reference: National Fire Plan

3. Protect sensitive plant and animal species by using appropriate tactics when possible.
   3. a. Planning Document Reference: Folsom Resource Management Plan

4. Fire rehabilitation efforts will ensure scenic quality, potential invasive species, species diversity, and resource values are taken into consideration. Native species will be used for rehabilitation.
   4. a. Planning Document Reference: BLM Native Plant Materials Handbook

5. Protect sensitive cultural resources by using Minimum Impact Suppression Tactics (MIST) and by coordinating with a cultural resource Specialist during suppression efforts.
   5. a. Planning Document Reference: Folsom Resource Management Plan

Fire Management Actions Common to All FFO FMUs

In order to comply with direction provided in current National Fire Plan guidance, the Folsom Field Office, and the cooperating agencies will work collaboratively with regional partners in fire and resource management activities across agency boundaries to achieve the following fire management priorities, actions and results:

General Fire Management Guidelines:
Protection of human life is the first and most important consideration in all wildfire events and suppression actions. The safety of the public and fire fighters is of primary importance. All fire management actions whether they are related to fire suppression, fuels treatment, community education and assistance, or emergency stabilization and rehabilitation will be conducted in a manner consistent with the primary firefighter and public safety priority.

Protection of private property and infrastructure within at-risk wildland urban interface areas will be a high priority. To this end, agencies within this Fire Planning Unit (FPU) will work collaboratively with communities at risk to develop plans for risk reduction.

Where appropriate, use prescribed fire as a management tool to restore and/or sustain ecosystem health, improve the ecological condition/productivity of range ecosystems and maintain natural plant community diversity. Allow fire to function in its ecological role when appropriate for the site and situation to protect, maintain, and enhance resource values.

Fire Suppression:
The Folsom Field Office (FFO) will provide an AMR on all wildland fires that occur within the fire management jurisdiction of the Field Office. FFO will also identify appropriate management response (AMR) goals, objectives, and constraints by specific Fire Management Units (FMU) within the FPU. All wildland fire management activities will be implemented as described in the individual FMU guidance described in Chapter III, section D.

Approved Fire Management Activity Plans are not the final steps in allowing BLM personnel to use the full range of Appropriate Management Responses (AMR). Until an implementation process is developed and a Fire Management Implementation Plan (FMIP) is in place for each polygon identified in Chapter III, Section D. of the FMP, including appropriate environmental analysis, our options to use fire for resource benefit are severely limited. Unless this implementation process has been completed, full suppression is the only viable alternative under current policy. As is, under the current policy, human caused fires will always be suppressed. Other general fire suppression guidelines are as follows:

- Minimum impact suppression tactics (MIST) will apply, whereby the environmental impacts of emergency fire management methods will be no greater than necessary to meet fire management objectives.
- In the case of a wildland fire that escapes initial attack, a Wildland Fire Situation Analysis (WFSA) will be completed to determine the complexity level and identify suppression alternatives. When analyzing alternatives, consideration should always be given to least cost suppression tactics as long as other resource objectives can be met.
- Assignment of one or more Resource Advisors will be a standard practice for all intermediate and large wildfires in high value habitat and Special Management Area FMUs.

Fuels Treatments:
Prescribed fire and non-fire fuels treatments (mechanical, chemical, and biological) will be developed and implemented in order to create fire safe communities, protect private property,

achieve resource management objectives, and restore ecosystem health. Where appropriate, projects will be developed in a collaborative manner consistent with the 10-Year Strategy Implementation Plan (2002).

Prescribed burns and non-fire fuel treatments will be reseeded, using native species to the extent practical, wherever residual vegetation is not adequately abundant to revegetate the sites naturally, prevent domination by invasive weed species, and meet ecosystem restoration objectives.

Wildland Urban Interface areas are of great concern to the BLM and will be considered for fuels treatment projects. These WUI areas are identified in the Communities at Risk section of each FMU description. Additional collaborative project level planning will be completed prior to implementation of fuels management actions. Additional at risk areas and projects may be identified through a collaborative process on a case-by-case basis.

Community Education and Assistance:
An active community education and assistance program will be established, where needed, to create fire safe communities and prevent catastrophic impacts on sensitive natural resources. Fire prevention strategies will be employed to reduce human ignition with Special emphasis in the wildland-urban interface, campgrounds and transportation corridors.

Emergency Stabilization and Rehabilitation (ESR):
Emergency stabilization and rehabilitation efforts will be designed and implemented to achieve vegetation, habitat, soil stability, and watershed objectives. Aggressive actions will be taken in burned areas susceptible to conversion to invasive species.

Monitoring:
Increased emphasis will be placed on natural resource objectives for each fire and fuels treatment. A monitoring and evaluation program will be established to determine the effectiveness of the management implemented. This will include the purposeful collection and analysis of data to determine the results of implementing management actions. It will require monitoring for both pre and post-fire environmental conditions. This information will be used to adjust management determinations. Adjustment in fire and fuels management practices based on sound scientific monitoring and analysis will be consistent with this plan amendment.

Environmental Analysis (NEPA):
Current standard operating procedures for environmental analysis will be followed. Each proposal for a prescribed burn or non-fire fuel treatments will be further analyzed in a project specific environmental analysis (CX, EA, DNA) as appropriate.

Folsom Field Office – Landscape-Scale Fire Management Information

The following maps and statistical data provide fire management information in a Field Office-wide scale, which will serve to define fire management issues and characteristics in a more landscape context.

MAPS:

- Folsom Field Office Fire Planning Unit (FPU) Map
- Folsom Field Office Fire Management Unit (FMU) Map

STATISTICAL SUMMARIES:

- Folsom Field Office Agency Ownership
- Folsom Field Office Ignition History by Decade and 1980-2003 Total, by Individual FMU
- Folsom Field Office Wildfire Ignition History by Year; 1980-2003
- Folsom Field Office Wildfire Ignition History by FMU
- Folsom Field Office Wildfire Size Class

Summary of Fire Management Unit Types for Folsom Field Office:

FMU Number	FMU Name	FMU Category/Type
CA-180-01	Yuba Nevada	WUI
CA-180-02	North Fork American	WUI
CA-180-03	American River	WUI
CA-180-04	Pine Hill Preserve	WUI
CA-180-05	Cosumnes	WUI
CA-180-06	Central Valley/CRP	WUI
CA-180-07	Mokelumne	WUI
CA-180-08	Ione ACEC	ACEC
CA-180-09	Stanislaus	WUI
CA-180-10	Red Hills ACEC	ACEC
CA-180-11	Tuolumne	WUI
CA-180-12	Mariposa	WUI
CA-180-13	Merced River	SMA
CA-180-14	Tuolumne W&S	SMA

FMU Summary:
The following table summarizes the quantifiable Fire Management Objectives presented by FMU.

FMU Name Number	Wildfire Desired IA Success	Wildfire Decadal Goals (Acres)	Decadal Wildland Fire Use (Acres)	Decadal Rx Fire (Acres)	Decadal Non-Fire Treatments (Acres)	FPA Suppression Priority*
Yuba Nevada CA-180-01	<10 ac. @ 90%	1,400	N/A	1,400	500	N/A
North Fork American CA-180-02	<10 ac. @ 90%	500	N/A	200	200	N/A
American River CA-180-03	<10 ac. @ 90%	500	N/A	200	500	N/A
Pine Hill Preserve CA-180-04	<1 ac. @ 90%	5	N/A	150	50	N/A
Cosumnes CA-180-05	<10 ac. @ 90%	500	N/A	500	500	N/A
Central Valley/CRP CA-180-06	<10 ac. @ 90%	500	N/A	500	100	N/A
Mokelumne CA-180-07	<10 ac. @ 90%	500	N/A	200	200	N/A
Ione ACEC CA-180-08	<1 ac. @ 90%	100	N/A	100	100	N/A
Stanislaus CA-180-09	<10 ac. @ 90%	500	N/A	200	500	N/A
Red Hills ACEC CA-180-10	<1 ac. @ 90%	500	N/A	0	100	N/A
Tuolumne CA-180-11	<10 ac. @ 90%	500	N/A	500	500	N/A
Mariposa CA-180-12	<10 ac. @ 90%	500	N/A	1,000	100	N/A
Merced River CA-180-13	<10 ac. @ 90%	500	N/A	1,000	1,000	N/A
Tuolumne W&S CA-180-14	<10 ac. @ 90%	200	N/A	200	200	N/A

***** FPA Suppression Priority rates the FMU's relative priority for assigning fire suppression resources if multiple ignitions occur with limited resources available. For FFO, this is not applicable because CDF has direct protection for these FMUs.

FMU Desired IA Success Analysis Table:

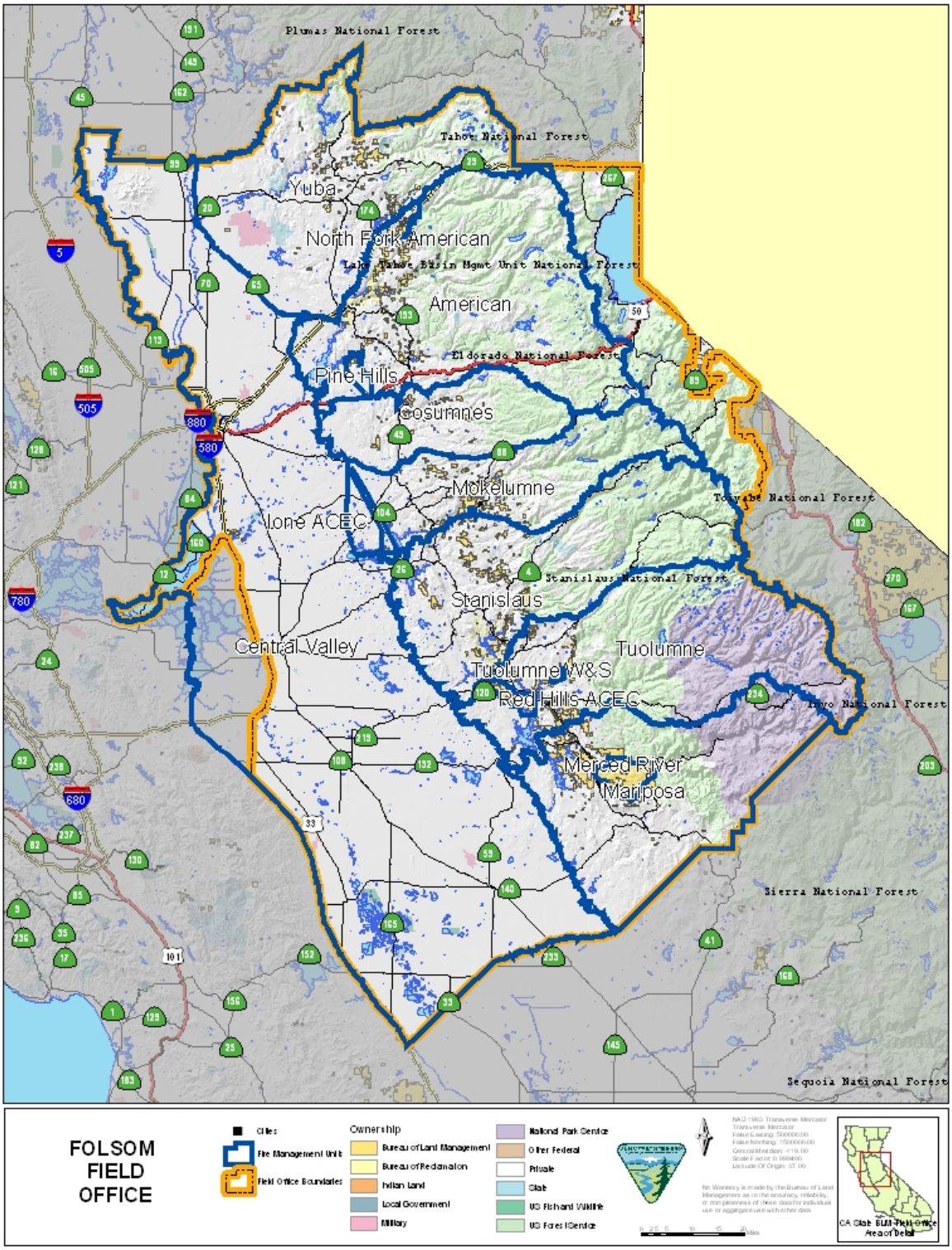
Data derived from 1202 Federal Fire Reports filed by the Bureau of Land Management.
Data does not include CDF or USFS fires.

FMU Number	Desired IA Success	Total Number of Fires 80-03	Fires That Met Desired IA Success	Actual IA Success (%)
CA-180-01	<10 Acres @ 90%	36	23	64%
CA-180-02	<10 Acres @ 90%	5	3	60%
CA-180-03	<10 Acres @ 90%	40	21	53%
CA-180-04	<1 Acres @ 90%	2	1	50%
CA-180-05	<10 Acres @ 90%	11	5	45%
CA-180-06	<10 Acres @ 90%	22	9	41%
CA-180-07	<10 Acres @ 90%	50	35	70%
CA-180-08	<1 Acres @ 90%	2	0	0%
CA-180-09	<10 Acres @ 90%	63	24	38%
CA-180-10	<1 Acres @ 90%	12	1	8%
CA-180-11	<10 Acres @ 90%	61	34	56%
CA-180-12	<10 Acres @ 90%	48	18	38%
CA-180-13	<10 Acres @ 90%	0	NA	NA

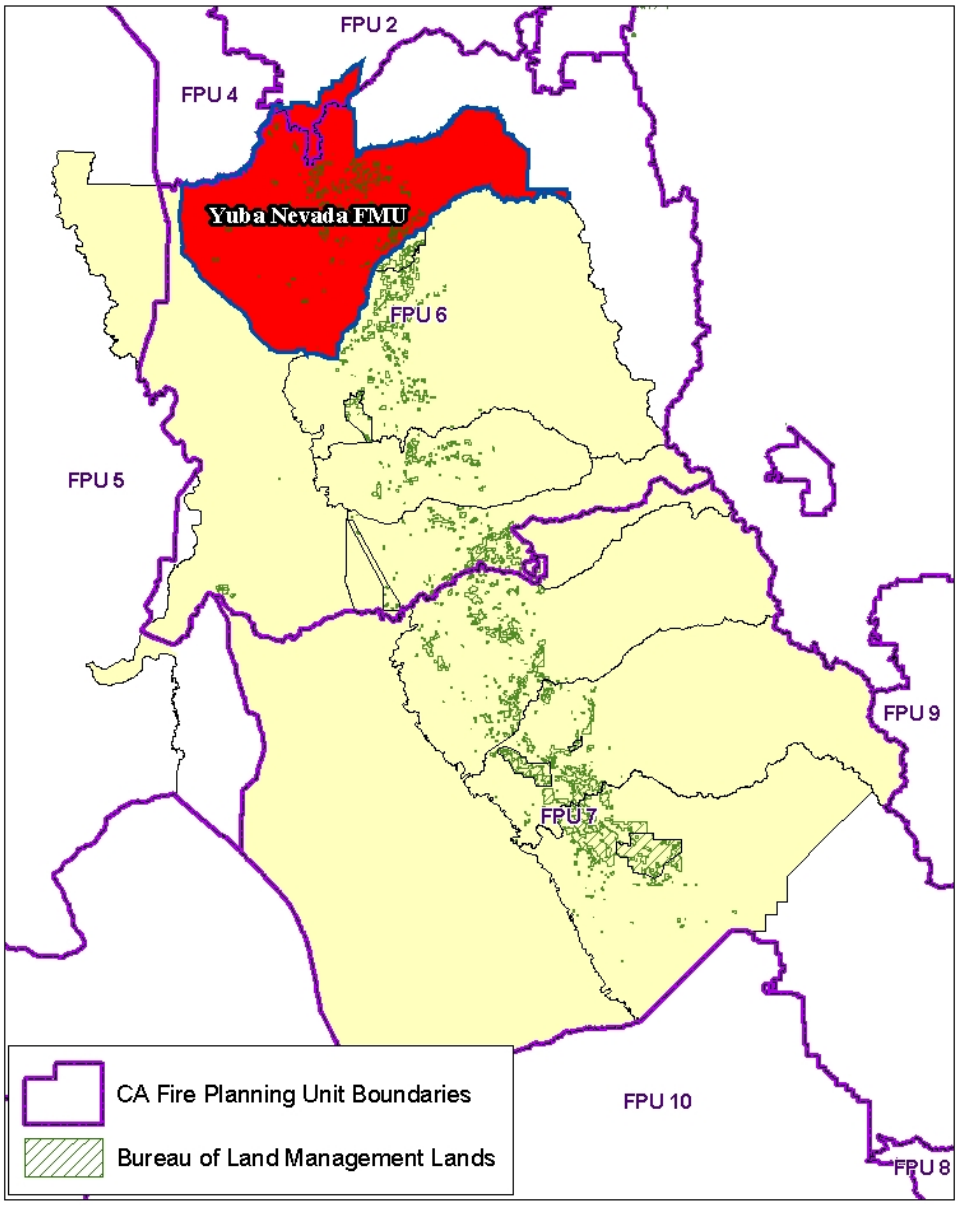
FMU Number	Decadal Number of Fires (94-03)	Largest Fire Acres (94-03)	Decadal Average Acres (94-03)	Decadal Total Acres (94-03)	23 Year Number of Fires (80-03)	Largest Fire (80-03)	23 Year Average Acres (80-03)	23 Year Total Acres (80-03)
CA-180-01	23	5,745	344	7,920	36	33,540	1,173	42,222
CA-180-02	2	1	1	2	5	202	77	386
CA-180-03	21	2,688	209	4,383	40	2,688	138	5,535
CA-180-04	2	294	147	294	2	294	147	294
CA-180-05	2	158	94	188	11	900	117	1,288
CA-180-06	13	16,820	1,301	16,918	22	20,080	2,439	53,651
CA-180-07	25	31	4	92	50	4,338	123	6,167
CA-180-08	2	3	2	4	2	3	2	4
CA-180-09	39	6,800	561	21,890	63	18,500	822	51,763
CA-180-10	5	5,600	1,181	5,904	12	5,600	503	6,039
CA-180-11	30	22,080	1,292	38,762	61	22,080	982	59,931
CA-180-12	29	11,185	573	16,608	48	11,185	658	31,598
CA-180-13	3	2	1	3	10	1,019	162	1,624
CA-180-14	0	NA	NA	NA	0	NA	NA	NA

Folsom Field Office Ignitions by Size Class 1980-2004				
Size Class (Acres)	**Number of Fires**	**Largest Fire (Acres)**	**Average Fire Size (Acres)**	**Total Acres Burned**
A (0.0 - 0.2)	44	0.1	0.1	3.4
B (0.3 - 9.9)	144	9.0	2.1	298.4
C (10 - 99.9)	75	80.0	31.2	2,339.1
D (100 - 299.9)	35	294.0	174.1	6,094.8
E (300 - 999.9)	34	978.0	600.8	20,428.0
F (1000 - 4999.9)	15	4,800.0	2,769.7	41,545.0
G (5000+)	15	33,540.0	12,652.9	189,793.0

Fire Acres by Year for 1980-2003, Folsom Field Office				
Year	**Number of Ignitions**	**Largest Fire (Acres)**	**Average Fire (Acres)**	**Total Acres**
1980	0	NA	NA	NA
1981	19	897	137.1	2,605
1982	8	2,778	406.4	3,251
1983	9	3,750	465.7	4,191
1984	13	4,800	427.8	5,561
1985	10	20,080	3,210.3	32,103
1986	8	682	216.1	1,729
1987	7	8,293	2,289.7	16,028
1988	8	33,540	5,711.4	45,691
1989	7	750	251.9	1,763
1990	3	2,507	1,063.3	3,190
1991	16	150	16.7	267
1992	30	18,500	1,019.7	30,590
1993	28	151	20.2	565
1994	33	900	169.8	5,602
1995	11	3,212	315.8	3,473
1996	27	22,080	2,043.5	55,174
1997	21	5,745	334.5	7,024
1998	14	12,613	913.0	12,782
1999	14	978	142.2	1,991
2000	6	699	120.5	723
2001	14	11,185	1,574.2	22,038
2002	26	1,100	48.9	1,272
2003	30	2,000	96.2	2,887


Plumas National Forest
Tahoe National Forest
Yuba
North Fork American
Lake Tahoe Basin Mgmt Unit National Forest
American
Eldorado National Forest
Pine Hills
Cosumnes
Mokelumne
Toiyabe National Forest
Ione ACEC
Stanislaus National Forest
Stanislaus
Central Valley
Tuolumne
Tuolumne W&S
Red Hills ACEC
Inyo National Forest
Merced River
Mariposa
Sierra National Forest
Sequoia National Forest
FOLSOM FIELD OFFICE
Cities
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
CA State BLM Field Office Area of Detail

Yuba Nevada FMU



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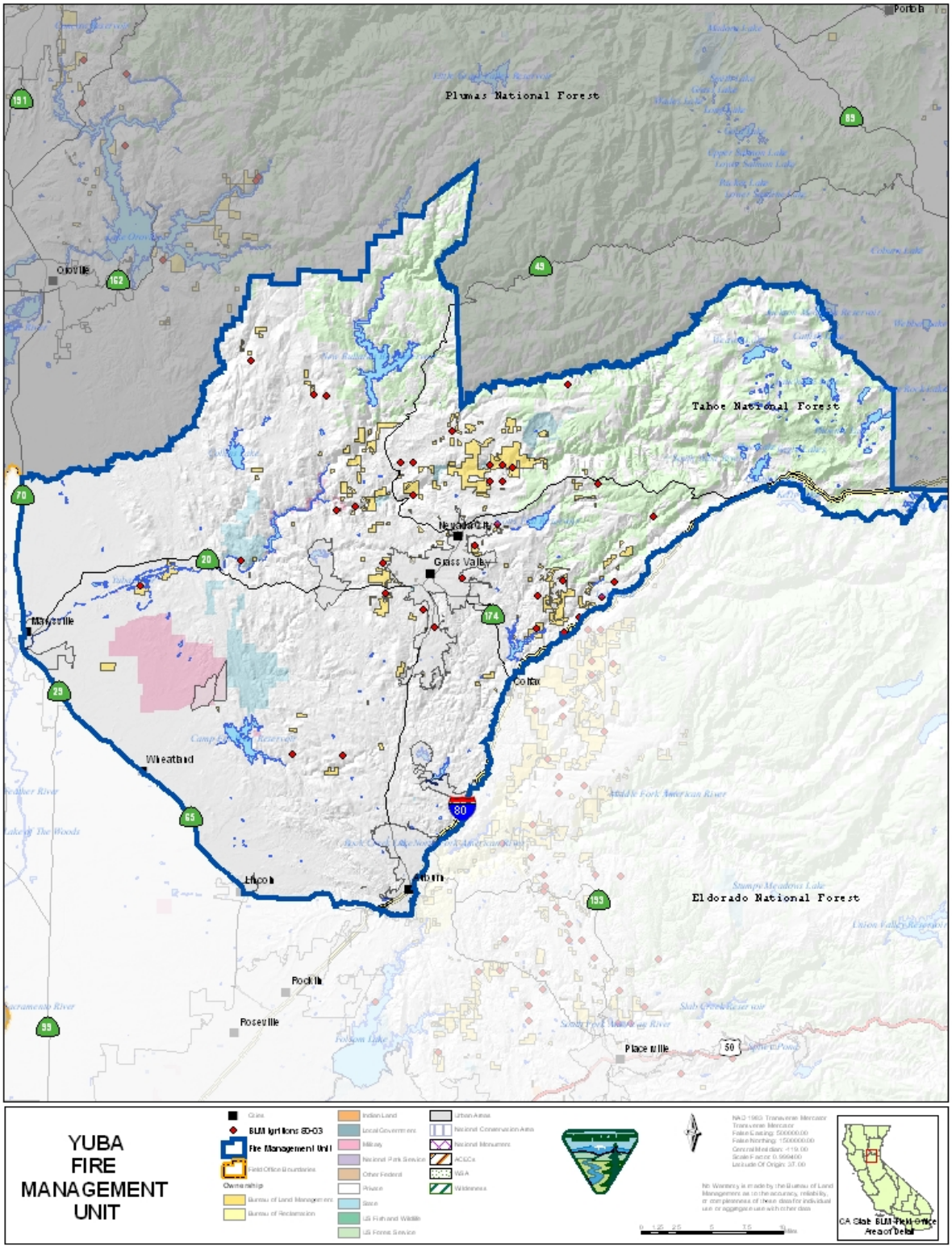

Plumas National Forest
Tahoe National Forest
Eldorado National Forest
Oroville
Marysville
Wheatland
Lincoln
Auburn
Grass Valley
Nevada City
Roseville
Rocklin
Placerville
YUBA
FIRE
MANAGEMENT
UNIT

FMU I.D. No.: CA-180-01 Yuba Nevada

FMU Type: Wildland Urban Interface

FMU Location Information:

- **Geographic boundaries:** Unit includes all BLM land within Yuba and Nevada counties. Tracts range from the USFS boundaries to the Sacramento valley. This unit is encompassed by the Nevada/Yuba/Placer CDF unit and the LEFT FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-01	**Yuba Nevada**	
Ownership	Acres	Percent
Bureau of Land Management	20,943	2
Other Federal/Private	970,658	98
Total Acres	991,602	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 75-4200 feet
  - **Slope:** 0-100%
  - **Aspect:** All
  - **Major topographical features:** The Yuba River watershed consisting of three major forks with multiple side drainage (a portion of the Honcut Creek drainage, part of the Feather River watershed, is also included in this unit).
- **Resource Use:**
  - Mining
  - Recreation
- **Air Quality:**
  - Counties regulate air quality for this unit
- **Soils:**
  - Large placer mining activities in this unit have created areas of rocky spoil piles.
  - Mildred soil series in places
  - Gabbro, serpentine, and diabase geology
- **Hydrology and Water Quality:**
  - Several large and small reservoirs
  - Important recreation values exist on and along the rivers and lakes
  - The South Yuba River is under consideration for Wild and Scenic River status
- **Access:** This unit has an extensive system of state highways and county roads as well as secondary roads that provide access to public land other than the restricted South Yuba River canyon.

- **Cultural values:**
  - The Mule Spring area and portions of the California Emigrant Trail occur in this FMU. These areas may be allowed to burn but care should be taken to avoid soil disturbance.
  - Cultural resources related to prehistoric land uses as well as historic-period settlement, transportation, and industrial activities (particularly gold mining) which could be adversely affected by suppression efforts.
  - The Red Dog townsite is a valuable historic area.
- **Sensitive species & habitats, T&E species & habitat:**

  Special status plant species known to occur on BLM land in this FMU:
  - *Calystegia stebbinsii* Stebbins' morning glory
  - *Senecio layneae* Layne's butterweed
  - *Fremontodendron* sp.* Flannelbush
  - *Clarkia biloba brandegeae* Brandegee's clarkia
  - *Lewisia cantelovii* Cantelow's lewisia
  - *Fritillaria eastwoodiae* Butte County fritillary

  * (dwarf plants in Nevada and Yuba counties are apparently related to *Fremontodendron decumbens* , federally listed endangered, but possibly taxonomically distinct)

  Special status animal species:
  - Foothill yellow-legged frog
  - California spotted owl
  - Northern goshawk
  - Bald eagle
  - Bat species

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	**Ignition Cause (80-03)**		**Multiple Fire Days (80-03)**	
CA-180-01			Natural	6		
Number of Fires	23	36	Camp Fire	6	Total Multiple Fire Days (MFD)	7
			Smoking	2		
Largest Fire (Acres)	5,745.0	33,540.0	Fire Use	6	Number of MFD Fires	8
			Incendiary	4		
Total Acres Burned	7,919.7	42,222.1	Equipment	8	Total Acres Burned by Multiple Fires	567.7
			Railroads	0		
Average Fire Size (Acres)	344.3	1,172.8	Juveniles	1		
			Miscellaneous	3		

Fire History Ignitions by Size Class		CA-180-01
Size Class (Acres)	**Number of Ignitions**	**Number of Acres**
A (0.0 - 0.2)	4	0.3
B (0.3 - 9.9)	19	41.8
C (10 - 99.9)	5	250.0
D (100 - 299.9)	2	385.0
E (300 - 999.9)	3	1,160.0
F (1000 - 4999.9)	1	1,100.0
G (5000+)	2	39,285.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

Fire behavior in this unit is considered extreme in several areas, due particularly to fuels and topography. The unit includes several steep river canyons which result in fast uphill runs, and funneling up or down canyon. Fuels exhibit above normal accumulation in most areas of the FMU, with dense shrubs, downed woody material, and prominent ladder fuels. There is a high potential for crown fire within the river canyons under severe burning conditions. Seasonal drying and low live fuel moisture levels in Fuel Model 4 shrub areas also contribute to extreme fire behavior. This area can also be influenced by Foehn winds from the north, which can result in extreme fire behavior. The Sierra foothills are known for seasonal lightning activity which can provide multiple fire starts.

- **List fuel models and/or vegetation types within the FMU: within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine
  - Fuel Model 11 – Small timber litter
- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality

- Private property
- Cultural resources
- Visual resources
- Special Status Species
- Air quality
- Vegetation values

Communities at Risk/WUI Areas:

- Alta Sierra
- Brownsville
- Chicago Park
- Grass Valley
- Lake City
- Nevada City
- North Bloomfield
- North Columbia
- North San Juan
- Red Dog
- Rough and Ready
- Round Mountain
- Smartville
- You Bet

OBJECTIVES AND STRATEGIES

Objectives Unique to this FMU

1. Two areas of concern, Brownsville in Yuba County and Deadman's Flat west of Grass Valley, support federally listed plant species. In these areas protection of the species and the ecosystem of which they are a part is a priority in all management actions.
   1. a. Reference: Folsom Resource Management Plan

Fire Management Objective Priority Statement

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include an aggressive suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

- FMU Target Individual Wildland Fire Size: **10 acres or less**
- FMU Target Acres Burned Per Decade: **1,400 acres**
- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Wildland Urban Interface
    - Visual resources
    - Water quality
    - Recreational uses
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.
- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
  - Use Minimum Impact Suppression Tactics (MIST) when possible.
  - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
  - Avoid tractor work and other soil disturbance in the Brownsville and Deadman's Flat areas of concern. There may be opportunities to modify this instruction when a Resource Advisor can confirm that the plants that are being conserved do not extend into the area where equipment would be used. However, the entire areas protect unique ecosystems and equipment work should be avoided if possible.
  - If tractor work is unavoidable in an emergency situation in either area of concern, use high blading and skimming the brush wherever those techniques will be effective.
  - Avoid using fire retardant chemicals in the Brownsville and Deadman's Flat subunits, with particular emphasis on those containing fertilizer ingredients. There may be opportunities to modify this constraint when a Resource Advisor

can confirm that the plants that are being conserved do not extend into the area where retardant would be used. However, even in the absence of rare plants, the ecosystems may be affected, and retardant use should be minimized.

- Assign a BLM Resource Advisor on all fires that threaten either area of concern.
- Wildfires will be suppressed using a mix of the following methods to avoid impairment:
  - Aerial attack.
  - Crews using hand tools to create fire breaks.
  - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
  - Use of foam and/or fire retardant.
  - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
  - Yuba Gold Fields requires special consideration of riverine areas to avoid impacts to anadromous fish populations.
  - South Yuba River, Inimum Forest, and Round Mountain areas have individual management plans with similar objectives.
  - Plant communities in the vicinity of Brownsville, Yuba County (associated with Mildred soil series)
  - Plant communities in the vicinity of Deadman's Flat, west of Grass Valley, (associated with gabbro, serpentine and diabase geology)

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

<u>Wildland Fire Suppression Strategies:</u>

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **1,400 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on Wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical

resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
    - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.

- Request an archeologist be dispatched to the incident as soon as practicable.
- Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **20 acres to 200 acres**
- Rx Fire Decadal Acres Burned Target: **1,400 acres**
- No intentional ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.
- There may be opportunities to use prescribed fire to propagate *Fremontodendron* sp. Before fire would be used for propagation, small scale trials would be used to better understand the response of this taxon to such burning in these plant communities. Ongoing genetic research addressing the taxonomic placement of the dwarf plants of this genus from Yuba and Nevada counties, especially in relationship to *F. decumbens* from El Dorado County should also help clarify the importance of the conservation of these populations.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.
- Prescribed fire emissions remain within those allowed by state and local air quality regulators
- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.
- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.

- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.

- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
    - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
    - Photo points will be established pre-burn.
    - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
    - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **10 acres to 200 acres**

- Non-fire treatment decadal acres target: **500 acres**

- The first priority objective is to protect private property while providing for firefighter and public safety.

- Reduce the potential for catastrophic wildfire.

- Reduce heavy fuel loads resulting from long term suppression.

- A community-based effort to protect communities in the vicinity of Brownsville by a large mechanical fuels reduction project, must address ESA constraints.

- Use treatments to protect sensitive cultural resources (e.g. Davis Stampmill)

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.

- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.

- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.

  - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.
  - For hazardous fuels reduction, these activities:
    - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
    - Will not include the use of herbicides or pesticides;
    - Will not involve the construction of new permanent roads or other infrastructure;
    - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
    - Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
    - Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
  - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Preserve scenic quality of the river
- Stabilize any steep slopes to minimize erosion
- Exclude non-native invasive species
- Coordinate with cultural resources staff to avoid unnecessary impacts to cultural resources during rehabilitation or restoration projects.
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire

recurrence or invasion of weeds.

- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.

- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.

- Site specific projects will be considered to meet the objectives as identified in the LUP.

- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
    - If appropriate, develop and submit an ESR plan to CA BLM State Office.
        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).

- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.

- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.

- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
        - Immediate rehabilitation actions to prevent further land degradation or resource loss.
    - Resource damage restoration or rehabilitation involves long term or post incident actions:
        - Post-incident rehabilitation actions must be specified in a rehabilitation plan.

- Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
  - Stabilize and prevent unacceptable degradation to natural and cultural resources
  - Minimize threats to life and property resulting from the effects of a fire
  - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
  - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
  - Specifies treatments required to implement post-fire rehabilitation policies
  - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
  - Repair minor facilities damaged by fire
  - Actions must be taken within three years of containment of a wildland fire
  - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.

- All firelines will be rehabilitated to natural conditions.

- Long term rehabilitation could involve the use of an ESR team on larger fires.

- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk
- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.
- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.
- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.
- Provide fire restriction and emergency closure information to the public.
- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.
- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

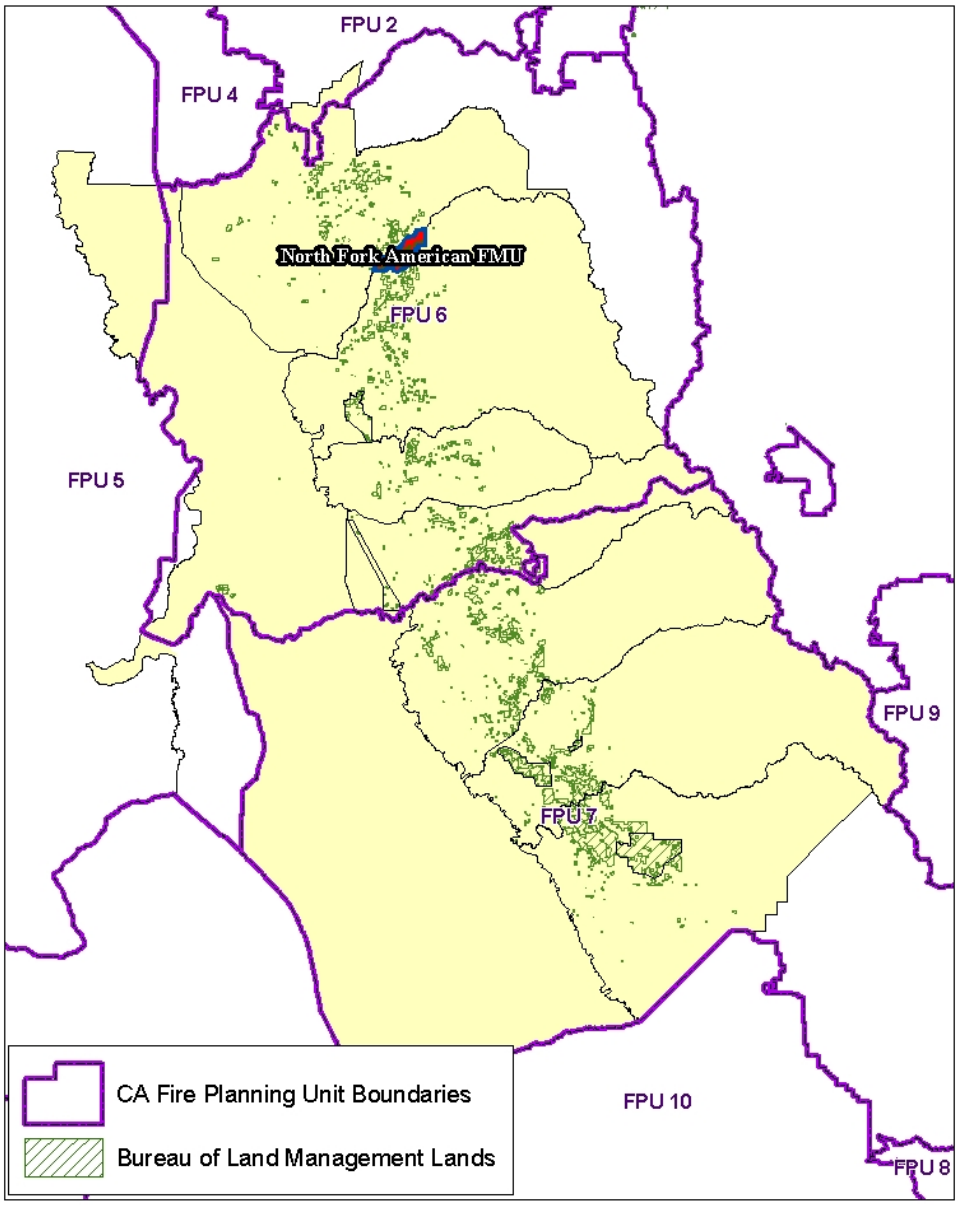
- Use local media outlets to encourage defensible space and to mitigate current fire causes.

- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

- Participate in residential assessments and provide education to the homeowners.

- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

North Fork American FMU



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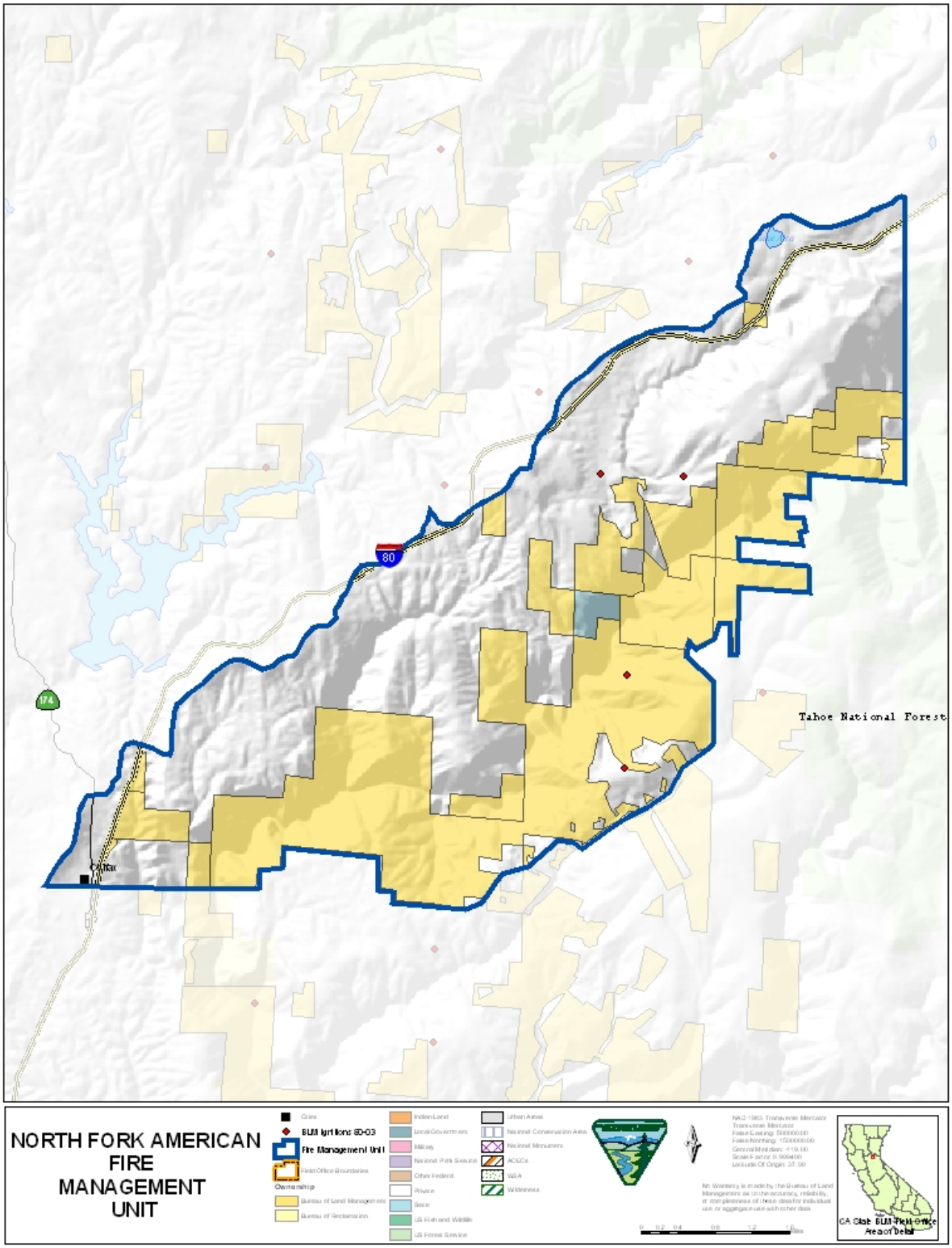
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Tahoe National Forest
NORTH FORK AMERICAN
FIRE
MANAGEMENT
UNIT
Cities
BLM Ignitions 80-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Area
National Monument
ACECs
WSA
Wilderness
CA State BLM Field Office
Area of Detail

FMU I.D. No.: CA-180-02 North Fork American

FMU Type: Wildland Urban Interface

FMU Location Information:

- **Geographic boundaries:** Wild and Scenic River area approximately ¼ mile either side of the North Fork American from approximately 1,000 feet upstream of Iowa Hill bridge to the east up to the Tahoe National Forest boundary. The FMU also includes the Gold Run addition. This FMU is located within Placer County and the Nevada/Yuba/Placer CDF unit. It is also within the LEFT FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-02	**North Fork American**	
Ownership	Acres	Percent
Bureau of Land Management	7,882	42
Other Federal/Private	10,926	58
Total Acres	18,808	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 800-4,000 feet
  - **Slope:** 5-100%
  - **Aspect:** All
  - **Major topographical features:** Steep river canyon with multiple side ravines

Resource Use:
  - Mining
  - Heavy recreation use

- **Air Quality:**
  - Fires in this FMU could easily impact the Interstate 80 corridor.
- **Soils:**
  - No unusual soils exist in this FMU
- **Hydrology and Water Quality:**
  - This area is protected as a Wild and Scenic River
  - The river is not impacted by dams at this time
- **Access:**
  - Few roads exist and many are unpaved but maintained gravel
  - Due to the Wild and Scenic River designation, no new roads will be constructed
- **Cultural values:**
  - Stevens Trail, listed in the National Register of Historic Places
  - Indiana Ravine includes a historic cabin and some prehistoric resources.

- Historic cemetery in Iowa Hill

- **Sensitive species & habitats, T&E species & habitat:**

  Special status plant species known to occur on BLM land:
  - *Chlorogalum grandiflorum*
  - *Clarkia biloba australis*

  Special status animal species:
  - California red-legged frog
  - Foothill yellow-legged frog
  - Pacific fisher
  - California spotted owl
  - Northern goshawk
  - Bald eagle
  - Bat species

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-02			Natural	2		
Number of Fires	2	5	Camp Fire	1	Total Multiple Fire Days (MFD)	3
			Smoking	0		
Largest Fire (Acres)	1.0	202.0	Fire Use	0	Number of MFD Fires	4
			Incendiary	1		
Total Acres Burned	1.5	385.5	Equipment	0	Total Acres Burned by Multiple Fires	183.5
			Railroads	0		
Average Fire Size (Acres)	0.8	77.1	Juveniles	0		
			Miscellaneous	1		

Fire History Ignitions by Size Class		CA-180-02
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	0	0.0
B (0.3 - 9.9)	3	3.5
C (10 - 99.9)	0	0.0
D (100 - 299.9)	2	382.0
E (300 - 999.9)	0	0.0
F (1000 - 4999.9)	0	0.0
G (5000+)	0	0.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

This FMU is based on the Wild and Scenic River corridor of the North Fork of the American River. The canyon itself is extremely steep with heavy fuel loads including extensive ladder fuels. Fire behavior in this unit has the potential to be severe with large fire growth and crown fire activity probable.

- **List fuel models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine
- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard, while some small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **List primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Cultural resources
  - Visual resources
  - Special Status Species
  - Air quality
  - Vegetation values

Communities at Risk/WUI Areas:

- Colfax
- Gold Run
- Iowa Hill
- Magra
- Secret Town

OBJECTIVES AND STRATEGIES

<u>Objectives Unique to this FMU</u>

1. <u>Protect sensitive plant and animal species by using Minimum Impact Suppression Tactics (MIST) with the least impact on the wild and scenic river values</u>.
   - **1. a. Reference:** North Fork American Wild and Scenic River Management and Development Plan

Fire Management Objective Priority Statement

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Protection/Suppression Objectives Statement:

All prevention and suppression activities must be compatible with the values for which the river was designated as wild. These values include; free flowing water, inaccessibility except by trail, essentially primitive watersheds and shorelines, unpolluted water, and outstanding features such as scenery, historic sites, and cultural sites.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **10 acres or less**

- FMU Target acres burned per decade: **500 acres**

- **Suppression/protection priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of “Values at Risk” or “Communities at Risk” from wildland fire.
    - Wildland Urban interface
    - Mitigate visual impacts to the Wild and Scenic River corridor.
    - Water quality
    - Recreational uses
    - Avoid ground disturbance in the vicinity of Canyon Creek
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
  - Use Minimum Impact Suppression Tactics (MIST) when possible.
  - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
  - Protect the Wild and Scenic River values as described in the North Fork American Wild River Plan.
  - Wildfires will be suppressed using a mix of the following methods to avoid impairment:
    - Aerial attack.
    - Crews using hand tools to create fire breaks.
    - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
    - Use of foam and/or fire retardant.
    - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
  - Reduce hazardous fuels in the wildland urban interface
  - Restore area to conditions approximating the historic Fire Regime

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

<u>Wildland Fire Suppression Strategies:</u>

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **500 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on Wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical

resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
    - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.

- Request an archeologist be dispatched to the incident as soon as practicable.
- Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option within this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **20 acres to 200 acres**
- Rx Fire Decadal Acres Burned Target: **200 acres**
- No intentional ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.
- Prescribed fire emissions remain within those allowed by state and local air quality regulators
- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.
- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.
- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.
- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
    - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
    - Photo points will be established pre-burn.
    - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
    - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **20 acres to 200 acres**

- Non-fire treatment decadal acres target: **200 acres**

- The first priority objective is to protect private property while providing for firefighter and public safety.

- Reduce the potential for catastrophic wildfire.

- Reduce heavy fuel loads resulting from long term suppression.

- Maintain Wild and Scenic values along the river corridor.

- Treat fuels near sensitive cultural resources (e.g. Emrick Cabin on Indiana Ravine)

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.

- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.

- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.
  - For hazardous fuels reduction, these activities:
    - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
    - Will not include the use of herbicides or pesticides;
    - Will not involve the construction of new permanent roads or other infrastructure;
    - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
    - Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
    - Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
  - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Preserve scenic quality of the river
- Stabilize any steep slopes to minimize erosion
- Exclude non-native invasive species
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.

- Site specific projects will be considered to meet the objectives as identified in the LUP.

- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
    - If appropriate, develop and submit an ESR plan to CA BLM State Office.
        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).

- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.

- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.

- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
        - Immediate rehabilitation actions to prevent further land degradation or resource loss.
    - Resource damage restoration or rehabilitation involves long term or post incident actions:
        - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
        - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
    - Stabilize and prevent unacceptable degradation to natural and cultural resources
    - Minimize threats to life and property resulting from the effects of a fire

  - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
  - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
  - Specifies treatments required to implement post-fire rehabilitation policies
  - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
  - Repair minor facilities damaged by fire
  - Actions must be taken within three years of containment of a wildland fire
  - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.

- All firelines will be rehabilitated to natural conditions.

- Long term rehabilitation could involve the use of an ESR team on larger fires.

- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI.

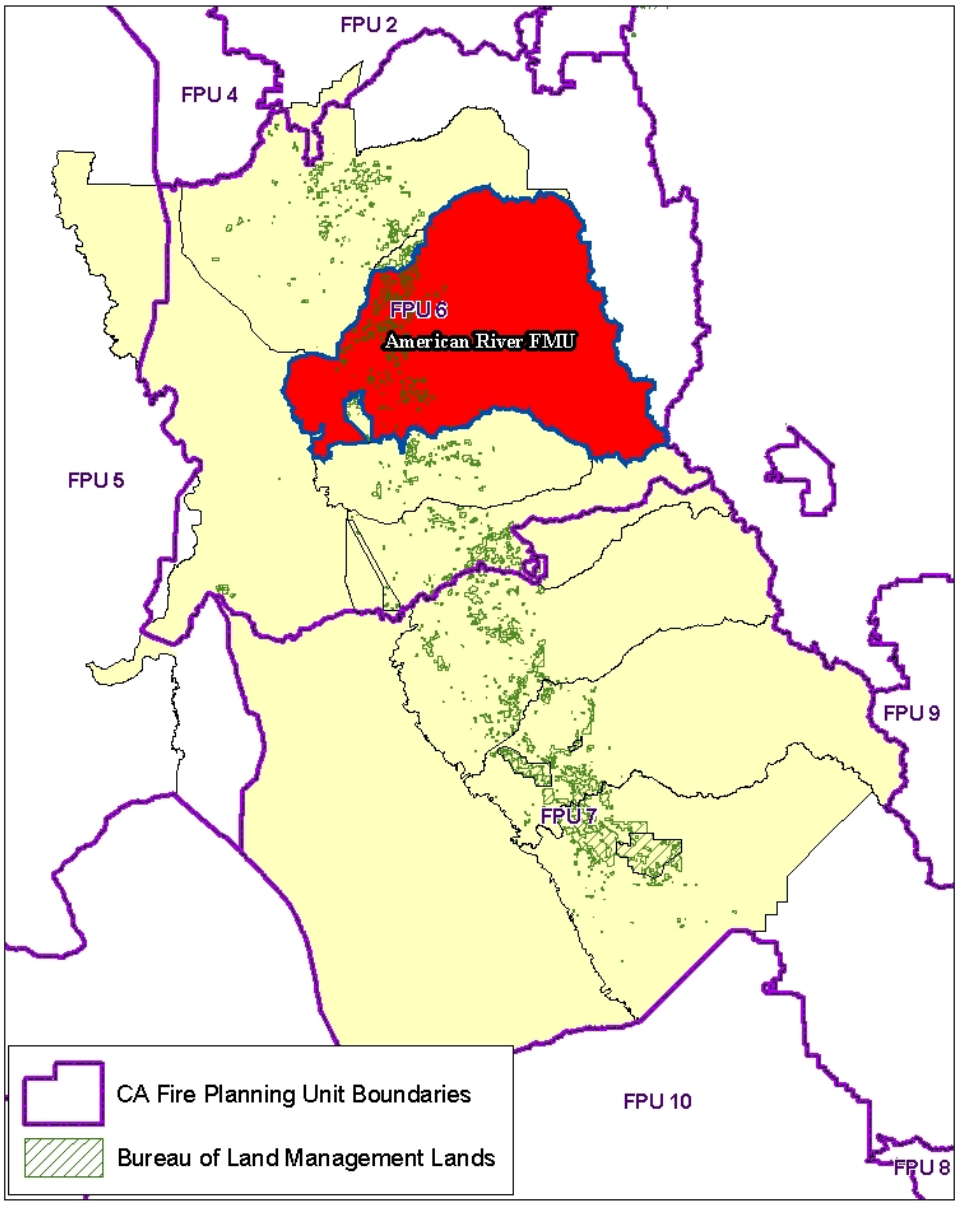
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk
- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

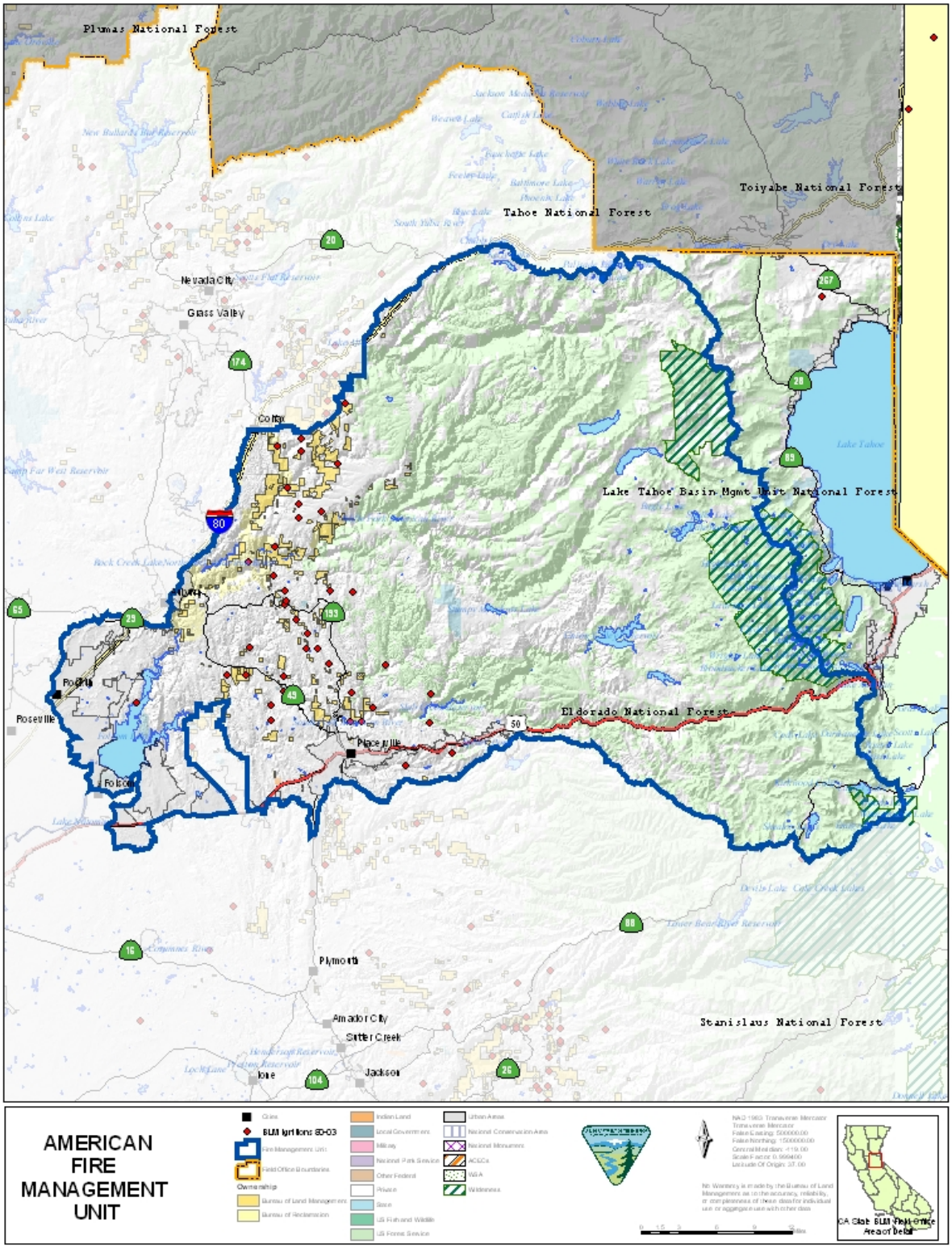
- Support the formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.
- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.
- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.
- Provide fire restriction and emergency closure information to the public.
- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.
- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.
- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.
- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

- Use local media outlets to encourage defensible space and to mitigate current fire causes.
- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.
- Participate in residential assessments and provide education to the homeowners.
- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

American River FMU



CA-180-03


Plumas National Forest
Tahoe National Forest
Toiyabe National Forest
Nevada City
Grass Valley
Colfax
Lake Tahoe Basin Mgmt Unit National Forest
Auburn
Roseville
Folsom
Placerville
Eldorado National Forest
Plymouth
Amador City
Sutter Creek
Ione
Jackson
Stanislaus National Forest
AMERICAN
FIRE
MANAGEMENT
UNIT

FMU I.D. No.: CA-180-03 American River

FMU Type: Wildland Urban Interface

FMU Location Information:

- **Geographic boundaries:** Area includes all BLM land in Placer County, as well as parts of El Dorado and Sacramento Counties. The FMU is protected by two CDF units, Nevada/Yuba/Placer and Amador/El Dorado. The American River FMU is within the LEFT FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-03	**American River**	
Ownership	Acres	Percent
Bureau of Land Management	25,244	2
Other Federal/Private	1,193,525	98
Total Acres	1,218,770	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 250-4000 feet
  - **Slope:** 0-100%
  - **Aspect:** All
  - **Major topographical features:** American River canyon, including three major forks and multiple side drainages.
- **Resource Use:**
  - Mining
  - Recreation
- **Air Quality:**
  - This area influences Sacramento regional air quality
- **Soils:**
  - No unique soils occur in this FMU
- **Hydrology and Water Quality:**
  - Several reservoirs are present in this FMU
- **Access:** This FMU is accessed by a road network of state and county roads. Access to public land in most areas is poor. Many of the public land parcels are not accessible by vehicle. Those that are accessible are often accessible over narrow two track roads. In other cases, public lands are surrounded by housing subdivisions, shopping centers and medical centers.
- **Cultural values**
  - Remnants of extensive mining activity remain in this FMU

- Historic cemeteries in Michigan Bluff, Yankee Jim, and Todd Valley

- **Sensitive species & habitats, T&E species & habitat:**
  Special status plant species known to occur on BLM lands in the American River FMU, but are outside the Pine Hill Preserve FMU and the North Fork American FMU:
  - *Senecio layneae*
  - *Chlorogalum grandiflorum*
  - *Wyethia reticulata*
  - *Clarkia biloba brandegae*

  Special status animal species:
  - Bat species
  - California spotted owl
  - Northern goshawk
  - Bald eagle
  - Foothill yellow-legged frog
  - California red-legged frog

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-03			Natural	5		
Number of Fires	21	40	Camp Fire	0	Total Multiple Fire Days (MFD)	7
			Smoking	3		
Largest Fire (Acres)	2,688.0	2,688.0	Fire Use	3	Number of MFD Fires	9
			Incendiary	12		
Total Acres Burned	4,383.1	5,535.3	Equipment	14	Total Acres Burned by Multiple Fires	1,084.0
			Railroads	0		
Average Fire Size (Acres)	208.7	138.4	Juveniles	1		
			Miscellaneous	2		

Fire History Ignitions by Size Class		CA-180-03
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	4	0.4
B (0.3 - 9.9)	17	21.9
C (10 - 99.9)	10	233.0
D (100 - 299.9)	6	1,010.0
E (300 - 999.9)	2	1,582.0
F (1000 - 4999.9)	1	2,688.0
G (5000+)	0	0.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

Fire behavior in this unit is considered extreme in several areas, due particularly to fuels and topography. The unit includes several steep river canyons which result in fast uphill runs, and funneling up or down canyon. Fuels exhibit above normal accumulation in most areas of the

FMU, with dense shrubs, downed woody material, and prominent ladder fuels. There is a high potential for crown fire within the river canyons under severe burning conditions. Seasonal drying and low live fuel moisture levels in Fuel Model 4 shrub areas also contribute to extreme fire behavior. This area can also be influenced by Foehn winds from the north, which can result in extreme fire behavior. The Sierra foothills are known for seasonal lightning activity which can provide multiple fire starts.

- **List fuel models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine

- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **List primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Cultural resources
  - Visual resources
  - Special Status Species
  - Air quality
  - Vegetation values

Communities at Risk/WUI Areas:

- Auburn
- Coloma
- Cool
- Foresthill
- Georgetown
- Heather Glen-Applegate
- Kelsey
- Michigan Bluff

- Placerville
- Twin Pines-Weimar

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include an aggressive suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **10 acres or less**

- FMU Target acres burned per decade: **500 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Wildland Urban interface
    - Visual resources
    - Water quality
    - Recreational uses
    - Spivey Pond
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority

- Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels
- Use Minimum Impact Suppression Tactics (MIST) when possible
- Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites
- Avoid ground disturbance in the Greenwood Creek area.
- Avoid using Spivey Pond as a water source
- Avoid using retardant within 500 feet of Spivey pond
- Wildfires will be suppressed using a mix of the following methods to avoid impairment:
  - Aerial attack.
  - Crews using hand tools to create fire breaks.
  - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
  - Use of foam and/or fire retardant.
  - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
  - Reduce hazardous fuels in the American River canyon wildland urban interface areas
  - Restore area to conditions approximating the historic Fire Regime
  - Spivey Pond

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

<u>Wildland Fire Suppression Strategies:</u>

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **500 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on Wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical

resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
    - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.

- Request an archeologist be dispatched to the incident as soon as practicable.
- Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **20 acres to 200 acres**
- Rx Fire Decadal Acres Burned Target: **200 acres**
- No intentional ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.
- Prescribed fire emissions remain within those allowed by state and local air quality regulators
- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.
- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.
- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.
- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
    - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
    - Photo points will be established pre-burn.
    - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
    - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **20 acres to 200 acres**

- Non-fire treatment decadal acres target: **500 acres**

- The first priority objective is to protect private property while providing for firefighter and public safety.

- Reduce the potential for catastrophic wildfire.

- Reduce heavy fuel loads resulting from long term suppression.

- Reduce catastrophic fire potential near Spivey pond

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.

- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.

- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.

- For hazardous fuels reduction, these activities:
  - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
  - Will not include the use of herbicides or pesticides;
  - Will not involve the construction of new permanent roads or other infrastructure;
  - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
  - Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
  - Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
  - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Preserve scenic quality of the American River canyon
- Stabilize any steep slopes to minimize erosion
- Exclude non-native invasive species
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.

- Site specific projects will be considered to meet the objectives as identified in the LUP.

- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
    - If appropriate, develop and submit an ESR plan to CA BLM State Office.
        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).

- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.

- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.

- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
        - Immediate rehabilitation actions to prevent further land degradation or resource loss.
    - Resource damage restoration or rehabilitation involves long term or post incident actions:
        - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
        - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
    - Stabilize and prevent unacceptable degradation to natural and cultural resources
    - Minimize threats to life and property resulting from the effects of a fire
    - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
    - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
  - Specifies treatments required to implement post-fire rehabilitation policies
  - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
  - Repair minor facilities damaged by fire
  - Actions must be taken within three years of containment of a wildland fire
  - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.

- All firelines will be rehabilitated to natural conditions.

- Long term rehabilitation could involve the use of an ESR team on larger fires.

- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI

- Educate area population on the basic principles of fire ecology and fire's role in the environment

- Build public support for fuels reduction efforts in and around WUI

- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk

- Develop and implement collaborative mitigation and prevention strategies with communities at risk

- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires

- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.

- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.

- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.

- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.

- Provide fire restriction and emergency closure information to the public.

- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.

- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

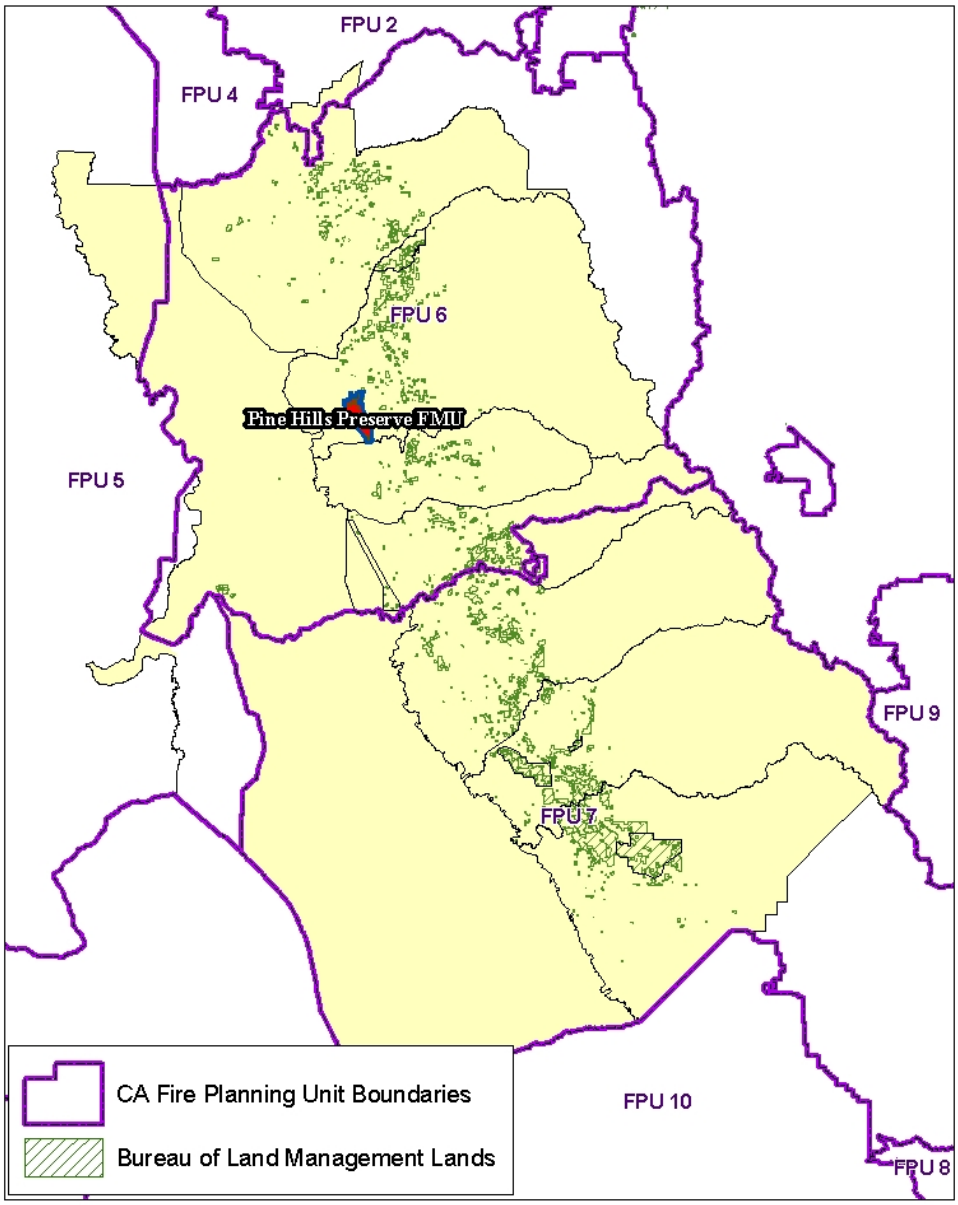
- Use local media outlets to encourage defensible space and to mitigate current fire causes.

- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

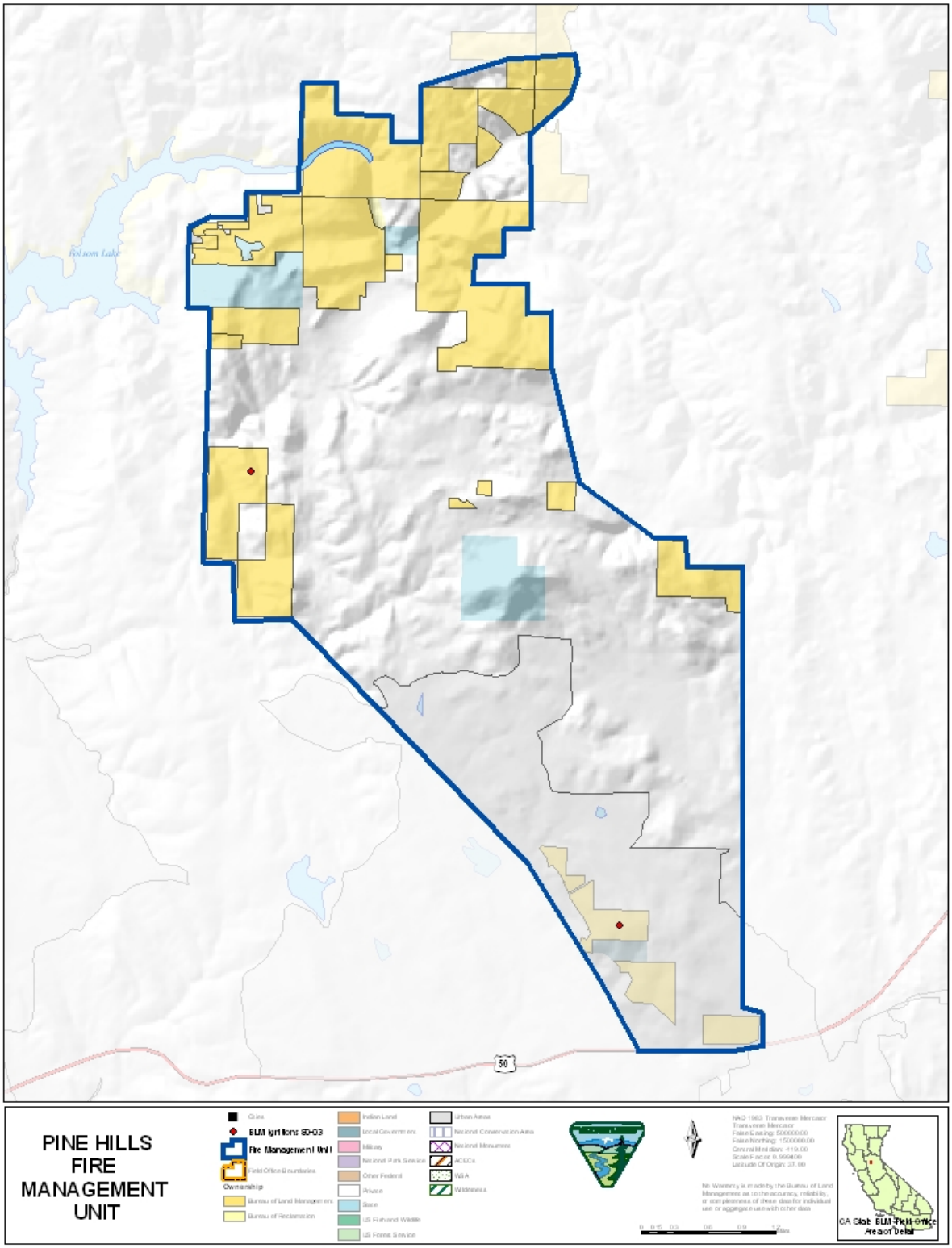
- Participate in residential assessments and provide education to the homeowners.

- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

Pine Hill Preserve FMU



CA-180-04


Folsom Lake
50
PINE HILLS
FIRE
MANAGEMENT
UNIT
Cities
BLM Ignitions 80-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Area
National Monument
ACECs
WSA
Wilderness
NAD 1983 Transverse Mercator
Transverse Mercator
False Easting: 500000.00
False Northing: 1500000.00
Central Meridian: -119.00
Scale Factor: 0.999600
Latitude Of Origin: 37.00
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data
0 0.15 0.3 0.6 0.9 1.2
Miles
CA State BLM Field Office
Area of Detail

FMU I.D. No.: CA-180-04 Pine Hill Preserve

FMU Type: Wildland Urban Interface

FMU Location Information:

- **Geographic boundaries:** Area includes land acquired for a rare plant preserve within El Dorado County. The FMU is located within the Amador/El Dorado CDF unit and the LEFT FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-04	**Pine Hill Preserve**	
Ownership	Acres	Percent
Bureau of Land Management	3,775	25
Other Federal/Private	11,385	75
Total Acres	15,160	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 400-2000 feet
  - **Slope:** 0-80%
  - **Aspect:** All
  - **Major topographical features:** Portion of the preserve contains a section of the American River.
- **Resource Use:**
  - Rare plant species preserve
  - Potential plant research area
  - Mining
  - Recreation
- **Air Quality:**
  - This area influences Sacramento regional air quality
- **Soils:**
  - Several species of rare plants occur on site due to the unique soils
- **Hydrology and Water Quality:**
  - A portion of this unit includes Folsom Lake and tributaries of the South Fork of the American River
- **Access:**
  - The Cameron Park parcel is closed to off road vehicles, otherwise most of the public land is easily accessible from established roads.
- **Cultural values:**
  - No significant known sites occur within this unit

- **Sensitive species & habitats, T&E species & habitat:**
  Several special status plant species are known to occur on BLM lands in the Pine Hill Preserve FMU:
  - *Calystegia stebbinsii*
  - *Ceanothus roderickii*
  - *Fremontodendron decumbens*
  - *Galium californicum sierrae*
  - *Senecio layneae*
  - *Chlorogalum grandiflorum*
  - *Wyethia reticulata*
  - *Helianthemum suffrutescens*

  Special status animal species
  - *Phrynosoma coronatum frontale (* horned lizard)
  - *Desmocerus californicus dimorphus (*valley elderberry longhorn beetle)

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-04			Natural	0		
Number of Fires	2	2	Camp Fire	0	Total Multiple Fire Days (MFD)	1
			Smoking	0		
Largest Fire (Acres)	294.0	294.0	Fire Use	0	Number of MFD Fires	1
			Incendiary	0		
Total Acres Burned	294.2	294.2	Equipment	1	Total Acres Burned by Multiple Fires	0.2
			Railroads	0		
Average Fire Size (Acres)	147.1	147.1	Juveniles	0		
			Miscellaneous	1		

Fire History Ignitions by Size Class		CA-180-04
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	0	0.0
B (0.3 - 9.9)	1	0.2
C (10 - 99.9)	0	0.0
D (100 - 299.9)	1	294.0
E (300 - 999.9)	0	0.0
F (1000 - 4999.9)	0	0.0
G (5000+)	0	0.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

This unit has a high potential for catastrophic fire due to its location. The fuels are dense from fire suppression and the potential for extreme fire behavior is high.

- **Fuel Models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory

  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral

- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Visual resources
  - Special Status Species
  - Air quality
  - Vegetation values
    - The plant communities of the Pine Hill Preserve, with particular emphasis on northern gabbroic mixed chaparral

Communities at Risk/WUI Areas:

- Cameron Park
- Shingle Springs

OBJECTIVES AND STRATEGIES

<u>Management Objectives for this FMU</u>

1. <u>Conserve the rare species and plant communities of the Preserve. Fostering the rare plant species can range from excluding fire when a stand is young, to the introduction of prescribed fire when a stand is overmature. (Some mechanical fuels treatments may prove beneficial as well, although this has not been established.)</u>
   1. a. Reference: Pine Hill Preserve Management Plan

Fire Management Objective Priority Statement:

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large,

uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Protection/Suppression Objectives Statement:

Special care must be taken in this unit to avoid damage to rare plants and surface disturbance. The use of heavy equipment in many parts of the Preserve is likely to cause the death of rare plants, including federally listed species. Of even more concern is the potential for the long-term or permanent alteration of habitat so that it will no longer support one or more rare species. This could occur by: equipment altering soil depth, structure and bulk density; introduced exotic species that could out-compete the rare species; removal or burial of the seed bank; or the use of fire retardants changing soil fertility, thereby favoring undesirable species. To the extent practical, the use of heavy equipment and retardants should be minimized. A Resource Advisor with knowledge of the distribution of plant species on the Preserve should be assigned to all wildfires that threaten the Preserve.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **1 acre or less**

- FMU Target acres burned per decade: **5 acres**
- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of “Values at Risk” or “Communities at Risk” from wildland fire.
    - Wildland Urban interface
    - Special Status Species
    - Visual resources
    - Water quality
    - Recreational uses
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Assign a resource Advisor on all fires that threaten the Preserve
  - Avoid tractor work and other soil disturbance in the FMU. There may be opportunities to modify this instruction when a Resource Advisor can confirm that the plants that are being conserved do not extend into the area where equipment would be used. However, the entire Pine Hill Preserve protects a unique ecosystem and equipment work should be avoided if possible.
  - Avoid using fire retardant chemicals in the FMU, particularly those containing fertilizer ingredients. There may be opportunities to modify this instruction when a Resource Advisor can confirm that the plants being conserved do not extend into the area where retardant would be used. However, even in the absence of rare plants, the ecosystem may be affected and retardant use should be minimized.
  - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
  - Use Minimum Impact Suppression Tactics (MIST) when possible.
  - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
  - Wildfires will be suppressed using a mix of the following methods to avoid impairment:
    - Aerial attack.
    - Crews using hand tools to create fire breaks.
    - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
    - Use of foam and/or fire retardant.
    - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
  - Reduce hazardous fuels in the wildland urban interface
  - Restore area to conditions approximating the historic Fire Regime

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

Wildland Fire Suppression Strategies:

- All fires occurring at FIL ***(1-6)*** will be suppressed at **1 acre, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **150 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on Wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
    - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.
    - Request an archeologist be dispatched to the incident as soon as practicable.
    - Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **15 acres**

- Rx Fire Decadal Acres Burned Target: **150 acres**

- Consultation under the Endangered Species Act (ESA) will be needed for projects in much of this FMU.

- For the development of management strategies for rare plant species, a program of small experimental prescribed burns with intensive monitoring may be undertaken.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.

- Prescribed fire emissions remain within those allowed by state and local air quality regulators

- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.

- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.

- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.

- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
    - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
    - Photo points will be established pre-burn.
    - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
    - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **15 acres**

- Non-fire treatment decadal acres target: **50 acres**

- The first priority objective is to protect private property while providing for firefighter and public safety.

- Reduce the potential for catastrophic wildfire.

- Reduce heavy fuel loads resulting from long term suppression.

- Reduce fire frequency on Preserve land resulting from human caused ignitions on adjacent private land. This will be particularly important to prevent a second burn from occurring within several years of an initial burn. Such a sequence of burns has the potential to deplete the seed bank of a rare species.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.

- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.

- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.
    - For hazardous fuels reduction, these activities:
        - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
        - Will not include the use of herbicides or pesticides;
        - Will not involve the construction of new permanent roads or other infrastructure;
        - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
        - Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
        - Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
    - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Consultation under the ESA will be needed for projects in much of this FMU. Even rehabilitation work falls under ESA. U.S. Fish and Wildlife Service have an expedited process for these situations.

- Stabilize any steep slopes to minimize erosion
- Exclude non-native invasive species
- Restore habitat conditions for Special Status Species
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.
- Site specific projects will be considered to meet the objectives as identified in the LUP.
- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
    - If appropriate, develop and submit an ESR plan to CA BLM State Office.
        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).
- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.
- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.
- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage.

This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
    - Immediate rehabilitation actions to prevent further land degradation or resource loss.
  - Resource damage restoration or rehabilitation involves long term or post incident actions:
    - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
    - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
  - Stabilize and prevent unacceptable degradation to natural and cultural resources
  - Minimize threats to life and property resulting from the effects of a fire
  - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
  - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
  - Specifies treatments required to implement post-fire rehabilitation policies
  - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
  - Repair minor facilities damaged by fire
  - Actions must be taken within three years of containment of a wildland fire
  - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.
- All firelines will be rehabilitated to natural conditions.
- Long term rehabilitation could involve the use of an ESR team on larger fires.
- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk
- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.
- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.

- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.

- Provide fire restriction and emergency closure information to the public.

- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.

- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

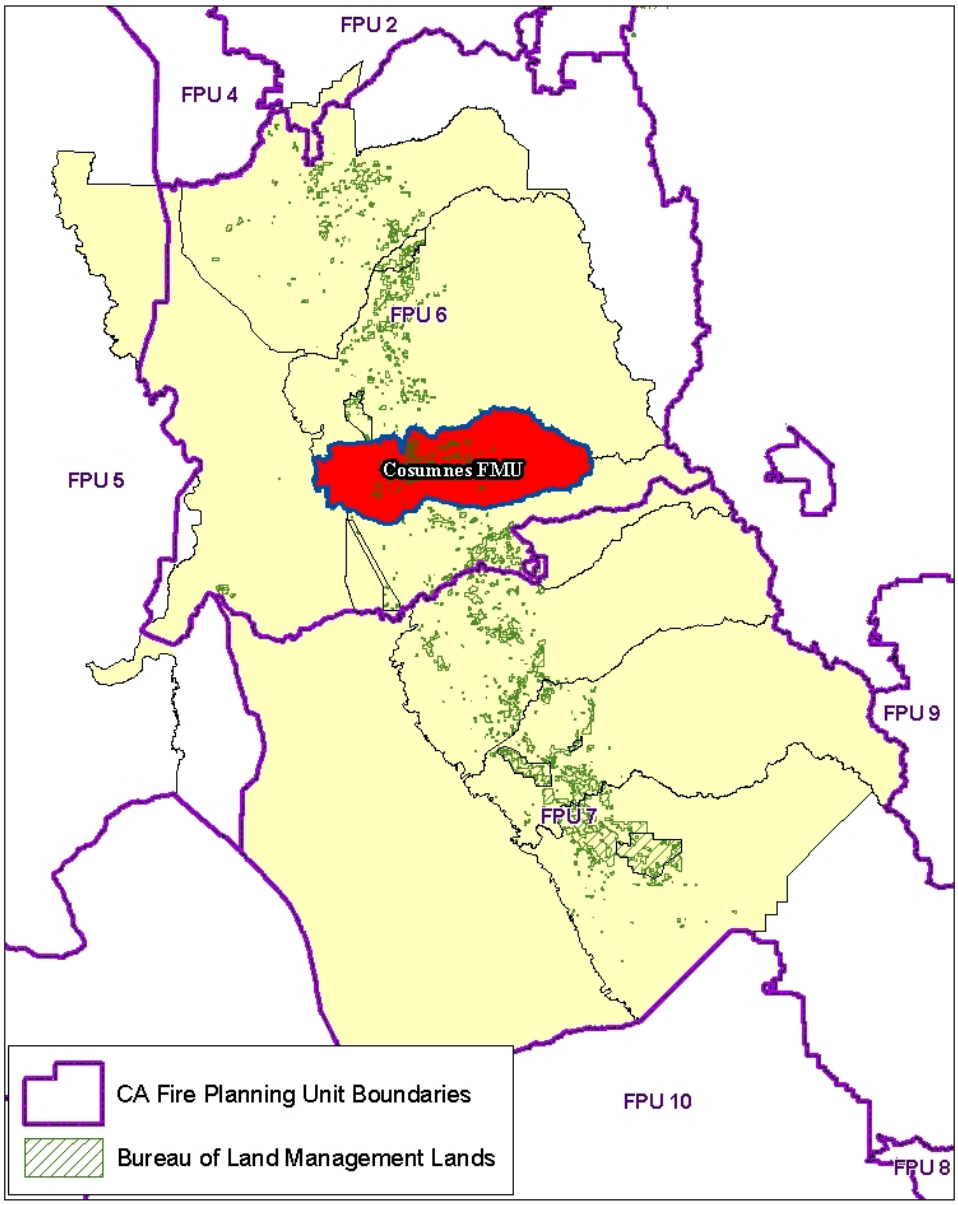
- Use local media outlets to encourage defensible space and to mitigate current fire causes.

- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

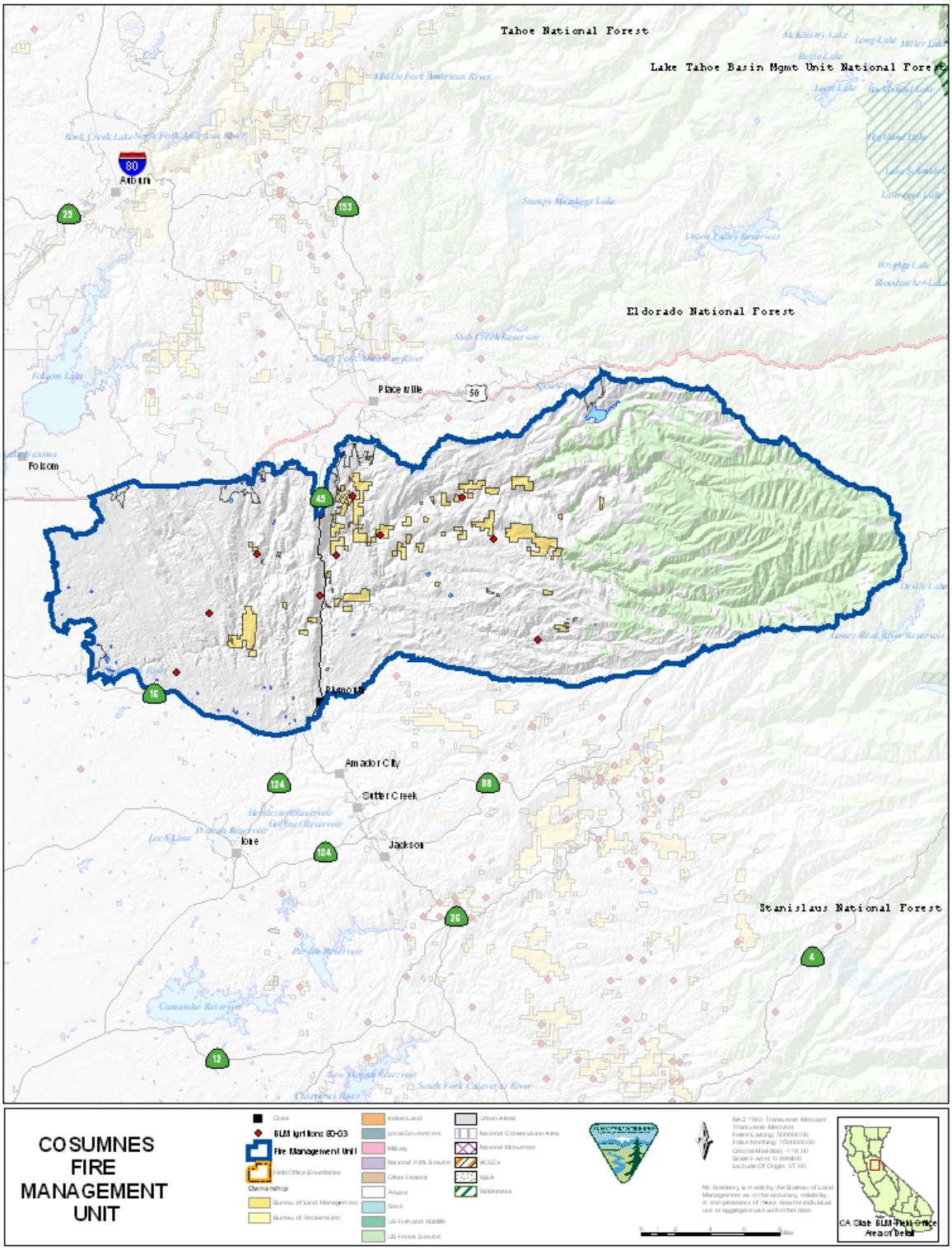
- Participate in residential assessments and provide education to the homeowners.

- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

Cosumnes FMU



CA-180-05


Tahoe National Forest
Lake Tahoe Basin Mgmt Unit National Forest
Eldorado National Forest
Stanislaus National Forest
Auburn
Placerville
Folsom
Plymouth
Amador City
Sutter Creek
Ione
Jackson
80
193
25
50
45
16
124
88
104
26
4
12
COSUMNES FIRE MANAGEMENT UNIT
Cities
BLM Ignitions 80-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Areas
National Monuments
ACECs
NSA
Wilderness
CA State BLM Field Office Area of Detail

FMU I.D. No.: CA-180-05 Cosumnes

FMU Type: Wildland Urban Interface

FMU Location Information:

- **Geographic boundaries:** The FMU includes BLM land in portions of El Dorado and Amador counties. This FMU is located within the Amador/El Dorado CDF unit and the LEFT FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-05	**Cosumnes**	
Ownership	Acres	Percent
Bureau of Land Management	10,126	3
Other Federal/Private	383,437	97
Total Acres	393,563	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 400-3500 feet
  - **Slope:** 0-30%
  - **Aspect:** All
  - **Major topographical features:** Area includes the Cosumnes River consisting of three major forks and multiple side drainages.
- **Resource Use:**
  - Mining
  - Watershed, irrigation use
  - Recreation
- **Air Quality:**
  - Air This area influences Sacramento regional air quality
- **Soils:**
  - No unique soils occur in this area
- **Hydrology and Water Quality:**
  - The Cosumnes River is an important watershed for local agriculture
- **Access:**
  - State and county roads traverse the area but most access to BLM land is limited
- **Cultural values:**
  - Indian Diggings and Martinez Creek are sensitive cultural sites within this FMU.
- **Sensitive species & habitats, T&E species & habitat:**

  Special status plant species known to occur on BLM lands in the Cosumnes FMU:

- *Chlorogalum grandiflorum*

Special status animal species:
- California spotted owl
- Foothill yellow-legged frog
- Bat species

Fire Occurrence and History

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-05			Natural	0		
Number of Fires	2	11	Camp Fire	2	Total Multiple Fire Days (MFD)	4
			Smoking	0		
Largest Fire (Acres)	158.0	900.0	Fire Use	0	Number of MFD Fires	4
			Incendiary	2		
Total Acres Burned	188.0	1,288.0	Equipment	5	Total Acres Burned by Multiple Fires	74.0
			Railroads	0		
Average Fire Size (Acres)	94.0	117.1	Juveniles	1		
			Miscellaneous	1		

Fire History Ignitions by Size Class		CA-180-05
Size Class (Acres)	**Number of Ignitions**	**Number of Acres**
A (0.0 - 0.2)	1	0.0
B (0.3 - 9.9)	4	20.0
C (10 - 99.9)	4	210.0
D (100 - 299.9)	1	158.0
E (300 - 999.9)	1	900.0
F (1000 - 4999.9)	0	0.0
G (5000+)	0	0.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

Topography and heavy fuel loads could cause extreme fire behavior in this FMU. Most BLM land has heavy Fuel Model 4 fuels with extensive ladder fuels and dead woody material. This FMU is influenced by seasonal lightning activity and foehn winds.

- **Fuel models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine
- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Cultural resources
  - Visual resources
  - Special Status Species
  - Air quality
  - Vegetation values

Communities at Risk/WUI Areas:

- Omo Ranch
- Outingdale

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **10 acres or less**

- FMU Target acres burned per decade: **500 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.

- 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Wildland Urban interface
    - Visual resources
    - Water quality
    - Recreational uses
    - Improvements for trails or other areas
- Fires on BLM land remain on BLM land – no crossover to private or other agency land.
- The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
- When appropriate utilize contain/confine strategies instead of control strategy.
- Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
    - All management activities will consider safety of personnel and the public as the highest priority.
    - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
    - Use Minimum Impact Suppression Tactics (MIST) when possible.
    - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
    - Avoid ground disturbance at Indian Diggings and along Martinez Creek.
    - Wildfires will be suppressed using a mix of the following methods to avoid impairment:
        - Aerial attack.
        - Crews using hand tools to create fire breaks.
        - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
        - Use of foam and/or fire retardant.
        - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
    - Reduce hazardous fuels in the wildland urban interface
    - Restore area to conditions approximating the historic Fire Regime

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

Wildland Fire Suppression Strategies:

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **500 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on Wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
    - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work

with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.

  - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
  - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.
  - Request an archeologist be dispatched to the incident as soon as practicable.
  - Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **100 acres**

- Rx Fire Decadal Acres Burned Target: **500 acres**

- No intentional area ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.

- Prescribed fire emissions remain within those allowed by state and local air quality regulators

- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.

- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.

- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.

- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
    - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
    - Photo points will be established pre-burn.
    - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
    - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **50 acres**
- Non-fire treatment decadal acres target: **500 acres**
- The first priority objective is to protect private property while providing for firefighter and public safety.
- Reduce the potential for catastrophic wildfire.
- Reduce heavy fuel loads resulting from long term suppression.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.
- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.
- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.
- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.
- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.
- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

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- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
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        - Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
    - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Preserve scenic quality of the river

- Stabilize any steep slopes to minimize erosion

- Exclude non-native invasive species
- Avoid ground disturbance at Indian Diggings and along Martinez Creek
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

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- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.
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    - Specifies treatments required to implement post-fire rehabilitation policies
    - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
    - Repair minor facilities damaged by fire
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    - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

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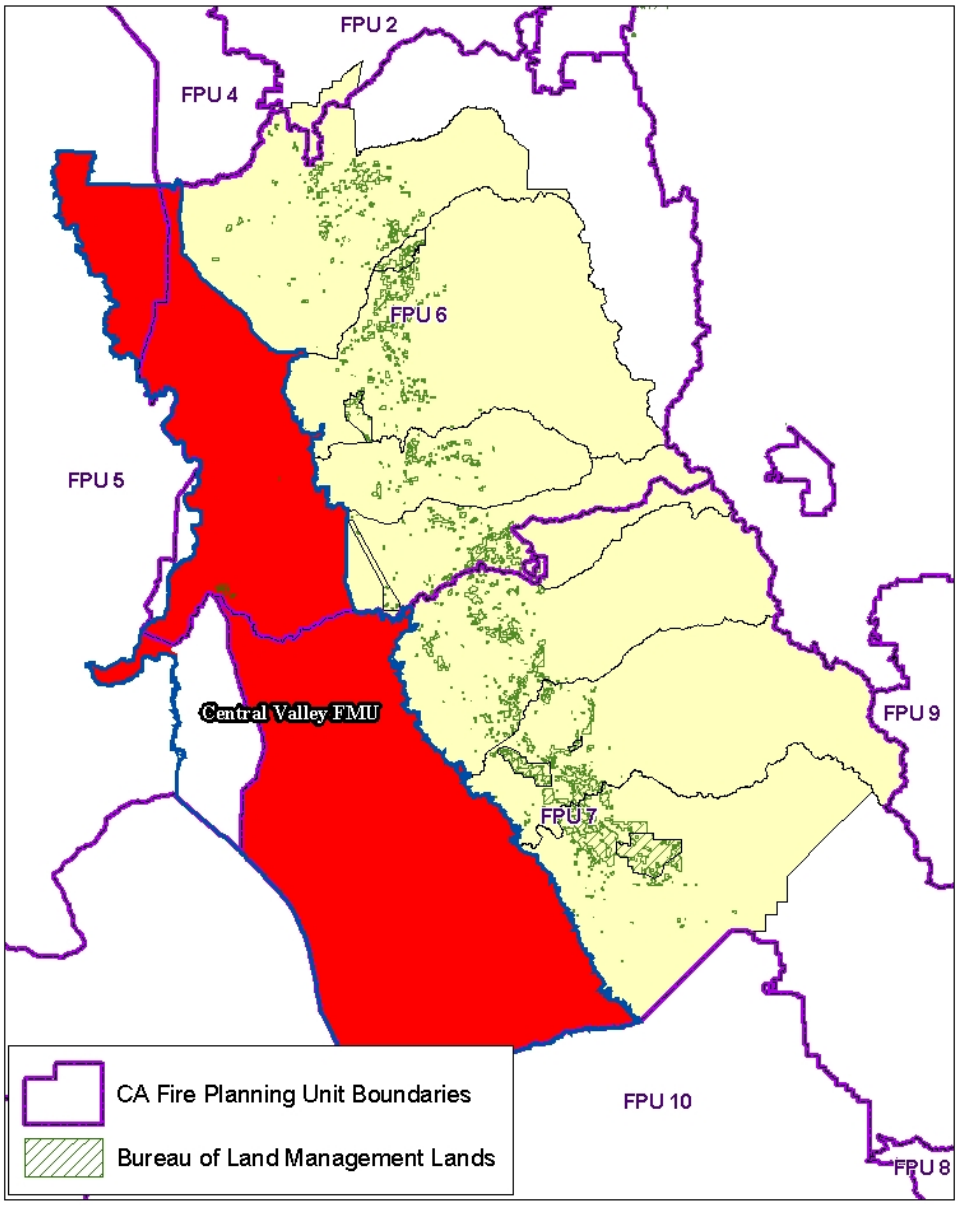
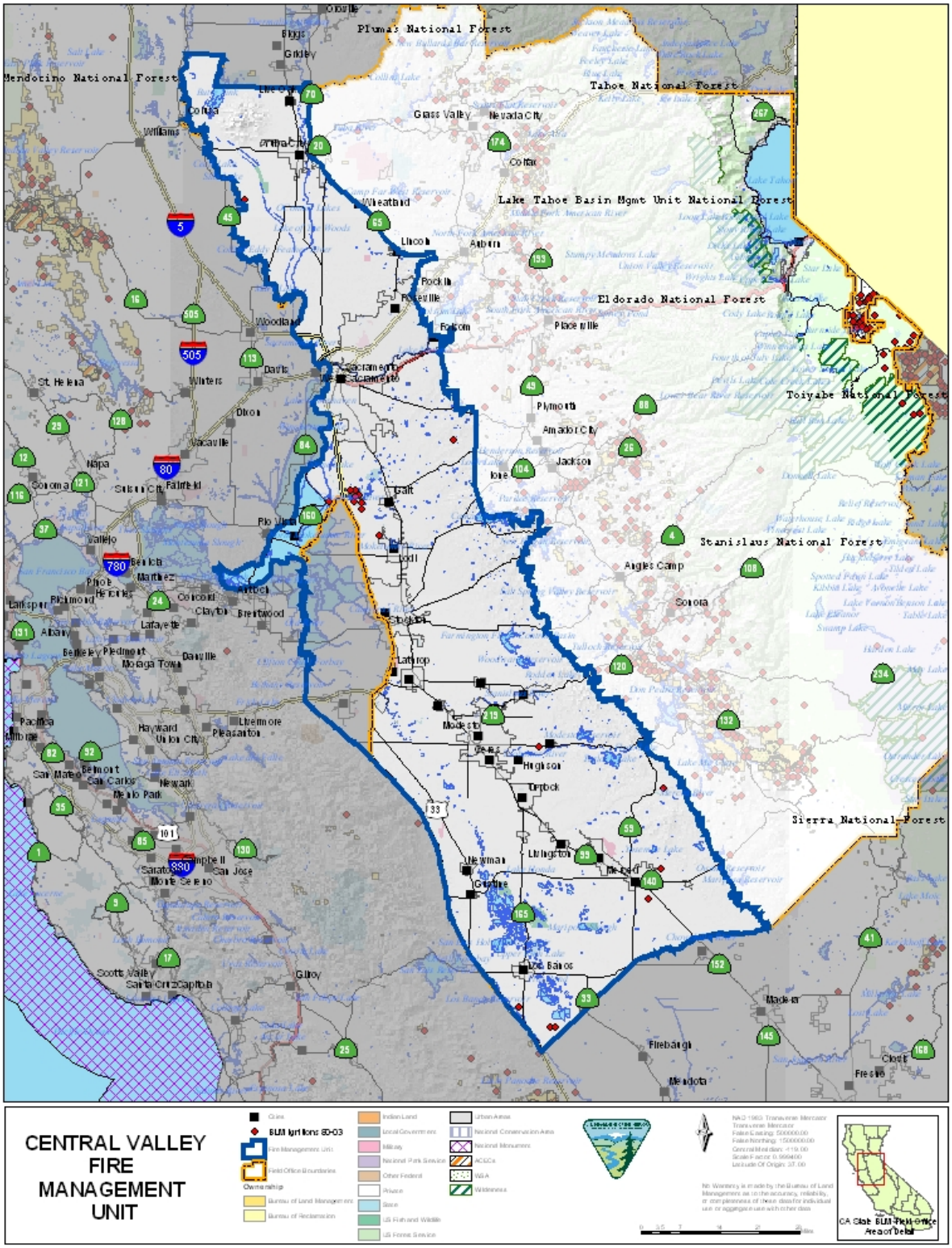
- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.
- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.
- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.
- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.
- Use local media outlets to encourage defensible space and to mitigate current fire causes.
- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.
- Participate in residential assessments and provide education to the homeowners.
- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

Central Valley/CRP FMU



CA-180-06


Plumas National Forest
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Biggs
Gridley
Colusa
Williams
Arbuckle
Grass Valley
Nevada City
Colfax
Wheatland
Lincoln
Auburn
Rocklin
Roseville
Folsom
Placerville
Woodland
Davis
Winters
Sacramento
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Dixon
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Napa
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Suisun City
Fairfield
Plymouth
Amador City
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Rio Vista
Vallejo
Benicia
Martinez
Pinole
Hercules
Richmond
Concord
Clayton
Antioch
Brentwood
Lafayette
Lakeport
Albany
Berkeley
Piedmont
Moraga Town
Danville
Stockton
Lathrop
Angels Camp
Sonora
Pacifica
Millbrae
Hayward
Union City
Pleasanton
Livermore
San Mateo
Belmont
San Carlos
Newark
Menlo Park
Modesto
Hughson
Denair
Delhi
Livingston
Merced
Gustine
Los Banos
Saratoga
Monte Sereno
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Campbell
Scotts Valley
Santa Cruz
Capitola
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Fresno
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CENTRAL VALLEY
FIRE
MANAGEMENT
UNIT
Cities
BLM Townships 80-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
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US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Area
National Monument
ACECs
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No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data
0 3.5 7 14 21 28 Miles
CA State BLM Field Office Area of Detail

FMU I.D. No.: CA-180-06 Central Valley/CRP

FMU Type: Wildland Urban Interface

FMU Location Information:

- **Geographic boundaries:** This FMU covers the Central Valley portion of the Folsom Field Office. Most of this FMU is outside CDF jurisdiction and covered by local fire agencies.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-06	**Central Valley/CRP**	
Ownership	Acres	Percent
Bureau of Land Management	2,134	0
Other Federal/Private	3,729,565	100
Total Acres	3,731,699	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** Near sea level to 900 feet
  - **Slope:** 0-5%
  - **Aspect:** All, with mostly a flat aspect
  - **Major topographical features:** Open wetlands bordering the Cosumnes River.
- **Resource Use:**
  - Mining
  - Waterfowl habitat
  - Surrounding agriculture use
  - Recreation
- **Air Quality:**
  - This unit is significantly influenced by the Sacramento regional air quality impacts
- **Soils:**
  - No unique soils occur in this FMU
- **Hydrology and Water Quality:**
  - Water quality of the Cosumnes River is important to many dependant species including water fowl.
  - Hydrology is controlled in some areas by weirs and spill-ways
- **Access:**
  - The FMU is bisected by Interstate highways, State highways, and county roads, which provide access to most of the public land.

- **Cultural values:**
  - Cultural resources present in the FMU are related to prehistoric land uses and historic-period settlement.
- **Sensitive species & habitats, T&E species & habitat:**
  - No Special Status Species occur on the BLM land in this FMU

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-06			Natural	7		
Number of Fires	13	22	Camp Fire	0	Total Multiple Fire Days (MFD)	7
			Smoking	0		
Largest Fire (Acres)	16,820.0	20,080.0	Fire Use	0	Number of MFD Fires	8
			Incendiary	3		
Total Acres Burned	16,917.6	53,650.6	Equipment	9	Total Acres Burned by Multiple Fires	33,363.0
			Railroads	0		
Average Fire Size (Acres)	1,301.4	2,438.7	Juveniles	0		
			Miscellaneous	3		

Fire History Ignitions by Size Class		CA-180-06
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	1	0.1
B (0.3 - 9.9)	8	22.7
C (10 - 99.9)	6	119.0
D (100 - 299.9)	2	388.8
E (300 - 999.9)	0	0.0
F (1000 - 4999.9)	1	3,003.0
G (5000+)	4	50,117.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

This unit is part of the Sacramento Valley floor and is relatively flat, which serves to moderate fire behavior. The primary contributor of extreme fire behavior in this FMU would be strong winds generated by local Delta breezes or northerly foehn winds.

- **Fuel models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine
- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1, due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Visual resources
  - Air quality
  - Vegetation values

Communities at Risk/WUI Areas:

- Elk Grove
- Galt

OBJECTIVES AND STRATEGIES

Management Objectives for this FMU

1. All management activity in this FMU must comply with the Cosumnes River Preserve Management Plans
   1. a. **Reference:** Folsom Resource Management Plan

Fire Management Objective Priority Statement:

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

- FMU target individual wildland fire size: **10 acres**

- FMU Target acres burned per decade: **500 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Wildland Urban interface
    - Visual resources
    - Water quality
    - Recreational uses
    - Agriculture
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
  - Use Minimum Impact Suppression Tactics (MIST) when possible.
  - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
  - Numerous sensitive archaeological resources exist which requires coordination with cultural resources staff during suppression efforts.
  - Wildfires will be suppressed using a mix of the following methods to avoid impairment:
    - Aerial attack.
    - Crews using hand tools to create fire breaks.
    - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
    - Use of foam and/or fire retardant.
    - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
    - Reduce hazardous fuels in the wildland urban interface
    - Restore area to conditions approximating the historic Fire Regime

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

Wildland Fire Suppression Strategies:

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **500 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on Wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
    - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.
    - Request an archeologist be dispatched to the incident as soon as practicable.
    - Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option within this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **50 acres**

- Rx Fire Decadal Acres Burned Target: **500 acres**

- Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects or as an ecological tool in restoration.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.
- Prescribed fire emissions remain within those allowed by state and local air quality regulators
- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.
- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.
- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.
- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.
- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.
- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.
- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.
- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).
- **Rx Fire Monitoring Strategy:**
    - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
    - Photo points will be established pre-burn.
    - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
    - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **10 acres**
- Non-fire treatment decadal acres target: **100 acres**
- The first priority objective is to protect private property while providing for firefighter and public safety.
- Reduce the potential for catastrophic wildfire.
- Reduce heavy fuel loads resulting from long term suppression.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.
- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.
- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.
- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.
- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.
- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.
    - For hazardous fuels reduction, these activities:
        - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
        - Will not include the use of herbicides or pesticides;
        - Will not involve the construction of new permanent roads or other infrastructure;
        - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
        - Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
        - Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
    - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Preserve scenic quality of the river

- Stabilize any steep slopes to minimize erosion

- Exclude non-native invasive species
- Ensure coordination with cultural resources staff to avoid impacts.
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.
- Site specific projects will be considered to meet the objectives as identified in the LUP.
- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
    - If appropriate, develop and submit an ESR plan to CA BLM State Office.
        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).
- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.
- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.
- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.

        - Immediate rehabilitation actions to prevent further land degradation or resource loss.
    - Resource damage restoration or rehabilitation involves long term or post incident actions:
        - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
        - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
    - Stabilize and prevent unacceptable degradation to natural and cultural resources
    - Minimize threats to life and property resulting from the effects of a fire
    - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
    - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
    - Specifies treatments required to implement post-fire rehabilitation policies
    - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
    - Repair minor facilities damaged by fire
    - Actions must be taken within three years of containment of a wildland fire
    - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.

- All firelines will be rehabilitated to natural conditions.
- Long term rehabilitation could involve the use of an ESR team on larger fires.
- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

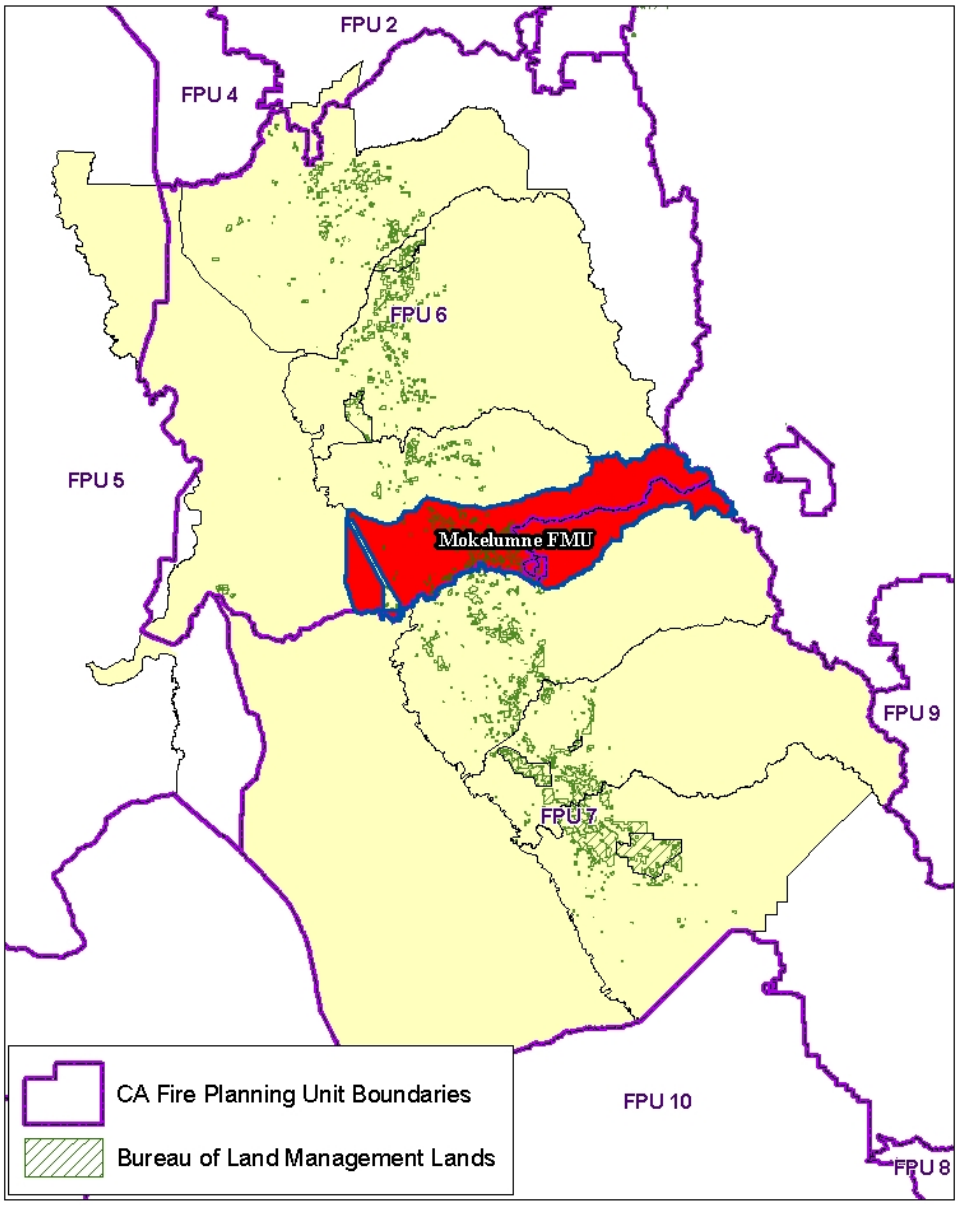
- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk
- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.
- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.
- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.

- Provide fire restriction and emergency closure information to the public.
- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.
- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.
- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.
- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.
- Use local media outlets to encourage defensible space and to mitigate current fire causes.
- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.
- Participate in residential assessments and provide education to the homeowners.
- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

Mokelumne FMU



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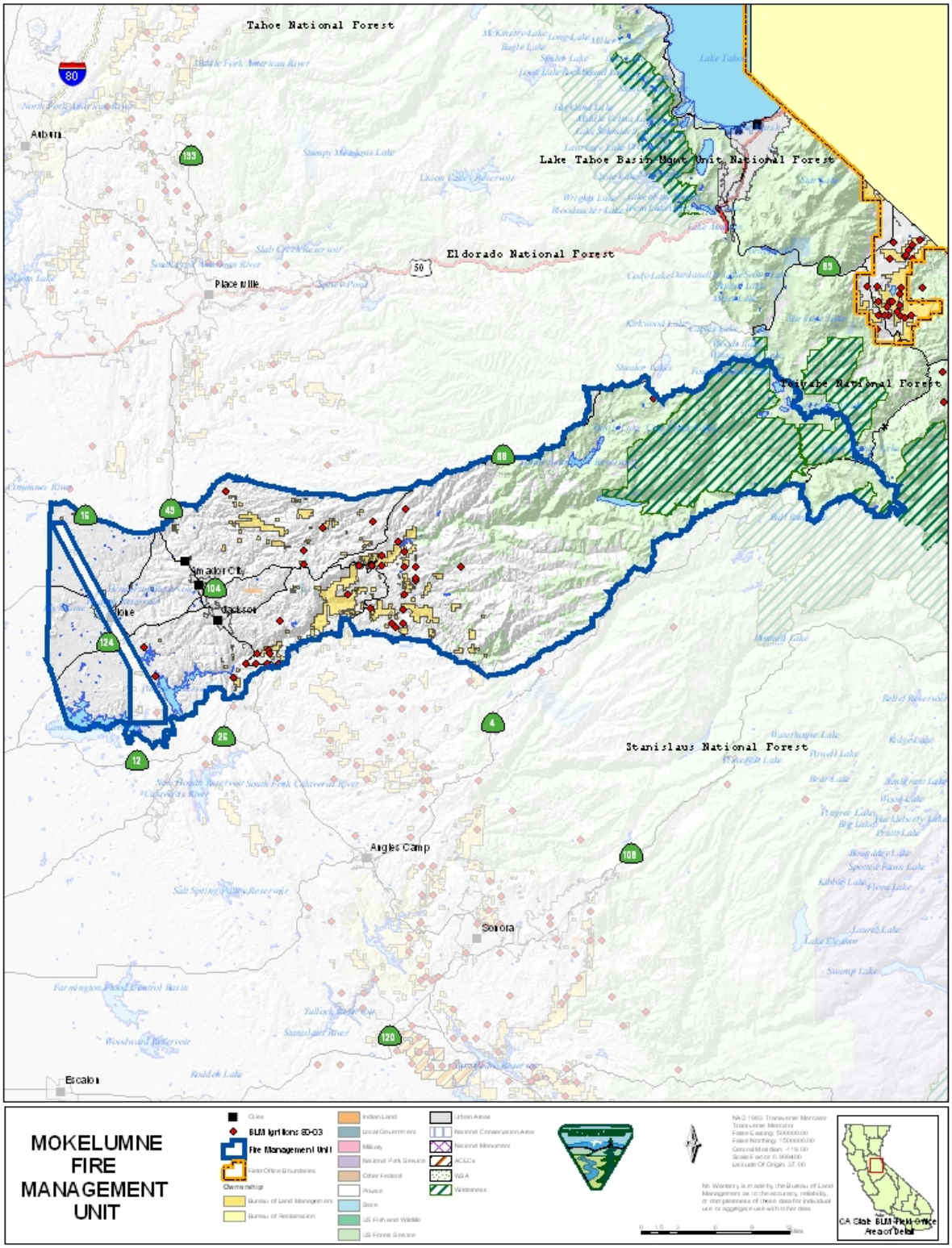
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Angels Camp
Sonora
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MOKELUMNE FIRE MANAGEMENT UNIT
Cities
BLM Districts 6D-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Area
National Monument
ACECs
WSA
Wilderness
CA State BLM Field Office Area of Detail

FMU I.D. No.: CA-180-07 Mokelumne

FMU Type: Wildland Urban Interface

FMU Location Information:

- **Geographic boundaries:** This FMU includes BLM land in Amador and Calaveras Counties contained in the Amador/El Dorado and Tuolumne/Calaveras CDF units. The FMU resides in the LEFT FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-07	**Mokelumne**	
Ownership	Acres	Percent
Bureau of Land Management	19,538	3
Other Federal/Private	548,364	97
Total Acres	567,902	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 300-4000 feet
  - **Slope:** 0-100%
  - **Aspect:** All
  - **Major topographical features:** Mokelumne river canyon with three major forks and multiple side drainages. Also contains Sutter creek and other large creeks draining into the Mokelumne River west of the unit boundary.
- **Resource use:**
  - Mining
  - Recreation
- **Air Quality:**
  - Air quality is not a major concern in this FMU
- **Soils:**
  - No significant or unusual soils occur in this FMU
- **Hydrology and Water Quality:**
  - Several water structures and impoundments are present on the Mokelumne River
- **Access:**
  - This FMU is accessed by a road network of state and county roads. Access to public land in most areas is poor. Many of the public land parcels are not accessible by vehicle. Those that are accessible are often accessible over narrow two track roads.

- **Cultural values:**
  - Cultural resources occur on the Campo Seco parcel and the ridge above Rancheria Creek, six miles east of Dogtown.

- **Sensitive species & habitats, T&E species & habitat:**

  Special status plant species known to occur in this FMU (but outside of the Ione FMU):
  - *Chlorogalum grandiflorum* Red Hills soaproot
  - *Horkelia parryi* Parry's horkelia

  Special status animal species:
  - California spotted owl
  - Northern goshawk
  - California red-legged frog
  - Foothill yellow-legged frog
  - Valley elderberry longhorn beetle
  - Bat species

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-07			Natural	3		
Number of Fires	25	50	Camp Fire	3	Total Multiple Fire Days (MFD)	5
			Smoking	7		
Largest Fire (Acres)	31.0	4,338.0	Fire Use	6	Number of MFD Fires	9
			Incendiary	13		
Total Acres Burned	92.1	6,167.2	Equipment	9	Total Acres Burned by Multiple Fires	4,578.6
			Railroads	0		
Average Fire Size (Acres)	3.7	123.3	Juveniles	3		
			Miscellaneous	6		

Fire History Ignitions by Size Class		CA-180-07
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	7	0.6
B (0.3 - 9.9)	28	61.6
C (10 - 99.9)	10	222.0
D (100 - 299.9)	2	463.0
E (300 - 999.9)	2	1,082.0
F (1000 - 4999.9)	1	4,338.0
G (5000+)	0	0.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

The fire behavior in the FMU is heavily influenced by topography and fuel loading. The BLM land lies mostly in the river canyons with steep slopes, heavy fuel, ladder fuels, and a high

potential for crown fires. This area is also affected by seasonal lightning activity and wind events. There is a high potential for extreme fire behavior in this FMU.

- **Fuel Models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine
- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Cultural resources
  - Visual resources
  - Special Status Species
  - Air quality
  - Vegetation values

Communities at Risk/WUI Areas:

- Fiddletown
- Glencoe
- Mokelumne Hill
- Paloma
- Pine Grove
- Pioneer
- Rail Road Flat
- Volcano
- West Point
- Wilseyville

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **10 acres or less**

- FMU Target acres burned per decade: **500 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Wildland Urban interface
    - Visual resources
    - Water quality
    - Recreational uses
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
  - Use Minimum Impact Suppression Tactics (MIST) when possible.
  - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.

- Avoid ground disturbance on the Campo Seco parcel and on the BLM land on the ridge above Rancheria Creek, six miles east of Dogtown.
- Wildfires will be suppressed using a mix of the following methods to avoid impairment:
  - Aerial attack.
  - Crews using hand tools to create fire breaks.
  - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
  - Use of foam and/or fire retardant.
  - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
  - Reduce hazardous fuels in the wildland urban interface
  - Restore area to conditions approximating the historic Fire Regime

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

<u>Wildland Fire Suppression Strategies:</u>

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **500 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on Wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
  - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.
    - Request an archeologist be dispatched to the incident as soon as practicable.
    - Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **10 acres to 100 acres**
- Rx Fire Decadal Acres Burned Target: **200 acres**
- No intentional area ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.
- 500 acres in the Blue Mountain/Summit Level area to improve winter deer habitat. Consists largely of mixed chaparral/annual grassland.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.
- Prescribed fire emissions remain within those allowed by state and local air quality regulators
- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.
- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.
- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.
- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.
- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.
- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.
- Conduct post-treatment surveys for increases in non-native plant species.

  - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
  - Develop and implement a smoke management plan for each prescribed burn.
  - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
  - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
  - Photo points will be established pre-burn.
  - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
  - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **10 acres to 100 acres**
- Non-fire treatment decadal acres target: **200 acres**
- The first priority objective is to protect private property while providing for firefighter and public safety.
- Reduce the potential for catastrophic wildfire.
- Reduce heavy fuel loads resulting from long term suppression.
- Thin 100 acres of forest plantations to improve winter deer habitat in the Blue Mountain/Summit Level area.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.

- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.

- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.
    - For hazardous fuels reduction, these activities:
        - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
        - Will not include the use of herbicides or pesticides;

- Will not involve the construction of new permanent roads or other infrastructure;
- Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
- Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
- Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
  - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Preserve scenic quality of the river
- Stabilize any steep slopes to minimize erosion
- Exclude non-native invasive species
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.
- Site specific projects will be considered to meet the objectives as identified in the LUP.
- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.

- If appropriate, develop and submit an ESR plan to CA BLM State Office.
  - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
  - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).

- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.

- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.

- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
  - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
    - Immediate rehabilitation actions to prevent further land degradation or resource loss.
  - Resource damage restoration or rehabilitation involves long term or post incident actions:
    - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
    - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
  - Stabilize and prevent unacceptable degradation to natural and cultural resources
  - Minimize threats to life and property resulting from the effects of a fire
  - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
  - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
  - Specifies treatments required to implement post-fire rehabilitation policies
  - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
  - Repair minor facilities damaged by fire
  - Actions must be taken within three years of containment of a wildland fire

  - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.

- All firelines will be rehabilitated to natural conditions.

- Long term rehabilitation could involve the use of an ESR team on larger fires.

- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

- Coordinate with cultural resources staff to avoid ground disturbance in the sensitive areas of Campo Seco and Rancheria Creek.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI

- Educate area population on the basic principles of fire ecology and fire's role in the environment

- Build public support for fuels reduction efforts in and around WUI

- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk

- Develop and implement collaborative mitigation and prevention strategies with communities at risk

- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires

- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.

- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.

- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.

- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.

- Provide fire restriction and emergency closure information to the public.

- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.

- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

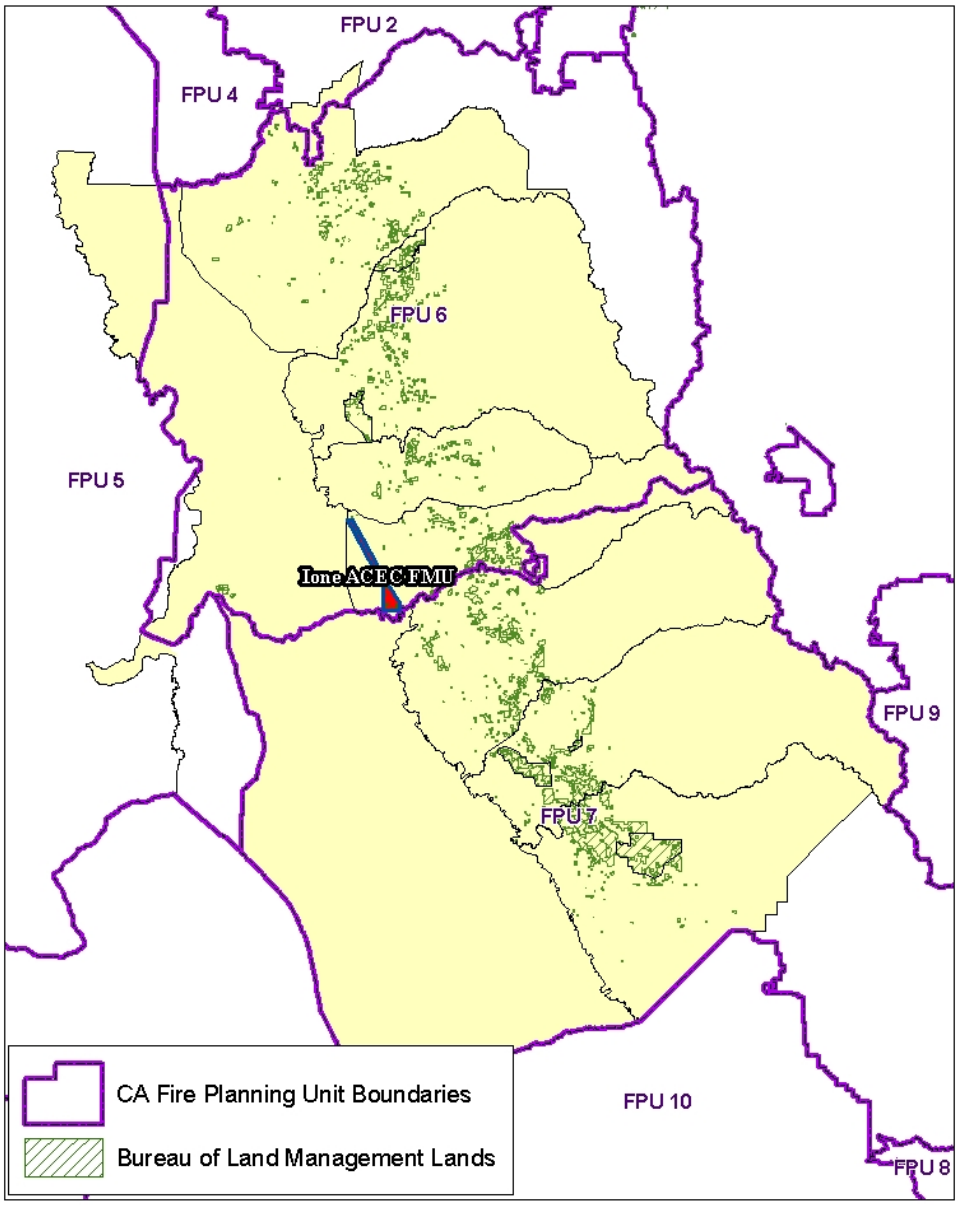
- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

- Use local media outlets to encourage defensible space and to mitigate current fire causes.

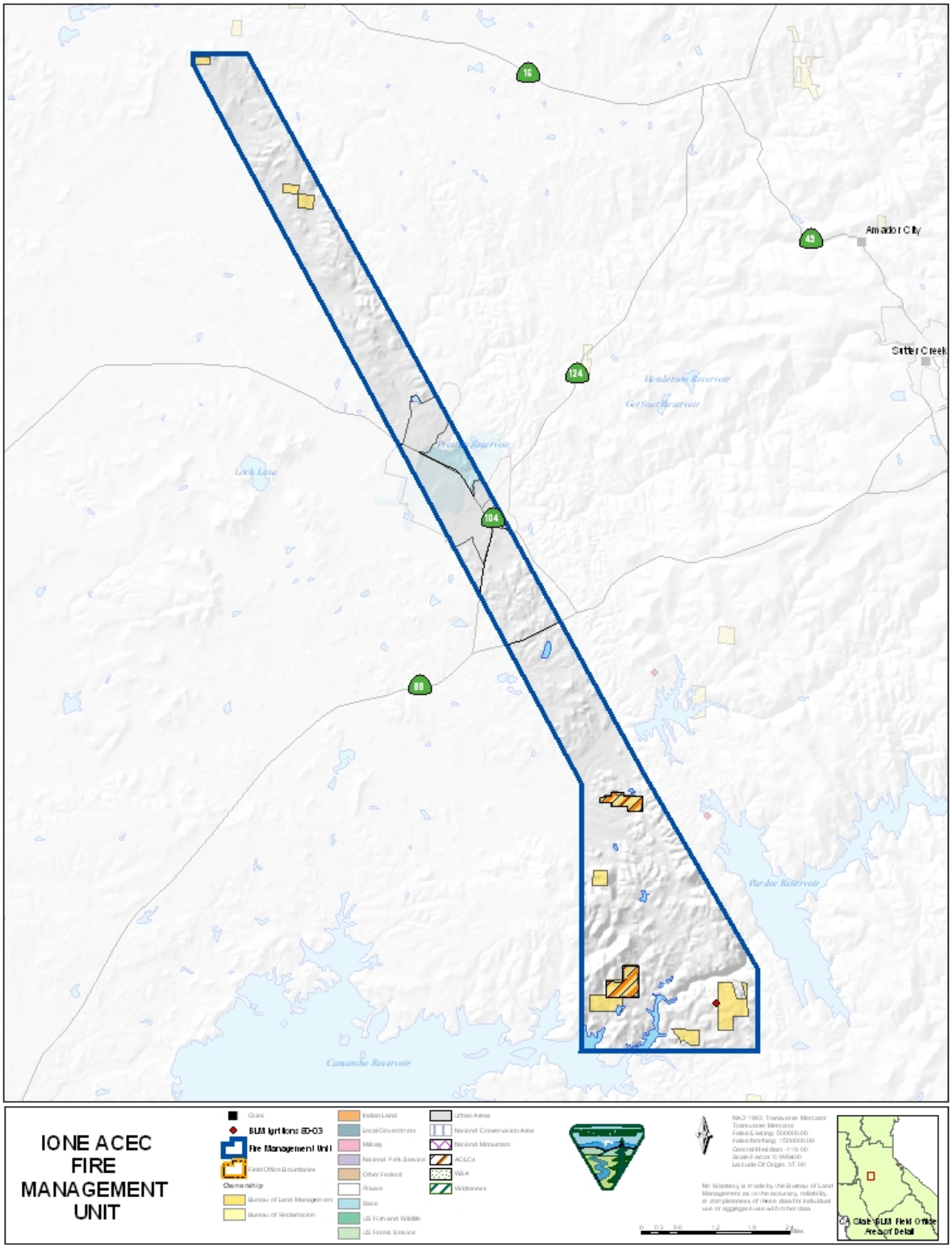
- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

- Participate in residential assessments and provide education to the homeowners.
- Conduct presentations to local homeowner groups explaining “Defensible Space” and/or fire prevention risks and mitigation.

Ione ACEC FMU



CA-180-08


16
49
Amador City
Sutter Creek
124
Henderson Reservoir
Goffinet Reservoir
Preston Reservoir
Lock Lane
104
88
Pardee Reservoir
Camanche Reservoir
IONE ACEC
FIRE
MANAGEMENT
UNIT
Cities
BLM Applications 80-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Areas
National Monuments
ACECs
WSA
Wilderness
NAD 1983 Transverse Mercator
Transverse Mercator
False Easting: 500000.00
False Northing: 1500000.00
Central Meridian: -119.00
Scale Factor: 0.999600
Latitude Of Origin: 37.00
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data
0 0.3 0.6 1.2 1.8 2.4 Miles
CA State BLM Field Office
Area of Detail

FMU I.D. No.: CA-180-08 Ione ACEC

FMU Type: ACEC

FMU Location Information:

- **Geographic boundaries:** The FUM boundary is contained within Amador County on the far west end in the Buena Vista Peaks. This FMU is located in the Amador/El Dorado CDF Ranger Unit and the LEFT FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-08	**Ione ACEC**	
Ownership	Acres	Percent
Bureau of Land Management	632	5
Other Federal/Private	13,240	95
Total Acres	13,871	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 300-500 feet
  - **Slope:** 40-100%
  - **Aspect:** All
  - **Major topographical features:** Area situated on steep slopes of depauperate soils providing for unique plant communities.
- **Resource Use:**
  - Recreation
  - Critical environmental area
- **Air Quality**:
  - No significant air quality issue exist in the FMU
- **Soils:**
  - The soils are highly unique and have been designated in some places as an Area of Critical Environmental Concern.
- **Hydrology and Water Quality:**
  - There are no issues with hydrology in this FMU
- **Access:**
  - Public land is not easily accessed by road.
- **Cultural values:**
  - This area was mined so some historic mining remnants may exist but are currenly not recorded.

- **Sensitive species & habitats, T&E species & habitat:**
  Special status plant species known to occur on BLM land in this FMU:
  - *Arctostaphylos myrtifolia* Ione manzanita
  - *Eriogonum apricum apricum* Apricum Hill buckwheat
  - *Horkelia parryi* Parry's horkelia
  - *Allium* sp.(related to *A. lacunosum*) New species
  - *Helianthemum suffrutescens* Bisbee Peak rush rose ;

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-08			Natural	0		
Number of Fires	2	2	Camp Fire	0	Total Multiple Fire Days (MFD)	0
			Smoking	0		
Largest Fire (Acres)	3.0	3.0	Fire Use	0	Number of MFD Fires	0
			Incendiary	0		
Total Acres Burned	4.0	4.0	Equipment	1	Total Acres Burned by Multiple Fires	0.0
			Railroads	0		
Average Fire Size (Acres)	2.0	2.0	Juveniles	0		
			Miscellaneous	1		

Fire History Ignitions by Size Class		CA-180-08
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	0	0.0
B (0.3 - 9.9)	2	4.0
C (10 - 99.9)	0	0.0
D (100 - 299.9)	0	0.0
E (300 - 999.9)	0	0.0
F (1000 - 4999.9)	0	0.0
G (5000+)	0	0.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

This area consists of heavy fuel loads. The fire behavior in this FMU is mostly influenced by wind events and has the potential to be extreme.

- **List fuel models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Private property
  - Cultural resources
  - Special Status Species
  - Vegetation values

Communities at Risk/WUI Areas:

- Campo Seco
- Ione
- Wallace

OBJECTIVES AND STRATEGIES

Objectives Unique to this FMU

1. Conserve two federally listed plant species, a rare soil, and the entire ecosystem that has developed on Ione Formation substrates. The plant communities of the Ione Formation, with their tolerance for acidity and high aluminum levels, are unique and should be conserved. There are several sensitive plant species and a sensitive animal associated with this community, as well as a newly discovered plant taxon.
   1. a. Reference: Ione ACEC Management Plans

Fire Management Objective Priority Statement:

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Protection/Suppression Objectives Statement:

This area is heavily bisected by roads which should provide good fire lines. These roads should not be bladed or improved unless absolutely necessary to fire suppression activities.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **1 acre or less**

- FMU Target acres burned per decade: **100 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Wildland Urban interface
    - Special Status Species
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Avoid tractor work and other soil disturbance in the FMU. There may be opportunities to modify this instruction when a Resource Advisor can confirm that the plants or soils that are being conserved do not extend into the area where equipment would be used. However, equipment work should be avoided if possible.
  - **The avoidance of any equipment in the habitat of Ione manzanita is critical**. A soil dwelling fungus is decimating populations of this Federally Listed Species. Equipment work could spread the fungus to new populations which could deal a major blow to a species that is already declining.
  - If tractor work is unavoidable in an emergency situation within this FMU, use high blading and skimming the brush wherever those techniques will be effective
  - **If tractor work is unavoidable in an emergency situation in the habitat of Ione manzanita, the equipment should be thoroughly cleaned before and after work in any localized area where either Ione manzanita or white leaf manzanita is growing. Both species carry the disease. For a large fire, even moving equipment around the fire perimeter could spread the disease and have serious effects on this species. If tractors are used, the use of high blading and skimming the brush is even more important where these**

manzanita species occur, because these techniques will limit the transport of disease containing soils.

- Avoid the use of fire retardant chemicals, with particular emphasis on those containing fertilizer ingredients. There may be opportunities to modify this instruction when a Resource Advisor can confirm that the plants that are being conserved do not extend into the area where retardant would be used. On the other hand use of retardants at the Ione Soils ACEC is not limited.
- Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
- Use Minimum Impact Suppression Tactics (MIST) when possible.
- Wildfires will be suppressed using a mix of the following methods to avoid impairment:
    - Aerial attack.
    - Crews using hand tools to create fire breaks.
    - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
    - Use of foam and/or fire retardant.
    - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
    - Reduce hazardous fuels in the wildland urban interface
    - Restore area to conditions approximating the historic Fire Regime

<u>Wildland Fire Suppression Strategies</u>

- All fires occurring at FIL ***(1-6)*** will be suppressed at **1 acre, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **100 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on Wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
    - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.
    - Request an archeologist be dispatched to the incident as soon as practicable.
    - Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **10 acres**
- Rx Fire Decadal Acres Burned Target: **100 acres**
- No intentional ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.
- Consultation under the ESA will be needed for projects in much of this FMU.
- If stands of Ione manzanita are not regenerated by wildfires and seem to be in decline from old age, prescribed fire will be considered to spur regeneration. However, too frequent fires are a great risk to this species, so a prescribed burn program will be approached with caution.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.
- Prescribed fire emissions remain within those allowed by state and local air quality regulators
- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.
- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.
- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.
- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.
- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
    - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
    - Photo points will be established pre-burn.
    - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
    - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **<10 acres**

- Non-fire treatment decadal acres target: **100 acres**

- Consultation under the ESA will be needed for projects in much of this FMU.

- The first priority objective is to protect private property while providing for firefighter and public safety.

- Reduce the potential for catastrophic wildfires.

- Reduce heavy fuel loads resulting from long term suppression.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.

- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.

- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.

- For hazardous fuels reduction, these activities:
  - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
  - Will not include the use of herbicides or pesticides;
  - Will not involve the construction of new permanent roads or other infrastructure;
  - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
  - Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
  - Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
  - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Consultation under the ESA will be needed for projects in much of this FMU. Even post-fire rehabilitation work falls under ESA. U.S. Fish and Wildlife Service have an expedited process for these situations.

- Stabilize any steep slopes to minimize erosion

- Exclude non-native invasive species

- Restore habitat conditions for Special Status Species

- Revegetate any disturbed areas with native species

- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.

- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.

- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.

- Site specific projects will be considered to meet the objectives as identified in the LUP.

- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
    - If appropriate, develop and submit an ESR plan to CA BLM State Office.
        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).

- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.

- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.

- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
        - Immediate rehabilitation actions to prevent further land degradation or resource loss.
    - Resource damage restoration or rehabilitation involves long term or post incident actions:
        - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
        - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
  - Stabilize and prevent unacceptable degradation to natural and cultural resources
  - Minimize threats to life and property resulting from the effects of a fire
  - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
  - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
  - Specifies treatments required to implement post-fire rehabilitation policies
  - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
  - Repair minor facilities damaged by fire
  - Actions must be taken within three years of containment of a wildland fire
  - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.

- All firelines will be rehabilitated to natural conditions.

- Long term rehabilitation could involve the use of an ESR team on larger fires.

- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk
- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.
- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.
- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.
- Provide fire restriction and emergency closure information to the public.
- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.
- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

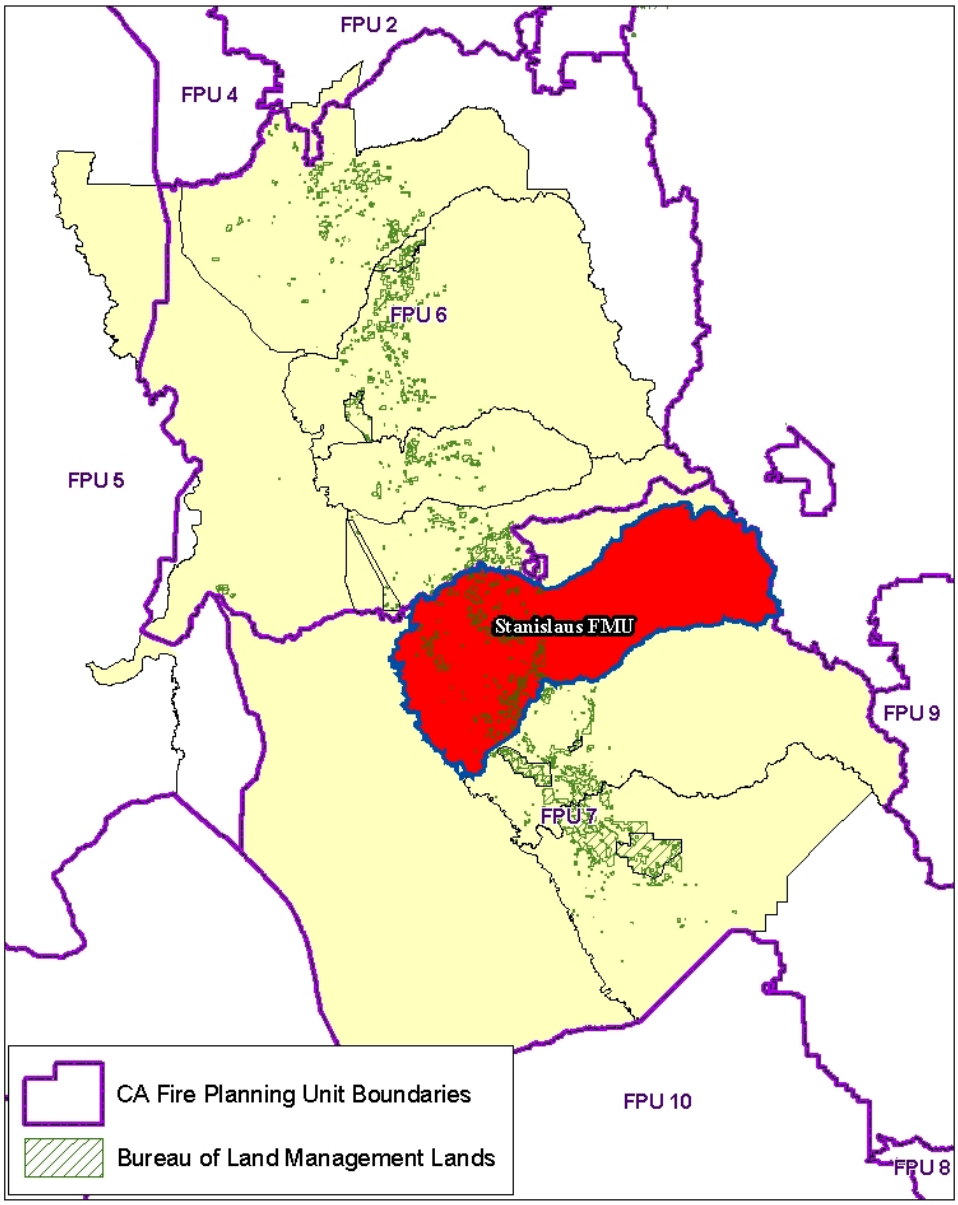
- Use local media outlets to encourage defensible space and to mitigate current fire causes.

- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

- Participate in residential assessments and provide education to the homeowners.

- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

Stanislaus FMU



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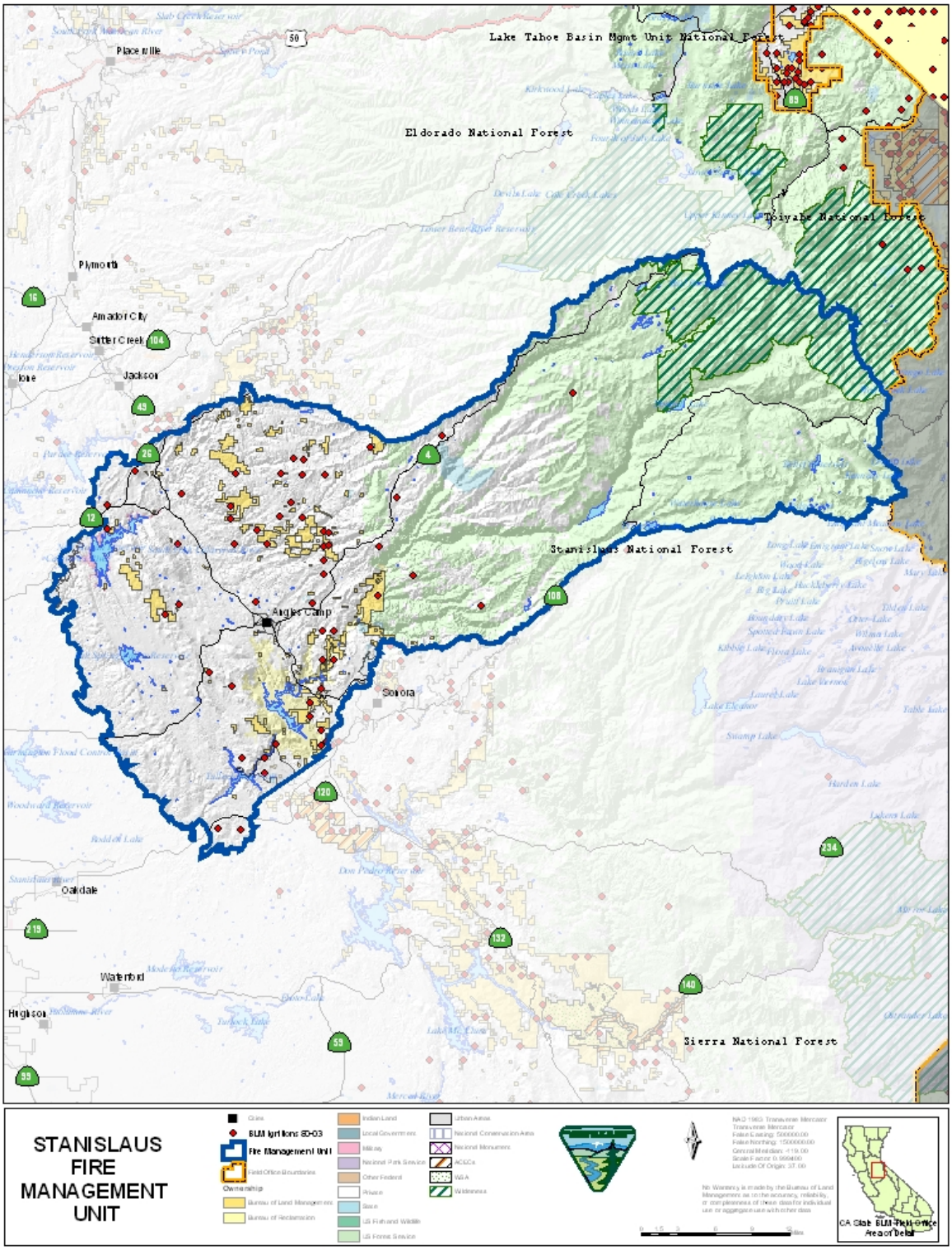
Lake Tahoe Basin Mgmt Unit National Forest
Placerville
Eldorado National Forest
Toiyabe National Forest
Plymouth
Amador City
Sutter Creek
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Jackson
Stanislaus National Forest
Angels Camp
Sonora
Oakdale
Waterford
Hughson
Sierra National Forest
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FIRE
MANAGEMENT
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Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Areas
National Monuments
ACECs
WSA
Wilderness
CA State BLM Field Office
Area of Detail

FMU I.D. No.: CA-180-09 Stanislaus

FMU Type: Wildland Urban Interface

FMU Location Information:

- **Geographic boundaries:** This FMU includes BLM lands in parts of Calaveras and Amador counties. Lands in this FMU are protected by two CDF Units, the Amador/El Dorado and the Tuolumne/Calaveras. The FMU is located within the southern FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-09	**Stanislaus**	
Ownership	Acres	Percent
Bureau of Land Management	30,135	3
Other Federal/Private	924,748	97
Total Acres	954,883	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 800-4500 feet
  - **Slope:** 0-100%
  - **Aspect:** All
  - **Major topographical features:** Stanislaus River canyon with three major forks and multiple side drainages.
- **Resource Use:**
  - Mining
  - Recreation
- **Air Quality:**
  - There are no air quality concerns in this FMU
- **Soils:**
  - There are no soil concerns in this FMU
- **Hydrology and Water Quality:**
  - One large reservoir occurs in this unit, New Melones Lake, surrounded by BLM and Bureau of Reclamation land.
- **Access:**
  - This FMU is accessed by a road network of state and county roads. Access to public land in most areas is poor. Many of the public land parcels are not accessible by vehicle. Those that are accessible are often accessible over narrow two track roads. In other cases, public lands are ringed by housing subdivisions, shopping centers and medical centers.

- **Cultural values:**
  - Stony Gulch area contains sensitive cultural resources.
- **Sensitive species & habitats, T&E species & habitat:**

Special status plant species known to occur on BLM land in this FMU:

- *Allium jepsonii* Jepson's onion
- *Allium tuolumnense* Rawhide Hill onion
- *Chlorogalum grandiflorum* Red Hills soaproot
- *Cryptantha mariposae* Mariposa cryptantha
- *Erythronium tuolumnense* Tuolumne fawn lily
- *Horkelia parryi* Parry's horkelia
- *Lomatium congdonii* Stebbins' lomatium
- *Mimulus pulchellus* Pansy monkeyflower

Special status animal species:

- Bat species
- California spotted owl
- Northern goshawk
- Foothill yellow-legged frog
- California red-legged frog
- Valley elderberry longhorn beetle
- Vernal pool invertebrates

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-09			Natural	6		
Number of Fires	39	63	Camp Fire	9	Total Multiple Fire Days (MFD)	9
			Smoking	4		
Largest Fire (Acres)	6,800.0	18,500.0	Fire Use	7	Number of MFD Fires	15
			Incendiary	14		
Total Acres Burned	21,890.1	51,762.5	Equipment	14	Total Acres Burned by Multiple Fires	16,432.9
			Railroads	0		
Average Fire Size (Acres)	561.3	821.6	Juveniles	1		
			Miscellaneous	8		

Fire History Ignitions by Size Class		CA-180-09
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	4	0.3
B (0.3 - 9.9)	20	35.1
C (10 - 99.9)	16	583.1
D (100 - 299.9)	6	1,036.0
E (300 - 999.9)	9	5,018.0
F (1000 - 4999.9)	6	19,790.0
G (5000+)	2	25,300.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

Heavy fuels and steep topography are the main influences on fire behavior in this FMU.

- **Fuel models and/or vegetation types within the FMU:**
    - Fuel Model 1 – Annual grasses
    - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
    - Fuel Model 4 – Heavy shrubs such as chaparral
    - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
    - Fuel Model 9 – Closed stands of long-needle pine

- **Live fuel moisture characteristics:**
    - Fuel model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
    - Recreation
    - Watershed values
    - Water quality
    - Private property
    - Cultural resources
    - Visual resources
    - Special Status Species
    - Air quality
    - Vegetation values

Communities at Risk/WUI Areas:

- Angels Camp
- Calaveritas
- Columbia
- Mountain Ranch
- Murphys
- San Andreas
- Sheep Ranch
- Vallecito

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **10 acres or less**

- FMU Target acres burned per decade: **500 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Wildland Urban interface
    - Visual resources
    - Water quality
    - Recreational uses
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
  - Table Mountain, west of Jamestown
    - Heavy equipment should not be used on the table top.
    - Retardant use on the table top should be minimized.

        - Dispatch a Resource Advisor immediately to a fire in this vicinity.
    - North of Copperopolis, east of Highway 4
        - Heavy equipment work should not be used on the parcel. If equipment use is necessary in an emergency, equipment should be confined to the hill/slope on the northern portion of the parcel, at least 500' north of the road.
        - Retardant use should be confined to the northern portion of the parcel, at least 500' north of the road.
        - Dispatch a Resource Advisor immediately to a fire in this vicinity.
    - Ridge north of Carson Hill Mine, across Highway 49 from the mine
        - Dispatch a Resource Advisor immediately to a fire in this vicinity.
    - Use Minimum Impact Suppression Tactics (MIST) when possible.
    - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
    - Avoid ground disturbance in the Stony Gulch area to protect sensitive cultural resources.
    - Wildfires will be suppressed using a mix of the following methods to avoid impairment:
        - Aerial attack.
        - Crews using hand tools to create fire breaks.
        - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
        - Use of foam and/or fire retardant.
        - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
    - The Jepson's onion population on Table Mountain west of Jamestown is the only known population of this onion south of El Dorado County. The top of the volcanic table has a scattering of homes at its edge. Vegetation on the table top is sparse due to surface rock and shallow soils.
    - The Mariposa cryptantha population north of Copperopolis on the east side of Highway 4 is very small and it is associated with horizontal bedrock outcrops along a road. The road plus these outcrops would be very easy to incorporate into a fire line in the case of a wildfire. However, if the rocky habitat were altered by equipment work the entire population could be lost. This parcel also supports one of only two known populations of Congdon's lomatium in Calaveras County.

- The Congdon's lomatium population on the ridge north of Carson Hill Mine, just across Highway 49 from the mine, is small and isolated. It could easily be destroyed by tractor operations. It is one of only two known populations of the species in Calaveras County. However, its location is not particularly favorable for placement of a fire line.

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

Wildland Fire Suppression Strategies:

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **500 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
  - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
  - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist.

The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.
    - Request an archeologist be dispatched to the incident as soon as practicable.
    - Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **50 acres to 200 acres**

- Rx Fire Decadal Acres Burned Target: **200 acres**

- No intentional area ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.

- Prescribed fire emissions remain within those allowed by state and local air quality regulators

- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.

- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.

- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.

- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
    - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
    - Photo points will be established pre-burn.
    - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.

- Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **50 acres**
- Non-fire treatment decadal acres target: **500 acres**
- The first priority objective is to protect private property while providing for firefighter and public safety.
- Reduce the potential for catastrophic wildfire.
- Reduce heavy fuel loads resulting from long term suppression.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.
- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.
- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.
- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.
- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.
    - For hazardous fuels reduction, these activities:
        - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
        - Will not include the use of herbicides or pesticides;
        - Will not involve the construction of new permanent roads or other infrastructure;
        - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
        - Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
        - Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
    - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Preserve scenic quality of the river
- Stabilize any steep slopes to minimize erosion
- Exclude non-native invasive species
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.
- Site specific projects will be considered to meet the objectives as identified in the LUP.
- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
    - If appropriate, develop and submit an ESR plan to CA BLM State Office.
        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).
- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.
- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.
- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to

the natural resource.

- Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
    - Immediate rehabilitation actions to prevent further land degradation or resource loss.
- Resource damage restoration or rehabilitation involves long term or post incident actions:
    - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
    - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
    - Stabilize and prevent unacceptable degradation to natural and cultural resources
    - Minimize threats to life and property resulting from the effects of a fire
    - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
    - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
    - Specifies treatments required to implement post-fire rehabilitation policies
    - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
    - Repair minor facilities damaged by fire
    - Actions must be taken within three years of containment of a wildland fire
    - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.
- Hand tools will be used for rehabilitation activities whenever feasible.
- All firelines will be rehabilitated to natural conditions.
- Long term rehabilitation could involve the use of an ESR team on larger fires.
- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.
- Coordinate with cultural resources staff before working in the Stony Gulch area.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk
- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.

- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.

- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.

- Provide fire restriction and emergency closure information to the public.

- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.

- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

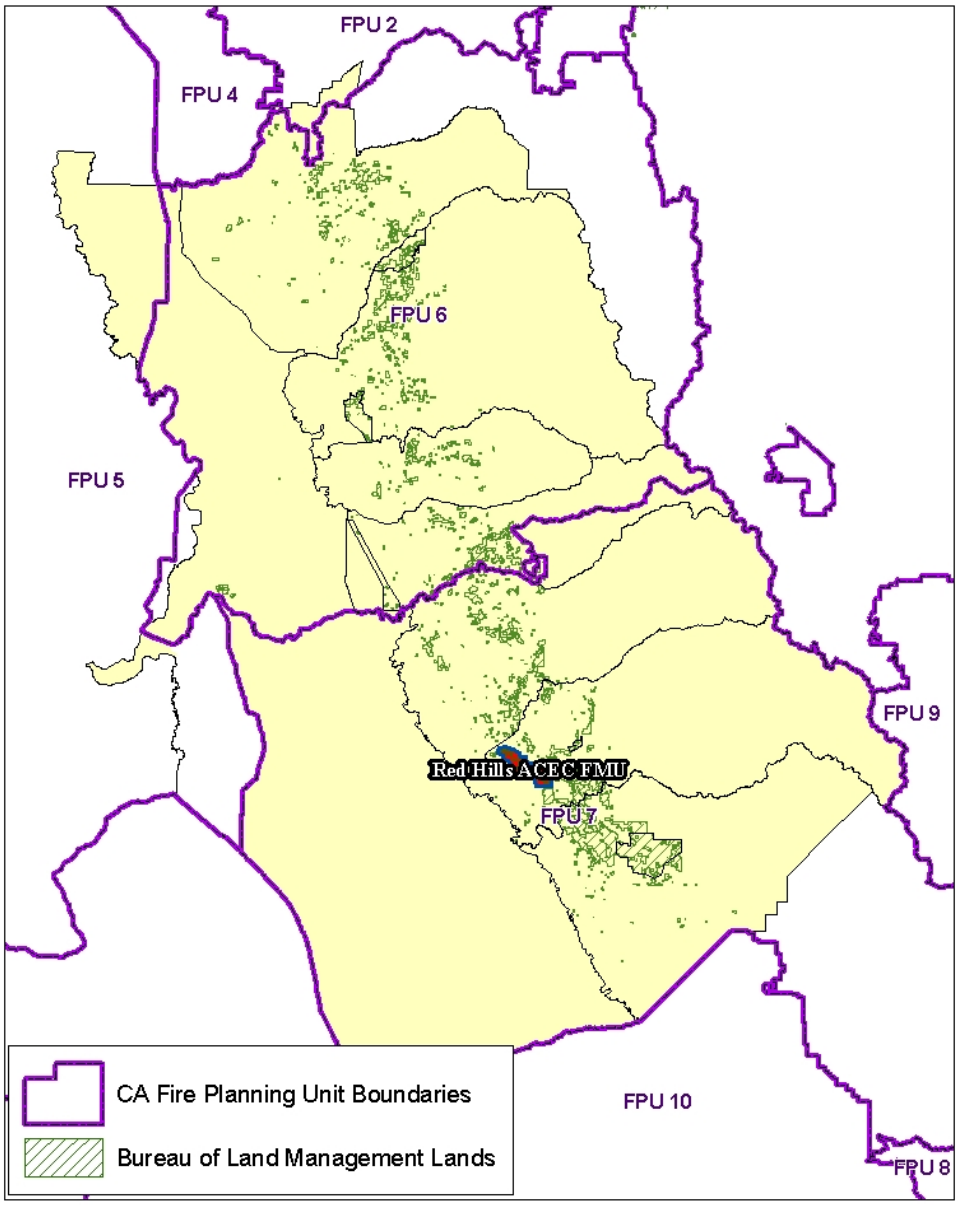
- Use local media outlets to encourage defensible space and to mitigate current fire causes.

- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

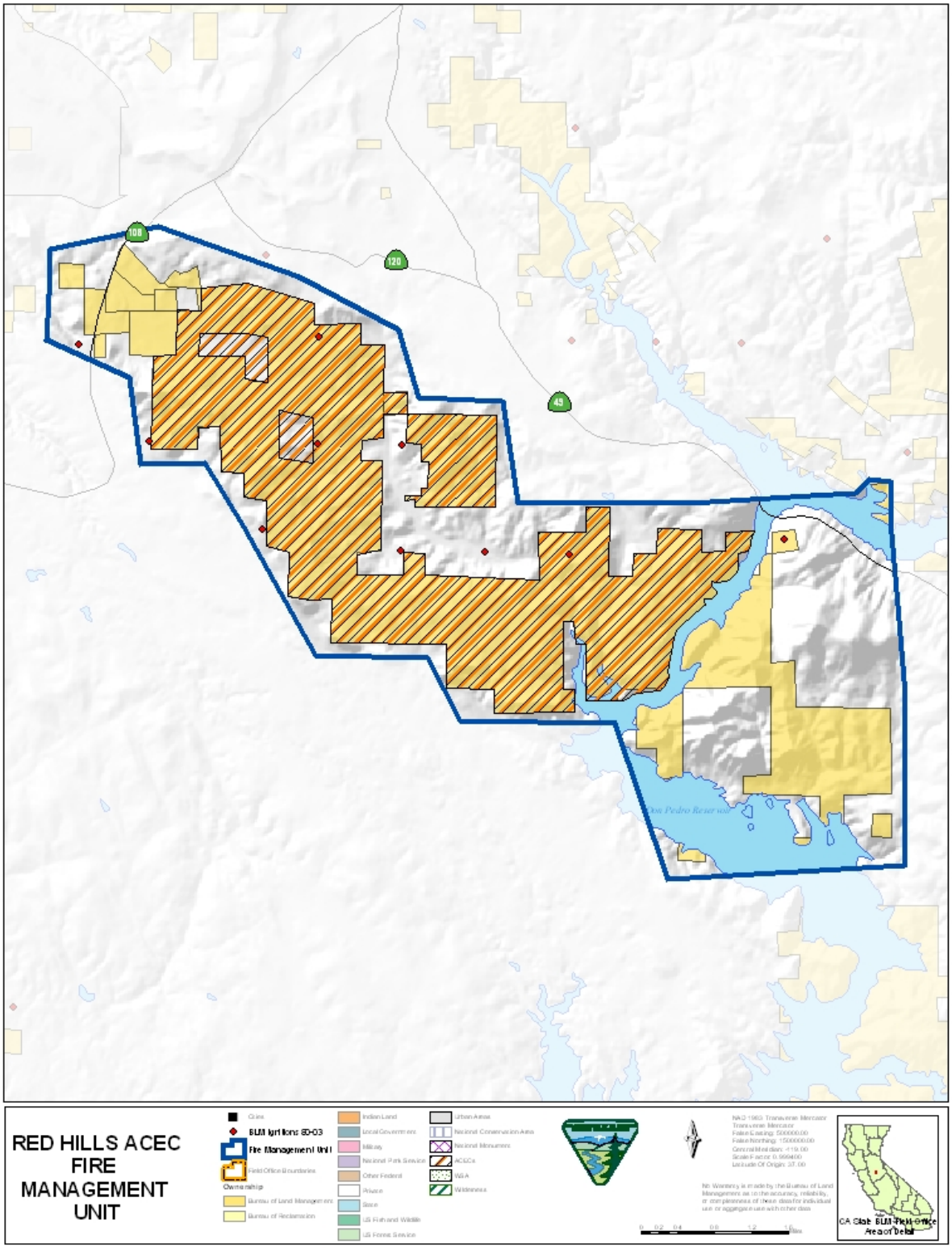
- Participate in residential assessments and provide education to the homeowners.

- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

Red Hills ACEC FMU



CA-180-10


108
120
49
RED HILLS ACEC
FIRE
MANAGEMENT
UNIT
Cities
BLM Jurisdiction 8-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Area
National Monument
ACECs
WSA
Wilderness
NAD 1983 Transverse Mercator
Transverse Mercator
False Easting: 500000.00
False Northing: 1500000.00
Central Meridian: -119.00
Scale Factor: 0.999600
Latitude Of Origin: 37.00
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data
0 0.2 0.4 0.8 1.2 1.6 Miles
CA State BLM Field Office
Area of Detail

FMU I.D. No.: CA-180-10 Red Hills ACEC

FMU Type: ACEC

FMU Location Information:

- **Geographic boundaries:** This FMU consists of land contained within Tuolumne County, west of Hwy 120/Hwy 49, south of Hwy 108, and north of Lake Don Pedro. These lands are protected by the Tuolumne/Calaveras CDF Unit and are located within the southern FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-10	**Red Hills ACEC**	
Ownership	Acres	Percent
Bureau of Land Management	9,990	54
Other Federal/Private	8,599	46
Total Acres	18,589	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 1100-1900 feet
  - **Slope:** 0-50%
  - **Aspect:** All
  - **Major topographical features:** Hill features with unique soils and plants. Several small, seasonal creeks bisect the area. A large reservoir lies to the southeast.
- **Resource use:**
  - Special Status Species
  - Recreation
- **Air Quality:**
  - This FMU is surrounded by major highways that could be adversely impacted by smoke.
- **Soils:**
  - Serpentine soil
- **Hydrology and Water Quality:**
  - Lake Don Pedro lies just south of this FMU
- **Access:**
  - Vehicle access is limited to select roads with seasonal closures
- **Cultural values:**
  - Chinese Camp cemetery as well as standing residential and mine buildings.

- **Sensitive species & habitats, T&E species & habitat:**

  Special status plant species known to occur on BLM land in this FMU:
  - *Allium tuolumnense* Rawhide Hill onion
  - *Chlorogalum grandiflorum* Red Hills soaproot
  - *Cryptantha mariposae* Mariposa cryptantha
  - *Lomatium congdonii* Congdons' lomatium
  - *Senecio clevelandii heterophyllus* Red Hills ragwort
  - *Senecio layneae* Layne's butterweed
  - *Verbena californica* California verbena

  Special status animal species:
  - Wintering bald eagle
  - Red Hills roach

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-10			Natural	2		
Number of Fires	5	12	Camp Fire	2	Total Multiple Fire Days (MFD)	3
			Smoking	0		
Largest Fire (Acres)	5,600.0	5,600.0	Fire Use	1	Number of MFD Fires	3
			Incendiary	2		
Total Acres Burned	5,904.1	6,039.1	Equipment	2	Total Acres Burned by Multiple Fires	5,992.0
			Railroads	0		
Average Fire Size (Acres)	1,180.8	503.3	Juveniles	0		
			Miscellaneous	3		

Fire History Ignitions by Size Class		CA-180-10
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	1	0.0
B (0.3 - 9.9)	6	13.1
C (10 - 99.9)	2	34.0
D (100 - 299.9)	2	392.0
E (300 - 999.9)	0	0.0
F (1000 - 4999.9)	0	0.0
G (5000+)	1	5,600.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

These lands support a unique plant community on its unusual soil type. The area has some steep slopes and other topography that could contribute to extreme fire behavior. These lands are some of the highest in elevation within the immediate area, causing frequent lightning fires. This area can also be affected by seasonal wind events.

- **Fuel Models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory

  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine

- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Special Status Species
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Cultural resources
  - Air quality
  - Vegetation values

Communities at Risk/WUI Areas:

- Chinese Camp

OBJECTIVES AND STRATEGIES

<u>Management Objectives for this FMU</u>

1. <u>Protect the unique serpentine ecosystem of the Red Hills with particular emphasis on two federally listed plant species, five BLM sensitive plants, and three Special Status animal species. The Area of Critical Environmental Concern was also designed to protect the serpentine soils of the Red Hills and the plant communities adapted to those soils.</u>
   1. a. Reference: Red Hills ACEC Management Plan

Fire Management Objective Priority Statement:

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for

possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **1 acre or less**

- FMU Target acres burned per decade: **500 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Wildland Urban interface
    - Water quality
    - Recreational uses
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Avoid tractor work and other soil disturbance in the FMU. There may be opportunities to modify this instruction when a Resource Advisor can confirm that the plants that are being conserved do not extend into the area where equipment would be used. However, the entire Red Hills ACEC protects a unique ecosystem and equipment work should be avoided whenever and wherever possible.
  - If tractor work is unavoidable in an emergency situation within this FMU, use high blading and skimming the brush wherever those techniques will be effective.
  - Avoid using fire retardant chemicals in the FMU, with particular emphasis on retardants containing fertilizer ingredients. There may be opportunities to modify this instruction when a Resource Advisor can confirm that the plants and animals that are being conserved do not extend into the area where retardant would be used. However, fertilizer inputs into this highly infertile ecosystem may negatively affect the broader ecosystem.

- Avoid all impacts to riparian areas to protect two riparian plant species that are Red Hills endemics, and an endemic fish species. If equipment or retardant is used in an emergency situation, keep equipment out of riparian zones and retardant 200' away from riparian areas. Even hand lines can cause meaningful detrimental effects to the two endemic riparian plants. A Resource Advisor can be used to distinguish those riparian reaches that support Special Status Species, from those stream reaches where there is no risk to important resources and where there is more leeway for suppression activities.
- Use Minimum Impact Suppression Tactics (MIST) when possible.
- Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
- Avoid impacts to Chinese Camp cemetery and other historical structures.
- Wildfires will be suppressed using a mix of the following methods to avoid impairment:
    - Aerial attack.
    - Crews using hand tools to create fire breaks.
    - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
    - Use of foam and/or fire retardant.
    - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
    - In addition to the two main sections of the FMU, i.e., the Red Hills west of Don Pedro Reservoir and the extension of the Red Hills east of Don Pedro Reservoir, a small isolated parcel of BLM land north of Don Pedro Reservoir at the mouth of Kanaka Creek is included in the FMU. This parcel supports a small population of the federally listed plant species, Layne's butterweed.

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

Wildland Fire Suppression Strategies:

- All fires occurring at FIL ***(1-6)*** will be suppressed at **1 acre, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **500 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
    - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.
-
- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.
    - Request an archeologist be dispatched to the incident as soon as practicable.
    - Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire Objectives and Strategies

Prescribed fire for resource benefit is currently not an identified fire management option within this FMU.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **10 acres**

- Non-fire treatment decadal acres target: **100 acres**

- The first priority objective is to protect private property while providing for firefighter and public safety.

- Reduce the potential for catastrophic wildfire.

- Reduce heavy fuel loads resulting from long term suppression.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.

- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.

- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.
    - For hazardous fuels reduction, these activities:
        - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
        - Will not include the use of herbicides or pesticides;

- Will not involve the construction of new permanent roads or other infrastructure;
- Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
- Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
- Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
  - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Stabilize any steep slopes to minimize erosion
- Exclude non-native invasive species
- Restore habitat conditions for Special Status Species
- Consultation under the ESA will be needed for projects in much of this FMU. Even post-fire rehabilitation work falls under ESA. U.S. Fish and Wildlife Service have an expedited process for these situations.
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.
- Site specific projects will be considered to meet the objectives as identified in the LUP.

- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
    - If appropriate, develop and submit an ESR plan to CA BLM State Office.
        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).

- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.

- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.

- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
        - Immediate rehabilitation actions to prevent further land degradation or resource loss.
    - Resource damage restoration or rehabilitation involves long term or post incident actions:
        - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
        - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
    - Stabilize and prevent unacceptable degradation to natural and cultural resources
    - Minimize threats to life and property resulting from the effects of a fire
    - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
    - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
    - Specifies treatments required to implement post-fire rehabilitation policies

  - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
  - Repair minor facilities damaged by fire
  - Actions must be taken within three years of containment of a wildland fire
  - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.

- All firelines will be rehabilitated to natural conditions.

- Long term rehabilitation could involve the use of an ESR team on larger fires.

- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI

- Educate area population on the basic principles of fire ecology and fire's role in the environment

- Build public support for fuels reduction efforts in and around WUI

- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk

- Develop and implement collaborative mitigation and prevention strategies with communities at risk

- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires

- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.

- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.

- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.

- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.

- Provide fire restriction and emergency closure information to the public.

- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.

- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

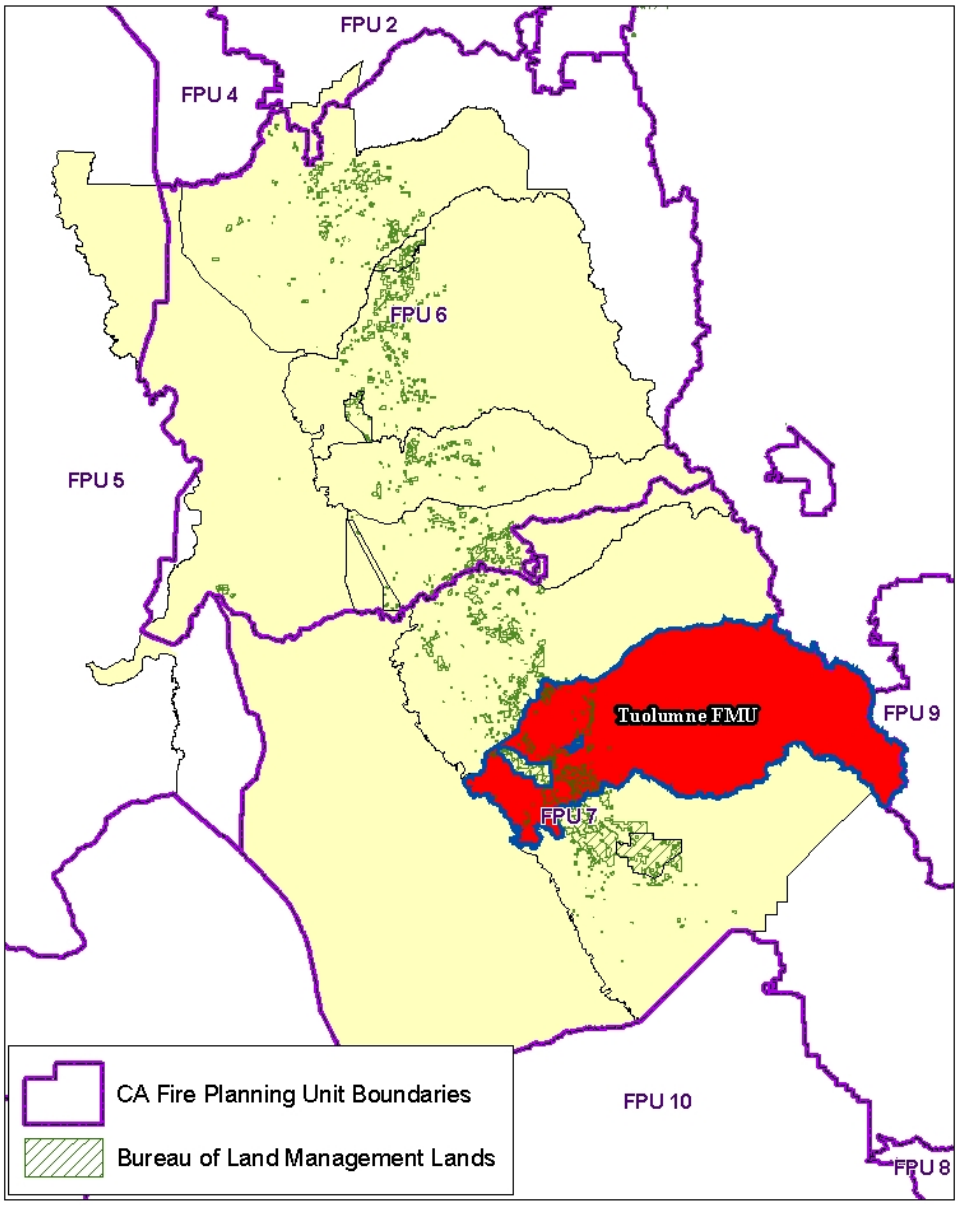
- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

- Use local media outlets to encourage defensible space and to mitigate current fire causes.

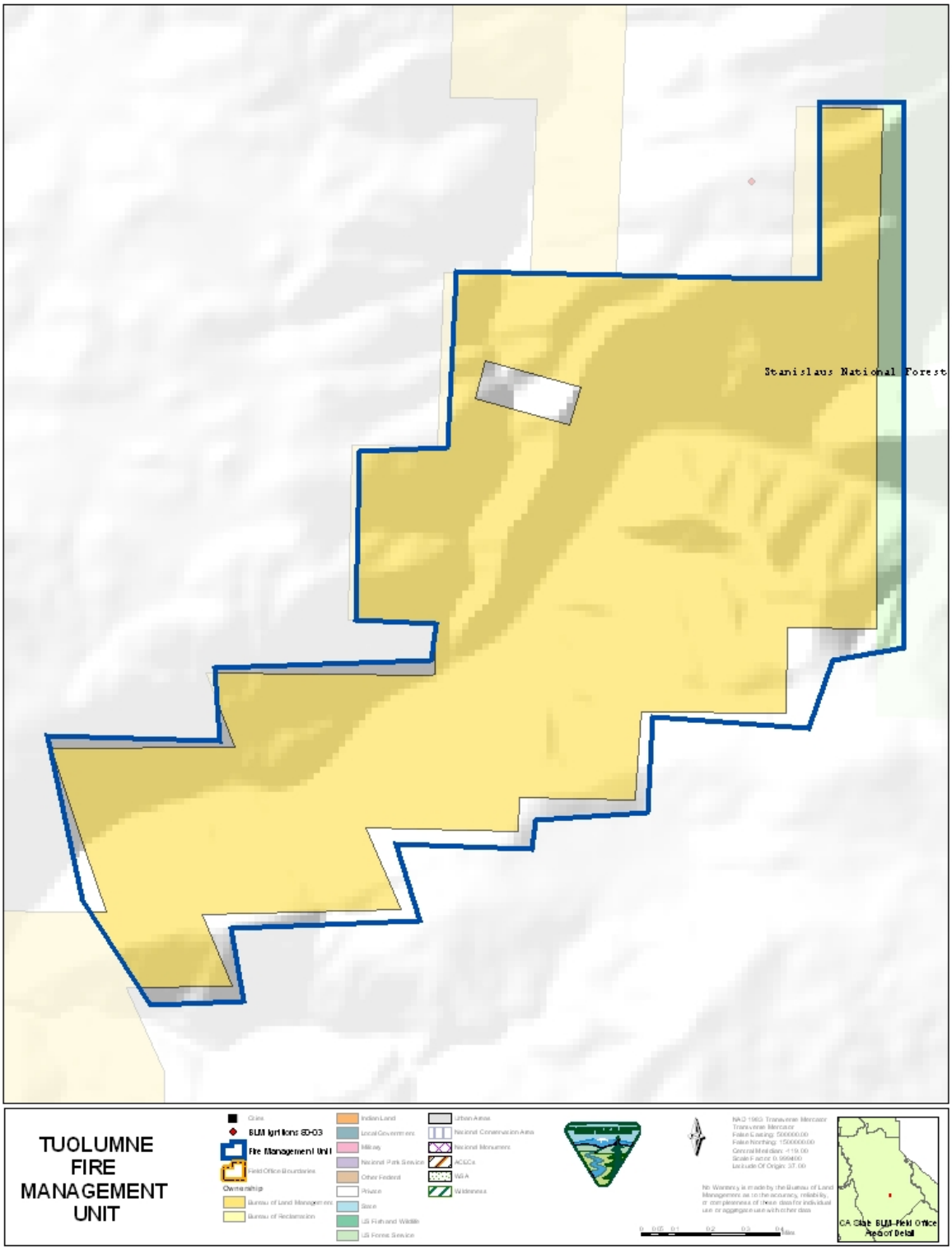
- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

- Participate in residential assessments and provide education to the homeowners.
- Conduct presentations to local homeowner groups explaining “Defensible Space” and/or fire prevention risks and mitigation.

Tuolumne FMU



CA-180-11


Stanislaus National Forest
TUOLUMNE
FIRE
MANAGEMENT
UNIT
Cities
BLM Ignitions 80-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Areas
National Monument
ACECs
WSA
Wilderness
NAD 1983 Transverse Mercator
Transverse Mercator
False Easting: 500000.00
False Northing: 1500000.00
Central Meridian: -119.00
Scale Factor: 0.999600
Latitude Of Origin: 37.00
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data
0 0.05 0.1 0.2 0.3 0.4 Miles
CA State BLM-Field Office
Area of Detail

FMU I.D. No.: CA-180-11 Tuolumne

FMU Type: Wildland Urban Interface

FMU Location Information:

- **Geographic boundaries:** FMU includes BLM lands within Tuolumne County. These lands are protected by the Tuolumne/Calaveras CDF Unit and located within the southern FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-11	**Tuolumne**	
Ownership	Acres	Percent
Bureau of Land Management	26,582	3
Other Federal/Private	998,745	97
Total Acres	1,025,327	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 400-4000 feet
  - **Slope:** 0-80 %
  - **Aspect:** All
  - **Major topographical features:** Tuolumne River canyon with several forks and multiple side drainages.
- **Resource use:**
  - Mining
  - Recreation
- **Air Quality:**
  - No air quality issues within this FMU
- **Soils:**
  - No unusual soils in this FMU
- **Hydrology and Water Quality:**
  - One large reservoir, Lake Don Pedro
  - The Hetch Hetchy water system runs through this FMU, supplying water to San Francisco from the Hetch Hetchy reservoir within USFS lands.
- **Access:**
  - This FMU is accessed by a road network of state and county roads. Access to public land in most areas is poor. Many of the public land parcels are not accessible by vehicle. Those that are accessible are often accessible over narrow two track roads. In other cases, public lands are ringed by housing subdivisions, shopping centers and medical centers.

- **Cultural values:**
  - Prehistoric site near Jamestown
  - Longfellow Mill and other historic cabins
- **Sensitive species & habitats, T&E species & habitat:**

  Special status plant species known to occur on BLM lands in this FMU:
  - *Allium tuolumnense* Rawhide Hill onion
  - *Arctostaphylos nissenana* Nissenan manzanita
  - *Chlorogalum grandiflorum* Red Hills soaproot
  - *Lupinus spectabilis* Shaggyhair lupine
  - *Mimulus filicaulis* Slender-stemmed monkeyflower

  Special status animal species:
  - Bald eagle
  - Bat species
  - California red-legged frog
  - California spotted owl
  - Keeled sideband snail
  - Red Hills roach

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-11			Natural	15		
Number of Fires	30	61	Camp Fire	7	Total Multiple Fire Days (MFD)	10
			Smoking	1		
Largest Fire (Acres)	22,080.0	22,080.0	Fire Use	4	Number of MFD Fires	17
			Incendiary	9		
Total Acres Burned	38,762.4	59,931.4	Equipment	12	Total Acres Burned by Multiple Fires	10,230.9
			Railroads	0		
Average Fire Size (Acres)	1,292.1	982.5	Juveniles	7		
			Miscellaneous	6		

Fire History Ignitions by Size Class		CA-180-11
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	12	1.0
B (0.3 - 9.9)	22	45.4
C (10 - 99.9)	11	348.0
D (100 - 299.9)	3	375.0
E (300 - 999.9)	7	4,642.0
F (1000 - 4999.9)	2	4,507.0
G (5000+)	4	50,013.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

Steep topography and heavy fuel loading could contribute to extreme fire behavior in this FMU. These lands often contain heavy Fuel Model 4 fuels on steep slopes in large, contiguous patches.

Some parcels have burned frequently from human or lightning caused fires, while others have not burned in many years.

- **Fuel Models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine
- **Live fuel moisture characteristics:**
  - Fuel model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Cultural resources
  - Visual resources
  - Special Status Species
  - Air quality
  - Vegetation values

Communities at Risk/WUI Areas:

- East Sonora
- Moccasin
- Lake Don Pedro

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large,

uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **10 acres or less**

- FMU Target acres burned per decade: **500 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Species of Special concern
    - Wildland Urban interface
    - Visual resources
    - Water quality
    - Recreational uses
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
  - Use Minimum Impact Suppression Tactics (MIST) when possible.
  - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
  - Nissenan Manzanita Area of Critical Environmental Concern:
    - Avoid tractor work and other soil disturbance in the ACEC.

        - If tractor work is unavoidable in an emergency situation within the ACEC, avoid work within the Nissenan manzanita shrub stand. Use high blading and skimming the brush wherever those techniques will be effective.
        - Avoid the use of retardant. If retardant must be used on the parcel, avoid its use in the area of the population. (Because this shrub species is dwarf, and it occurs in a solid stand, it is possible to recognize it from the air.)
        - Dispatch a Resource Advisor immediately to a fire in this vicinity.
    - Wildfires will be suppressed using a mix of the following methods to avoid impairment:
        - Aerial attack.
        - Crews using hand tools to create fire breaks.
        - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
        - Use of foam and/or fire retardant.
        - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
    - The Nissenan manzanita occurrence west of Sonora is the only population of this species south of El Dorado County. The population is relatively small and both the plants and the rocky substrate in which the shrubs grow could be greatly affected by suppression activities. Because of the presence of Nissenan manzanita, the parcel where the population occurs has been designated an Area of Critical Environmental Concern.

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

<u>Wildland Fire Suppression Strategies:</u>

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at 500 acres, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical

resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
    - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.
-
- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.

- Request an archeologist be dispatched to the incident as soon as practicable.
- Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **50-200 acres**
- Rx Fire Decadal Acres Burned Target: **500 acres**
- No intentional ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.
- Prescribed fire emissions remain within those allowed by state and local air quality regulators
- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.
- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.
- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.
- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
    - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
    - Photo points will be established pre-burn.
    - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
    - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **50-200 acres**

- Non-fire treatment decadal acres target: **500 acres**

- The first priority objective is to protect private property while providing for firefighter and public safety.

- Reduce the potential for catastrophic wildfire.

- Reduce heavy fuel loads resulting from long term suppression.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.

- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.

- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.

- For hazardous fuels reduction, these activities:
  - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
  - Will not include the use of herbicides or pesticides;
  - Will not involve the construction of new permanent roads or other infrastructure;
  - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
  - Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
  - Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
  - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Preserve scenic quality of the river
- Stabilize any steep slopes to minimize erosion
- Exclude non-native invasive species
- Minimize impact to sensitive cultural resources including the prehistoric site near Jamestown and the standing historical buildings.
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.

- Site specific projects will be considered to meet the objectives as identified in the LUP.

- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
    - If appropriate, develop and submit an ESR plan to CA BLM State Office.
        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).

- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.

- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.

- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
        - Immediate rehabilitation actions to prevent further land degradation or resource loss.
    - Resource damage restoration or rehabilitation involves long term or post incident actions:
        - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
        - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
    - Stabilize and prevent unacceptable degradation to natural and cultural resources
    - Minimize threats to life and property resulting from the effects of a fire

  - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
  - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
  - Specifies treatments required to implement post-fire rehabilitation policies
  - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
  - Repair minor facilities damaged by fire
  - Actions must be taken within three years of containment of a wildland fire
  - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.

- All firelines will be rehabilitated to natural conditions.

- Long term rehabilitation could involve the use of an ESR team on larger fires.

- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

Community Protection/Community Assistances

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk
- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.
- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.
- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.
- Provide fire restriction and emergency closure information to the public.
- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.
- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

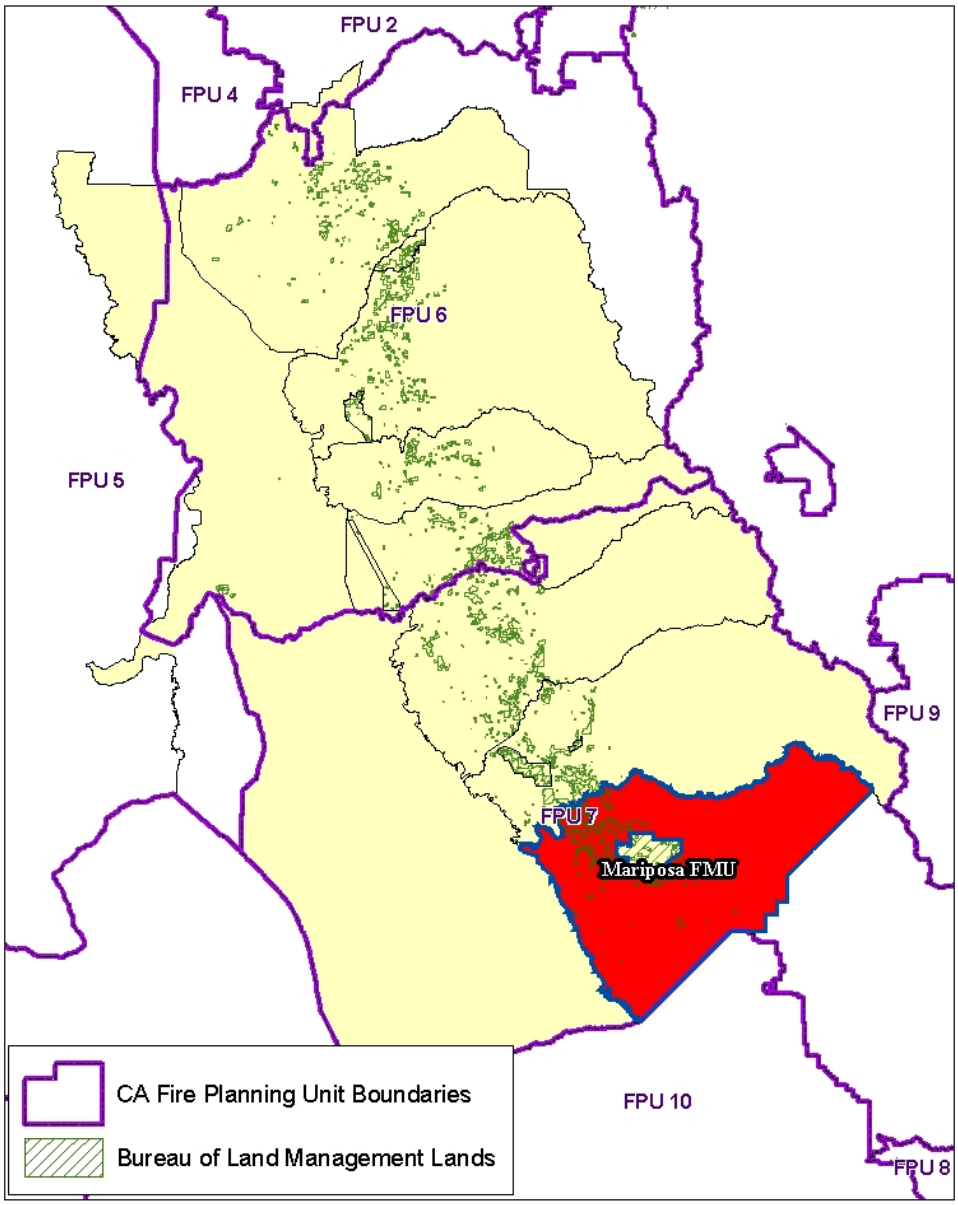
- Use local media outlets to encourage defensible space and to mitigate current fire causes.

- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

- Participate in residential assessments and provide education to the homeowners.

- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

Mariposa FMU



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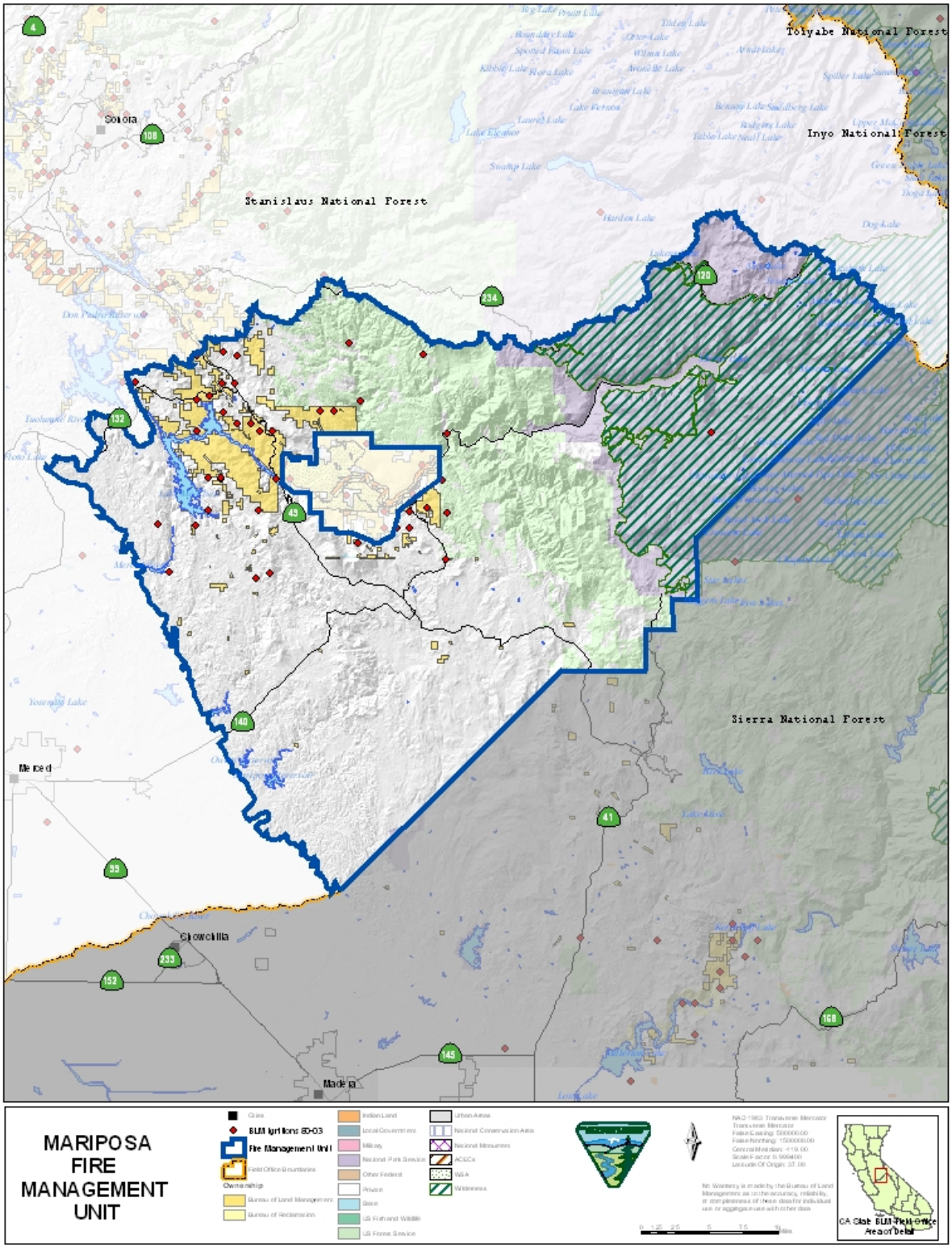

Tolyabe National Forest
Inyo National Forest
Stanislaus National Forest
Sierra National Forest
Sonora
Merced
Chowchilla
Madera
MARIPOSA
FIRE
MANAGEMENT
UNIT
Cities
BLM Ignitions 80-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Area
National Monument
ACECs
WSA
Wilderness
CA State BLM Field Office Area of Detail

FMU I.D. No.: CA-180-12 Mariposa

FMU Type: Wildland Urban Interface

FMU Location Information:

- **Geographic boundaries:** FMU includes BLM land within Mariposa County except the area contained within the Special Management Area FMU. This FMU is protected by the CDF Merced/Mariposa/Madera Unit and falls within the southern FPU.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-12	**Mariposa**	
Ownership	Acres	Percent
Bureau of Land Management	41,356	5
Other Federal/Private	861,639	95
Total Acres	902,996	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 500-3,800 feet
  - **Slope:** 0-70%
  - **Aspect:** All
  - **Major topographical features:** Merced River canyon including three major forks and multiple side drainages.
- **Resource Use:**
  - Mining
  - Recreation
- **Air Quality:**
  - No air quality issues within this FMU
- **Soils:**
  - No specific soil issues within this FMU
- **Hydrology and Water Quality:**
  - One large reservoir, Lake Mc Clure is contained within this FMU
- **Access:**
  - This FMU is accessed by a road network of state and county roads. Access to public land in most areas is poor. Many of the public land parcels are not accessible by vehicle. Those that are accessible are often accessible over narrow two track roads. In other cases, public lands are ringed by housing subdivisions, shopping centers and medical centers.
- **Cultural values:**
  - Landrum Mine, Governor Mine and Live Oak Mine

- **Sensitive species & habitats, T&E species & habitat:**
  Special status animal species:
  - California spotted owl
  - California red-legged frog
  - Foothill yellow-legged frog
  - Bohart's blue butterfly

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-12			Natural	6		
Number of Fires	29	48	Camp Fire	2	Total Multiple Fire Days (MFD)	6
			Smoking	2		
Largest Fire (Acres)	11,185.0	11,185.0	Fire Use	4	Number of MFD Fires	8
			Incendiary	9		
Total Acres Burned	16,608.0	31,598.1	Equipment	16	Total Acres Burned by Multiple Fires	12,163.5
			Railroads	0		
Average Fire Size (Acres)	572.7	658.3	Juveniles	2		
			Miscellaneous	6		

Fire History Ignitions by Size Class		CA-180-12
Size Class (Acres)	**Number of Ignitions**	**Number of Acres**
A (0.0 - 0.2)	7	0.5
B (0.3 - 9.9)	11	25.6
C (10 - 99.9)	10	300.0
D (100 - 299.9)	7	1,061.0
E (300 - 999.9)	9	5,633.0
F (1000 - 4999.9)	2	5,100.0
G (5000+)	2	19,478.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

Large, continuous tracts of BLM land contain heavy chaparral fuels which can promote extreme fire behavior in this FMU. The area is predominantly steep slopes with little or no access or fuel breaks. This FMU also receives extensive seasonal lightning and wind events which can cause extreme fire behavior.

- **Fuel Models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine

- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Cultural resources
  - Visual resources
  - Special Status Species
  - Air quality
  - Vegetation values

Communities at Risk/WUI Areas:

- Mariposa
- Hunter Valley
- Coulterville
- Greeley Hill

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **10 acres or less**

- FMU Target acres burned per decade: **500 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Wildland Urban interface
    - Visual resources
    - Water quality
    - Recreational uses
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
  - Use Minimum Impact Suppression Tactics (MIST) when possible.
  - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
  - Avoid ground disturbance on the parcel on Colorado Road (Landrum Mine), along Indian Creek near Date Flat, and at the Governor and Live Oak Mine on the North flank of Hunter Valley Mountain.
  - Wildfires will be suppressed using a mix of the following methods to avoid impairment:
    - Aerial attack.
    - Crews using hand tools to create fire breaks.
    - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.

- Use of foam and/or fire retardant.
- Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
  - Reduce hazardous fuels in the wildland urban interface
  - Restore area to conditions approximating the historic Fire Regime

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

Wildland Fire Suppression Strategies:

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at 500 acres, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
  - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
  - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.
- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.
- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.
- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.
- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.
    - Request an archeologist be dispatched to the incident as soon as practicable.
    - Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option within this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **100 acres**
- Rx Fire Decadal Acres Burned Target: **1,000 acres**
- No intentional ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.

- Prescribed fire to improve winter deer habitat (60,000 acres) within the Hunter Valley HMP, North Fork/Halls Gulch HMP, Turpin grazing allotment, and Bordenave grazing allotment. Vegetation is largely mixed chaparral with some annual grasslands and foothill woodland.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.

- Prescribed fire emissions remain within those allowed by state and local air quality regulators

- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.

- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.

- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.

- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
  - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
  - Photo points will be established pre-burn.
  - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
  - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **100 acres**
- Non-fire treatment decadal acres target: **1,000 acres**
- The first priority objective is to protect private property while providing for firefighter and public safety.
- Reduce the potential for catastrophic wildfire.
- Reduce heavy fuel loads resulting from long term suppression.
- Protect sensitive cultural resources by reducing fuels around the Governor and Live Oak Mines, and the Permit Mill site.
- Improve deer habitat within the Turpin and Bordenave grazing allotments through brush crushing – largely chaparral. Approximately 3,000 acres.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.
- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.

- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.
    - For hazardous fuels reduction, these activities:
        - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
        - Will not include the use of herbicides or pesticides;
        - Will not involve the construction of new permanent roads or other infrastructure;
        - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;

- Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
- Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
  - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Preserve scenic quality of the river
- Stabilize any steep slopes to minimize erosion
- Exclude non-native invasive species
- Avoid ground disturbance on the parcel on Colorado Road (Landrum Mine), along Indian Creek near Date Flat, and at the Governor and Live Oak Mines on the north flank of Hunter Valley Mountain.
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.
- Site specific projects will be considered to meet the objectives as identified in the LUP.
- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
  - If appropriate, develop and submit an ESR plan to CA BLM State Office.

        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).

- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.

- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.

- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
        - Immediate rehabilitation actions to prevent further land degradation or resource loss.
    - Resource damage restoration or rehabilitation involves long term or post incident actions:
        - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
        - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
    - Stabilize and prevent unacceptable degradation to natural and cultural resources
    - Minimize threats to life and property resulting from the effects of a fire
    - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
    - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
    - Specifies treatments required to implement post-fire rehabilitation policies
    - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
    - Repair minor facilities damaged by fire
    - Actions must be taken within three years of containment of a wildland fire

  - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.

- All firelines will be rehabilitated to natural conditions.

- Long term rehabilitation could involve the use of an ESR team on larger fires.

- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI

- Educate area population on the basic principles of fire's role in the environment

- Build public support for fuels reduction efforts in and around WUI

- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk

- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires

- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.

- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.

- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.

- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.

- Provide fire restriction and emergency closure information to the public.

- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.

- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

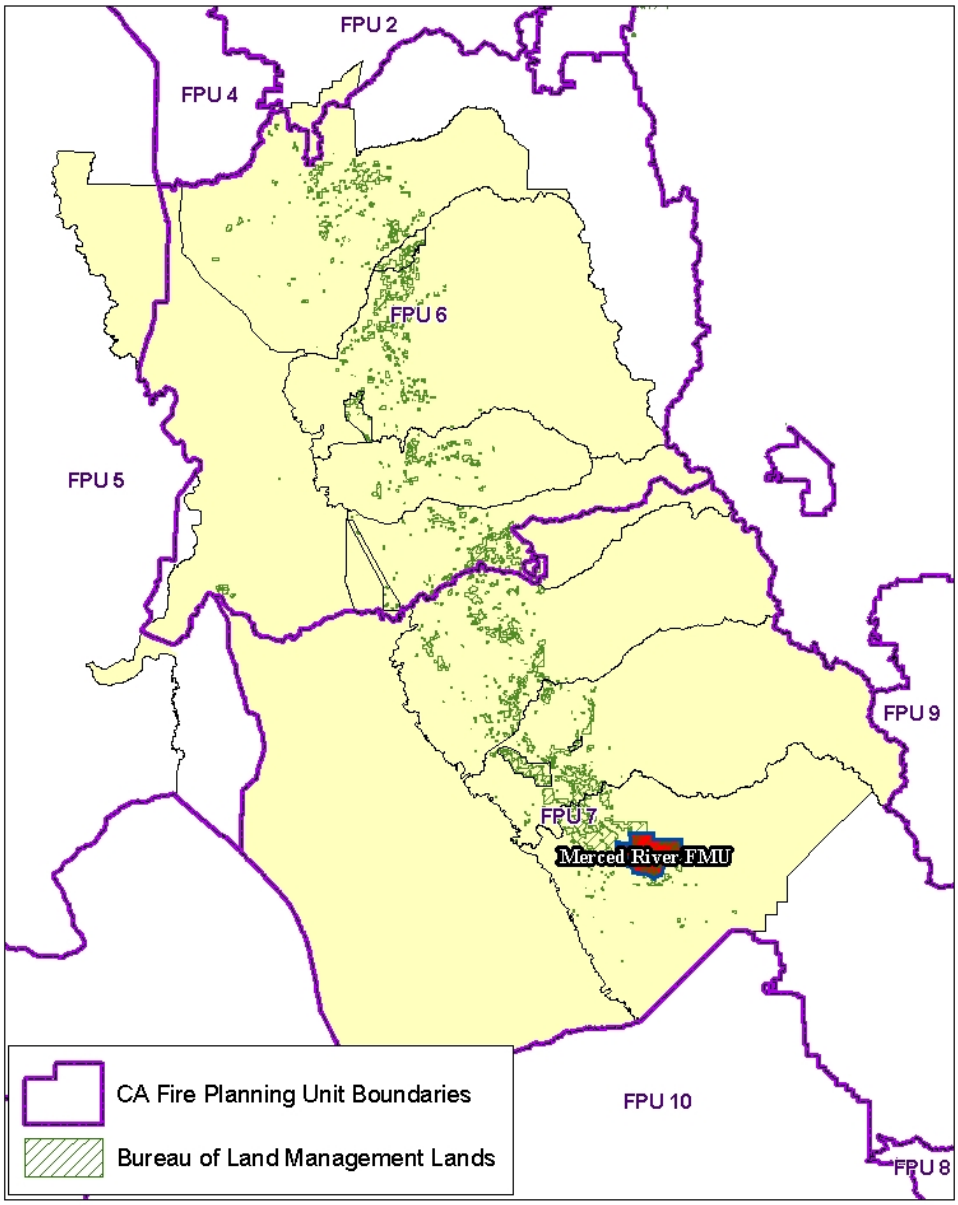
- Use local media outlets to encourage defensible space and to mitigate current fire causes.

- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

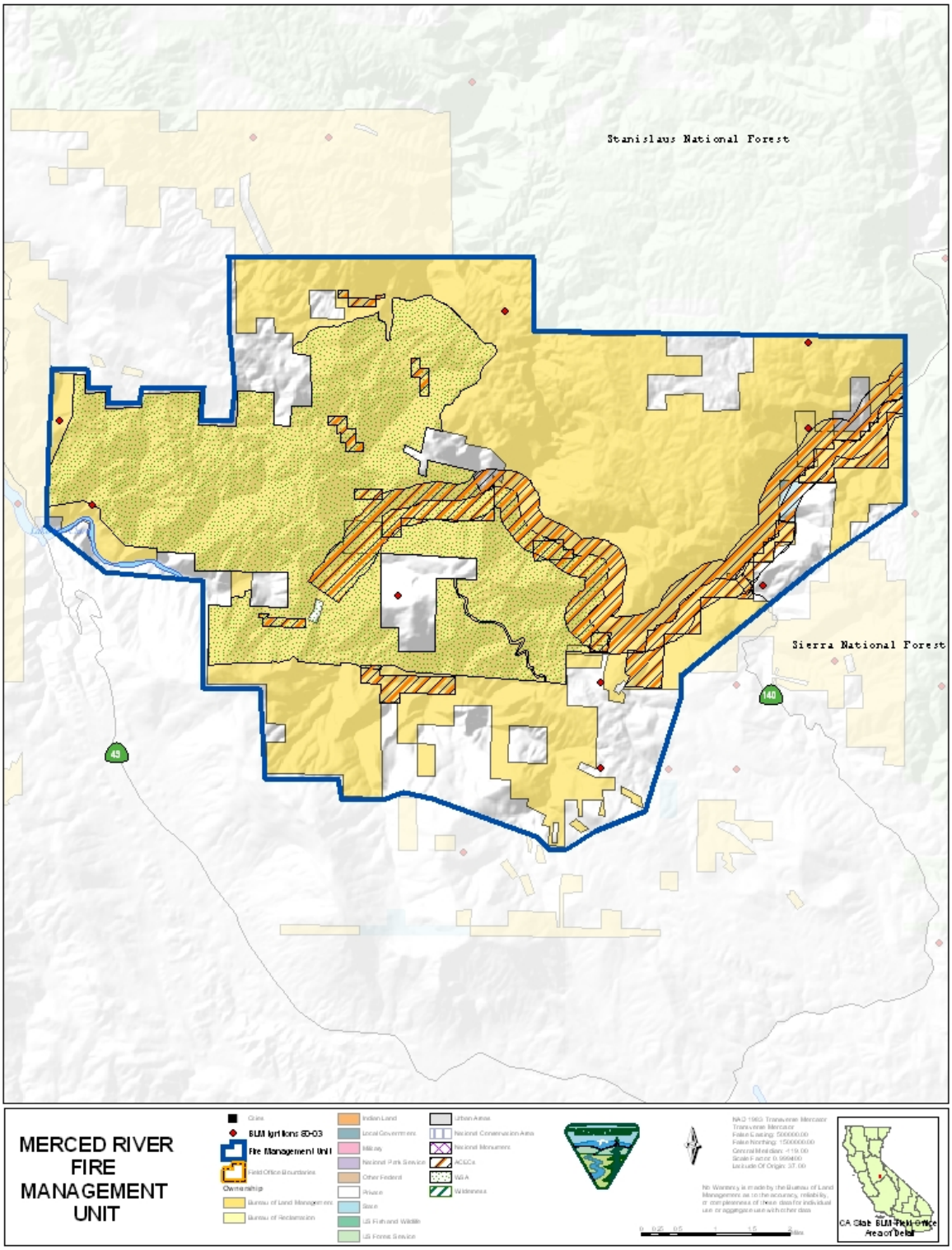
- Participate in residential assessments and provide education to the homeowners.

- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

Merced River FMU



CA-180-13


Stanislaus National Forest
Sierra National Forest
140
43
MERCED RIVER
FIRE
MANAGEMENT
UNIT
Cities
BLM Ignitions 80-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Areas
National Monument
ACECs
WSA
Wilderness
NAD 1983 Transverse Mercator
Transverse Mercator
False Easting: 500000.00
False Northing: 1500000.00
Central Meridian: -119.00
Scale Factor: 0.9996000
Latitude Of Origin: 37.00
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data
0 0.25 0.5 1 1.5 2 Miles
CA State BLM Field Office Area of Detail

FMU I.D. No.: CA-180-13 Merced River

FMU Type: Special Management Area

FMU Location Information:

- **Geographic boundaries:** FMU consists of BLM land within one-quarter mile of the Merced River (on both sides), as well as BLM lands contained within the Wilderness Study Area. This FMU is located in the southern FPU and is protected by the Merced/Mariposa/Madera CDF Unit.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-13	**Merced River**	
Ownership	Acres	Percent
Bureau of Land Management	30,466	81
Other Federal/Private	6,938	19
Total Acres	37,405	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 1000-3800 feet
  - **Slope:** 30-80%
  - **Aspect:** All
  - **Major topographical features:** Steep river canyon
- **Resource Use:**
  - Mining
  - Recreation
- **Air Quality:**
  - No air quality issues in this FMU
- **Soils:**
  - No soil issues in this FMU
- **Hydrology and Water Quality:**
  - The Merced River is listed as a Wild and Scenic River
- **Access:**
  - Public land access is limited to established roads, many of which are unimproved and sporadically maintained.
- **Cultural values:**
  - Resources include standing historic buildings, historical archaeological sites, and prehistoric archaeological sites.

- **Sensitive species & habitats, T&E species & habitat:**

  Special status plant species known to occur on BLM lands in this FMU:
  - *Clarkia biloba australis* Mariposa clarkia
  - *Clarkia rostrata* Beaked clarkia
  - *Horkelia parry* Parry's horkelia
  - *Lupinus spectabilis* Shaggyhair lupine
  - *Mimulus filicaulis* Slender stemmed monkeyflower

  Special status animal species:
  - Limestone salamander
  - Bohart's blue butterfly
  - Foothill yellow-legged frog

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	**Ignition Cause (80-03)**		**Multiple Fire Days (80-03)**	
CA-180-13			Natural	2		
Number of Fires	3	10	Camp Fire	1	Total Multiple Fire Days (MFD)	0
			Smoking	1		
Largest Fire (Acres)	2.0	1,019.0	Fire Use	0	Number of MFD Fires	0
			Incendiary	2		
Total Acres Burned	2.6	1,623.7	Equipment	3	Total Acres Burned by Multiple Fires	0.0
			Railroads	0		
Average Fire Size (Acres)	0.9	162.4	Juveniles	1		
			Miscellaneous	0		

Fire History Ignitions by Size Class		**CA-180-13**
Size Class (Acres)	**Number of Ignitions**	**Number of Acres**
A (0.0 - 0.2)	3	0.2
B (0.3 - 9.9)	3	3.5
C (10 - 99.9)	1	40.0
D (100 - 299.9)	1	150.0
E (300 - 999.9)	1	411.0
F (1000 - 4999.9)	1	1,019.0
G (5000+)	0	0.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

This FMU is defined by the steep Merced River canyon corridor. The fuels are dominated by chaparral with heavy dead and down material and ladder fuels. Any fire escaping initial attack (at 10 acres) is likely to exhibit extreme fire behavior. This area receives frequent seasonal lightning and wind events.

- **Fuel Models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
  - Fuel Model 4 – Heavy shrubs such as chaparral

  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine

- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Cultural resources
  - Visual resources
  - Special Status Species
  - Air quality
  - Vegetation values

Communities at Risk/WUI Areas:

- Midpines

OBJECTIVES AND STRATEGIES

<u>Management Objectives for this FMU</u>

1. <u>Protect and manage for the Limestone Salamander</u>
   1. a. **Reference:** Limestone Salamander ACEC management plan

Fire Management Objective Priority Statement:

The fire management objectives for this FMU are the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **10 acres or less at a 90% initial attack success rate**

- FMU Target acres burned per decade: **500 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of "Values at Risk" or "Communities at Risk" from wildland fire.
    - Wildland Urban interface
    - Visual resources
    - Water quality
    - Recreational uses
  - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
  - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
  - When appropriate utilize contain/confine strategies instead of control strategy.
  - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
  - All management activities will consider safety of personnel and the public as the highest priority.
  - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
  - Use Minimum Impact Suppression Tactics (MIST) when possible.
  - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
  - Avoid impacts to standing historic buildings and prehistoric archaeological sties within the Merced River canyon. Specific areas include near Burma Grade on the north rim, around Briceburg visitor center, Good Gulch, Railroad Flat campground, Schroeder Mine, and along Sherlock Creek.
  - Wildfires will be suppressed using a mix of the following methods to avoid impairment:
    - Aerial attack.
    - Crews using hand tools to create fire breaks.

- Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
- Use of foam and/or fire retardant.
- Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
  - Limestone salamander ACEC
  - Reduce hazardous fuels in the wildland urban interface
  - Restore area to conditions approximating the historic Fire Regime

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

Wildland Fire Suppression Strategies:

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **500 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
  - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.

  - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
  - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
  - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
  - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.
  - Request an archeologist be dispatched to the incident as soon as practicable.
  - Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **50-300 acres**

- Rx Fire Decadal Acres Burned Target: **1,000 acres**

- No intentional ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.

- Prescribed fire emissions remain within those allowed by state and local air quality regulators

- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.

- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.

- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.

- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
  - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
  - Photo points will be established pre-burn.
  - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
  - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **50-300 acres**
- Non-fire treatment decadal acres target: **1,000 acres**
- The first priority objective is to protect private property while providing for firefighter and public safety.
- Reduce the potential for catastrophic wildfire.
- Reduce heavy fuel loads resulting from long term suppression.
- Protect sensitive cultural resources including reducing fuels around the Briceburg visitor center, Schroeder Mine and Railroad Flat campground.
- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.
- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.
- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.
- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage

or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.
    - For hazardous fuels reduction, these activities:
        - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
        - Will not include the use of herbicides or pesticides;
        - Will not involve the construction of new permanent roads or other infrastructure;
        - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
        - Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;

- Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
  - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

Post Fire Rehabilitation & Restoration Objectives:

- Preserve scenic quality of the river
- Stabilize any steep slopes to minimize erosion
- Exclude non-native invasive species
- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.
- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.
- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.
- Site specific projects will be considered to meet the objectives as identified in the LUP.
- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
  - If appropriate, develop and submit an ESR plan to CA BLM State Office.
    - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
    - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).

- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.

- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.

- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
        - Immediate rehabilitation actions to prevent further land degradation or resource loss.
    - Resource damage restoration or rehabilitation involves long term or post incident actions:
        - Post-incident rehabilitation actions must be specified in a rehabilitation plan.
        - Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
    - Stabilize and prevent unacceptable degradation to natural and cultural resources
    - Minimize threats to life and property resulting from the effects of a fire
    - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
    - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
    - Specifies treatments required to implement post-fire rehabilitation policies
    - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
    - Repair minor facilities damaged by fire
    - Actions must be taken within three years of containment of a wildland fire
    - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the

rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.
- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).
- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.
- Hand tools will be used for rehabilitation activities whenever feasible.
- All firelines will be rehabilitated to natural conditions.
- Long term rehabilitation could involve the use of an ESR team on larger fires.
- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.
- Avoid impacts to sensitive cultural resources specifically near Burma Grade on the north rim, Briceburg visitor center, Good Gulch, Railroad Flat campground, Schroeder Mine, and along Sherlock Creek.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk

- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires

- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.

- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.

- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.

- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.

- Provide fire restriction and emergency closure information to the public.

- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.

- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

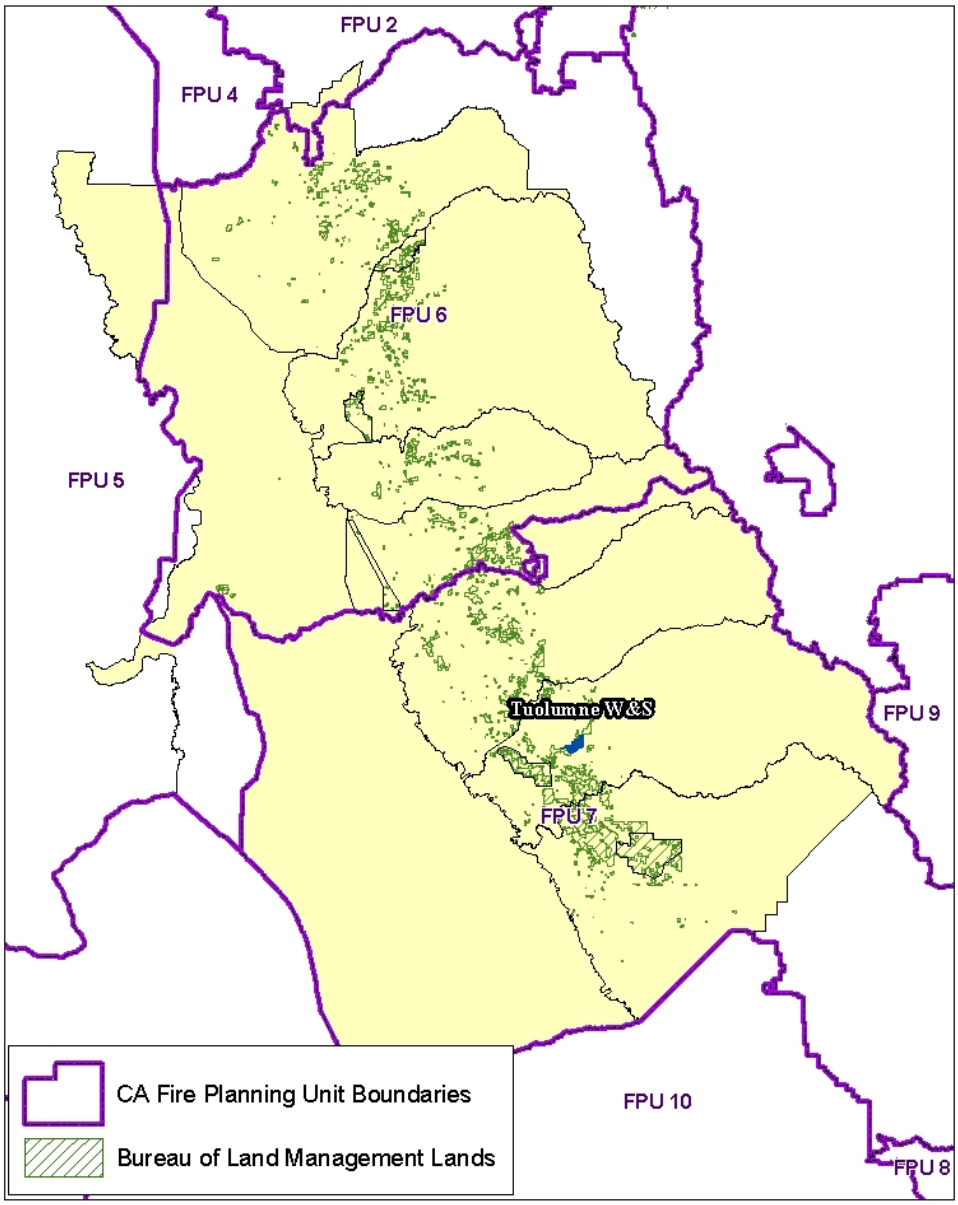
- Use local media outlets to encourage defensible space and to mitigate current fire causes.

- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

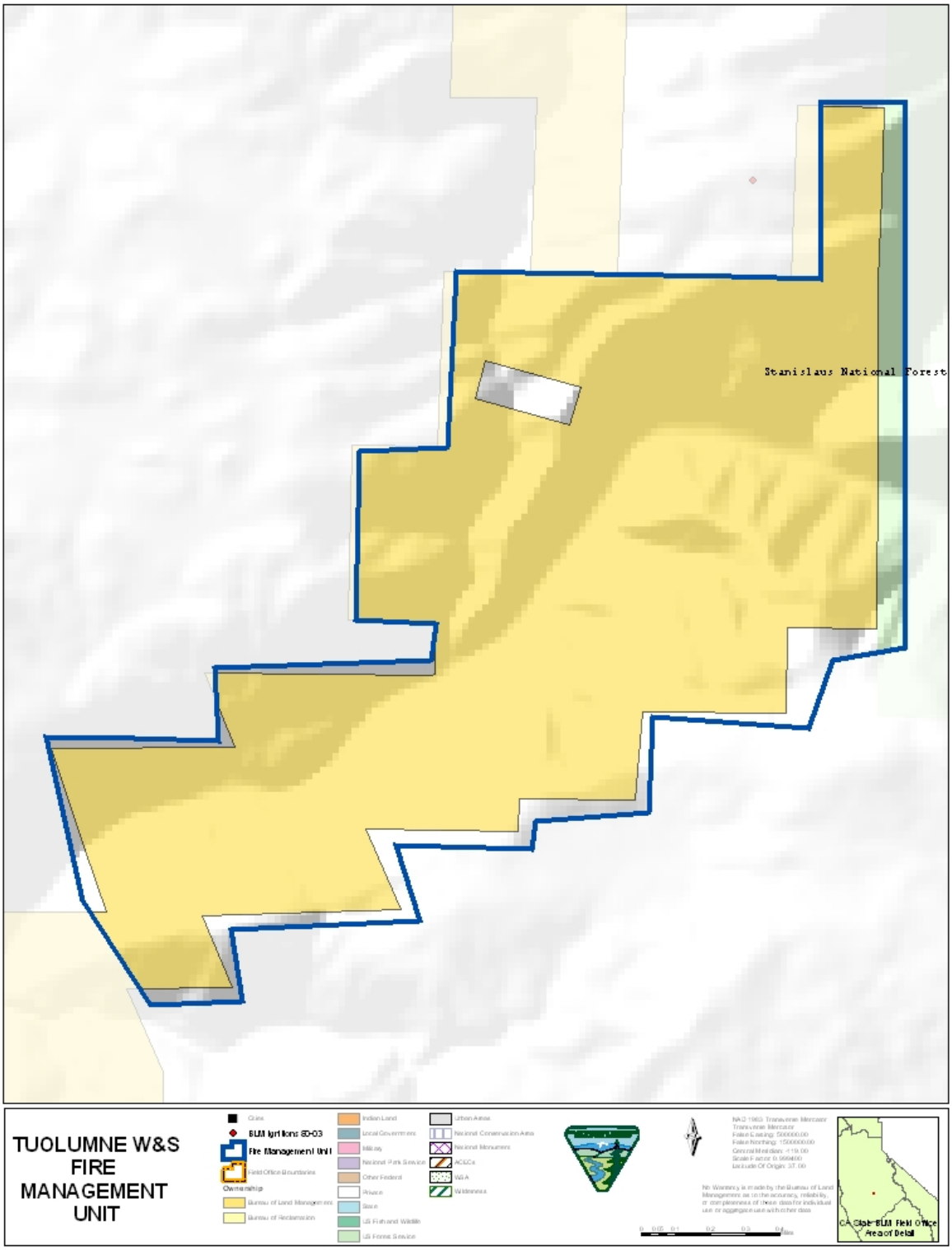
- Participate in residential assessments and provide education to the homeowners.

- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

Tuolumne W&S FMU



CA-180-14


Stanislaus National Forest
TUOLUMNE W&S
FIRE
MANAGEMENT
UNIT
Cities
BLM Ignitions 80-03
Fire Management Unit
Field Office Boundaries
Ownership
Bureau of Land Management
Bureau of Reclamation
Indian Land
Local Government
Military
National Park Service
Other Federal
Private
State
US Fish and Wildlife
US Forest Service
Urban Areas
National Conservation Areas
National Monument
ACECs
WSA
Wilderness
NAD 1983 Transverse Mercator
Transverse Mercator
False Easting: 500000.00
False Northing: 1500000.00
Central Meridian: -119.00
Scale Factor: 0.999600
Latitude Of Origin: 37.00
No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data
0 0.05 0.1 0.2 0.3 0.4 Miles
CA State BLM Field Office
Area of Detail

FMU I.D. No.: CA-180-14 Tuolumne W&S

FMU Type: Special Management Area

FMU Location Information:

- **Geographic boundaries:** FMU is comprised of three miles of the upper Tuolumne River up to the USFS boundary, one-quarter of a mile from the river on both sides. This FMU is located in the southern FPU and protected by the Tuolumne/Calaveras CDF Unit.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-180-14	**Tuolumne W&S**	
Ownership	Acres	Percent
Bureau of Land Management	1,589	87
Other Federal/Private	234	13
Total Acres	1,823	

FMU Characteristics:

- **Topography:**
  - **Elevation Range:** 800-2,000 feet
  - **Slope:** 40-60%
  - **Aspect:** All
  - **Major topographical features:** Steep river canyon
- **Resource Use:**
  - Mining
  - Recreation
- **Air Quality:**
  - No air quality issue identified
- **Soils:**
  - No soil issues identified
- **Hydrology and Water Quality:**
  - This FMU is protected as a wild and scenic river
- **Access:**
  - Access to this area is very limited with few roads into the unit. No new roads should be created in this FMU.
- **Cultural values:**
  - Standing historic buildings associated with mining.
- **Sensitive species & habitats, T&E species & habitat:**

  Special Status Species:
  - Keeled sideband snail

Fire Occurrence and History:

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)		Multiple Fire Days (80-03)	
CA-180-14			Natural	0		
Number of Fires	0	0	Camp Fire	0	Total Multiple Fire Days (MFD)	0
			Smoking	0		
Largest Fire (Acres)	0	0	Fire Use	0	Number of MFD Fires	0
			Incendiary	0		
Total Acres Burned	0	0	Equipment	0	Total Acres Burned by Multiple Fires	0.0
			Railroads	0		
Average Fire Size (Acres)	0	0	Juveniles	0		
			Miscellaneous	0		

Fire History Ignitions by Size Class		CA-180-14
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	0	0
B (0.3 - 9.9)	0	0
C (10 - 99.9)	0	0
D (100 - 299.9)	0	0
E (300 - 999.9)	0	0
F (1000 - 4999.9)	0	0
G (5000+)	0	0.0

Fuel Models, Fire Behavior, Fire Weather & Climate Related Impacts:

This FMU consists of a steep river canyon with significant fuel loading which can produce extreme fire behavior.

- **Fuel Models and/or vegetation types within the FMU:**
  - Fuel Model 1 – Annual grasses
  - Fuel Model 2 – Herbaceous and grass vegetation under a timber overstory
  - Fuel Model 4 – Heavy shrubs such as chaparral
  - Fuel Model 6 – Moderate shrubs such as intermediate chamise or chaparral
  - Fuel Model 9 – Closed stands of long-needle pine
- **Live fuel moisture characteristics:**
  - Fuel Model 4 has an important live fuel moisture component that heavily influences fire behavior. This moisture content typically drops to critical levels in late spring or early summer.

Fire Regime and Condition Class:

The FMU consists primarily of Fire Regime II with some Fire Regime I in the annual grasslands. Most of the area is Condition Class 2. Some sections are Condition Class 3 and pose an extreme hazard while small portions of the FMU are Condition Class 1 due to frequent human caused fires.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
  - Recreation
  - Watershed values
  - Water quality
  - Private property
  - Cultural resources
  - Visual resources
  - Special Status Species
  - Air quality
  - Vegetation values

Communities at Risk/WUI Areas:

- Standard
- Groveland – Big Oak Flat

OBJECTIVES AND STRATEGIES

Management Objectives for this FMU

1. Protect and preserve visual resources along the wild and scenic river corridor.
   1. a. **Reference:** Tuolumne River Management Plan

Fire Management Objective Priority Statement:

The fire management goal in this FMU is the protection of life and property, to gradually restore conditions approximating the historic Fire Regime, and to lower the potential for large, uncharacteristically severe wildfire. The management objective is to enhance fire suppression capabilities by modifying fire behavior inside the unit and to provide a safe and effective area for possible future fire suppression activities. The primary strategies to achieve this objective include a suppression response to all wildland fires and an intensive combination of strategically placed hazardous fuel reduction treatments.

Wildland Fire Burned Acre Constraints/Targets:

FMU target individual wildland fire size: **10 acres or less**

- FMU Target acres burned per decade: **200 acres**

- **Suppression/Protection Priorities:**
  - Protect human life and property.
  - Provide for increased firefighter safety.
  - 100% protection of “Values at Risk” or “Communities at Risk” from wildland fire.
    - Wildland Urban interface

        - Visual resources
        - Water quality
        - Recreational uses
        - Avoid impacts to historic buildings and mines including the Russell Telegraph Mine.
    - Fires on BLM land remain on BLM land – no crossover to private or other agency land.
    - The intensity of fire suppression effort is limited to the most economical response consistent with human and resource values at risk.
    - When appropriate utilize contain/confine strategies instead of control strategy.
    - Utilize existing natural and human made barriers (i.e. roads, trails, rock outcroppings, riparian areas) when feasible during wildland fire suppression.

- **Suppression Constraints:**
    - All management activities will consider safety of personnel and the public as the highest priority.
    - Avoid using heavy equipment in the river corridors and keep retardant 200 feet away from the river channels.
    - Use Minimum Impact Suppression Tactics (MIST) when possible.
    - Prevent unacceptable impacts to Special Status Species, cultural resources, and sensitive sites.
    - Wildfires will be suppressed using a mix of the following methods to avoid impairment:
        - Aerial attack.
        - Crews using hand tools to create fire breaks.
        - Mobile attack engines limited to public roads, designated open routes, and routes authorized for limited-use.
        - Use of foam and/or fire retardant.
        - Earth-moving equipment and other tracked vehicles (such as bulldozers) will not be used except in critical situations to protect life, property, or resources.

- **Special Fire Mgt. Considerations/Areas:**
    - Reduce hazardous fuels in the wildland urban interface
    - Restore area to conditions approximating the historic Fire Regime

- The BLM Represented assigned to the wildfire will work with the CDF Incident Commander and/or Command Team to identify areas of known or suspected cultural resources sites. Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanical equipment. The BLM Agency Representative

will coordinate suppression efforts in culturally sensitive sites with the FFO Archaeologist.

Wildland Fire Suppression Strategies:

- All fires occurring at FIL ***(1-6)*** will be suppressed at **10 acres, at a 90%** success rate.

- Once the decadal wildfire acre-burned target has been reached at **200 acres**, from either wildfire or prescribed fire, a review of objectives and strategies will be initiated to develop new suppression criteria on wildland fire occurrence.

- AMR strategies would be tailored to address areas of significant constraints including critical habitat for wildlife, T&E species, areas of soil instability, areas of other critical resource constraints (cultural), and where plant communities are at risk due to current conditions/times of year or other ecological constraints.
    - Actions will be taken in these identified areas to protect the sensitive sites from damage by heavy mechanized equipment.

- The wildland fire suppression agency will request and work closely with an Agency Representative (AREP) for all wildland fires. The AREP will assign an Environmental Specialist (ENSP) if necessary.

- CDF will notify the BLM Agency Representative of all fires on or threatening public land within the Field Office. The BLM Agency Representative will respond to the fire and work closely with CDF in the development of AMR strategies.

- CDF and the BLM Agency Representative will coordinate in the development of a WFSA on fire extending beyond initial attack. The WFSA will be updated by operational shift as necessary.
    - Wildland Fire Situation Analysis (WFSA) is required for all fires that are not contained within the first burning period.

- In cases where wildland fires are or may threaten known cultural resource sites, employ all available suppression and resource protection measures to avoid loss to the property. CDF will promptly notify the BLM Agency Representative. The BLM Agency Representative will coordinate notification of the Field Office Manager and archeologist. The BLM Agency Representative will assess resource concerns and coordinate with CDF in the order of environmental specialist if necessary.

- Except where human life and private property are threatened, wildland fire managers will request and work closely with, a Resource Advisor for all wildland fires exceeding or expected to exceed initial attack suppression efforts.
    - A BLM Agency Representative will be assigned to significant wildfires and work with the CDF incident commander and/or command team to identify areas of known or suspected sensitive resource sites.
    - The BLM Agency Representative will coordinate suppression efforts with all available Field Office resource specialists.

- In non-emergency situations, request an archeologist be present prior to any heavy equipment activity.

- In emergency circumstances, where heavy equipment must be employed, conduct post-fire archeological evaluations to assess and document equipment damage to resources.

- In cases where wildland fire threatens listed cultural resource properties, employ all available suppression and resource protection measures to avoid loss to the property.
    - Contact the Field Manager and archeologist as soon as the threat to listed properties is recognized.
    - Request an archeologist be dispatched to the incident as soon as practicable.
    - Use care to avoid unintended damage to the listed property as a result of the suppression and protection efforts.

Wildland Fire Use Objectives and Strategies

Wildland fire use for resource benefit is not an identified fire management option for this FMU.

Prescribed Fire Objectives and Strategies

Prescribed Fire Objectives:

- Rx Fire Annual Acre Target: **50-200 acres**

- Rx Fire Decadal Acres Burned Target: **200 acres**

- No intentional ignitions are planned at this time. Prescribed fire may be used as a tool to reduce surface fuels in areas of fuel reduction projects.

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of prescribed fire strategies that reduce or eliminate risk to life and property.

Prescribed Fire Strategies:

- Treatment emphasis will be in WUI.

- Prescribed fire emissions remain within those allowed by state and local air quality regulators

- Prescribed fire treatments should be designed to break up continuous fuel beds, concentrations of dead or decadent fuels.

- Prescribed fire should be planned and executed to promote a mosaic pattern of numerous and irregular shaped burned areas, colonized by early and mid-successional stage vegetation.

- Prescribed fire activity will be curtailed if the desired burned acreage is reach through unplanned ignitions.

- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **Air Quality Strategy:**
    - Develop and implement a smoke management plan for each prescribed burn.
    - Plans are required to be approved by the local Air Quality Monitoring District (AQMD) and must assure that predicted emissions from each burn will not exceed the National Ambient Air Quality Standards (NAAQS).

- **Rx Fire Monitoring Strategy:**
    - All prescribed fires will have on-site monitoring during the operational period to collect fire behavior and weather data.
    - Photo points will be established pre-burn.
    - Post-burn data will be collected immediately post-burn for initial estimate of consumption of fuels and attainment of resource objectives.
    - Long-term post burn monitoring should include identification of species, esp. presence of invasive non-native species.

Non-Fire Fuels Treatment Objectives and Strategies

Non-Fire Fuels Treatment Objectives:

- Non-Fire annual acre target: **50-200 acres**

- Non-fire treatment decadal acres target: **200 acres**

- The first priority objective is to protect private property while providing for firefighter and public safety.

- Reduce the potential for catastrophic wildfire.

- Reduce heavy fuel loads resulting from long term suppression.

- Reduce fuels around historic mine buildings

- Reduce hazardous fuel loadings in order to reduce fire intensity levels which will minimize negative fire effects on natural and cultural resources in the unit.

- Reduce the future need for aggressive suppression activities by the development of non-fire treatment fuels management strategies that reduce or eliminate risk to life and property.

Non-fire Fuels Treatment Strategies:

- Treatment emphasis will be in WUI.

- Mechanical treatments will be utilized on public land along the wildland urban interface to reduce fuel loadings and create fuel breaks to serve as control lines for unwanted wildfires and prescribed burns.

- Fuels treatments using mechanical means will be utilized because returning fire to many areas would do more harm than good considering the current fuel loading situation because fires within the current fuel structure may burn to intensely and possibly damage or kill the plant community and damage other sensitive features such as soils.

- These mechanical treatments will somewhat mimic fires role in that they will be removing a large portion of the biomass accumulation from the landscape thus allowing a better opportunity in subsequent years for follow up treatments using prescribed fire without such damaging effects.

- Once this level of fuel reduction is achieved prescribed fire treatment may be all that is needed to properly manage these areas subsequently greatly reducing the cost of fuels treatments and the dangers of catastrophic wildfires near our communities and on our public lands.

- An interdisciplinary approach is used to determine the best site-specific non-fire fuels treatments to accomplish fuels reduction and other resource goals and objectives.

- Conduct appropriate pre-treatment surveys (archeological, botanical, etc…) to ensure no unintended loss of other resource values.

- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses.

- Conduct post-treatment surveys for increases in non-native plant species.
    - If non-native species cover **exceeds 5%** in treated areas, implement appropriate eradication measures, as determined by an interdisciplinary effort.

- **NEPA Compliance:** For chemical treatments, must adhere to California State BLM compliance. (complete reference) including on file MSDAs.

- **Hazardous Fuels Reduction:**
    - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003.
    - For hazardous fuels reduction, these activities:
        - Will not be conducted in wilderness areas or where they would impair the suitability of wilderness study areas for preservation for wilderness;
        - Will not include the use of herbicides or pesticides;
        - Will not involve the construction of new permanent roads or other infrastructure;
        - Will not include sales of vegetative material that do not have hazardous fuels reduction as their primary purpose;
        - Will not exceed 1,000 acres for mechanical hazardous fuels reduction activities and will not exceed 4,500 acres for hazardous fuels reduction activities using fire;
        - Will only be conducted in wildland-urban interface or in Condition Classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface."

- **Treatment Monitoring:**
    - Pre- and post-treatment photo points, fuel loading estimates. Post-treatment monitoring for non-native invasive species.

Post Fire Rehabilitation & Restoration Objectives and Strategies

<u>Post Fire Rehabilitation & Restoration Objectives:</u>

- Preserve scenic quality of the river

- Stabilize any steep slopes to minimize erosion

- Exclude non-native invasive species

- Avoid impacts to sensitive cultural resources including standing historic buildings like the Russell Telegraph Mine.

- Rehabilitate burned areas to mitigate the adverse effects of wildland fire on soil and

vegetation in a cost-effective manner and to minimize the possibility of wildland fire recurrence or invasion of weeds.

- Post-Fire Rehabilitation and/or Restoration will emphasize the re-establishment and perpetuation of habitat diversity and the reduction of annual grass establishment and proliferation.

- Ensure that equipment and stabilization material, e.g., straw etc… are weed-free.

Post Fire Rehab & Restoration Strategies:

- Post fire rehabilitation will be considered on a case-by-case basis depending on the location of the fire and resources to be protected.

- Site specific projects will be considered to meet the objectives as identified in the LUP.

- Where rehabilitation and/or restoration are deemed necessary or desirable, successfully achieve slope stabilization, re-establishment of appropriate, site-specific native plant species, or other rehabilitation/restoration work in a timely manner.
    - If appropriate, develop and submit an ESR plan to CA BLM State Office.
        - State Director approval is currently required for all ESR work under $100,000 (WO IM 2004-184).
        - WO approval is currently required for all ESR work over $100, 000 (WO IM 2004-184).

- Fire Suppression Rehabilitation plan to be prepared by environmental specialist and carried out.

- Post-suppression mitigation shall include reestablishing drainage, removing trash, rehabilitation of firebreaks and other ground disturbances and obliteration of vehicle tracks sufficient to discourage future casual use and erosion.

- Fire damages resulting from wildland fires takes two forms: suppression damages and resource damages. Suppression action damages may be the result of suppression operations; resource damages are a result of the fire itself as it related to the damage to the natural resource.
    - Suppression damage restoration or rehabilitation involves short term actions usually (0-6 months) to stabilize a burned area and mitigate suppression damage. This includes replacing region equipment, infrastructure, buildings or facilities damaged or destroyed by suppression action.
        - Immediate rehabilitation actions to prevent further land degradation or resource loss.
    - Resource damage restoration or rehabilitation involves long term or post incident actions:
        - Post-incident rehabilitation actions must be specified in a rehabilitation

plan.

- Post-Fire Rehabilitation and/or Restoration needs should be considered for each fire and plans prepared for those fires requiring complex rehabilitation and restoration efforts.

- **Emergency Stabilization Strategies:**
  - Stabilize and prevent unacceptable degradation to natural and cultural resources
  - Minimize threats to life and property resulting from the effects of a fire
  - Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
  - Actions must be taken within one year following containment of a wildland fire

- **Rehabilitation Strategies:**
  - Specifies treatments required to implement post-fire rehabilitation policies
  - Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
  - Repair minor facilities damaged by fire
  - Actions must be taken within three years of containment of a wildland fire
  - Consult with staff archaeologist, botanist, wildlife biologist, and other staff specialists to evaluate fire and suppression operations effects and determine if additional restoration is necessary.

- **Rehabilitation:**
  - "NEPA Documentation Needed for Fire Management Activities; Categorical Exclusions" Federal Register, June 5, 2003. "Activities carried out under the rehabilitation category will take place only after a wildfire. These activities cannot use herbicides or pesticides, nor include the construction of new permanent roads or other infra-structure, and they must be completed within three years following a wildland fire. Activities carried out under the rehabilitation categorical exclusion will not exceed **4,200 acres**."

- Use agency resource specialists to provide guidance during fire rehabilitation efforts.

- All fire restoration efforts will be carried out in a manner that least impairs wilderness values (MIST).

- Inspect equipment and stabilization material, e.g., straw etc. to ensure weed-free status.

- Hand tools will be used for rehabilitation activities whenever feasible.

- All firelines will be rehabilitated to natural conditions.

- Long term rehabilitation could involve the use of an ESR team on larger fires.

- Long term rehab may include repairs to structures (like fences, signs, windmills and such), construction of temporary fences to exclude people and livestock from burned areas and signing.

Community Protection/Community Assistance

Community Protection/Community Assistance Objectives:

- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk
- Reduce the risk of human caused wildland fires, with Special emphasis on recreationist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategies:

- Support the formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed by the community or outlined in the CWPP.
- Work with US Forest Service and CDF prevention staff through an interagency agreement to make sure recreation and high use areas are patrolled and signs are maintained.
- Provide yearly fire prevention outreach materials to agencies offering campfire permits and general camping information to the public.
- Provide fire restriction and emergency closure information to the public.

- Present fire mitigation and prevention information to local K-12 schools at least once a year over the 5 year period and then re-evaluate the program to determine its effectiveness.

- Present fire ecology information to local youth groups to help enhance the understanding and support the BLM management activities.

- Coordinate information relating to funding and training opportunities to rural fire departments in order to enhance their fire fighting capacity.

- Provide informational brochures and materials to communities and homeowners on reducing fire risks. Provide Defensible Space fire education materials at events.

- Use local media outlets to encourage defensible space and to mitigate current fire causes.

- Produce mini campaigns each year to address the priority fire cause which may include some of the following: billboards, flyers, Fire Safe Council ads, and radio PSA's.

- Participate in residential assessments and provide education to the homeowners.

- Conduct presentations to local homeowner groups explaining "Defensible Space" and/or fire prevention risks and mitigation.

IV. FIRE MANAGEMENT COMPONENTS:

A. Fire Suppression

All suppression activities on public lands managed under the FFO are conducted under a cooperative fire protection agreement with California Department of Forestry and Fire Protection (CDF). This protection is provided through strategically located fire stations, crew camps and air bases through out the Field Office area. The Folsom Field Office incorporates four CDF administrative units that provide fire protection for multiple county areas. Additional agencies such as the US Forest Service and the National Park Service also provide assistance as needed to CDF for fires on public lands. Under the local operating plan with CDF, BLM is required to provide Agency Representatives and Environmental Specialists/Resource Advisors to all fires exceeding five acres. The Folsom Field Office operates one prevention patrol unit and makes available one medium, fire-equipped construction dozer to respond to initial or extended attack fires in support to CDF. Approximately 80% of wildland fires in the FFO can be suppressed using standard fire fighting equipment with no restrictions. The remaining 20% occur in Special Management Areas or ACEC's that has restrictions on the use of fire equipment in sensitive areas.

1. Suppression Strategies/Appropriate Management Response

For FFO, the first priority in fire suppression is providing for public and firefighter safety with secondary priorities of protecting property and natural resources. Fires outside wildland urban interface areas shall by suppressed using AMR in accordance with management objectives. Appropriate management response is also determined by current fire conditions, fire location, and resource availability. A response can vary from an aggressive initial action to monitoring when all other actions have been carefully examined and control lines have been determined to hold. Due to the amount of urban interface and the high number of communities at risk (58) in FFO, aggressive initial attack will be the most common form of suppression. Most fires should be confined and contained to twenty acres or less, 90% of the time. AMR strategies will be tailored to address Special management areas such as Areas of Critical Environmental Concern (ACEC's), Wild and Scenic Rivers, critical habitat for Special Status Species, and other areas of critical resource constraints.

The FMP is based on the concept that all wildland fires will be subject to an initial response (Initial Action). In all units where cooperators (CDF) provide suppression services, an agreement outlining constraints and management objectives will be developed or is identified in FMP.

The operational roles of the BLM in the wildland/urban interface are wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of tribal, State, or local governments, as described in the Interagency Standards for Fire and Fire Aviation Operations.

Occasionally, ignitions occur on very steep, inaccessible terrain. Often, these fires are lightning strikes on a single tree, with little risk of substantial spread. Where this is the case, firefighter safety becomes an issue. Even though the fire may be in a non-WFU area, the AMR may consist only of monitoring and identifying alternatives suppression strategies do to unsafe conditions associated with trying to put suppression personnel on the fire.

Areas of Critical Environmental Concern: Environmental constraints are outlined in each individual Fire Management Unit description. These constraints address the strategies that should be used to mitigate impacts to sensitive natural resources within each FMU. A local Environmental Specialist (ENSP) is called when there is fire in or threatening an area of environmental concern. These areas include ACEC, WSA or Wilderness, as well as Special Management Areas and areas with cultural resource values.

Required fire operations/suppression plans can be found in the "Interagency Standard for Fire and Fire Aviation Operations" (Red Book) and the Office of Fire and Aviation website at http://www.fire.blm.gov/. All plans for the Hollister Field Office are located for fire and resource personnel use in the Porterville Dispatch Office and the Hollister Fire Management Office. This can and will assist CDF as needed.

The operational roles of the BLM in the wildland/urban interface are wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of tribal, State, or local governments, as described in the Interagency Standards for Fire and Fire Aviation Operations.

Agency Administrators and the FMO will ensure employees are trained, certified and available to participate in the wildland fire program locally, regionally, and nationally as the situation demands, as described in the Interagency Standards for Fire and Fire Aviation Operations.

2. Prevention, Community Assistance, and Education

Prevention is an active and integral part of the FFO fire management program. Increasing populations and development of the wildland urban interface has created an increased threat of wildfire on private and public land. With this increased threat comes a need for a heighten level of awareness which is best achieved by public education. This public education is accomplished by cultivating local fire safe councils, participating in community events, and most importantly, personal contacts. With expected future growth in the wildland urban interface areas, fire prevention will be a key element in reducing catastrophic fire potential.

It is important to note the prevention program is a collaborative effort including local, state and federal fire agencies. This partnership allows for community risk assessments, mitigation and education activities to be conducted each year.

3. Preparedness

The FFO will insure our capability to provide safe, cost effective fire management in support of land and resource management plans through appropriate planning, staffing, training, equipment,

and over site. Preparedness planning will be accomplished on an annual basis and when conditions exceed those of a normal fire year, severity planning will be developed. Operating plans will be updated and preparedness reviews will be conducted annually.

Agency Administrators will ensure employees are trained, certified and available to participate in the wildland fire program locally, regionally, and nationally as the situation demands, as described in the Interagency Standards for Fire and Fire Aviation Operations.

4. Fire Training

A. Qualifications and Fireline refresher – Training and fitness requirements for all Folsom Field Office personnel involved in fire suppression and support can be found in the Interagency Standards for Fire and Fire Aviation Operations 2004 handbook. Attendance at the refresher training, along with passage of the appropriate level of work capacity testing is a prerequisite for issuance of a red card. All training and testing should be completed by June 15th annually. The FFO will meet NWCG PMS 310-1 Manual requirements for all employees and positions.

   In addition to Fire Line Refresher and Work Capacity Tests, all Fire personnel are required to complete up to 80 hours of additional training, including: First Aid, CPR, Defensive Driving, IT Security, Haz-Mat Awareness, Haz-Mat Communications Plan, Aviation Safety, Chainsaw Refresher, Employee Orientation, and EEO.

   All Supervisory personnel must complete an initial 40 hours of supervision training with an annual training requirement

B. Interagency Medical Qualifications Standards Program – In 2001 the Federal Fire and Aviation Leadership Council established a pilot program to implement the new medical qualifications standards and physical examination process for arduous level wildland firefighters. The goal of the program is to ensure that all arduous-level firefighters benefit from a consistent interagency medical evaluation process that provides an added level of safety on the fire line.

   The medical examination process uses a two-tiered approach. The first tier is the medical examination and clearance; a firefighter receives a medical examination by a qualified medical provider which includes an initial assessment of medical fitness. In cases where the examining physician questions the medical fitness of a firefighter, the case is referred to a Central Medical Consultant (CMC) and/or Medical Review Officer (MRO) for a second tier review. The CMC/MRO then renders a recommendation relating to the medical fitness of the firefighter.

   A consistent set of medical examination criteria, a medical examination form, and an annual medical history and clearance form have been developed for the administration of the program.

Baseline Exam: The baseline (or initial) exam is focused on the medical requirements to perform arduous firefighter duties and is more comprehensive than the periodic exams.

Periodic Exam: A periodic medical exam is conducted every five years on firefighters until age 45. At age 45, the periodic exam is conducted every three years.

Exit Exam: The exit exam is performed when an incumbent terminates federal service as an arduous duty wildland firefighter.

Annual Medical History and Clearance Form: An annual medical history questionnaire is required in those years when an actual medical examination is not scheduled. This form is completed by the employee and reviewed by a physician.

Every year, the appropriate form must be completed and reviewed prior to scheduling an arduous duty performance test ("pack test").

Time sensitive hiring processes ("fire emergencies") create situations with a limited timeframe. In these situations, the "Annual Medical History and Clearance Form" may be used to prior to scheduling an arduous duty performance test.

This new process for medical clearance creates new unfunded costs for the Field Offices. Current cost estimates for the baseline exam are in the $500 per person range. During the initial year in 2005, the National office will cover these costs. Thereafter, however, costs will be borne by the Field Office.

C. Fire Season Readiness – Requirements for preparedness and operational plans can be found in the 2004 Interagency Standards for Fire and Fire Aviation Management, and also located in the fire dispatch center.

Basic fire training school, for both newly hired seasonal employees and the FFO Emergency Fire Fighter "AD pool", must be included when developing training needs, and their associated budget requirements.

D. Annual Readiness Reviews – Per the "Interagency Standards for Fire and Aviation Operations" 2004, fire and aviation preparedness reviews are conducted on an annual basis prior to the fire season to help the Field Office identify operational, procedural, personnel, or equipment deficiencies and recommend corrective actions. For the BLM, these reviews are conducted by a State Office team. Every four years, the annual review is conducted by a national team. These reviews normally occur mid-June.

E. Internal/External Training – In order to meet Individual Development Plan (IDP) goals and develop employee qualifications, skills, and knowledge, all permanent employees annually attend three or more

training sessions at the Regional or National level. In addition, up to 120 hours of classroom training is presented at the local level for both permanent and seasonal employees.

Refer to the FFO Fuels and Prevention Management Plan located in the fire program in Folsom.

5. Detection

Detection needs are determined by the FMO or acting and regionally prioritize in coordination with Porterville Dispatch.

6. Fire Weather and Fire Danger

There are no BLM Remote Automated Weather Stations (RAWS) located within the Field Office. The Interagency Dispatch Center staff is responsible for the daily and seasonal activities associated with RAWS data management. Data collected from these RAWS, combined with local Forest Service Stations, are used to compute fire danger ratings on a daily basis. CDF also monitors and analysis their RAWS for this region.

Local RAWS are viewed and studied, fuel moistures are monitored at the Field Office and at Porterville Dispatch (Central Interagency Coordination Center)

All unit RAWS use NFDRS fuel model A, T, F, and G along with the Burning Index (BI's) component to develop fire danger ratings on a daily basis. RAWS information is analyzed and calculated at Porterville Dispatch and disseminated to the field and users. (Pocket Cards)

Portable RAWS stations are available, that can be installed to provide site specific weather information for projects where permanent RAWS information is not sufficient to collect needed data for a specific site.

7. Aviation Management

The Folsom Field Office is under the Regional Aviation Plan, which is located at Bakersfield Field Office and Porterville Dispatch.

All administration and resource flights will be coordinated with Central Interagency Coordination Center (CICC) in Porterville CA.

Aviation management is coordinated with CDF for suppression. Other use for Aviation is coordinated with CICC, contractors and other governmental agencies in accordance with a written contract and/or agreement when necessary.

8. Initial Attack

Initial Attack is Direct Protection from CDF under agreement. All fires within the FPU's will be managed with suppression actions consistent with preplanned dispatch protocols in conformance with resource management objectives identified in this plan. Tactics and strategies will be based on the current and predicted weather and fire behavior. Firefighter and public safety is always the first priority. As fire complexity increases, additional staffing will be requested as appropriate and consistent with incident complexity and objectives set forth in the FMP.

9. Extended Attack

See the BLM's Interagency Standards for Fire and Fire Aviations Operations for direction.

B. Wildland Fire Use

1. Decision Criteria

Fuel conditions in the FFO have reached extreme levels due to diminished fire intervals. This coupled with the development of the wildland urban interface has created a volatile situation. Current growth patterns indicate a continual buildup of communities adjacent to the public lands in the wildland urban interface areas. As a result, wildland fire use will not be considered as a management tool.

Wildland fire use is non existent in all FMUs until hazard reduction in fuels can happen within the FMUs.

Description of the wildland fire use opportunities are not identified within the 14 FMUs. Specific objectives for each FMU are listed in chapter 3. These wildland fire use implementation areas were identified through the LUP and the activity level process.

2. Preplanned Implementation Procedures

The annual activities required to designate and manage wildland fire use include:

- Local communities, county officials and government agencies have been involved in discussion on proposed wildland fire use areas. Notification procedures have been established to alert these officials when a fire maybe managed for resource benefit within each FMU.
- Necessary management action points are in the process to be identified for each FMU. These management action points can be found in the Appendices.
- An open burning permit has been obtained from the State.
- Wildland fire use applications will follow the National Interagency Mobilization Guide direction when in preparedness level IV and V.

3. Initial Action Procedures

All wildfires will be subject to an initial attack response. This response will include size up of the current fire situation, determination of probable fire cause and estimate of potential for fire spread. A suppression action will be initiated unless the fire is determined to be a candidate ignition for management as a wildland fire use incident. All candidate ignitions will be managed in accordance with the procedures and requirements outlined in the wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide. All ignitions determined to be human caused will be suppressed using an appropriate management response.

4. Required Personnel

The FPU is capable of managing wildland fire use incidents up to and including those at the Type II complexity level. A Fire Use Management Team will be ordered for incidents exceeding this level of complexity. Current qualified staff members may act as interim fire use managers pending the arrival of a Fire Use Manager (FUMA) or Fire Use Management Team. A current list of all personnel qualified to manage and/or assist in wildland fire use incidents is available through the respective agency (ies) and/or dispatch.

5. Public Information

- Public information/coordination should occur with the BLM Fire Mitigation/Fire Education Officer, agency (ies) public affairs staff to prepare pre-season news releases.
- Target audience include: agency (ies) staff and public focusing on Special Use permittees, recreationists and public or communities that would be potentially affected by a wildland fire use incident.

C. Prescribed Fire

The FFO prescribed fire program is undertaken on an interagency basis treating natural fuel accumulations to meet resource management objectives, standards and guidelines as outlined in the MFP. Reasons for treatments have traditionally included wildlife habitat enhancement, site preparation for artificial and natural regeneration, range habitat improvement and hazardous fuels reduction (See 9214 Prescribed Fire Handbook). Priorities for treatments were created using Risk Assessment Mitigation Strategies.

Project level analysis through the NEPA process and other state and federal regulatory compliance processes document the purpose and need for treatment and identifies the goals and objectives that the prescribed fire treatment is intended to realize. The direction for Fire Management Zone's identified in the RMPs and this FMP permits the use of management ignited fire in of this fire management area.

1. Annual Activities for Implementation

Annual activities include:

- Inventory and identify fuel treatment units
- Participate in interdisciplinary teams
- Complete required NEPA documentation and other requirements mandated by environmental law
- Prepare project plans and layout
- Prioritize proposed projects based on current year budget allocation
- Prepare and approve burn plans
- Obtain burn permits
- Implement projects
- Award any contracts
- Complete monitoring requirements
- Report Accomplishments

2. Long Term Prescribed Fire Program

The FFO develops out-year program planning and budgeting information for prescribed fire treatments in accordance with the preferred alternative in the Resource Management Plan. Projects are usually identified in the Risk Assessment Mitigation Strategy (RAMS).

The development of prescribed treatment proposals is typically accomplished one to three years in advance of planned treatments. Field reconnaissance and interdisciplinary analysis are completed one to two years in advance of project implementation.

In an effort to be more cost effective, project analysis may be the precursor to multi-year treatments. Similarly, treatments are planned using a 'burn block' concept on some sub-units, which results in additional flexibility in project implementation taking advantage of favorable sites and seasonal windows for treatment.

3. Required Qualified Personnel

Only qualified personnel will participate in the implementation of prescribed fire and fuels implementation projects as outlined in the NWCG 310-1 and Handbook 9213-1. A list of qualified personnel is available in the Central California Interagency Communication Center office. Burn projects will only occur when there are sufficient and qualified personnel on scene as specified in the burn plan.

4. Prescription Requirements

Prescription requirements are site and project specific. See specific project plans for detailed information. All prescriptions will contain all sections required as listed in the Prescribed Fire Manual, BLM 9214.

5. Prescribed Fire Plan Requirements

The 2000 BLM Handbook 9214 "Prescribed Fire Manual" provides specific guidance for the prescribed fire program. It covers guidance, planning, prescribed fire plan requirements, determining complexity, safety and qualifications, project finance, cooperation and assistance, escape fires, and reporting.

6. Air Quality and Smoke Management

The primary air quality issues relate to local air district coordination and mitigation of negative air quality effects from various smoke sources. Sources of smoke in the Folsom Field Office area include agricultural burning in the valley to the west, burning of forest debris by various agencies and the public, woodstoves, campfires and wildland fire. Smoke from some of these activities can also travel to neighboring lands and states under certain atmospheric conditions. Recent efforts have focused on information sharing between burners and air regulators, consistency between air districts, and stronger coordination with the California Air Resources Board.

The goals of air resource management in the Folsom FO is to minimize air pollutants caused by management activities and cooperate with the California Air Resources Board and applicable Air Pollution Control Districts in monitoring and regulating air pollution sources. Emphasis will be placed on air quality-related values in Class I airsheds and communities. The objective is to maintain or improve air quality to meet requirements under the Clean Air Act. Mitigating the effects of fire and fuels management on air quality include "remedying impairment of visibility in mandatory Class I federal areas which impairment results from manmade air pollution" (Clean Air Act Visibility Protection, Subpart II, 42 U.S.C. & 7491 et seq.) There is one Class I airshed in the Folsom FO area, Yosemite National Park, which is up-canyon from BLM land. The likelihood of potential smoke impacts from BLM land to the park is minimal.

The public lands administered by the Folsom FO are immediately adjacent to numerous communities and recreation areas. The Folsom FO is aware these areas include individuals particularly smoke sensitive that may require mitigation.

In accordance with the project plan and smoke management permits, a monitoring plan will be established and reviewed for conformance. A burning permit from the local Air Quality Management District will be obtained.

7. Treatment Maps

All specific prescribed fire plans include project maps. These plans may be reviewed after final approval.

8. Documentation and Reporting

Coordinate with key agency staff and publics focusing on Special use permittees, recreationists and public or communities that would be potentially affected by a prescribed fire. Agency public affairs staff will prepare pre/post project news releases. Additional coordination will include informing staff members.

The FFO will retain the following documentation for all prescribed fire projects:

- Prescribed Fire Plan including all attachments.
- A copy of the NEPA documents.
- Maps and photos pre/post burn.
- Applicable agreements.
- Prescribed fire report go/no go checklist, briefing checklist and test fire documentation.
- All weather forecast information including observations, field moistures, and unit logs,
- Fire report DI 1202
- Resource monitoring reports and post-incident evaluation.
- Financial documents including cost information. A Management Information System (MIS) should be included.
- Names and locations of pertinent GIS files.

D.Non-Fire Fuels Treatments

1. Annual Activities for Implementation

The FFO develops out-year program planning and budgeting information for treatments in accordance with the preferred alternative in the Resource Management Plan. Projects are usually identified in the Risk Assessment Mitigation Strategy (RAMS).

The development of treatment proposals is typically accomplished one to three years in advance of planned treatments. Field reconnaissance and interdisciplinary analysis are completed one to two years in advance of project implementation. Annual activities include but are not limited to:

- Inventory and identify fuel treatment units
- Participate in interdisciplinary teams

- Complete required NEPA documentation and other requirements as mandated by environmental law
- Prepare project plan and layout
- Prioritize proposed projects based on current budget year allocation
- Implement projects
- Award contracts
- Complete required monitoring
- Report accomplishments

All specific Non-fire fuels treatment project plans include pre/post project criteria. For specific action items refer to each individual project plan.

2. Equipment and Seasonal Use Restrictions

Equipment and seasonal use restrictions are identified in both the F-FMP and the F-RMP. Specific project area restrictions are located in the project plans. All non-fire fuel treatments will comply with the equipment and seasonal use restrictions identified and described in Chapter IIID.

3. Effects Monitoring Requirements

Monitoring requirements are developed in response to resource management and project objectives from interdisciplinary input. For information on the requirements refer to the individual project plans.

4. Reporting and Documentation Requirements

Project level reporting requirements have been established and include submissions in Rangeland Improvement Project System (RIPS), Annual Work Plan (AWP), Management Information System (MIS), and National Fire Plan Operations Reporting System (NFPORS).

Documentation requirements including weather, monitoring, and project notes are completed or reviewed by the project manager. For information on the requirements refer to the individual project plans.

E. Emergency Stabilization and Rehabilitation

The FFO stabilization and rehabilitation program is undertaken to prevent further and unacceptable resource damage from soil erosion due to the effects of wildland fire. For information see the BLM Supplemental Emergency Stabilization and Rehabilitation Guidance. This supplement provides specific BLM guidance and is tiered to the 2002 Department of Interior (DOI) ESR Handbook (http://fire.r9.fws.gov/ifcc/esr/handbook/) relative to planning and implementing ESR projects on public lands administered by the BLM. Treatment activities must conform to the BLM Supplemental Emergency Stabilization and Rehabilitation Guidance, the RMP, and the Normal Year Fire Stabilization and Rehabilitation Plan. FFO treatments have

traditionally included aerial seeding, ground seeding, construction of protective fences, and construction of water erosion abatement structures.

Rehabilitation will only be required where the impacts of the wildfire itself or the associated suppression actions are significant and can be mitigated. No rehabilitative action will be taken which could cause further damage to the environment. Minimum impact suppression tactics will be used whenever possible to minimize need of rehabilitation. When no human life or property is threatened, it is preferable to use natural barriers for firelines even if more acres will be burned. Efforts to rehabilitate the direct impacts of fire suppression activities will begin as soon as possible, at times even before the fire is declared out. This will allow use of assigned resources and potentially reduce rehabilitation cost.

Project specific analysis through the NEPA process documents the purpose and need for treatment and identifies the goals and objectives that the treatment is to realize. Primary direction for management areas that includes short term/current year rehabilitation needs is identified in the Normal Year Fire Rehabilitation Plan. The long term restoration plan needs are identified in the FFO long-term plan. Emergency rehabilitation needs will be established in a wildland fire rehabilitation plan. Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health and safety, and to help communities protect infrastructure. The FFO develops program planning and budgeting information for rehabilitation treatments in accordance with the preferred alternative in the Resource Management Plan and updates this information on a yearly basis in the Normal Year Fire Plan.

Documentation requirements have been established by the resource and fire management staff and are identified in the FFO Normal Year Fire Stabilization and Rehabilitation Plan and include identification of projects in RIPS, AWP, MIS, and NFPORS.

Short-term monitoring requirements include evaluation of the application methodology immediately upon completion of application. Post-treatment monitoring may include vegetative transects or establishing permanent photo points depending on the specific project objectives.

Resource Specialists and fire management staff with GIS Specialist support conduct long term monitoring at the FFO level.

F. Communities at Risk/Community Assistance

1. Communities at-Risk

The current federal register shows the FFO containing 222 communities at risk, of these approximately 58 are potentially affected by BLM land. These communities were addressed in our Risk and Mitigation Assessment (RAMS) done in 2003. Communities were assessed risk levels, for which corresponding fuel treatments, prevention measures, and suppression responses were prioritized.

2. Community Assistance Programs

The FFO contains 21 Fire Safe Councils or other community fire groups. These groups provide community guidance regarding fire prevention, fuel reduction, and fire education. The FFO also provides grant monies distributed to these councils and other qualifying organizations.

V. ORGANIZATION, BUDGET, AND AGREEMENTS

A. Organization and Budget

Since the FFO has CDF as protecting agency, the FFO has a small fire organization with no engines, crews, etc. However, the fire and fuels staff complete all functions of a fire program serving as training officer, aviation officer, Agency Representative for wildland fires, Duty Officer, fire and fuels project planning and implementation, fire prevention planning, wildland fire reporting and budget tracking.

The following tables reflects approved and desired fire staffing needs to accomplish the objectives of the fire/fuels/community assistance/protection program objectives described by FMU in Chapter III and summarized in Section IV above. The organization and supporting budget was analyzed using the Risk Assessment and Mitigations Strategies (RAMS), as part of the Redding Field Office Fuels and Prevention Plan on file at the FFO. The costs displayed below does not display the compete cost of running the Redding Fire Program. There are administrative costs that have not been displayed, but will be calculated based on the FY05 AWP. This information will be displayed in this chapter after the FY05 AWP has been released in California.

Approved Staffing
The positions displayed within this table are those positions that have been approved through the BLM California Fire & Aviation Management Plan (2002) and the Field Office RAMS report. The Funding Availability column displays those positions/equipment where funding has been provided through the AWP. The Yearly Cost column displays the total funding that would be required if all approved positions were filled and all approved equipment was acquired.

Under the organization described in the preferred alternative of the most recent National Fire Management Analysis System (NFMAS) analysis (June 1999), the FFO requires the following staff, equipment, and funding to accomplish the program goals and objectives:

Resources	Approved Staffing	Funding Availability (As of FY04)	Normal Activation	Sub-activity	Total Yearly Cost [1]
FMO	1	1	Yearly	2810/2824	$73,000
Fire Prevention Officer	1	1	Yearly	2810	$52,000
Fire Prevention Tech	1	0	Yearly/WAE	2810	$42,000
Fuels Specialist	1	1	Yearly	2824	$63,500
Fuels Technician	1	0	Yearly/WAE	2824	$42,000
Vehicles	**Needed**	**Currently Available**			
Command Vehicles	4	3	Yearly	2810/2823	$32,000
Project Dozer	1	1	Yearly	2810/2824 /MLR	N/A [2]

[1] Estimates based on FY04 Labor and Operation budget and CA FPA Implementation Team Resource Staffing funding inputs. Operations funding includes costs of training, travel, pagers, and other equipment & supplies. Yearly costs will be updated at the beginning of each fiscal year.

[2] This dozer is currently funding under project funds. It is available for IA and extended attack.

The FFO Fire Management program provides fire suppression oversight, prevention and education, and fuels management services for public lands that lie within the Field Office. National support is provided when requested resources or personnel are available.

Prevention and Rural Assistance – Prevention is an active part of the NFMAS request from the FFO. Details of the prevention program may be found in the FFO Fire Prevention Plan, available at the Field Office. Training, prevention material, and part-time funding for one individual are in the current budget request. Community risk assessments and mitigation activities are conducted in partnership with the local fire agencies each year.

Fuels Management - The FFO prioritizes projects based on risk level from RAMS, communities at risk, adjacent agency projects, and fuel loading. NEPA documentation is performed for all potential projects to expedite implementation as funding is approved. Due to the urbanization of the FFO, fuel reduction using prescribed fire is difficult in most areas; therefore, the majority of projects are non-fire. As more projects associated with community safety are accomplished, more prescribed fire and landscape level restoration may occur.

Support for National Interagency Hotshot Crews (IHC)

Currently, the California BLM hosts the Midnight Suns IHC at the Folsom Field Office. CASO provides one supervisor truck and two crew carriers for the Midnight Suns IHC to use during their activation period in California for suppression and project work.

Vehicles For use by Midnight Suns IHC	Needed	Currently Available	Normal Activation	Sub-activity	Total Yearly Cost
Command Vehicle	1	1	June - Oct	2810/2824	$8,000
Crew Carriers	2	2	June - Oct	2810/2824	$26,400

Desired Staffing

There are no positions and/or equipment that are desired by the Folsom Field Office that is currently not approved through the BLM California Fire & Aviation Management Plan (2002) and the Field Office RAMS report.

Support Staffing

The Folsom Field Office would desire funding for administrative support of the Fire program. Currently this cost is covered under the portion of the 4 percent administrative cost of the State-wide Fire Program (2810/2823/2824) that is assessed at the State-level and dispersed to the Field Offices at the release of the current year AWP. Project specific support from Resource status will be figured into the project costs when submitted into BPS and NFPORS.

IM OF&A No. 2004-028 – Budget Tables (Implemented/Planned)

Refer to the appendices for the tables that where requested by the Office of Fire and Aviation for inclusion into all FMP's.

Facilities

The costs associated with facilities for hosting the Midnight Suns IHC will be displayed in the California BLM State Office Fire Management Plan for this version. The next version of this FMP will display those costs in this chapter.

B. Assistance Agreements and Intra/Interagency Agreements

Policy - *Fire suppression is generally handled by the agency/entity responsible for fire protection of the lands on which the fire occurs. However, undue delay in dispatching initial attack crews is not warranted simply because land ownership cannot be immediately determined.*

The Interagency Agreement for Fire Management states *"that among the Federal Wildland Fire Management Agencies, the Interagency Agreement for Fire Management provides the framework and authority for cooperative arrangements for initial attack efforts by fire suppression forces that can arrive at a fire first, regardless of agency ownership. A Federal agency performing the initial attack will notify the agency that is responsible for the land as soon as ownership is determined, and will continue suppression pursuant to the procedures outlined in the Federal National Interagency Mobilization Guide. Additional provisions for fire suppression efforts are provided for emergency or a declared major disaster through United States Code. Assistance Agreements, which includes Cooperative Agreements and Grants with state, local and non-profit entities provides for mutual or reciprocal fire protection assistance. "*

- Original copies of U.S. Code applicable to wildland fire are provided in *A Reference Guide to Principal Wildland Fire Laws for the Bureau of Land Management.* The Guide can be viewed or downloaded from the website – Website will be Available April 1, 2003.
- Copies of the *Federal Interagency Agreement for Fire Management* are kept at the BLM-Office of Fire and Aviation's Procurement Office.
- Copies of Assistance Agreements are generally kept at the BLM State Offices.
- Copies of the Emergency Equipment Rental Agreements are available from Porterville Dispatch.
- Cooperative fire management agreements exist between the FFO and the following agencies:
    1. National Weather Service - Interagency Fire Management (2000), interagency agreement for Weather Service assistance during prescribed fires and regular fire season, See Porterville Dispatch for copy.
    2. State of California:
        a. Interagency Fire Agreement, State of California, Department of Forestry and Fire Protection.

Other Interagency contacts include:

- Tahoe National Forest
- El Dorado National Forest
- Stanislaus National Forest
- Yosemite National Park
- The Nature Conservancy
- Multiple Rural Fire Districts
- Multiple County Fire Districts

- Local area Law Enforcement agencies

C. Equipment Rental Agreements

There are no Equipment Rental Agreements at this time.

D. Contract Resources

For a copy of all contracts see the service and supply plan at the Porterville Dispatch.

E. Contract Suppression and Prescribed Fire Resources

There are no Contract Suppression and Prescribed Fire Resources at this time. Prescribed fire resources will be determined on site specific burn plans for projects. The use of local state (CDF) and regional (BLM, USFS, FWS, NPS) resources will be used in prescribed fires.

VI. MONITORING AND EVALUATION

A. Annual Program Assessment

State Office Level
The California State Office (CASO) Fire and Aviation Staff and State Director will annually assess the performance of the Folsom Field Office FMP. These annual reviews will be conducted using a variety of approaches, as described below under each functional area:

Suppress/Preparedness
The State Office team will review the Field Office's suppression and/or prevention module for readiness on an annual basis. These reviews will conducted by a State Office team. Every four years, the annual review is conducted by a national team.

Aviation
The State Office will annually review, monitor, and evaluate the effectiveness of the aviation program which covers:

- Helicopters-
    - Preseason - Review contract with pilots and helicopter managers
    - Preseason - Helicopter Operations Readiness Inspection
    - Monitor Rappel Program
    - Review helicopter crews while assigned to wildfires
    - Post season meeting w/helicopter mgrs to review contractor performance
    - Submit contract amendments to AMD
    - Maintain training records
    - Facilitate fulfillment of training needs
    - Facilitate helicopter needs for Law Enforcement
    - Monitor and facilitate needs of WH& B programs
- Fixed wing-
    - Monitor activities of ASM aircraft and crew
    - Arrange logistical flights for State Office personnel
    - Monitor SEAT operations

Fuels Program – The State Office Fire and Aviation Staff and State Director will annually assess the FMP performance in meeting fire and fuels targets through review of the Management Information System (MIS) and National Fire Plan Operations and Reporting System (NFPORS).

Prevention and Mitigation Program – The State Office Fire and Aviation Staff and State Director will annually assess the FMP performance in meeting community assistance/protection targets through review of the Management Information System (MIS), Risk Assessment and Mitigation Strategies (RAMS), and National Fire Plan Operations and Reporting System (NFPORS).

Regional Level
The Field Office fire staff, CenCal Fire Staff and FFO Line Officer will annually assess the FMP performance in meeting fire and resource management objectives as set forth in the RMP(s) and

pertinent plans. Any proposed changes will be coordinated with appropriate staffs and the California State Office.

The CenCal FMO is responsible for following related to monitoring and evaluating the Field Office Fire Program within their Region:

- Assuring that all modules participating in initial attack activities within the Region are certified prepared through reviews conducted by June 15th each year. The Regional Red Card Committee approves all training scheduled through the CWCG Wildland Fire Training Committee and all Fire Qualification promotions are consistent with PMS 310-1 "Wildland and Prescribed Fire Qualification System Guide" or CASO standards, whichever are higher..
- Budget planning, implementation and execution, providing oversight to Field Office projects, operations and expenditures and ensures budget expenditures are consistent with the intent of the National Fire Plan (NFP) and California State Office goals and objectives. Allocates and monitors the Preparedness budget among the Field Offices consistent with approved staffing plans, and ensuring all possible positions are funded.
- Reviewing all fire plans from within the region to ensure objectives are consistent with NFP, land use plans and resource management objectives.
- Providing leadership and guidance in planning, conducting and reporting work in the areas of hazardous fuels reduction, emergency stabilization and restoration, and community assistance under the NFP.

Field Office Level

This FMP is a working reference for wildland fire management and hazardous fuels treatments within this Field Office. It will be reviewed annually and revised as needed to ensure that the strategic guidance provided in the plan is assisting the FFO in meeting its resource management and fire/fuels management goals and objectives in the Sierra Planning Area Management Framework Plan (as amended) and the Folsom Resource Management Plan (currently under preparation and scheduled to be completed in 2007). Revisions, additions, and adjustments that are in conformance with the MFP/RMP may be incorporated into the FMP. Monitoring and evaluation play a central role in adaptive management and are conducted for three primary purposes:

- Ensure appropriate implementation of standards and guidelines (implementation monitoring)
- To track resource conditions and mark trends toward or away from desired conditions (status and change monitoring)
- To deal with uncertainties regarding the effectiveness and effects of land management activities (cause and effect monitoring)

Any major changes may require amending the RMP. The review will also ensure that the fire/fuels program is being implemented in a safe, cost effective manner and as directed in this fire management plan. As national wildland fire performance measures are issued, monitoring

and evaluation protocols will be developed to meet those requirements and follow Department and Bureau guidelines.

Suppression/Preparedness – The FFO Fire Management Officer (FMO) will ensure that his prevention module, fire staff, and Field Office personnel will be prepared for each fire season by no later than June 15th, related to information displayed in Chapter IV, section 3. The State Office will be notified if there are exceptions.

Fuels Program – The FFO Fire Management Officer and Field Office Manager will annually input targets and report accomplishments, when completed into MIS and NFPORS. Field Office Staff will assess the FMP performance in meeting fire and fuels targets through comparison of FMP non-fire fuels treatment objectives and strategies with the accomplishments reported within of RAMS, MIS, and NFPORS.

Prevention and Mitigation Program – The FFO Fire Management Officer, Field Office Fire Mitigation and Education Specialist (if appropriate), and Field Office Manager will annually input targets and report accomplishments, when completed into MIS and NFPORS. FFO Staff will assess the FMP performance in meeting community assistance/protection targets through review of the MIS, RAMS, and NFPORS.

B. Project Monitoring

It is important that baseline inventory efforts at the Field Office level take place prior to any vegetation treatments associated with prescribed fire, WFU, and non-fire fuels treatments. Effectiveness monitoring following treatment, assesses whether objectives have been met, and allows comparison of pre-treatment and post-treatment conditions. Objectives of prescribed fires and other treatments are substantially compromised if the effects of these management actions are ecologically undesirable. A comprehensive monitoring program may entail photo points and some form of vegetation sampling prior to implementation of fuels or vegetation treatments. Monitoring of weather, fire behavior, and fuel consumption should also take place during implementation of prescribed fire. After all treatments, effectiveness monitoring should continue for a minimum of two years.

The FFO FMO is responsible for implementing prescribed fire and fuels monitoring plans. Monitoring will ensure the treatments/actions meet the purpose and need for the project. Monitoring reports will be prepared and filed with the project specific plan.

- **Consultation and coordination with Field Office Resource staff will occur during the development and implementation of Field Office-wide and project specific monitoring plans.**
- **Monitoring objectives will be quantitative and measurable, when appropriate, to accurately track the effectiveness of the treatment**

Current BLM National Office direction allows for both prescribed fire and non-fire treatment funds (2823/2824) to be utilized within one-year post fire or non-fire treatment and is designated for monitoring treatment objectives or specific protection objectives.

Currently, CASO direction for minimum monitoring includes using a protocol for fuels plots/surveys. Guidelines can be found in the *Fuels Survey Data Dictionary User Manual*. The FFO does not have a Field Office-monitoring plan, but project-specific plans and this FMP include monitoring requirements in implementation plans.

The following is a list of several project-level monitoring strategies/protocols (refer to the California State Office Fire Management Plan for an expanded list of project-level monitoring strategies/protocols):

- **FIREMON**
  FIREMON is a fire effects monitoring system designed to satisfy monitoring requirements of fire management agencies for use in most ecosystems. The manuals, databases and software allow fire managers to design a complete fire effects monitoring program, store and analyze the collected data, and link relevant data to satellite imagery for landscape scale assessments. (http://fire.org/firemon/overview.htm)

- **FRCC**
  Fire Regime Condition Class (FRCC) is an interagency, standardized tool for determining the degree of departure from reference condition vegetation, fuels and disturbance regimes. Assessing FRCC can help guide management objectives and set priorities for treatments. (http://frcc.gov/index.html)

The following are activity specific monitoring strategies:

1. Prescribed Fire:
Prescribed burn bosses are required to evaluate prescribed burns each day upon completion of burning to assess results and effectiveness of the burn as implemented. These evaluations are maintained as part of the project file. Long term effectiveness monitoring is accomplished by the Fire Management staff and Resource staff in the FFO by analysis of study transects established prior to treatment. These transects are subsequently study every year for the first five years then every other year after that. This data is stored in electronic format.

Maps displaying historical prescribed fire treatments are maintained at the FFO. Future prescribed fire treatments will be displayed in the Geographical Information System (GIS) data base.

2. Wildland Fire Use:
Wildlife fire use is not currently an option in the FFO.

3. Non-fire Fuels Treatments:
All field units with fuels treatment programs are required to establish monitoring programs. The objective of the program is to determine if treatments are meeting the objectives as outlines in the EA's and project plans. The overall scope of the monitoring program is left to the Field Office/District, but will comply with the direction established in this handbook. All objectives and constraints presented in NEPA documents and carried forward to project plans should be monitored. As fire and resource staffs become better integrated, fuel treatment objectives and resource objectives should likewise demonstrate integration. Monitoring responsibilities should be tied to the function that established the objective. All projects do not need complete programs. Numerous projects with similar objectives in similar vegetation types may be grouped under a single monitoring program. It is recognized that the volume of monitoring needs to remain within the available staff time and financial constraints.

Monitoring is also the consistent collection and analysis of repeated observations or measurements to evaluate changes in condition and progress toward meeting management objectives. Fuel treatment monitoring can be defined as a systematic process for collecting and recording information to provide a basis for evaluating and adjusting resource and treatment objectives, methods and implementation practices.

Monitoring is the feedback component of the adaptive management model, where the success or failure of a treatment is incorporated into decision for future management. Given an environment of increased scrutiny and interest from our stakeholders the ability to illustrate the degree of objective attainment is a fundamental responsibility. This ability is provided through various types of monitoring. The following direction will establish minimum monitoring standards for fuels treatments.

The minimum monitoring requirements established for individual prescribed fire projects include weather during the fire, observed fire behavior and whether fire treatment objectives have been met. If slowly changing moisture values, such as live fuel, 1,000 hour fuel moisture or soil moisture, are included in the prescription, actual values should also be documented. Additional monitoring will be needed to determine if the specific resource and fire treatment objectives have been met. The use of a Fire Effects Monitor (FEMO) is recommended for prescribed fire projects.

Monitoring is required whenever formal Section 7 consultation occurs during the project planning phase. The presence of Threatened or Endangered species during environmental analysis triggers a heightened scrutiny from regulatory agencies, such as National Marine Fisheries Service and/or U.S. Fish and Wildlife Service. Generally, a Biological Opinion (BO) is issued which will have some effect on project implementation. It is critical then to evaluate whether Bureau projects comply with the BO, and if the standards spelled out in the BO are consistent with protecting the species at risk and attaining project objectives.

Existing manual/handbook direction (BLM Manual 5000-1 [Forest Inventory], Handbook 1740-1 [Renewable Resource Improvement and Treatment Guidelines and Procedures]) call for project monitoring and inventory. Furthermore, recent products (e.g., literature, technical

references, and monitoring handbooks) provide specific direction for monitoring non-fire fuels treatments. At the end of this section, references for monitoring, web addresses, literature, and handbooks are provided.

4. Emergency Stabilization and Rehabilitation:
The FFO is responsible for monitoring effectiveness monitoring of emergency stabilization (ES) and rehabilitation (R) treatments. The FFO will prepare separate Emergency Stabilization and Rehabilitation Plans for funding approval by the State Director or WO Emergency Stabilization Coordinator. Approved plans may contain up to three years of monitoring for treatment effectiveness. Results of monitoring for treatment effectiveness must be reported each year for ES and R by September 30.

Both ES and R projects must be documented in National Fire Plan Operations Reporting System (NFPORS).

Emergency Stabilization Strategies:

- Stabilize and prevent unacceptable degradation to natural and cultural resources
- Minimize threats to life and property resulting from the effects of a fire
- Repair/replace/construct physical improvements necessary to prevent degradation of land or resources
- Actions must be taken within one year following containment of a wildland fire

Rehabilitation Strategies:

- Specify treatments required to implement post-fire rehabilitation policies
- Repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
- Repair minor facilities damaged by fire
- Actions must be taken within three years of containment of a wildland fire

The FFO is responsible for monitoring both implementation of the rehabilitation and stabilization activities, but also monitoring for species recovery, noxious weeds. Usually, the FFO will receive funding for implementation monitoring under emergency stabilization for 1 year from the control date of the fire and then for emergency rehabilitation up to three years, with the request for funding coming in every year by the end of the fiscal. Reporting is also due by the end of the fiscal for emergency rehabilitation.

Documentation requirements will be established by the resource staff and fire management staff and will be identified by site specific fires. They include identification of projects in the Rangeland Improvement Project System (RIPS), Annual Work Plan (AWP), Management Information System (MIS), and the National Fire Plan Operations Reporting System (NFPORS).

Short-term monitoring requirements include evaluation of treatment implementation and its initial effectiveness. Post-treatment monitoring may include vegetative transects or the establishment of permanent photo points depending on specific project objectives.

Resource Specialists and fire management staff with GIS Specialist support conduct long term monitoring at the FMU level.

C. Reporting

Wildland Fire
All wildland fire actions will be documented on the DI-1202 (DOI's Fire Report System) as appropriate.

Wildland Fire Use Fires (WFU)
Wildland fire use is not currently an option in the FFO.

Prescribed Fire/Non-fire Treatments
Accomplishments of fire and fuels hazard reduction projects will be reported in the Management Information System (MIS) and the National Fire Plan Operations and Reporting System (NFPORS). All Fuels projects will meet the standards and guidelines as outlined in Chapter 18 of the "Interagency Standards for Fire and Fire Aviation Operations" (NFES 2724).

The Hazardous Fuels module of NFPORS has been selected as the national interagency standard for:

- Submitting proposed projects for funding,
- Tracking and managing the program,
- Reporting performance, measuring accomplishments and accountability.

The FFO and/or CenCal fire staff will have a designated NFPORS coordinator to ensure that all data entry into NFPORS is correct, timely and compliant with national standards. The deadline for project submission into NFPORS for each fiscal year is April 15th of the year prior.

- National Fire Plan Operations and Reporting System (NFPORS) (http://www.nfpors.gov/)
- Management Information System (MIS) (http://mis.blm.gov/) (**only use Netscape**)

Prevention & Mitigation
Accomplishments of WUI mitigation activities will be reported in the Management Information System (MIS) and the National Fire Plan Operations and Reporting System (NFPORS). All BLM WUI mitigation activities will meet the requirements and standards outlined in the following references:

- March 4, 2004, Fiscal Year 2005 Hazardous Fuels and Wildland Urban Interface Projects IM (No. OF&A 2004-012)
- February 27, 2003, Wildland Urban Interface (WUI) Community Assessments, Mitigation Plans and Community Workshops IM (No. OF& A 2003-020)
- May 2003, Risk Assessment & Mitigation Strategies IM (No. CA-2003-040) (http://www.nifc.blm.gov/nsdu/fire_planning/rams/).

WUI mitigation targets and accomplishments should be supported by FFO's RAMS report and relate to WUI mitigation activities such as fire safe council meetings, Firewise workshops, home assessments, etc. Traditional prevention activities are a portion or the workload outlined in RAMS, but will not be tracked in NFPORS or MIS under this program.

The Community Assistance module of NFPORS has been selected as the national interagency standard for:

- Submitting proposed projects for funding
- Tracking and managing the program
- Reporting performance, measuring accomplishments and accountability

The FFO and/or CenCal fire staff will have a designated NFPORS coordinator to ensure that all data entry into NFPORS is correct, timely and compliant with national standards. The FFO FMO is responsible for ensuring that his project data is entered and/or updated in MIS, NFPORS, and RAMS.

- National Fire Plan Operations and Reporting System (NFPORS) (http://www.nfpors.gov/)- FO deadline of April 1st date and CASO deadline of April 15.
- Management Information System (MIS) (http://mis.blm.gov/)- Submit after projects approved in NFPORS
- RAMS- FO updates between Sept-Dec and CASO reviews between Jan-Mar.

National Fire Plan Grants

The Rural Fire Assistance (RFA) grant program will require more field involvement than in the past. The grant application period will be in the late-Summer or early-Fall and after selections are made regional and or Field Office RFA leads will enter these awards into NFPORS and MIS (Fall/Winter). Due to a variance between the grant cycle and NFPORS tracking system, the out-year planning for RFA will be entered by the Field Office or region as "recommended" applicants by the April 1st deadline. When the actual applicants and awards are made, later that Fall, corrections will be made in NFPORS. Field Office and or Regional RFA leads will work with the State Agreements Specialist and Program Manager to track RFA obligations and liquidations that should be completed before the end of the fiscal year (Aug-Sept). Please see the BLM CA RFA Staff Responsibilities and Schedule within the Appendices for more detailed program guidance.

Emergency Stabilization and Rehabilitation (ES&R)

ES&R information is tracked in NFPORS. Initial submission for request is due 7 days after the containment of the fire, this is normally done via email to the state coordinator. Once funding for a plan is approved the Field Office has 21 days from the date of containment to submit the plan and EA to the state office or WO depending on the funding limit. ESR due dates for funding requests and reporting accomplishment in NFPORS are due by the end of the fiscal year for out year funding.

Fire Program Analysis (FPA)
The FPA System will result in standardized, consistent agency budget submissions as well as a national database of alternative budget levels, fire management organizations, objectives and associated outcomes. When completed, FPA will replace current fire analysis systems such as IIAA (Interagency Initial Attack Assessment), FireBase, FIREPRO, and RAMS (Risk Analysis Management System). (http://fpa.nifc.gov/)

D. Fire Research

Fire Management Plans and programs will be based on a foundation of sound science. Research will support ongoing efforts to increase our scientific knowledge of biological, physical, and sociological factors. Information needed to support fire management will be developed through an integrated interagency fire science program. Scientific results must be made available to managers in a timely manner and must be used in the development of land management plans, Fire Management Plans, and implementation plans.

The FFO will work to provide fire and fuels research opportunities for cooperating agencies and universities.

Glossary of Terms

After Action Review – A professional discussion of an event, focused on performance standards, that enables Agency Administrators and firefighters to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses.

Appropriate Management Response (AMR) –

1.) The Appropriate Management Response (AMR) is any specific action suitable to meet Fire Management Unit (FMU) objectives. Typically, the AMR ranges across a spectrum of tactical options (from monitoring to intensive management actions). The AMR is developed by using FMU strategies and objectives identified in the Fire Management Plan.
2.) The response to a wildland fire, based on an evaluation of risks to firefighter and public safety, the circumstances under which the fire occurs, including weather and fuel conditions, natural and cultural resource management objectives, protection priorities, and values to be protected. The evaluation must also include an analysis of the context of the specific fire within the overall local, geographic area, or the national wildland fire situation.

Area of Critical Environmental Concern (ACEC) – Acreage within BLM public lands where Special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historical, cultural, or visual values; fish and wildlife resources, or other natural systems or processes; or to protect life and safety from natural hazards.

Condition Class – The Condition Class concept was most recently described by Hardy et al. (2001) and Schmidt et al. (2002). These descriptions are based upon the "relative risk of losing key ecosystem components". In certain cases, Condition Classes can be assigned when ecosystems have crossed ecological thresholds. For the purposes of Condition Class description, ecological risks are determined by contrasting current with historical conditions. Condition Classes are then described qualitatively in terms of alteration from the historical range and risks associated with those departures.

The Condition Class concept helps describe alterations in key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings. These alterations may be caused by fire suppression, timber harvest, livestock grazing, exotic plant species, insects/disease, and other disturbances.

An interagency working group is completing a Condition Class Guidebook, which will provide worksheets and assist field units to accurately assign Condition Classes at multiple scales. Until the guidebook is completed, Field Units should utilize the following definitions synthesized from the Cohesive Fuels Strategy (July 2002) and Coarse-Scale Spatial Data for Wildland Fire and Fuel Management (April 2002).

Condition Class 1: Fire Regimes are within an historical range, and the risk of losing key ecosystem components is low. Vegetation attributes (species composition and structure) are intact and functioning within an historical range. Fires burning in CC1 lands pose little risk to the ecosystem and have positive effects to biodiversity, soil productivity, and hydrologic processes.
Example of typical management: Historical Fire Regime is replicated through periodic application of prescribed fire or through fire use.

Condition Class 2: Fire Regimes have been moderately altered from their historical range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, intensity and severity, and landscape patterns. Vegetation attributes have been moderately altered from their historical range. wildland fires burning in CC2 lands can have moderately negative impacts to species composition, soil conditions, and hydrological processes.
Example of typical management: Moderate levels of restoration treatments are required, such as a combination of prescribed fire with mechanical/hand treatment.

Condition Class 3: Fire Regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, intensity, severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range. wildland fires burning in CC3 lands may eliminate desired ecosystem components, exacerbate the spread of unwanted non-native species, and result in dramatically different ecological effects compared to reference conditions.
Example of typical management: High levels of restoration treatments, such as mechanical treatments, are required before fire can be used to restore desired ecosystem function. Intensive efforts, which may include seeding, herbicide application, biomass removal, and other types of rehabilitation, are required for lands in Condition Class 3.

Contained/Containment – The status of a wildfire suppression action signifying that a control line has been completed around the fire, and any associated spot fires, which can reasonably be expected to stop the fire's spread.

Contingency Actions – A back-up plan of action when actions described in the primary plan are no longer appropriate. Contingency actions are required to be taken when the project exceeds its intent. Actions are taken to return the project to its intended design.

Critical Habitat – Under the Endangered Species Act, critical habitat is defined as habitat of federally listed threatened or endangered species where those physical and biological features essential to conservation of the species are found and which may require Special management considerations or protection. This habitat may currently be occupied or determined by the Secretary of the Interior to be essential for areas outside the species' current range.

Direct Protection Area (DPA) – The State of California and major Federal land management agencies entered into a wildland fire protection agreement several years ago to improve interagency cooperation, achieve objectives common to all agencies, provide a functionally integrated fire protection system, sharing of fire resources, and making the best use of tax dollars.

Within California, "State Responsibility Areas" (SRA) are lands upon which the State is responsible for wildland fire protection under California Public Resource Code Sections 4125 to 4127. These lands are often referred to as State and Private lands. National Forest Lands for which the Forest Service is responsible, National Park Lands for which the Park Service is responsible, and Public Lands for which the Bureau of Land Management is responsible, are referred to as "Federal Responsibility Areas" (FRA).

Often, these SRA and FRA lands are intermingled or adjacent, and wildland fires on these intermingled and adjacent lands present a threat to the lands of the other.

To help resolve the management and fiscal complexities of wildland fires burning across intermingled and adjacent SRA and FRA lands, the Federal and State fire protection agencies have developed the concept of Direct Protection Areas (DPA's). Within these DPA's, Federal and State agencies assume fire protection responsibility for the lands of another, along with their own. The agencies also, as nearly as possible, represent the other agencies interests and objectives. This requires that each agency posses the recognition, knowledge and understanding of each other's mission objectives, policies and authorities.

DPA's have delineated boundaries, or dividing lines, between lands that will be provided wildland fire protection by State or Federal agencies, regardless of ownership within those areas. DPA boundaries are established by mutual consent between Federal and State Agencies. Existing protection organizations and facilities, response times, land ownership patterns, values to be protected and pertinent statutes and regulations are considered when determining the location of the DPA boundaries. Boundaries often follow easily definable features such as highways, roads, rivers or well defined ownership lines. DPA boundaries can be reevaluated. When the need for a change is identified, the affected Units and Offices recommend the change to State level administrators/directors for approval.

Ecosystem - 1) A community of living plants and animals interacting with each other and with their physical environment; a geographic area where it is meaningful to address the interrelationships with human social systems, sources of energy, and the ecological processes that shape change over time. 2) The complex of a community of organisms and its environment functioning as an ecological unit in nature.

Ecosystem Sustainability – A concept that promotes the use of natural resources to benefit humans while conserving and wisely managing natural ecosystems for the future.

Emergency Stabilization – Strategies to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life or property resulting from the effects of

a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources.

Endangered Species – Any species of animal or plant in danger of extinction throughout all or a significant portion of its range and so designated by the Secretary of Interior in accordance with the 1973 Endangered Species Act.

Environmental Assessment (EA) – Environmental Assessments were authorized by the NEPA of 1969. They are concise, analytical documents prepared with public participation that determine if an Environmental Impact Statement (EIS) is needed for a particular project or action. If an EA determines an EIS is not needed, the EA becomes the document allowing agency compliance with NEPA requirements.

Environmental Impact Statement (EIS) – A detailed public document which complies with NEPA law and regulation; an EIS describes a major Federal action which significantly affects the quality of the human environment, provides alternatives to the proposed action, and analyzes the effects of the proposed action.

Extended Attack – Suppression activity for a wildfire that has not been contained or controlled by initial action or contingency forces and for which more firefighting resources are arriving, en route, or being ordered by the initial attack incident commander

Fire Frequency (Fire Return Interval) - How often fire burns a given area; often expressed in terms of fire return intervals (e.g., fire returns to a site every 5-15 years).

Fire Management Plan (**FMP**) – A plan which identifies and integrates all wildland fire management and related activities within the context of approved land/resource management plans. It defines a program to manage wildland fires (wildfire, prescribed fire, and wildland fire use). The plan is supplemented by operational plans, including but limited to preparedness plans, preplanned dispatch plans, prescribed fire burn plans and prevention plans. Fire Management Plan's assure that wildland fire management goals and components are coordinated.

Fire Management Unit (FMU) – An FMU is any land management area definable by objectives, management constraints, topographic features, access, values to be protected, political boundaries, fuel types, major Fire Regime groups, and so on, that set it apart from the management characteristics of an adjacent FMU. The FMU's may have dominant management objectives and pre-selected strategies assigned to accomplish these objectives.

Fire Planning Unit (FPU) – A Fire Planning Unit consists of one or more Fire Management Units. Fire Planning Units are the geographic scope of the landscape defined for the fire management analysis. Fire Planning Units may relate to a single administrative unit, a sub-unit, or any combination of units and sub-units. Fire Planning Units are scalable, and may be contiguous or non-contiguous. Fire Planning Units are not predefined by Agency administrative unit boundaries, and may relate to one or more agencies. They may be described spatially.

Fire Regime – Describes the patterns of fire occurrence, frequency, size, and severity - and sometimes, vegetation and fire effects as well - in a given area or ecosystem. A Fire Regime is a generalization based on fire histories at individual sites. Fire Regimes can often be described as cycles because some parts of the histories usually get repeated and the repetitions can be counted and measured, such as fire return interval.

The Fire Regime concept is used to characterize the personality of a fire in a given vegetation type -- how often it visits the landscape, the type of pattern created, and the ecological effects. The following natural Fire Regimes are arranged along a temporal gradient, from the most frequent to the least frequent fire return interval.

REGIME	FIRE FREQUENCY	FIRE EFFECT TO DOMINANT ABOVEGROUND VEGETATION	REPRESENTATIVE ECOSYSTEM
Fire Regime I	0-35 years	Low severity	Dry pine and oak forests, Pinyon-juniper forests
Fire Regime II	0-35 years	Stand replacement	Grasslands, many shrub communities
Fire Regime III	35-100+ years	Mixed severity	Shrublands, mixed conifer forests
Fire Regime IV	35-100+ years	Stand replacement	Certain lodgepole pine, dry Douglas-fir forests
Fire Regime V	200+ years	Stand replacement	High elevation whitebark pine, spruce-fir, and Pacific coastal forests

Fire Regime and Condition Class (FR/CC) – A natural Fire Regime is a general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning. It includes the combination of fire frequency, predictability, intensity, seasonality, and extent. Condition Class is a classification of the amount of departure from the natural Fire Regime.

Fire Severity – Denotes the scale at which vegetation and a site are altered or disrupted by fire, from low to high. It is a combination of the degree of fire effects on vegetation and on soil properties.

Fire-Adapted Ecosystem – An ecosystem with the ability to survive and regenerate in a fire-prone environment.

Fireline Intensity Level (FIL) – The rate of heat energy released during combustion per unit length of fire front. It is usually expressed in BTUs/second/foot.

Fuel Model – Simulated fuel complex (or combination of vegetation types) for which all fuel descriptors required for the solution of a mathematical rate of spread model have been specified.

Fuel Type – An identifiable association of fuel elements of distinctive species, form, size, arrangement or other characteristics that will cause a predictable rate.

Fuel Reduction – Manipulation, including combustion, or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control.

Hazardous Fuels – A fuel complex defined by kind, arrangement, volume, condition, and location that forms a Special threat of ignition or of suppression difficulty.

Impact Zones – Any area that the AG recognizes to be smoke sensitive and/or have an existing air quality problem. There are seven impact zones in Montana and ten in Idaho.

Implementation Plan – The design and definition of all the activities, resources, limitations, and contingencies required for successful wildland fire management.

Initial Action – The actions taken by the first resources to arrive at a wildfire.

Initial Attack – An aggressive suppression action consistent with firefighter and public safety and values to be protected.

Interdisciplinary Team – A group of individuals with different specialized training assembled to solve a problem or perform a task. The team is assembled out of recognition that no one discipline is sufficiently broad to adequately solve the problem; through interaction, participants bring different points of view and a broader range of expertise to bear on the problem.

Land/Resource Management Plan (L/RMP) – A document prepared with public participation and approved by an agency administrator that provides general guidance and direction for land and resource management activities for an administrative area. The L/RMP identifies the need for fire's role in a particular area and for a specific benefit. The objectives in the L/RMP provide the basis for the development of fire management objective and the fire management program in the designated area.

Maximum Management Area – The maximum manageable area in a Wildland Fire Implementation Plan designates the ultimate acceptable size for a given wildland fire managed for resource benefits. It provides for a closely directed fire management application in a specific area defined by resource objectives, fire and weather prescription elements, social needs, political considerations, and management capability.

Mitigation Actions – On-the-ground actions that will serve to increase the defensibility of the maximum management area (MMA); check, direct, or delay the spread of fire; and minimize threats to life, property, and resources. Mitigation actions may include mechanical and physical non-fire tasks, specific fire applications, and limited suppression actions. These actions will be used to construct firelines, reduce excessive fuel concentrations, reduce vertical fuel continuity, create fuel breaks or barriers around critical or sensitive sites or resources, create "blacklines" through controlled burnouts, and to limit fire spread and behavior.

Noxious Weeds – Any plant designated by a federal, state, or county government to be injurious to public health, agriculture, recreation, wildlife, or any public or private property. Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host for serious insects or diseases, and generally non-native.

Preparedness – Activities that lead to a safe, efficient, and cost-effective fire management program in support of land and resource management objectives through appropriate planning and coordination.

Preparedness Level – Increments of planning and organizational readiness commensurate with increasing fire danger.

Prescribed fire (Rx) – Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist and NEPA requirements must be met prior to ignition.

Prescribed Fire Plan (Burn Plan) – This document provides the prescribed fire burn boss information needed to implement an individual prescribed fire project.

Prescription – Measurable criteria that define conditions under which a prescribed fire may be ignited, guide selection of appropriate management responses, and indicate other required actions. Prescription criteria may include safety, economic, public health, environmental, geographic, administrative, social, or legal considerations.

Prevention – Activities directed at reducing the number of person-caused fires, including public education, law enforcement, dissemination of information, and the reduction of hazards.

Project Objectives – The specific results expected from completing a project.

Rehabilitation – Efforts undertaken with three years of a wildland fire to repair or improve fire damaged lands unlikely to recover to a management approved conditions, or to repair or replace minor facilities damaged by fire.

Resource Management Plan – A document prepared by BLM Field Office staff with public participation and approved by the State Director that provides general guidance and direction for land management activities.

Restoration – The continuation of rehabilitation beyond the initial three years or the repair or replacement of major facilities damaged by the fire.

Special Status Species/Sensitive Species – Those plant and animal species identified by the BLM State Director as sensitive, usually in cooperation with the State Agency responsible for managing the species. Sensitive species are also defined as those (a) which are under status review by the USFWS or NOAA Fisheries; or (b) whose numbers are declining so rapidly that

Federal listing may become necessary; or (c) with typically small and widely dispersed populations; or (d) inhabiting ecological refugia of other Specialized or unique habitats.

Special Recreation Management Area – BLM administrative units established to direct recreation program priorities, including the allocation of funding and personnel, to those public lands where a commitment has been made to provide specific recreation activities and experience opportunities on a sustained yield basis.

Strength of Force – Total firefighting resources available, during a specified period, to conduct and support firefighting operations.

Suppression – All the work of extinguishing or containing a fire, beginning with its discovery.

Threatened Species – Any species likely to become endangered within the foreseeable future throughout all or a significant portion of its range and that has been designated in the Federal Register by the Secretary of Interior as such.

Watershed – The area of land bounded by a divide, that drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel, or to a lake, reservoir, or other body of water; also called drainage basin or catchment.

Wildfire – An unplanned and unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out.

Wildfire Suppression – an Appropriate Management Response to wildfire (or an escaped wildland fire use or prescribed fire) that results in curtailment of fire spread and eliminates all identified threats from the particular fire.

Wildland – An area in which development is essentially non-existent, except for roads, railroads, powerlines, and similar transportation facilities; structures, if any, are widely scattered.

Wildland Fire – Any non-structure fire that occurs in the wildland. Three distinct types of wildland fire have been defined and include wildfire, wildland fire use, and prescribed fire.

Wildland Fire for Resource Benefit (also known as Wildland Fire Use) – The management of naturally ignited wildland fires to accomplish specific pre-stated resource management objectives in predefined geographic areas outlined in FMP's.

Wildland Fire Implementation Plan (WFIP) – A progressively developed assessment and operational management plan that documents the analysis and selection of strategies and describes the appropriate management response for a wildland fire being managed for resource benefits.

Wildland Fire Situation Analysis (WFSA) – A decision-making process that evaluates alternative wildfire suppression strategies against selected environmental, social, political, and economic criteria, and provides a record of those decisions.

Wildland Fire Use (WFU) – The application of the Appropriate Management Response to naturally-ignited wildland fires to accomplish specific resource management objectives in predefined designated areas outlined in Fire Management Plans. Operational management is described in the Implementation Plan (WFIP).

Wildland Urban Interface (WUI) – WUI is the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels (SAF, July 1990). It is synonymous with the term "intermix."

This is what the interagency group chooses to move forward with earlier this week. However, be aware that if you are using the authority of the healthy Forest Initiative (HR 1904) you need to follow the definition as described by congress within the act. Please note that the only federal agencies that fall under this authority are the BLM and Forest Service. Not FWS, NPS or BIA. Within this bill it defines the term "wildland urban interface" means:

(A) An area within or adjacent to an at-risk community that is identified in recommendations to the Secretary in a community wildfire protection plan; ***or***

(B) In the case of any area for which a community wildfire protection plan is not in effect--

(i) An area extending 1/2 mile from the boundary of an at-risk community;
(ii) An area within 1 1/2 miles of the boundary of an at -risk community, including any land that—

(I) Has a sustained steep slope that creates the potential for wildfire behavior endangering the at-risk community;

(II) Has a geographic feature that aids in creating an effective fire break, such as a road or ridge top; *or*

(III) Is in Condition Class 3, as documented by the Secretary in the project-specific environment; *and*

iii) An area that is adjacent to an evacuation route for an at-risk community that the Secretary determines, in cooperation with the at-risk community, requires hazardous fuel reduction to provide safer evacuation from the at-risk community.

APPENDICES

Appendix A – Direct Protection Area (DPA) Map
Appendix B – Implemented Fire Resources Table (IM OF&A No. 2004-028)
Appendix C – Planned/Desired Fire Resources Table (IM OF&A No. 2004-028)

Direct Protection Area (DPA) Map

(An updated DPA map will be provided when the DPA is finalized and approved for the State of California through the 5-Party Agreement.)

Bureau of Land Management Implemented Fire Resources
FY04 Fire Organization in Place at the Peak of Fire Season Table
(IM OF&A No. 2004-028)

Office: Folsom Field Office, CA

Resources	Quantity	Number of Personnel	Total Work Months
Number of Engines:	0	0	0
Number of Water tenders:	0	0	0
Number of Dozers:	0	0	0
Number of Tractors / plows:	0	0	0
Number of Fire Boats:	0	0	0
Number of Type 1 Crews:	0	0	0
Number of Helitack Crews:	0	0	0
Number of Fuels Crews:	0	0	0
Number of Type 2 Crews sponsored:	0		0
Number of Smokejumpers (AK & NIFC only):	0		0
Number of Fire Management Officers:	1		12
Number of Assistant FMOs / FCOs:	0		0
Number of Fire Operations Specialists:	0		0
Number of Dispatchers:	0		0
Number of Other Aviation Staff (Aviation Mgr., Seat Mgr, etc.):	0		0
Number of Mitigation/Education/Prevention Specialists / Techs:	1		12
Number of Resource Specialists:	0		0
Number of Fuels Specialists:	1		12
Number of Other Fire Staff:	0		0
Number of PFT funded by Preparedness:	3		
Number of Career Seasonals funded by Preparedness:	0		
Number of Temporaries funded by Preparedness:	0		
Number of PFT funded by Fuels:	3		
Number of Career Seasonals funded by Fuels:	0		
Number of Temporaries funded by Fuels:	0		

* In completing this table, only include Preparedness resource numbers funded by Fire Preparedness (2810) and reflect the peak fire organization resources for the year. Do not include resources funded under severity. The fuels related resources numbers are to include the resource funded by the non-WUI (2823) and WUI (2824) programs.

Bureau of Land Management Planned/Desired Fire Resources
(IM OF&A No. 2004-028)

Office: Folsom Field Office, CA

Resources	Quantity	Number of Personnel	Total Work Months
Number of Engines:	0	0	0
Number of Water tenders:	0	0	0
Number of Dozers:	0	0	0
Number of Tractors / plows:	0	0	0
Number of Fire Boats:	0	0	0
Number of Type 1 Crews:	0	0	0
Number of Helitack Crews:	0	0	0
Number of Fuels Crews:	0	0	0
Number of Type 2 Crews sponsored:	0		0
Number of Smokejumpers (AK & NIFC only):	0		0
Number of Fire Management Officers:	1		12
Number of Assistant FMOs / FCOs:	0		0
Number of Fire Operations Specialists:	0		0
Number of Dispatchers:	0		0
Number of Other Aviation Staff (Aviation Mgr., Seat Mgr, etc.):	0		0
Number of Mitigation/Education/Prevention Specialists / Techs:	2		24
Number of Resource Specialists:	3		18
Number of Fuels Specialists:	2		24
Number of Other Fire Staff:	0		0
Number of PFT funded by Preparedness:	6		
Number of Career Seasonals funded by Preparedness:	0		
Number of Temporaries funded by Preparedness:	0		
Number of PFT funded by Fuels:	6		
Number of Career Seasonals funded by Fuels:	0		
Number of Temporaries funded by Fuels:	0		