



Bureau of Land Management Bishop Field Office

Fire Management Plan 2004

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ACRONYMS

ACEC	Area of Critical Environmental Concern
AMR	Appropriate Management Response
AOP	Annual Operating Plan
BA	Biological Assessment
BFO	Bishop Field Office
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
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
DPA	Direct Protection Area
EA	Environmental Analysis
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESR	Emergency Stabilization and Rehabilitation
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
IAA	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
OVICC	Owens Valley Interagency Communication Center
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
VFD	Volunteer Fire Department
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) Bishop Field Office's Fire Management Plan (BFO-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 BFO-FMP will also reflect and integrate fire management direction from the Bishop Field Office Resource Management Plan (RMP), subsequent amendments to this RMP, and other applicable Bishop Field Office Special Management and/or Activity Plans.

This FMP identifies resource values and conditions pertaining to fire management in the Bureau of Land Management (BLM) and Bishop Field Office (BFO). 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 BFO 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 Bishop Field Office Resource Management Plan (RMP) of 1993. 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.

A Glossary of Terms is provided at the end of this document to assist in clarifying technical terms.

B. Environmental Regulation Compliance

The Bishop Field Office RMP Decision Record was signed in March 1993, and met the National Environmental Policy Act (NEPA) requirements, as well as other State and Federal regulatory requirements. This FMP is a programmatic document which consolidates land and resource management decisions related to fire and fuels management from the RMP. The FMP then describes the fire and fuels management strategies to be used to fulfill RMP direction. In addition, the FMP applies a science-based understanding of the role fire plays in various ecosystems and the effects of long-term fire exclusion in fire-adapted ecosystems. The FMP also considers recent national direction and legislation which stresses public and firefighter safety, hazardous fuels reduction, and community protection from wildland fire. The FMP prescribes additional land and resource management strategies and treatments to meet this recent direction. To fully incorporate the FMP, when and where appropriate, as a programmatic element of the RMP and comply with NEPA, an Environmental Assessment (EA) and Decision Record will be prepared, amending the RMP. Project plans will be prepared and an appropriate level of environmental analysis will be conducted before site-specific treatments prescribed by the FMP are implemented.

As stated in the Interagency Strategy for the Implementation of Federal Wildland Fire Management Policy (June 3, 2003): "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." The BFO Fire Management Plan will 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). It was developed as a fire management plan that strategically meets the fire management guidance of the RMP and applicable environmental laws and regulations. It 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, objectives and actions outlined in the Bishop Field Office Resource Management Plan (RMP). The management direction outlined in this fire management plan is covered by the NEPA analysis that was completed for this land use plan. Revisions, additions, and adjustments to the FMP that are in conformance with the RMP may be made. Additional NEPA analysis will be conducted on any revision, addition or adjustment that is not adequately analyzed in other planning/NEPA documents.

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.

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 with Other Agencies and Groups

The geographic scope of this FMP includes only Bureau of Land Management (BLM) lands administered by the Bishop Field Office. To promote interagency coordination and efficiency at the planning stage, these BLM lands have been consolidated into a larger geographically and administratively logical area defined as the Fire Planning Unit (FPU). This FPU includes much of the Federal land within California lying east of the Sierra Nevada, from Topaz Lake in the north, to just south of Owens Lake in the south.

The National Directives, identified in the Purpose section above, mandates that all federal agencies managing public lands complete a FMP. The BLM’s FMP development will include coordination and collaboration with affected federal, state, and local agencies, tribal governments, and other groups and organizations.

Most land in and adjoining the FPU are publicly administered - - - either by the U.S. Forest Service, the National Park Service, or different administrative units of the BLM. Remaining lands are managed by the State of California and the City of Los Angeles’ Dept. of Water and Power, with isolated rural communities, Native American reservations, and subdivision tracts sprinkled throughout the region. Over 90% of the land in the FPU is administered by public agencies. The land ownership complexity of the fire-prone public lands in the region necessitates a collaborative and coordinated approach with respective agencies to manage fire effectively and efficiently. Additionally, coordination with Native American representatives,

rural community fire district personnel, and county fire representatives to safeguard private property and life has been incorporated within this FMP's development.

Lands administered by the following agencies and Native American tribes are within or adjacent to the FPU:

- Bureau of Land Management – Bishop Field Office
- Bureau of Land Management – Ridgecrest Field Office
- Bureau of Land Management – Carson City District Office
- Inyo National Forest
- Toiyabe National Forest – Bridgeport Ranger District
- National Park Service – Manzanar National Historic Site
- National Park Service – Devil's Postpile National Monument
- Calif. State Parks - Bodie State Historic Park
- Calif. Dept. of Fish and Game
- Calif. Dept. of Forestry
- Calif. Dept. of Transportation
- Los Angeles Department of Water and Power
- Washoe Tribe
- Coleville Tribe
- Bridgeport Indian Colony
- Mono Lake Indian Community
- Benton Paiute Reservation
- Bishop Indian Tribal Council
- Big Pine Band of the Owens Valley
- Fort Independence Band of Paiute Indians
- Lone Pine Paiute – Shoshone Reservation
- Timbisha Shoshone Tribe

The Bishop Field Office and Inyo National Forest operate an interagency fire program. Personnel from each agency have attended FMP meetings, and are very familiar with the other agency's plans. FMU boundaries and fire management strategies have been examined to assure compatibility between the two agencies. Joint fire suppression and fuels reduction have been occurring for several years. In addition to collaborative implementation, planning of landscape-level inter-agency projects is expected to increase.

Written correspondence has occurred between the Bishop Field Office and National Park Service representatives at Manzanar National Historic Site and Devil's Postpile National Monument. BLM lands in the vicinity of Manzanar will be managed similarly to those lands within the Historic Site. The FMP's for both agencies recognize the importance of protecting the Historic Site from wildland fire. Opportunities exist for collaborative efforts to reduce hazardous fuels and provide better protection for the Historic Site. All documentation of correspondence is located in the FMP casefiles in BFO.

Lands managed by the Bishop Field Office and those managed by the National Park Service at Devil's Postpile are widely separated geographically, and have little in common. Opportunities for collaboration are minimal.

In the past, the Bishop Field Office has collaborated with Bodie State Park personnel to share resources, perspectives, provide fire-related training and equipment, etc. The Bishop Field Office manages most of the public lands which surround the ghost town of Bodie. Bodie State Park's isolation and distance have made it necessary to equip State Park personnel with training, skills and equipment to initiate pre-suppression measures and fire suppression tactics until BLM fire personnel and equipment arrive.

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 2000a)
- Review and Update of the 1995 Federal Wildland Fire Management Policy (USDA and USDI
- 10 Year Comprehensive Strategy Implementation Plan (USDA and USDI 2002a)
- 10 Year Comprehensive Strategy (USDA and USDI 2001b)
- Burn Area Emergency Stabilization and Rehabilitation Handbook (USDA and USDI 2002b)
- 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 2000)
- 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 FIRE POLICY AND LAND MANAGEMENT PLANNING

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 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 utilizes 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 reseeded."

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 BFO.
2. Terms and conditions of consultation with the USFWS, NOAA Fisheries, and CDFG to promote species recovery in the BFO.
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 statutes, 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.

These policies are not limited to BLM activities that affect non-Federal land. 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 land. Fire management planning and activities on site-specific projects that involve non-Federal land shall consider this responsibility.

B. Conformance with Bishop Field Office RMP

Under the “Area-Wide RMP Decisions” (p. 16 of the RMP Record of Decision (ROD)), the following fire management-related statements are listed as “Support Needs,” and are necessary to achieve many of the RMP’s other decisions:

- Modify the fire suppression plan to incorporate fire-related decisions. Include burn prescriptions to allow for the implementation of limited and modified suppression techniques (p.23, ROD).
- Use prescribed burning to support desired plant community, fire prevention and wildlife habitat goals (p.23, ROD).

This FMP specifically addresses and fulfills these needs.

The Bishop Field Office RMP contains the following “Area Manager’s Guidelines” (p. 9, ROD):

- Vegetation will be a key element in the plan and management will be directed toward the achievement of desired plant community goals (p.9, ROD).
- Rehabilitation of riparian areas will receive high priority for project implementation. Efforts will be made to return all watersheds in declining condition to equilibrium (p.9, ROD).
- Actions that interfere significantly with efforts to maintain or enhance mule deer winter range will generally not be allowed (p.9, ROD).
- Actions that interfere significantly with efforts to maintain or enhance sage grouse habitat will generally not be allowed (p.9, ROD).
- Fire management plans and policies will emphasize suppression cost reduction and fire prevention at the urban-wildland interface (p. 10, ROD).

This FMP supports and conforms to these guidelines.

The Bishop Field Office RMP contains the following “Standard Operating Procedures” (p. 10, ROD):

- Burned areas will be rested for three growing seasons before grazing (p. 12, ROD).

- Manage candidate species, sensitive species and other species of management concern in a manner to avoid the need for listing as a state or federal endangered or threatened species (p. 12, ROD).

This FMP supports and conforms to this direction.

The following fire management-related decisions are found in the “Area-Wide RMP Decisions” (p.16, ROD):

- Limit the intensity of fire suppression efforts to the most economical response consistent with human and resource values at risk (p. 22, ROD).
- Prohibit the use of bulldozers and other heavy equipment in old growth timber stands, prominent viewsheds, riparian areas, aspen groves, cultural sites, Areas of Critical Environmental Concern (ACEC’s), mule deer winter ranges, the Alabama Hills, and the entire South Inyo and Owens Lake Management Areas. This restriction may be lifted by the Area Manager to protect human life, private property, structures, visitor safety or sensitive or valuable resources (p. 22, ROD).

This FMP supports and conforms to these decisions.

The following fire management-related decisions are specific to individual Management Areas, as described in the RMP.

- Protect and interpret the historic Golden Gate Mine site (p. 26, ROD).
- In the Bodie Hills Management Area, employ full fire suppression techniques against all wildfires (p. 33, ROD).
- Protect, stabilize and interpret the Salt Tram (p. 49, ROD).

This FMP supports and conforms to these decisions.

C. Wilderness/Wild and Scenic Rivers

The FMP will adhere to all wilderness rules, policies, and guidelines related to fire and fuels management for the Inyo Mountains Wilderness. This wilderness is managed by the Inyo National Forest, and the Bishop and Ridgecrest BLM Field Offices. This FMP will develop consistent overall fire and fuels management strategy for those portions of the Inyo Mountains Wilderness managed by the Bishop Field Office and the Inyo National Forest.

The Inyo National Forest fire policy for the Inyo Mountains Wilderness is “Wildland Fire Use,” i.e. allowing naturally ignited fires to burn under favorable conditions to enhance or maintain the wilderness’ ecological processes. This FMP also prescribes Wildland Fire Use for the Inyo Mountains Wilderness, consistent with the Forest Service and wilderness laws, regulations, and policy.

The Ridgecrest Field Office manages the east slope of the Inyo Mountains Wilderness. The Ridgecrest Field Office follows land use prescriptions identified in the California Desert Plan (1980) which directs “full suppression” actions for natural wildfires in wilderness. The California Desert Plan operates under a different timeline and planning cycle than this current

planning effort. Therefore, it is recommended that the Ridgecrest Field Office update their FMP in their next planning cycle to be consistent with other agencies. Currently, a BLM Wilderness Implementation Strategy exists for the Inyo Mountains Wilderness.

A small portion of the Inyo Wilderness is managed by Death Valley National Park. This part adjoins the Ridgecrest Field Office and the Inyo National Forest wilderness portions.

Eighteen Wilderness Study Areas (WSA's) totaling approximately 234,500 acres are located throughout the field office area. The treatment of WSA's and protection of their wilderness character will be addressed in this FMP similarly as to that described in the Final Bishop Field Office RMP/Final EIS (1991).

The RMP provides an historic overview of the wilderness review process and clarifies how protection of WSA characteristics will be addressed in the RMP. In conformance with the RMP, this plan will prescribe long term direction for fire and fuels management in the WSA's. Until the Congress and the president either designate these areas as wilderness or make them available to non-wilderness uses, FMP decisions and fire management actions will be implemented only if they are consistent with the Interim Management Policy for Lands under Wilderness Review (H-8550-1). In summary, WSA's as an issue will be dropped from further analysis in this plan.

Further analysis of impact to wilderness values will be addressed in upcoming project implementation plans and associated environmental documents.

Similarly, eleven wild and scenic study rivers that were determined eligible in the Bishop Field Office RMP are protected by interim management guidelines identified in Appendix 2 of the RMP (1991). Further analysis of impacts to riparian and waterway resource values will be analyzed in upcoming project implementation plans and associated environmental documents and are subject to protection under the interim management guidelines. As with the WSA's, any FMP decision will be implemented only if they are consistent with the guidelines for study rivers.

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. This includes the Fish Slough, Travertine, and Bodie Bowl ACEC's.

III. WILDLAND FIRE MANAGEMENT STRATEGIES

A. *General Management Considerations*

In order to comply with direction provided in the legislation, policies, and plans listed under Section II above, the FMP will incorporate the following fire management guidance:

- Identify the Appropriate Management Response (AMR) goals, objectives, and constraints by specific Fire Management Unit (FMU) within the FPU. All wildland fire activities will be managed as described in the FMU guidance outlined in Chapter III, Section D of this document.
- Work collaboratively with at-risk communities and other communities of interest within the Wildland-Urban Interface (WUI) to develop plans for risk reduction.
- Work collaboratively with local and regional partners (Inyo National Forest, National Park Service units, California Department of Forestry, and Los Angeles Department of Water and Power) to develop cross-boundary management strategies and prioritize interagency fire management actions.
- Use prescribed fire, mechanical, chemical, and/or biological treatments to meet management goals and objectives.
- Use or manage fire to restore and/or sustain ecosystem health based on sound scientific principles and information, balanced with other resource management goals and societal goals, including health and safety, and air quality.
- In those areas of the Bishop Field Office under California Department of Forestry (CDF) protection, coordinate with CDF to develop AMR actions for wildland fires on or threatening BLM lands. Ensure emphasis on minimizing loss of life and damage to private property, minimizing environmental damage due to suppression efforts, firefighter and public safety, and other resource values.
- Employ prevention strategies that reduce human ignitions, with special emphasis in campgrounds, WUI's, and along transportation corridors

As a federal land management agency, the BFO 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 BFO manages public lands within one interagency FPU for California.

Fire Planning Unit Descriptive Name	FPU Member (Field Unit Name)	Agency Lands in the FPU (acres)
California FPU 9	Bishop Field Office, BLM	747,936
	Devil's Postpile National Monument, NPS	798
	Manzanar National Historical Site, NPS	800
	Inyo National Forest, USFS	2,308,732

In order to comply with direction provided in current National Fire Plan guidance, the 1995 and 2001 Federal Wildland Fire Policies, the Bishop RMP, and other subordinate land use plans, all agencies are directed to implement the following fire management guidance across fire planning units (FPU):

- Use fire to restore and/or sustain ecosystem health.
- Identify appropriate management response goals, objectives, and constraints by specific Fire Management Units (FMU) with the FPU. All wildland fire management activities will be managed as described in the FMU guidance outlined in Chapter III, section D.
- Cooperate with communities at risk within the wildland urban interface (WUI) to develop plans for risk reduction. The federal Register Notice is located at: <http://www.fireplan.gov/> and is not totally inclusive of all communities. The new list is now coordinated through the California Fire Alliance at <http://www.cafirealliance.org/>
- Cooperate with regional partners in fire and resource management across agency boundaries.
- Allow wildland fire to protect, maintain and enhance resources. Allow fire to function in its ecological role when appropriate for the site and situation.
- Employ fire prevention strategies that reduce human ignition with special emphasis in developed areas such as communities, campgrounds, and transportation corridors.
- Use fire as a management tool to improve the ecological condition of a range of ecosystems and maintain natural plant community diversity.

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)

FMU's may have dominant management objectives and pre-selected fire suppression strategies assigned to accomplish these objectives. Objectives for wildland fire ignitions are defined in terms of appropriate management responses of containing unplanned ignitions at X acres XX% of the time. BFO fire management objectives are further defined through the use of Fire Intensity Levels (FILs). As an expression of fire intensity, FILs are used to define differences in the difficulty of fire suppression, as well as fire effects and impacts on natural resources. FILs are based on flame lengths that are calculated in a fire behavior model. Flame length is described as the average length of the flame front of the fire as measured from the ground to the flame tips. Flame length is largely determined by fuel type and is used as an indicator of fire intensity, with higher flame lengths indicating greater fire intensity. FIL ranges are described as follows:

- FIL 1 = 0-2 ft. flame lengths
- FIL 2 = 2-4 ft. flame lengths
- FIL 3 = 4-6 ft. flame lengths
- FIL 4 = 6-8 ft. flame lengths
- FIL 5 = 8-12 ft. flame lengths
- FIL 6 = > 12 ft. flame lengths

Fire management objectives for most BFO FMUs are expressed as allowing more acres burned per ignition at low FILs, and fewer acres burned per ignition at higher FILs. This objective reflects the desire to allow larger wildland fires at low FILs when burning conditions are less severe. Fires burning at low FILs should create more of a mosaic burn pattern resulting in lower plant mortality and soil damage. Allowing fewer acres burned at high FILs reflects the desire to reduce risk to firefighter and public safety, damage to resource values and private property during severe burning conditions. Severe burning conditions normally occur at critical times of the year when the national fire situation is at its worst, and fire management resources can be in high demand.

Note: see Chapter III, Section D for descriptions of the BFO FMUs.

B. Wildland Fire Management Goals

As stated in Chapter II, the Bishop Field Office will conduct 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 include:

- Firefighter and public safety are always the highest priority in every fire management activity.
- Use the AMR in all wildland fire suppression actions.
- Where permitted under this FMP and appropriate conditions exist, allow naturally ignited wildfires to burn and perform their ecological function.
- Conduct all fuels reduction and other vegetation treatment projects using prescribed fire, mechanical, or other means in a safe, timely, and effective fashion. Emphasize project work in the WUI, municipal watersheds, and to protect, maintain, and enhance other resources.
- Conduct community risk assessments in terms of direct wildland fire impact and economic values. Use collaborative planning, projects, and education programs to mitigate identified risks.
- Coordinate fire management activities among all agencies within and adjoining the FPU. Maintain existing partnerships and continue to seek out new partnerships.
- Incorporate an inter-disciplinary approach to fire and fuels management decision-making.
- 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.

C. Wildland Fire Management Options

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

- Wildland Fire Suppression – Appropriate Management Response
- Wildland Fire Use
- Prescribed fire
- Non-Fire Treatments - includes mechanical, biological, and chemical means
- Post Fire Rehabilitation and Restoration
- Community Protection, Community Assistance and Rural Fire Assistance

The Bishop Field Office will provide an Appropriate Management Response (AMR) on all wildland fires that occur within the FPU. Emphasis will be placed on firefighter and public

safety, minimizing environmental damage as a result of suppression activities, and protecting private property, economic benefits and resource values consistent with BLM policy, resource objectives, and standards and guidelines.

The Bishop Field Office and its cooperators will respond to each wildland fire in a timely manner with appropriate suppression resources, based on established fire management direction, interagency agreements, and Field Office Manager-approved Operating Plans.

AMR actions will be pre-defined in fire management plans and other operating plans. This pre-planning allows for the development of fire management strategies which meet the objectives established in the RMP.

Through a Cooperative Fire Protection Agreement, CDF has protection responsibilities for Bishop Field Office lands in Inyo County. BLM and CDF will coordinate to develop incident objectives and implement the AMR for wildland fire on or threatening BLM land. Coordination will occur through Annual Operating Plans and on an incident-by-incident basis.

D. Fire Management Strategies by Fire Management Unit (FMU)

All BLM lands managed by the Bishop Field Office are covered under this FMP. These lands have been split into seven Fire Management Units (FMU's). See the map on page 29. Specific fire management direction is based on the FMU. For each FMU, the following are maximum treatable/burnable acreage percentages for each vegetative community during the 10-year time period. These acreage percentages are based on vegetation inventory data and Desired Plant Community goals, as described in the Bishop Field Office RMP (1993).

- Desert Scrub - 1%
- Shrub Steppe - 10% (Wyoming sagebrush - 5%)
- Pinyon -Juniper - 30%
- Aspen - 15%
- Mixed Conifer Forest - 10%

If the treated/burned acreage exceeds the allowable percentage, no further treatments outside the WUI will be allowed in the vegetative community during the 10-year period.

Determining Fire Management Units (FMU's)

Fire management goals and strategies for each FMU were developed by the BFO staff to protect and enhance the natural and cultural resources and key values at risk. Wildland fire management goals from Chapter III, Section B, were incorporated into development of each FMU objectives and strategy. 100% protection of values at risk and communities at risk will be the primary objective in all program components. Fire fighter and public safety is included in this primary objective.

Fire Management Actions Common to All BFO FMUs

In order to comply with direction provided in current National Fire Plan guidance, the Bishop Field Office, and the cooperating agencies will work collaboratively with regional partners in

fire and resource management 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 facilities in 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 within the WUI to develop plans for risk reduction.

Where appropriate, use wildland fire 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 Bishop Field Office (BFO) will provide an AMR on all wildland fires that occur within the fire management jurisdiction of the Field Office. BFO 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 Section III 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) must 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 FMU's.

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 practicable, 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 practicable, 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 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.

Summary of Fire Management Unit Types for Bishop Field Office

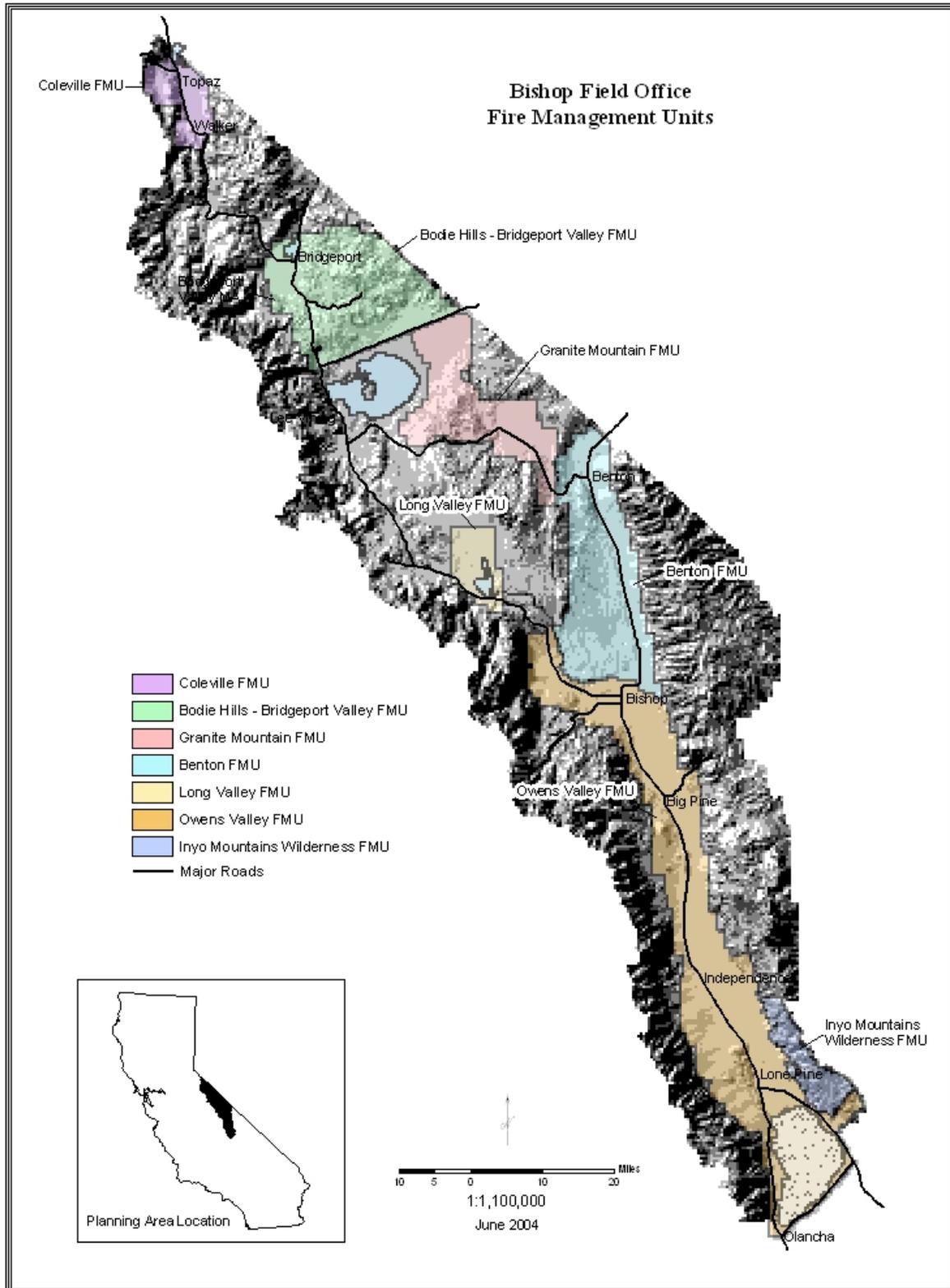
FMU Number	FMU Name	FMU Category/Type
CA-170-01	Coleville	WUI
CA-170-02	Bridgeport Valley - Bodie Hills	WUI
CA-170-03	Granite Mountain	HVH
CA-170-04	Long Valley	WUI
CA-170-05	Benton	WUI
CA-170-06	Owens Valley	WUI
CA-170-07	Inyo Mtns. Wilderness	Wilderness (WFU)

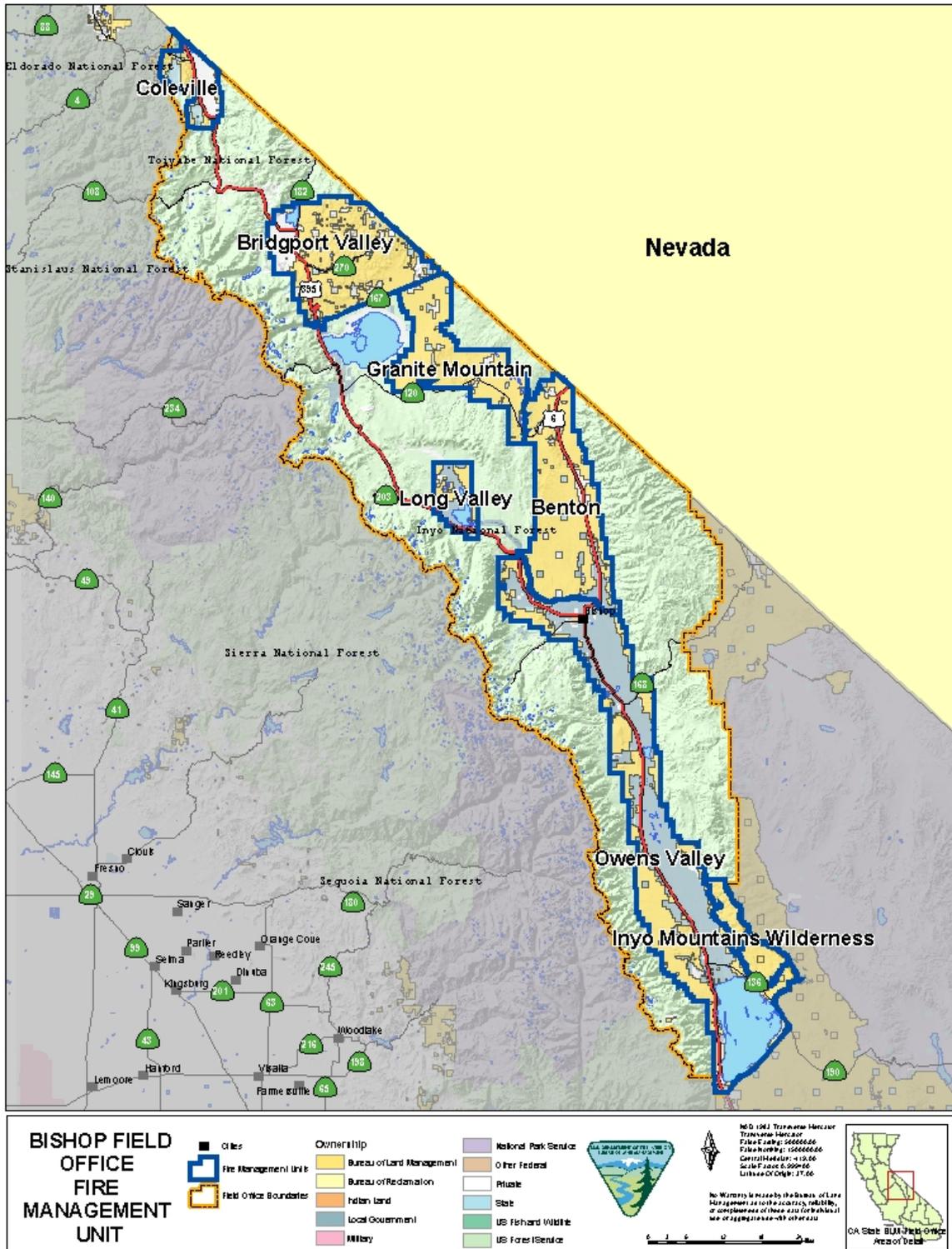
Summary of Quantifiable Fire Management Objectives by FMU for Bishop Field Office

FMU Name and 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**
Coleville CA-170-01	1 ac. @ 90%	1% (215 ac.)	N/A	3% (644 ac.)	3% (644 ac.)	1
Bridgeport Valley - Bodie Hills CA-170-02	1 ac. @ 90%	2% (3,182 ac.)	N/A	15% (23,868 ac.)	15% (23,868 ac.)	2
Granite Mountain CA-170-03	10 ac. @ 90%	2% (2,698 ac.)	N/A	10% (13,488 ac.)	10% (13,488 ac.)	3
Long Valley CA-170-04	1 ac. @ 90%	1% (178 ac.)	N/A	5% (889 ac.)	5% (889 ac.)	1
Benton CA-170-05	1 ac. @ 90%	2% (3,558 ac.)	N/A	10% (17,788 ac.)	10% (17,788 ac.)	2
Owens Valley CA-170-06	1 ac. @ 90%	2% (3,814 ac.)	N/A	3% (5,721 ac.)	3% (5,721 ac.)	1
Inyo Mtns. Wilderness CA-170-07	100 ac. @ 90%	5% (2,251 ac.)	10% (4,503 ac.)	1% (450 ac.)	1% (450 ac.)	4

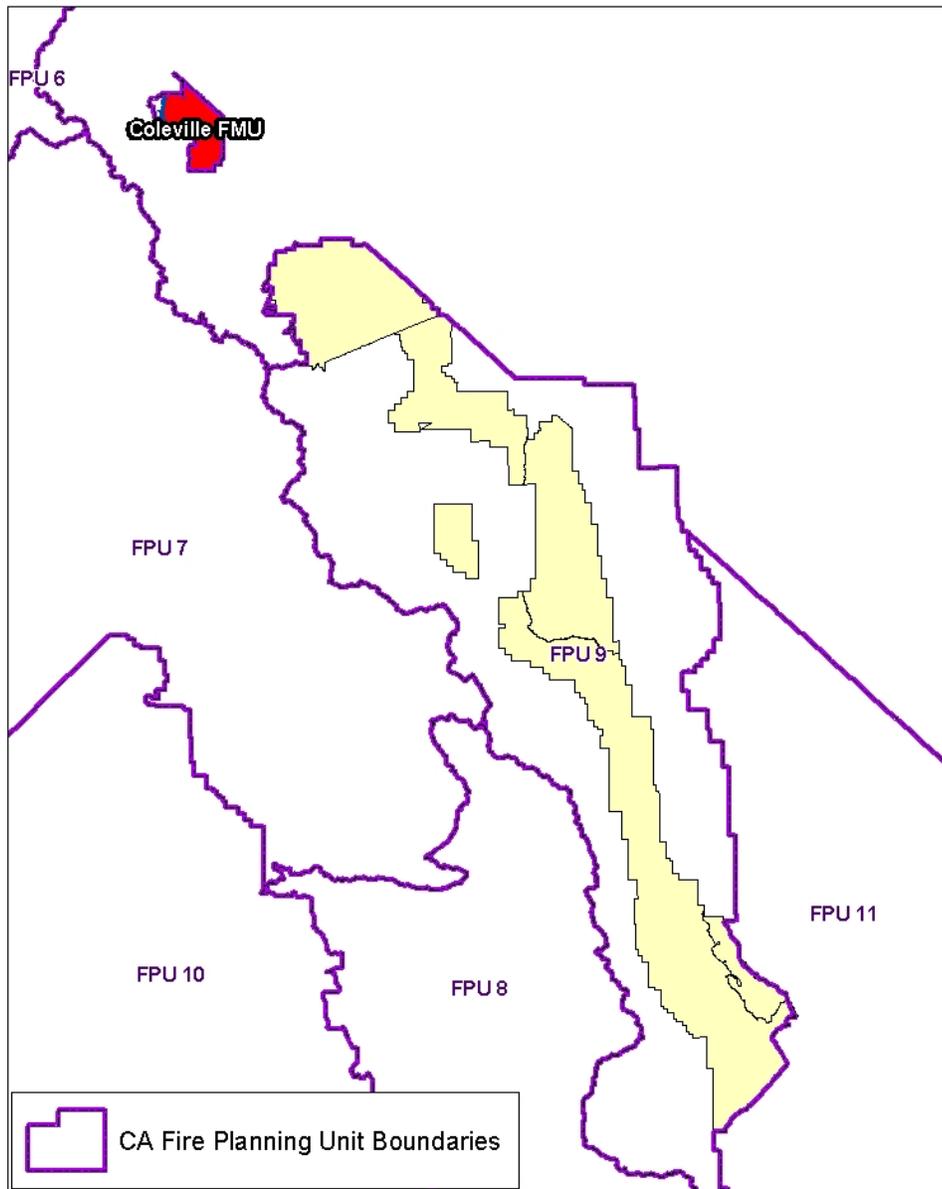
* Rx Fire and Non-Fire Treatment acres are to be combined. Combined total may not exceed individual decadal maximum.

** FPA Suppression Priority rates the FMU's relative priority for assigning fire suppression resources if multiple ignitions occur with limited resources available. Ratings are from 1 to 5, with 1 the "highest" priority and "5" the "lowest".

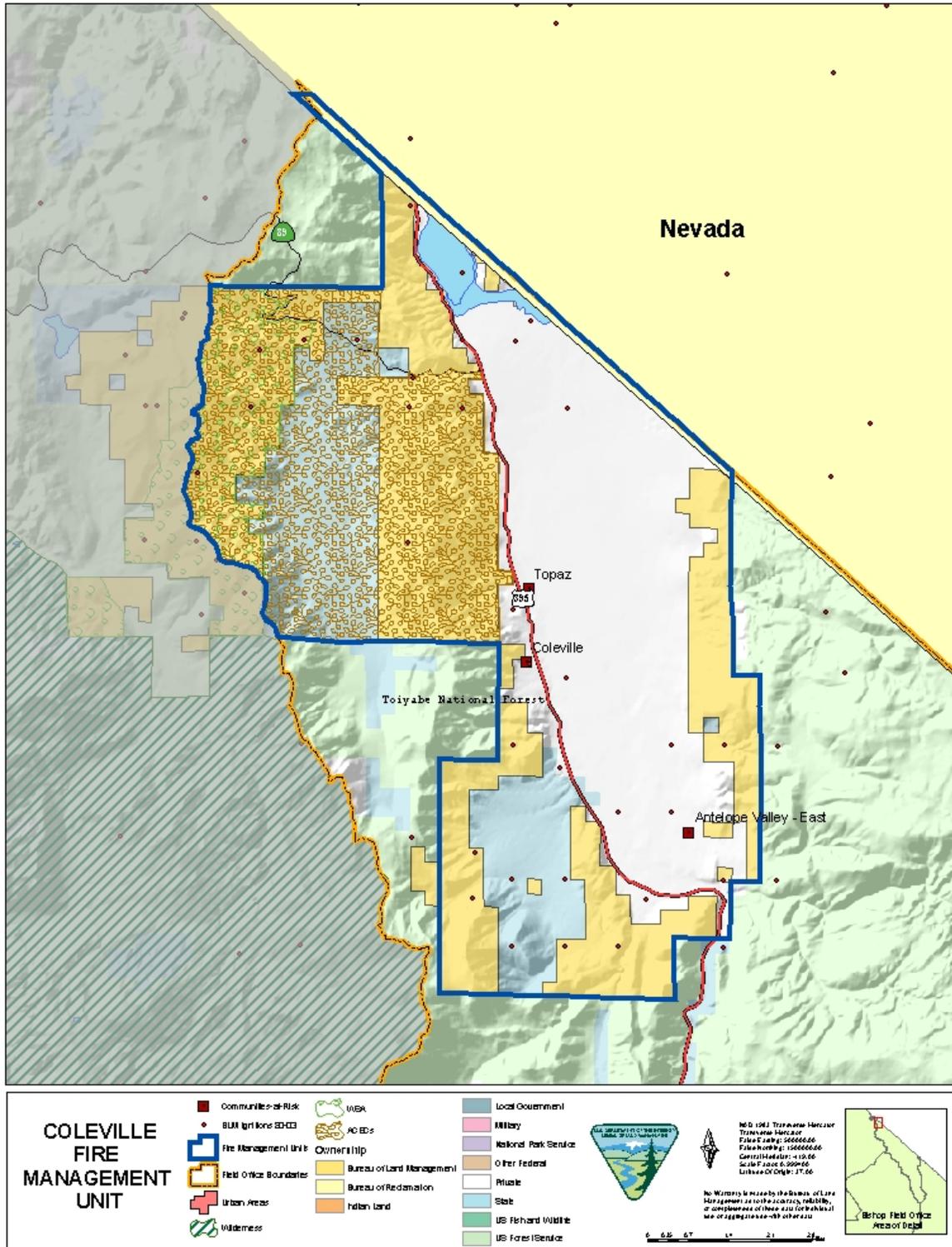




Coleville FMU



CA-170-01



FMU I.D. No.: CA-170-01 Coleville

FMU Type: WUI

FMU Location Information:

- **Geographic boundaries:** This 51,197-acre FMU is located within the West Walker River watershed. The FMU includes the communities of Walker, Coleville, and Topaz in Mono County. This FMU encompasses the entire Coleville Management Area, as defined in the Bishop RMP and includes the Slinkard Valley ACEC and Slinkard WSA.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-170-01	Coleville	
Ownership	Acres	Percent
Bureau of Land Management	21,474	42
Other Federal/State/Private, etc.	29,723	58
Total Acres	51,197	

FMU Characteristics:

This FMU consists of mountain ridges and slopes with well defined access routes. Elevations range from 5,000 ft. to 8,000 ft. Major plant community types in this FMU include pinyon pine woodlands, sagebrush steppe, mountain mahogany, old growth white fir and Jeffrey Pine forest, aspen, meadow and riparian. Cheat grass invasions have occurred in large portions of the FMU due to recent, large wildland fires. This cheat grass invasion will alter the natural Fire Regime in these areas. No livestock grazing occurs in Little Antelope Valley or the area east of East Side Lane. The remainder of the FMU has limited areas for grazing and is closed to grazing until 2005, due to recent fires.

Soils are comprised of granitic and volcanic parent materials with ridges and mountain slopes susceptible to erosion during major precipitation events, especially in recently burned sites. There are numerous small canyons and intermittent streams that bisect the FMU, with soil textures ranging from rocky to loamy sand. Three major streams occur in the FMU and provide recreational trout fishing. Additionally, Mill Creek and Slinkard Creek provide habitat for Lahontan cutthroat trout and part of the West Walker River has been designated by the State of California as a Wild and Scenic River.

Fire Occurrence and History:

Fire History Ignitions by Size Class		CA-170-01
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	45	4.4
B (0.3 - 9.9)	11	26
C (10 - 99.9)	8	304
D (100 - 299.9)	0	0
E (300 - 999.9)	2	1,034
F (1000 - 4999.9)	3	5,050
G (5000+)	2	31,660
Total	71	38,078

In the period from 1980 thru 2002, 71 wildland fires occurred wholly or partially within this FMU, burning a total of 38,078 acres (includes acres burned outside the FMU boundary). Fire cause was 56% natural (lightning), 38% human-caused and 6% unknown.

All seven of the Size Class E, F, and G fires occurred in either 1996 or 2002. Normal fire season is May 1st thru October 31st.

Fire Regime and Condition Class:

- Shrub steppe is 3/2
- Pinyon/juniper woodlands are 3/3
- Mixed conifer is 4/3.

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

Major plant community types in this FMU include pinyon pine woodlands, sagebrush steppe, mountain mahogany, old growth white fir and Jeffrey Pine forest, aspen, meadow and riparian. Cheat grass invasions have occurred in large portions of the FMU due to recent, large wildland fires. This cheat grass invasion will alter the natural Fire Regime in these areas.

A wide variety of fuel models are represented in the Coleville FMU, covering the grass, shrub, and timber groups. Past large fires have created extensive areas of cheat grass (Fuel Model 1). In other areas, annual grasses mix with native shrubs to produce Fuel Model 2 conditions. Shrub steppe areas fall under Fuel Model 6, and mixed conifer forests west of Slinkard Valley are represented by Fuel Model 10.

This FMU is significantly affected by the orographic influences of the Sierra Nevada. Warm, dry summers are typical. Relative humidity is usually low, and live fuel moisture typically drops to 60 – 80% by late summer and early fall. Thunderstorms are common and frequently these storms produce little or no rain. Multiple ignitions caused by dry lightning are common during these periods. Additionally, these thunderstorms are usually accompanied by strong, erratic winds.

Fire behavior is generally moderate, but in the vicinity of thunderstorms or other periods of high wind, fire behavior readily becomes extreme. Daytime winds are normally upslope and

up canyon, with late afternoon shifts to down slope, down canyon. Very strong winds associated with cold fronts moving through the area are not uncommon on the east side of the Sierra Nevada, particularly in the spring and fall.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
 - Old growth mixed conifer forests
 - Golden Gate Mill historical structures (eligible for listing on National Register of Historic Places)
 - Lahontan cutthroat trout habitat and hatchery
 - Mountain beaver habitat
 - Sage grouse habitat
 - Mule deer winter range
 - Aspen and riparian habitat
 - Loss of native plant species to conversion to cheat grass
 - Forage for domestic livestock grazing
 - Fences
 - Unidentified cultural sites
 - Slinkard ACEC
 - Slinkard Wilderness Study Area (WSA)
 - Highway 395 Scenic Byway
 - DFG structures in Slinkard and Little Antelope Valleys
 - Private property
 - Power line right-of-ways

Human Environment/Communities at Risk:

Communities in the Coleville FMU are primarily comprised of permanent residents who live and work within the FMU or nearby commuting area. The FMU has a recent history of large, damaging wildland fires, and most homeowners recognize the need for and benefits from defensible space and community fuels reduction work. Traditional home defense brochures, press releases and flyers work well in this FMU. Posted flyers at local gathering place's, such as post offices, general stores, or other businesses, serve as an excellent method for information distribution. The small town atmosphere helps spread information by word-of-mouth and e-mail. The audience is mainly town residents, ranchers, and recreationists.

Communities at risk from wildland fire include: No organized fire safe councils currently exist in this FMU.

- Camp Antelope
- Coleville
- Topaz
- Walker
- Homes along Eastside Lane

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

"The protection of human life is the single, overriding priority. Setting priorities to protect 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. (Federal Wildland Fire Management Policy, 1995/Updated 2001)"

Wildland Fire Burned Acre Constraints/Targets:

- FMU target Individual Wildland Fire Size: **1 acres**
- FMU Target Wildland Fire Acres Burned Per Decade: **215 acres (1%)**
- **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.
 - 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:**
 - Bulldozers and other heavy equipment are only used in old growth timber stands, prominent viewsheds, riparian areas, aspen groves, cultural sites, ACEC's, and mule deer winter ranges with authorization from the Field Office Manager, and only to protect human life, private property, structures, visitor safety, or other, sensitive or valuable resources
- **Special Fire Mgt. Considerations/Areas:**
 - Wildland urban interface
 - Old growth mixed conifer forest
 - Areas invaded by cheat grass
 - Areas of pinyon pine encroachment into shrub steppe

Wildland Fire Suppression Strategies:

- At all Fire Intensity Levels (FIL), **90%** of all unplanned ignitions are kept under **1 acre** in size
- If the **1% (215 acres) decadal threshold for acres burned by wildland fire** is met, a review of objectives and strategies will be initiated to develop new criteria for suppression of wildland fires and prescribed fire and non-fire fuels treatments
- Use Appropriate Management Response (AMR) to meet suppression objectives listed above, based on current conditions and fire location
- 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
- 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 Bishop Field Office 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:**

- No more than 3% of BLM lands (**644 acres, not including maintenance treatments of WUI fuel breaks**) are treated via prescribed fire and/or non-fire means over the 10-year period
- Treatment emphasis will be in WUI, old growth mixed conifer forest, areas invaded by cheat grass, and areas of pinyon pine encroachment into shrub steppe
- Prescribed fire emissions remain within those allowed by state and local air quality regulators

Prescribed Fire Strategies:

- Treat up to 3% of BLM lands (**644 acres, not including maintenance treatments of WUI fuel breaks**) via prescribed fire and/or non-fire means over the 10-year period
- 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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Non-Fire Fuels Treatment Objectives and Strategies:**Non-Fire Fuels Treatment Objectives:**

- No more than 3% of BLM lands (**644 acres, not including maintenance treatments of WUI fuel breaks**) are treated via non-fire and/or prescribed fire means over the 10-year period
- Treatment emphasis will be in WUI, old growth mixed conifer forest, areas invaded by cheat grass, and areas of pinyon pine encroachment into shrub steppe

Non-Fire Fuels Treatment Strategies:

- Treat up to 3% of BLM lands (**644 acres, not including maintenance treatments of WUI fuel breaks**) via non-fire and/or prescribed fire means over the 10-year period
- An interdisciplinary approach is used to determine the best site-specific non-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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses

- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Post Fire Rehab & Restoration Objectives and Strategies:

Post Fire Rehab & Restoration Objectives:

- 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 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 Objectives and Strategies:

Community Protection/Community Assistance Objectives:

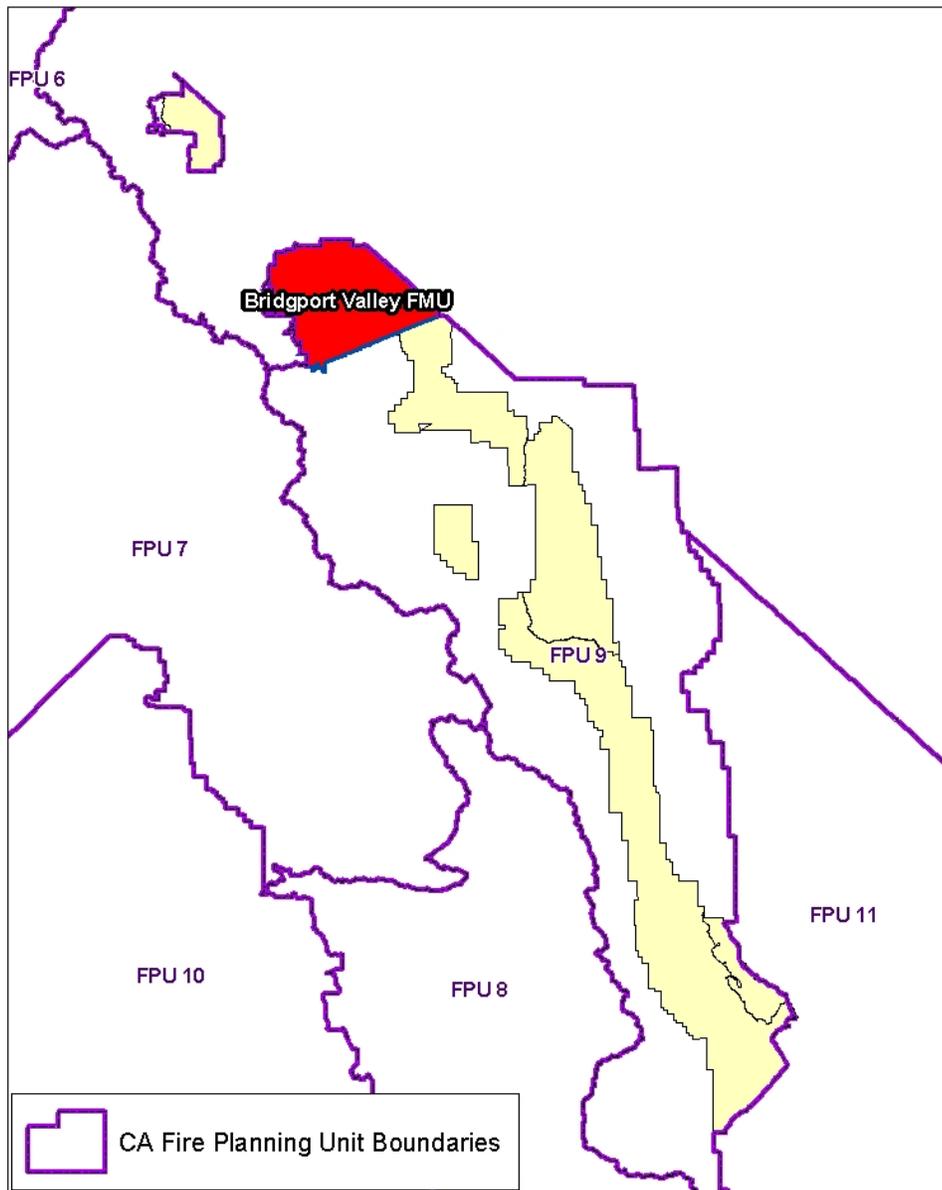
- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with 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 recreationalist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategy:

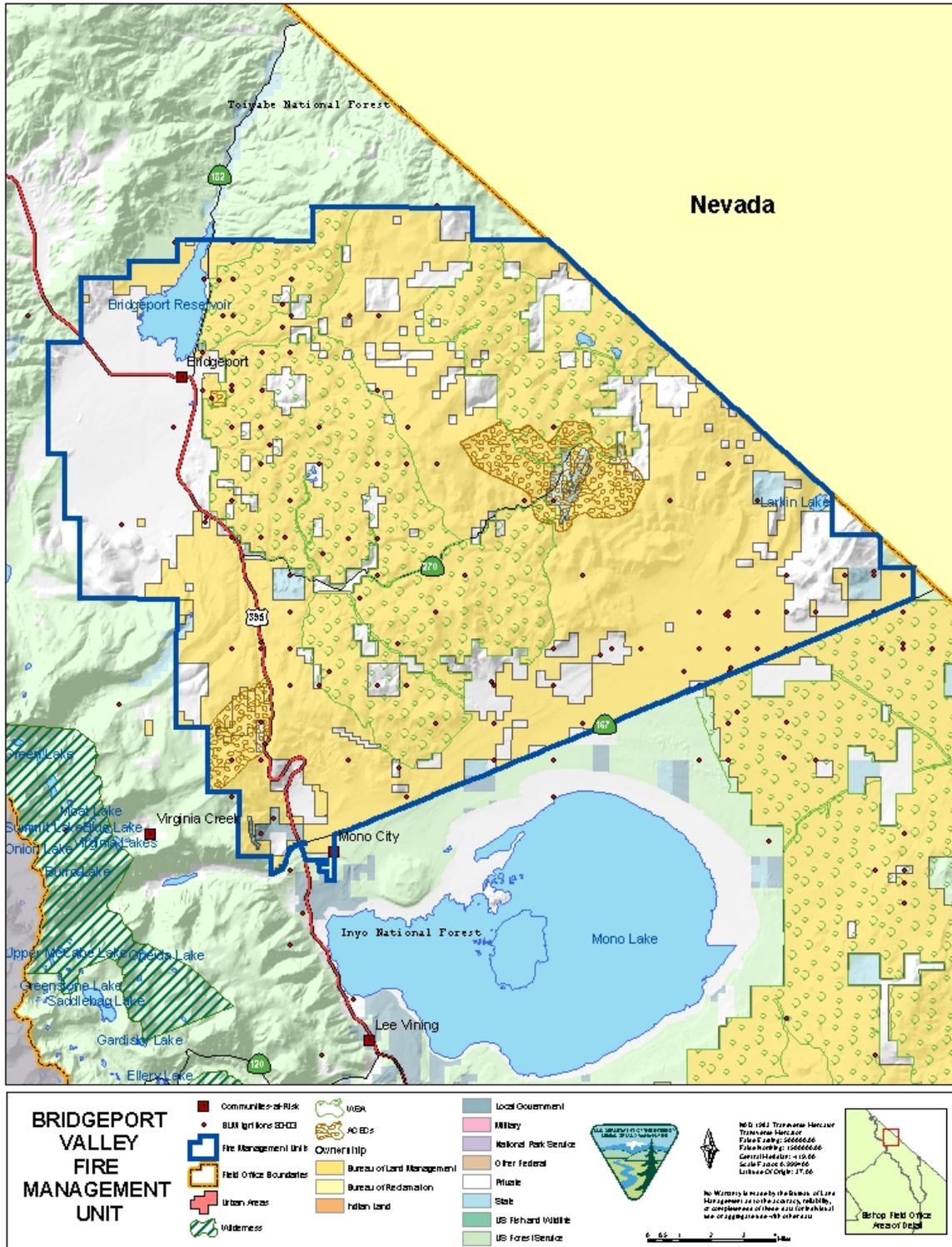
- Pursue formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed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

- Work with US Forest Service prevention staff through an interagency agreement to make sure campsites 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.

Bridgeport Valley - Bodie Hills FMU



CA-170-02



FMU I.D. No.: CA-170-02 Bridgeport Valley – Bodie Hills

FMU Type: WUI

FMU Location Information:

- Geographic boundaries:** This 215,321-acre FMU is delineated by the headwaters of the East Walker River and the northern portion of the Mono Basin. This FMU encompasses both the Bridgeport Valley and Bodie Hills Management Areas, as defined in the Bishop RMP, plus that portion of the Granite Mountain Management Area lying north of State Highway 167, and the BLM land near the community of Mono City. This FMU includes Bodie Bowl, Conway Summit, and Travertine Hot Springs ACEC's, as well as 5 WSA's (Masonic Mountain, Bodie Mountain, Mormon Meadow, Bodie, and Mount Biedeman).

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-170-02	Bridgeport Valley	
Ownership	Acres	Percent
Bureau of Land Management	159,118	74
Other Federal/State/Private/etc.	56,203	26
Total Acres	215,321	

FMU Characteristics:

This FMU consists of mountain ridges and slopes with well defined access routes. Elevations range from 6,400 ft. to 10,000 ft. Major plant community types in this FMU include pinyon pine woodlands, sagebrush steppe, mountain mahogany, mountain shrub, aspen, scattered lodgepole and limber pine stands, meadow and riparian. Cheat grass invasions have occurred in small portions of the FMU west of Virginia Creek, due to historic sheep bedding and grazing activities. Livestock grazing is comprised of cow-calf and sheep operations, and many allotments are operated under Coordinated Resource Management Plans.

Large portions of the FMU are at risk of catastrophic wildfire and cheat grass type conversion due to past fire suppression, livestock grazing, and climatic-driven increases in pinyon pine, which compromise key habitat for sage grouse and other sagebrush obligate species. Increased cover of pinyon pine can affect sagebrush- steppe community regeneration, production and compositional capacity by altering extant seed bank dynamics and increasing water and nutrient uptake. Post-fire, pinyon pine communities often convert to cheat grass dominated communities, especially in areas where native seed banks have reduced regenerative capacities due to competition from pinyon pine.

Soils are comprised primarily of volcanic, granitic and mixed alluvium parent materials. Erosion susceptibility is confined to drainages associated with roads and some aspen groves which receive heavy livestock bedding impacts. Other areas, such as mountain slopes, exhibit dense vegetation cover and are not currently at risk for soil erosion. There are numerous

perennial and intermittent streams that bisect the FMU with soil textures ranging from rocky to loamy sand.

Fire Occurrence and History:

Fire History Ignitions by Size Class		CA-170-02
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	119	9.3
B (0.3 - 9.9)	42	108
C (10 - 99.9)	6	351
D (100 - 299.9)	3	563
E (300 - 999.9)	3	1,727
F (1000 - 4999.9)	0	0.0
G (5000+)	0	0.0
Total	173	2,758

In the period from 1980 thru 2002, 173 wildland fires occurred wholly or partially within this FMU, burning a total of 2,758 acres (includes acres burned outside the FMU boundary). Fire cause was 71% natural (lightning), 20% human-caused and 9% unknown.

Normal fire season is May 1st thru October 31st.

Fire Regime and Condition Class:

- Shrub steppe is 3/2 and 3/3
- Pinyon - juniper woodlands are predominantly 3/3, with some 3/2
- Aspen areas are 3/3.

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

Major plant community types in this FMU include pinyon pine woodlands, sagebrush steppe, mountain mahogany, montane shrub, aspen, scattered lodgepole and limber pine stands, meadow and riparian. Cheat grass invasions have occurred in small portions of the FMU west of Virginia Creek, due to historic sheep bedding and grazing activities.

Large portions of the FMU are at risk of catastrophic wildfire and cheat grass type conversion due to past fire suppression, livestock grazing, and climatic-driven increases in pinyon pine, which compromise key habitat for sage grouse and other sagebrush obligate species. Increased cover of pinyon pine can affect sagebrush- steppe community regeneration, production and compositional capacity by altering extant seed bank dynamics and increasing water and nutrient uptake. Post-fire, pinyon pine communities often convert to cheat grass dominated communities, especially in areas where native seed banks have reduced regenerative capacities due to competition from pinyon pine.

Pinyon - juniper woodlands and shrub steppe dominate this FMU, and thus Fuel Model 6 applies to the vast majority of this area. Upland and riparian aspen stands make up much of the remaining area, and Fuel Model 9 applies to these areas.

Orographic influences of the Sierra Nevada significantly affect this FMU. Warm, dry summers are typical. Relative humidity is usually low, and live fuel moisture typically drops to 70 - 90% by late summer and early fall. Thunderstorms are common and frequently these storms produce little or no rain. Multiple ignitions caused by dry lightning are common during these periods. Additionally, these thunderstorms are usually accompanied by strong, erratic winds.

Fire behavior is generally moderate, but in the vicinity of thunderstorms or other periods of high wind, fire behavior readily becomes extreme. Daytime winds are normally upslope and up canyon, with late afternoon shifts to down slope, down canyon. Very strong winds associated with cold fronts moving through the area are not uncommon on the east side of the Sierra Nevada, particularly in the spring and fall.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
 - Bodie National Historic Landmark
 - Bodie State Historic Park
 - Dry Lakes Plateau National Register District, Conway Ranch (nominated for listing on National Register of Historic Place's)
 - Arborglyphs
 - Bodie historical railroad grade and lime kiln
 - other scattered historical structures and sites
 - Travertine Hot Springs ACEC
 - Bodie Bowl ACEC
 - Conway Summit ACEC
 - Sage grouse habitat
 - Mule deer habitat
 - Pronghorn habitat
 - Pygmy rabbit habitat
 - Lahontan cutthroat trout habitat
 - Aspen and riparian habitat
 - Rare plants
 - Limber pine
 - Loss of native plant species to conversion to cheat grass
 - Forage for domestic livestock grazing
 - Fences
 - Masonic Mountain WSA
 - Bodie Mountain WSA
 - Mormon Meadow WSA
 - Bodie WSA
 - Mount Biedeman WSA
 - Highway 395 Scenic Byway
 - Private property
 - Power line right-of-ways
 - Potato Peak repeater site.

Human Environment/Communities at Risk:

Communities in the Bridgeport Valley – Bodie Hills FMU are primarily comprised of permanent residents who live and work within the FMU or nearby commuting area. A few small, scattered summer-only communities also exist. Many homeowners recognize the need for and benefits from defensible space and community fuels reduction work. Traditional home defense brochures, press releases and flyers work well in this FMU. Posted flyers at local gathering place's, such as post offices, general stores, or other businesses, serve as an excellent method for information distribution. The small town atmosphere helps spread information by word-of-mouth and e-mail. The audience consists of both permanent and seasonal residents, tourists, and ranchers.

Communities at risk include: Three communities are in the early stages of fire safe council formation, and are active in planning and implementing fire projects.

- Bodie
- Bridgeport
- Conway Ranch
- Goat Ranch
- Green Creek
- Highway 167 housing corridor.
- Mono City
- Virginia Creek/Willow Springs

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

"The protection of human life is the single, overriding priority. Setting priorities to protect 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. (Federal Wildland Fire Management Policy, 1995/Updated 2001)"

Wildland Fire Burned Acre Constraints/Targets:

- FMU target Individual Wildland Fire Size: **1 acres**
- FMU Target Wildland Fire Acres Burned Per Decade: **3,182 acres (2%)**
- **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.

- 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:**
 - Bulldozers and other heavy equipment are only used in old growth timber stands, prominent viewsheds, riparian areas, aspen groves, cultural sites, ACEC's, and mule deer winter ranges with authorization from the Field Office Manager, and only to protect human life, private property, structures, visitor safety, or other, sensitive or valuable resources
- **Special Fire Mgt. Considerations/Areas:**
 - Wildland urban interface
 - Areas of pinyon pine encroachment into shrub steppe, and upland and riparian aspen

Wildland Fire Suppression Strategies:

- At all Fire Intensity Levels (FIL), **90%** of all unplanned ignitions are kept under **1 acre** in size
- If the **2% (3,182 acres) decadal threshold for acres burned by wildland fire** is met, a review of objectives and strategies will be initiated to develop new criteria for suppression of wildland fires and prescribed fire and non-fire fuels treatments
- Use Appropriate Management Response (AMR) to meet suppression objectives listed above, based on current conditions and fire location
- 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
- 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 Bishop Field Office 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:

- No more than 15% of the BLM lands (**23,868 acres not including maintenance treatments of WUI fuel breaks**) are treated via prescribed fire and/or non-fire means over the 10-year period
- Treatment emphasis will be in the WUI, areas of pinyon pine encroachment into shrub steppe, and upland and riparian aspen
- Prescribed fire emissions remain within those allowed by state and local air quality regulators

Prescribed Fire Strategies:

- Treat up to 15% of BLM lands (**23,868 acres not including maintenance treatments of WUI fuel breaks**) via prescribed fire and/or non-fire means over the 10-year period
- 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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Non-Fire Fuels Treatment Objectives and Strategies:

Non-Fire Fuels Treatment Objectives:

- No more than 15% of the BLM lands (**23,868 acres not including maintenance treatments of WUI fuel breaks**) are treated via non-fire and/or prescribed fire means over the 10-year period
- Treatment emphasis will be in the WUI, areas of pinyon pine encroachment into shrub steppe, and upland and riparian aspen

Non-Fire Fuels Treatment Strategies:

- Treat up to 15% of BLM lands (**23,868 acres not including maintenance treatments of WUI fuel breaks**) via non-fire and/or prescribed fire means over the 10-year period
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Post Fire Rehab & Restoration Objectives and Strategies:

Post Fire Rehab & Restoration Objectives:

- 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 ESR plan to CA BLM State Office.
 - State Director approval is currently required for all ESR work under \$100,000 (WO IM 2004-184).
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- 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 Objectives and Strategies:

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

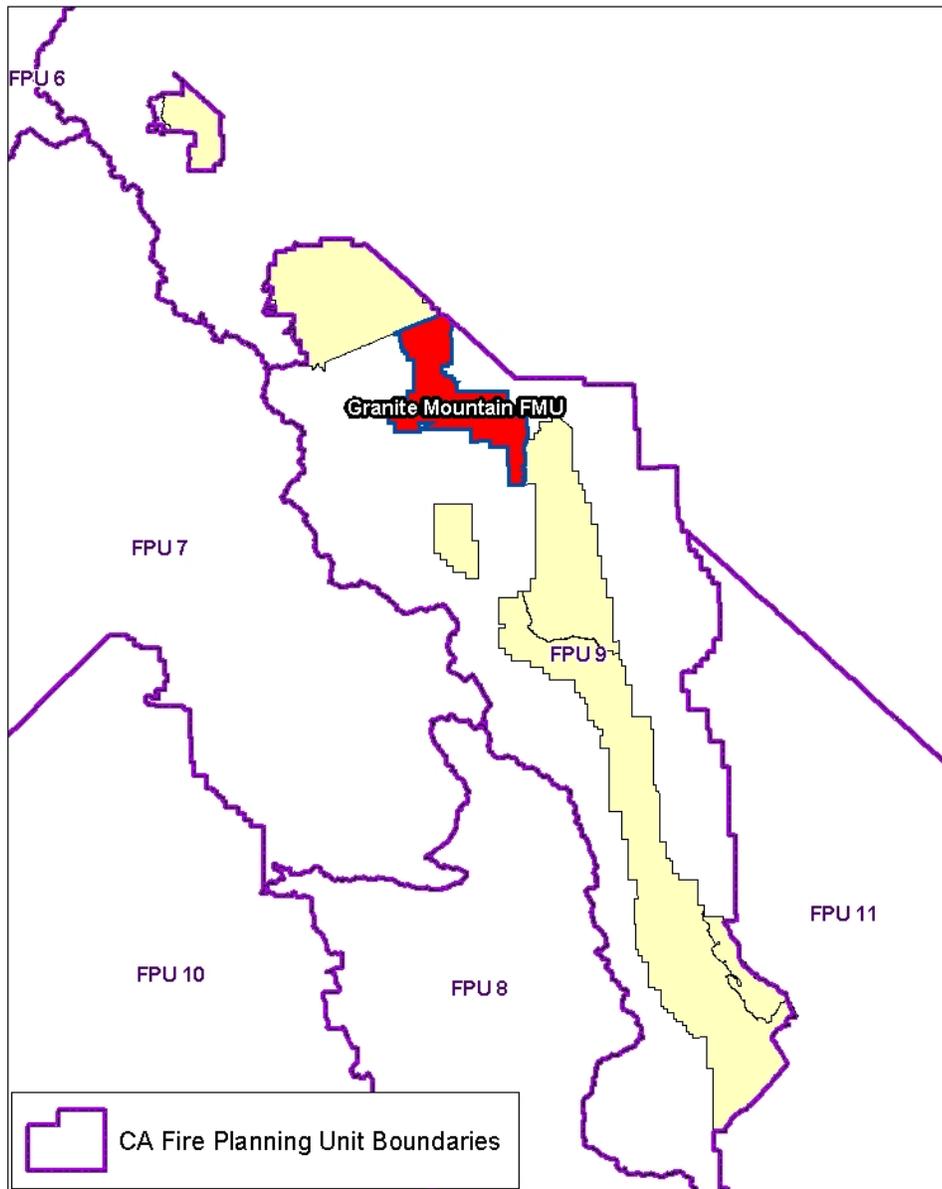
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk
- Reduce the risk of human caused wildland fires, with special emphasis on recreationalist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategy:

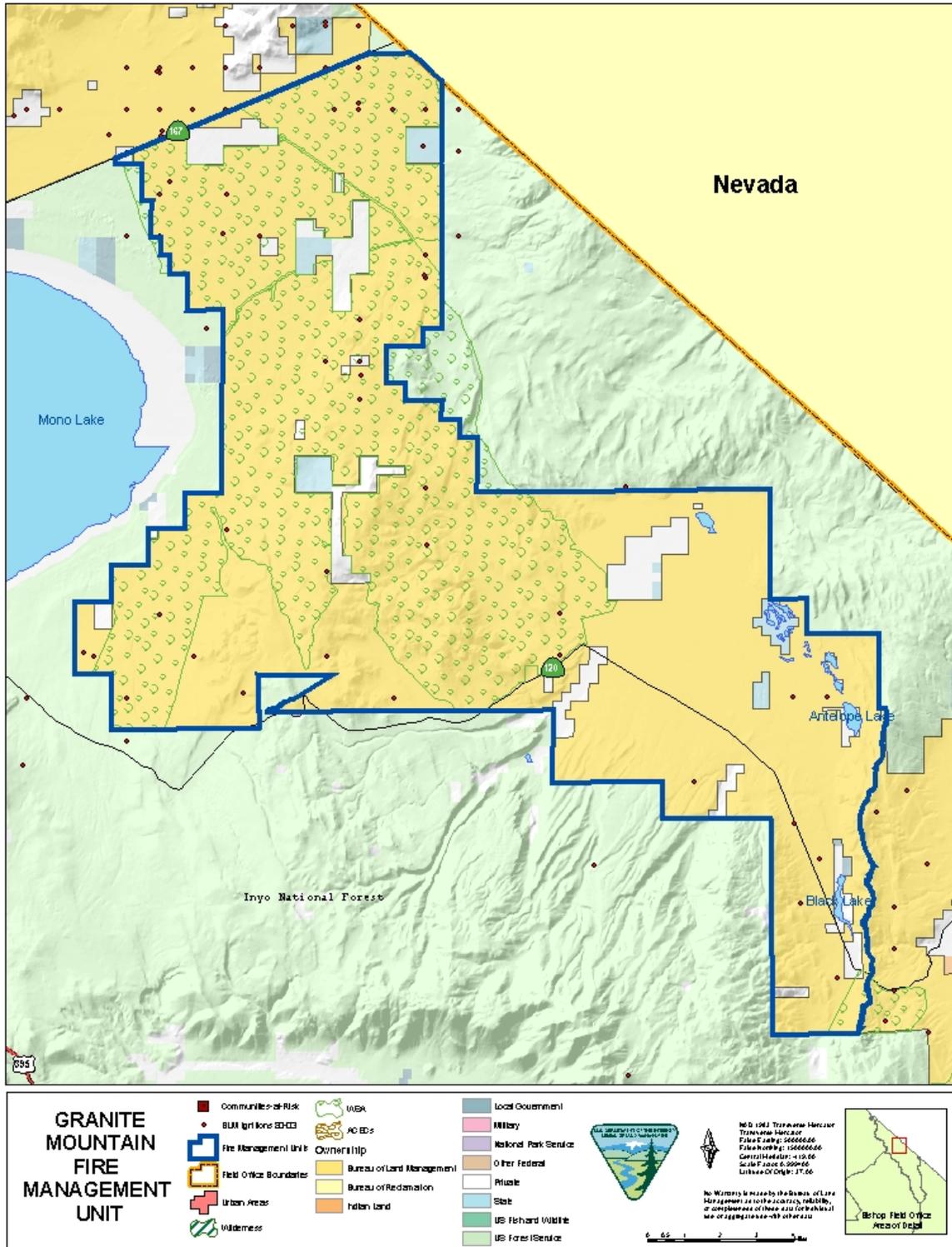
- Pursue formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed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

Granite Mountain FMU



CA-170-03



FMU I.D. No.: CA-170-03 Granite Mountain

FMU Type: High Value Habitat

FMU Location Information:

- **Geographic boundaries:** This 147,365-acre FMU includes the north and east portions of the Mono Basin, the Cowtrack Mountains, and Adobe Valley. This FMU encompasses the portion of the Granite Mountain Management Area lying south of State Highway 167 (not including the BLM land in the vicinity of Mono City), as defined in the Bishop RMP. This FMU includes three WSA's (Excelsior, Granite Mountain, and Walford Springs).

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-170-03	Granite Mountain	
Ownership	Acres	Percent
Bureau of Land Management	134,881	92
Other Federal/State/Private/etc.	12,485	8
Total Acres	147,365	

FMU Characteristics:

This FMU consists of mountain ridges, slopes and valleys with a mix of well defined and moderate to difficult access routes. Elevations range from 6,000 ft. to 8,000 ft. Major plant community types that comprise this FMU include pinyon pine woodlands, scattered Jeffrey pine stands, sagebrush steppe, including Wyoming sagebrush, mountain mahogany, montanae shrub, meadow and riparian. Uses include grazing and dispersed recreation.

Large portions of the FMU are at risk of catastrophic wildfire and cheat grass type conversion due to past fire suppression, livestock grazing, and climatic-driven increases in pinyon pine, which compromise key habitat for sage grouse and other sagebrush obligate species. Increased cover of pinyon pine can affect sagebrush- steppe community regeneration, production and compositional capacity by altering extant seed bank dynamics and increasing water and nutrient uptake. Post-fire, pinyon pine communities often convert to cheat grass dominated communities, especially in areas where native seed banks have reduced regenerative capacities due to competition from pinyon pine.

Soils are comprised primarily of volcanic, Lacustrine and mixed alluvium parent materials. Erosion susceptibility is confined to drainages associated with roads. Other areas, such as mountain slopes, exhibit dense vegetation cover and are not currently at risk for soil erosion. There are numerous intermittent streams that bisect the FMU with soil textures ranging from rocky to loamy sand.

Fire Occurrence and History:

Fire History Ignitions by Size Class		CA-170-03
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	49	4
B (0.3 - 9.9)	9	14
C (10 - 99.9)	3	145
D (100 - 299.9)	0	0
E (300 - 999.9)	1	850
F (1000 - 4999.9)	1	2,980
G (5000+)	0	0
Total	63	3,993

In the period from 1980 thru 2002, 63 wildland fires occurred wholly or partially within this FMU, burning a total of 3,993 acres (includes acres burned outside the FMU boundary). Fire cause was 87% natural (lightning), 10% human-caused and 3% unknown.

Normal fire season is May 1st thru October 31st.

Fire Regime and Condition Class:

- Shrub steppe is 3/3 and some 3/2
- Pinyon - juniper woodlands are predominantly 3/3.

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

Major plant community types that comprise this FMU include pinyon pine woodlands, scattered Jeffrey pine stands, sagebrush steppe, including Wyoming sagebrush, mountain mahogany, montane shrub, meadow and riparian. Large portions of the FMU are at risk of catastrophic wildfire and cheat grass type conversion due to past fire suppression, livestock grazing, and climatic-driven increases in pinyon pine, which compromise key habitat for sage grouse and other sagebrush obligate species. Increased cover of pinyon pine can affect sagebrush- steppe community regeneration, production and compositional capacity by altering extant seed bank dynamics and increasing water and nutrient uptake. Post-fire, pinyon pine communities often convert to cheat grass dominated communities, especially in areas where native seed banks have reduced regenerative capacities due to competition from pinyon pine.

Pinyon - juniper woodlands and shrub steppe dominate this FMU, and thus Fuel Model 6 applies to the vast majority of this area.

Orographic influences of the Sierra Nevada significantly affect this FMU. Warm, dry summers are typical. Relative humidity is usually low, and live fuel moisture typically drops to 70 - 90% by late summer and early fall. Thunderstorms are common and frequently these storms produce little or no rain. Multiple ignitions caused by dry lightning are common during these periods. Additionally, these thunderstorms are usually accompanied by strong, erratic winds.

Fire behavior is generally moderate, but in the vicinity of thunderstorms or other periods of high wind, fire behavior readily becomes extreme. Daytime winds are normally upslope and

up canyon, with late afternoon shifts to down slope, down canyon. Very strong winds associated with cold fronts moving through the area are not uncommon on the east side of the Sierra Nevada, particularly in the spring and fall.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
 - River Springs cultural sites
 - Other known and unknown cultural sites
 - Sage grouse habitat
 - Pronghorn habitat
 - Mule deer habitat
 - Pygmy rabbit habitat
 - Forage for domestic livestock and wild horse grazing
 - Fences
 - Wyoming sagebrush
 - Jeffrey pine
 - Chokecherries and other riparian species
 - Loss of native plant species to conversion to cheat grass
 - Excelsior WSA
 - Granite Mountain WSA
 - Walford Springs WSA
 - Viewshed associated with Mono Basin National Forest Scenic Area
 - Private property
 - Power line right-of-ways.

Human Environment/Communities at Risk:

No residential areas exist in this FMU. Recreational use is low, and is primarily Off-Highway Vehicle users, hunters, hikers and dispersed campers.

There are no communities at risk in this FMU.

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

"The protection of human life is the single, overriding priority. Setting priorities to protect 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. (Federal Wildland Fire Management Policy, 1995/Updated 2001)"

Wildland Fire Burned Acre Constraints/Targets:

- FMU target Individual Wildland Fire Size: **10 acres**

- FMU Target Wildland Fire Acres Burned Per Decade: **2,698 acres (2%)**

- **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.
 - 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:**
 - Bulldozers and other heavy equipment are only used in old growth timber stands, prominent viewsheds, riparian areas, aspen groves, cultural sites, ACEC’s, and mule deer winter ranges with authorization from the Field Office Manager, and only to protect human life, private property, structures, visitor safety, or other, sensitive or valuable resources

- **Special Fire Mgt. Considerations/Areas:**
 - Pinyon – juniper woodlands
 - Areas of pinyon pine encroachment into shrub steppe

Wildland Fire Suppression Strategies:

- At all Fire Intensity Levels (FILs), **90%** of all unplanned ignitions are kept under **10 acres** in size

- If the **2% (2,698 acres) decadal threshold for acres burned by wildland fire** is met, a review of objectives and strategies will be initiated to develop new criteria for suppression of wildland fires and prescribed fire and non-fire fuels treatments

- Use Appropriate Management Response (AMR) to meet suppression objectives listed above, based on current conditions and fire location

- 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

- 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 Bishop Field Office 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:

- No more than 10% of BLM land (**13,488 acres not including maintenance treatments of WUI fuel breaks**) is treated via prescribed fire and/or non-fire means over the 10-year period
- Treatment emphasis will be in the pinyon - juniper woodlands, and areas of pinyon pine encroachment into shrub steppe
- Prescribed fire emissions remain within those allowed by state and local air quality regulators

Prescribed Fire Strategies:

- Treat up to 10% of BLM lands (**13,488 acres not including maintenance treatments of WUI fuel breaks**) via prescribed fire and/or non-fire means over the 10-year period
- 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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine

- 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.

Non-Fire Fuels Treatment Objectives and Strategies:

Non-Fire Fuels Treatment Objectives:

- No more than 10% of BLM land (**13,488 acres not including maintenance treatments of WUI fuel breaks**) is treated via non-fire and/or prescribed fire means over the 10-year period
- Treatment emphasis will be in the pinyon – juniper woodlands, and areas of pinyon pine encroachment into shrub steppe

Non-Fire Fuels Treatment Strategies:

- Treat up to 10% of BLM lands (**13,488 acres not including maintenance treatments of WUI fuel breaks**) via non-fire and/or prescribed fire means over the 10-year period
- An interdisciplinary approach is used to determine the best site-specific non-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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Post Fire Rehab & Restoration Objectives and Strategies:

Post Fire Rehab & Restoration Objectives:

- 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 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 Objectives and Strategies:

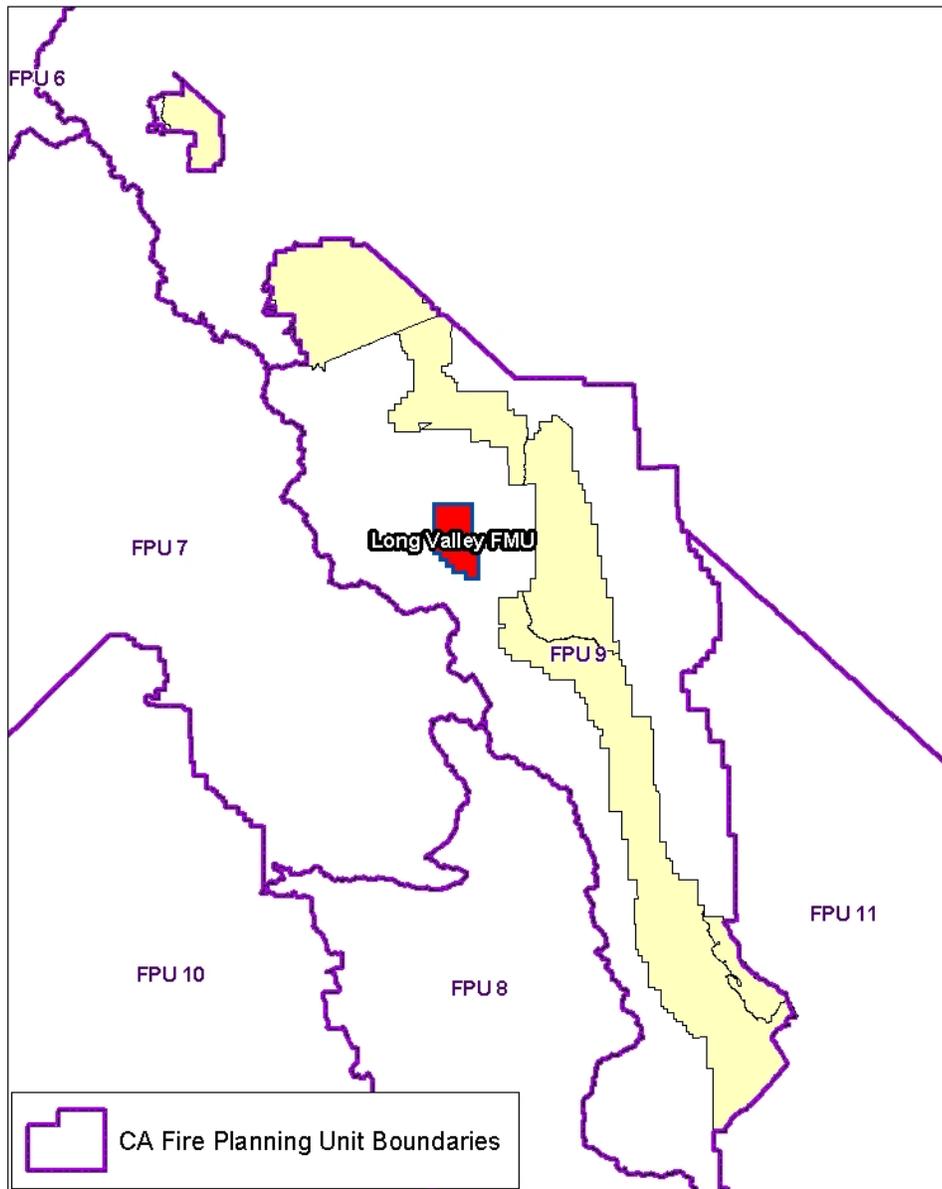
Community Protection/Community Assistance Objectives:

- Reduce the risk of human caused wildland fires, with special emphasis on recreationalist-caused fires

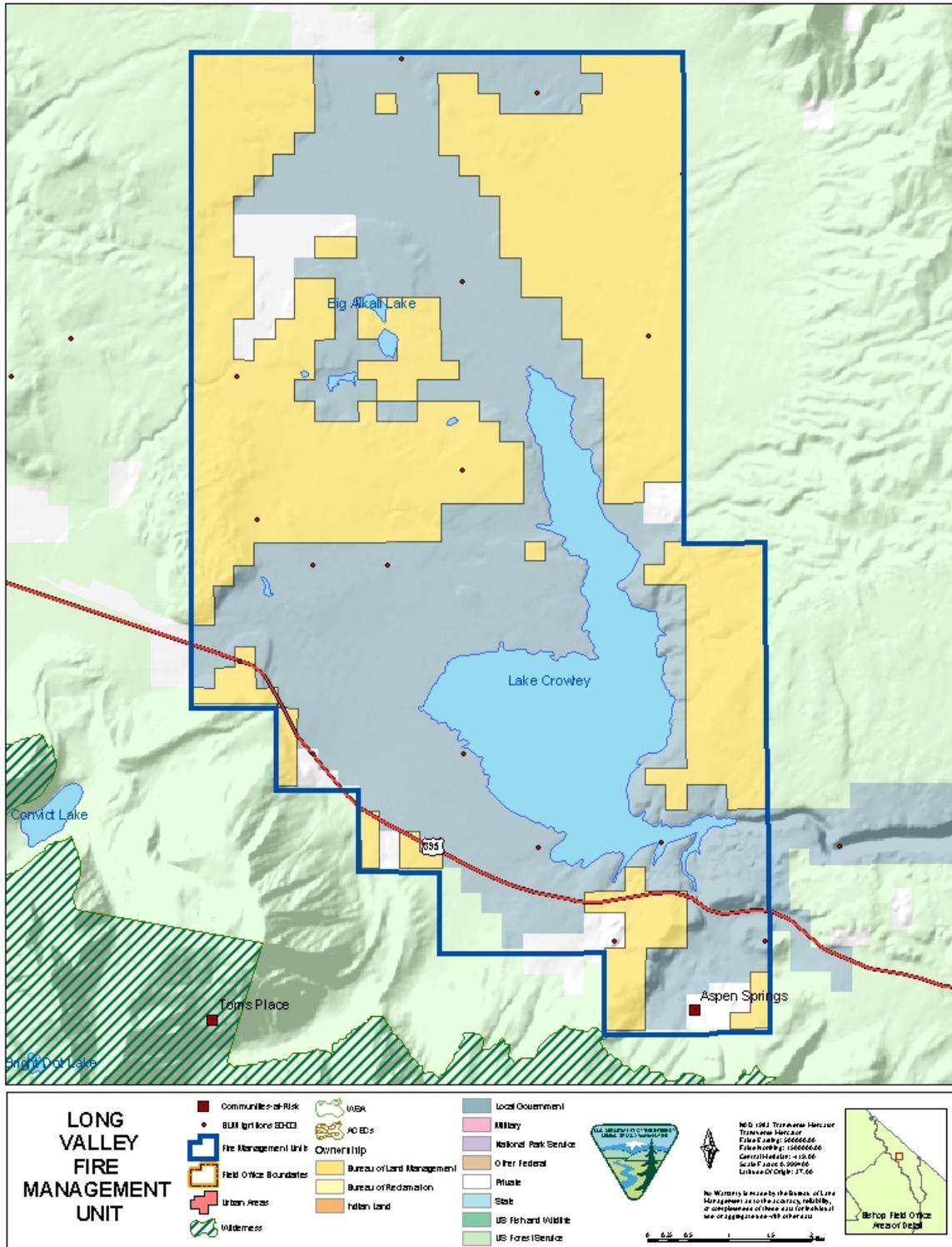
Community Protection/Community Assistance Strategy:

- Work with US Forest Service prevention staff through an interagency agreement to make sure campsites 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.

Long Valley FMU



CA-170-04



FMU I.D. No.: CA-170-04 Long Valley

FMU Type: WUI

FMU Location Information:

- **Geographic boundaries:** This 42,768-acre FMU surrounds Crowley Lake. This FMU encompasses the entire Long Valley Management Area, as defined in the Bishop RMP.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-170-04	Long Valley	
Ownership	Acres	Percent
Bureau of Land Management	17,782	42
Other Federal/State/Private/etc.	24,986	58
Total Acres	42,768	

FMU Characteristics:

This FMU encompasses the Long Valley Caldera, which contains slopes and ridges with well defined access routes. Elevations range from 7,000 ft. to 8,000 ft. Major plant community types in this FMU include sagebrush steppe, including Wyoming sagebrush, scattered Jeffrey pine stands, mountain mahogany, meadow and riparian. Thermal springs are scattered throughout the FMU. Use in this FMU consists of grazing (cow-calf operations) and high levels of recreational activity associated with the thermal spring systems.

Soils are comprised primarily of mixed alluvium and volcanic ash. Erosion susceptibility is slight for water and moderate for wind.

Fire Occurrence and History:

Fire History Ignitions by Size Class		CA-170-04
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	31	2.4
B (0.3 - 9.9)	3	1.4
C (10 - 99.9)	0	0
D (100 - 299.9)	0	0
E (300 - 999.9)	0	0
F (1000 - 4999.9)	0	0.0
G (5000+)	0	0.0
Total	34	4

In the period from 1980 thru 2002, 34 wildland fires occurred wholly or partially within this FMU, burning a total of 3.8 acres (includes acres burned outside the FMU boundary). Fire cause was 47% natural (lightning), 41% human-caused and 12% unknown.

Normal fire season is May 1st thru October 31st.

Fire Regime and Condition Class:

- Shrub steppe is 3/2
- Pinyon - juniper woodlands is 3/2
- Jeffrey pine is 2/2 and 2/1.

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

Major plant community types in this FMU include sagebrush steppe, including Wyoming sagebrush, scattered Jeffrey pine stands, mountain mahogany, meadow and riparian.

Pinyon - juniper woodlands and shrub steppe dominate this FMU, and thus Fuel Model 6 applies to most of this area. Jeffrey pine forest with a shrub steppe understory is also present on Doe Ridge. Fuel Models 6 and 9 best represent this area, depending on the density of the Jeffrey pine overstory.

Orographic influences of the Sierra Nevada significantly affect this FMU. Warm, dry summers are typical. Relative humidity is usually low, and live fuel moisture typically drops to 70 - 90% by late summer and early fall. Thunderstorms are common and frequently these storms produce little or no rain. Multiple ignitions caused by dry lightning are common during these periods. Additionally, these thunderstorms are usually accompanied by strong, erratic winds.

Fire behavior is generally moderate, but in the vicinity of thunderstorms or other periods of high wind, fire behavior readily becomes extreme. Daytime winds are normally upslope and up canyon, with late afternoon shifts to down slope, down canyon. Very strong winds associated with cold fronts moving through the area are not uncommon on the east side of the Sierra Nevada, particularly in the spring and fall.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
 - Sage grouse habitat
 - Mule deer habitat
 - Pygmy rabbit habitat
 - Wyoming big sagebrush
 - Rare plants
 - Jeffrey pine
 - Riparian habitat
 - Loss of native plant species to conversion to cheat grass
 - Known and unknown cultural sites
 - Forage for domestic livestock grazing
 - Fences
 - Campgrounds and recreational hot springs sites

- Scenic Byway and other visual resources
- Water quality (City of Los Angeles aqueduct system)
- Mammoth – Yosemite Airport
- Whitmore Pools
- Other public and private property and structures
- Power line right-of-ways
- Radio towers.

Human Environment/Communities at Risk:

Communities in the Long Valley FMU are primarily comprised of permanent residents who live and work within the FMU or nearby commuting area, second-homeowners from southern California, and seasonal influxes of tourists. Extensive recent development has occurred on private land in this FMU, and many new homes have been built or are planned to be built. Many homeowners recognize the need for and benefits from defensible space and community fuels reduction work. Most residents can be reached through the various media outlets based in Mammoth Lakes. Traditional home defense brochures, press releases and flyers work well in this FMU. Posted flyers at local gathering place's, such as post offices, general stores, or other businesses, serve as an excellent method for information distribution. The audience consists of both permanent and seasonal residents, and tourists.

Communities at risk include: One community (Crowley Lake) is in the early stages of fire safe council formation.

- Aspen Springs
- Crowley Lake
- Hilton Creek
- McGee Creek.

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

"The protection of human life is the single, overriding priority. Setting priorities to protect 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. (Federal Wildland Fire Management Policy, 1995/Updated 2001)"

Wildland Fire Burned Acre Constraints/Targets:

- FMU target Individual Wildland Fire Size: **1 acres**
- FMU Target Wildland Fire Acres Burned Per Decade: **178 acres (1%)**
- **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.
- 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:**
 - Bulldozers and other heavy equipment are only used in old growth timber stands, prominent viewsheds, riparian areas, aspen groves, cultural sites, ACEC’s, and mule deer winter ranges with authorization from the Field Office Manager, and only to protect human life, private property, structures, visitor safety, or other, sensitive or valuable resources
- **Special Fire Mgt. Considerations/Areas:**
 - Wildland urban interface
 - protection and enhancement of sensitive plant and animal species

Wildland Fire Suppression Strategies:

- At all Fire Intensity Levels (FIL), **90%** of all unplanned ignitions are kept under **1 acre** in size
- If the **1% (178 acres) decadal threshold for acres burned by wildland fire** is met, a review of objectives and strategies will be initiated to develop new criteria for suppression of wildland fires and prescribed fire and non-fire fuels treatments
- Use Appropriate Management Response (AMR) to meet suppression objectives listed above, based on current conditions and fire location
- 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
- 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 Bishop Field Office 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:

- No more than 5% of BLM lands (**889 acres not including maintenance treatments of WUI fuel breaks**) are treated via prescribed fire and/or non-fire means over the 10-year period
- Treatment emphasis will be in the WUI and for the protection and enhancement of sensitive plant and animal species
- Prescribed fire emissions remain within those allowed by state and local air quality regulators

Prescribed Fire Strategies:

- Treat up to 5% of BLM lands (**889 acres not including maintenance treatments of WUI fuel breaks**) via prescribed fire and/or non-fire means over the 10-year period
- 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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Non-Fire Fuels Treatment Objectives and Strategies:

Non-Fire Fuels Treatment Objectives:

- No more than 5% of BLM lands (**889 acres not including maintenance treatments of WUI fuel breaks**) are treated via non-fire and/or prescribed fire means over the 10-year period
- Treatment emphasis will be in the WUI and for the protection and enhancement of sensitive plant and animal species

Non-Fire Fuels Treatment Strategies:

- Treat up to 5% of BLM lands (**889 acres not including maintenance treatments of WUI fuel breaks**) via non-fire and/or prescribed fire treatments over the 10-year period
- An interdisciplinary approach is used to determine the best site-specific non-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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Post Fire Rehab & Restoration Objectives and Strategies:

Post Fire Rehab & Restoration Objectives:

- 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 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
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- **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 Objectives and Strategies:

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

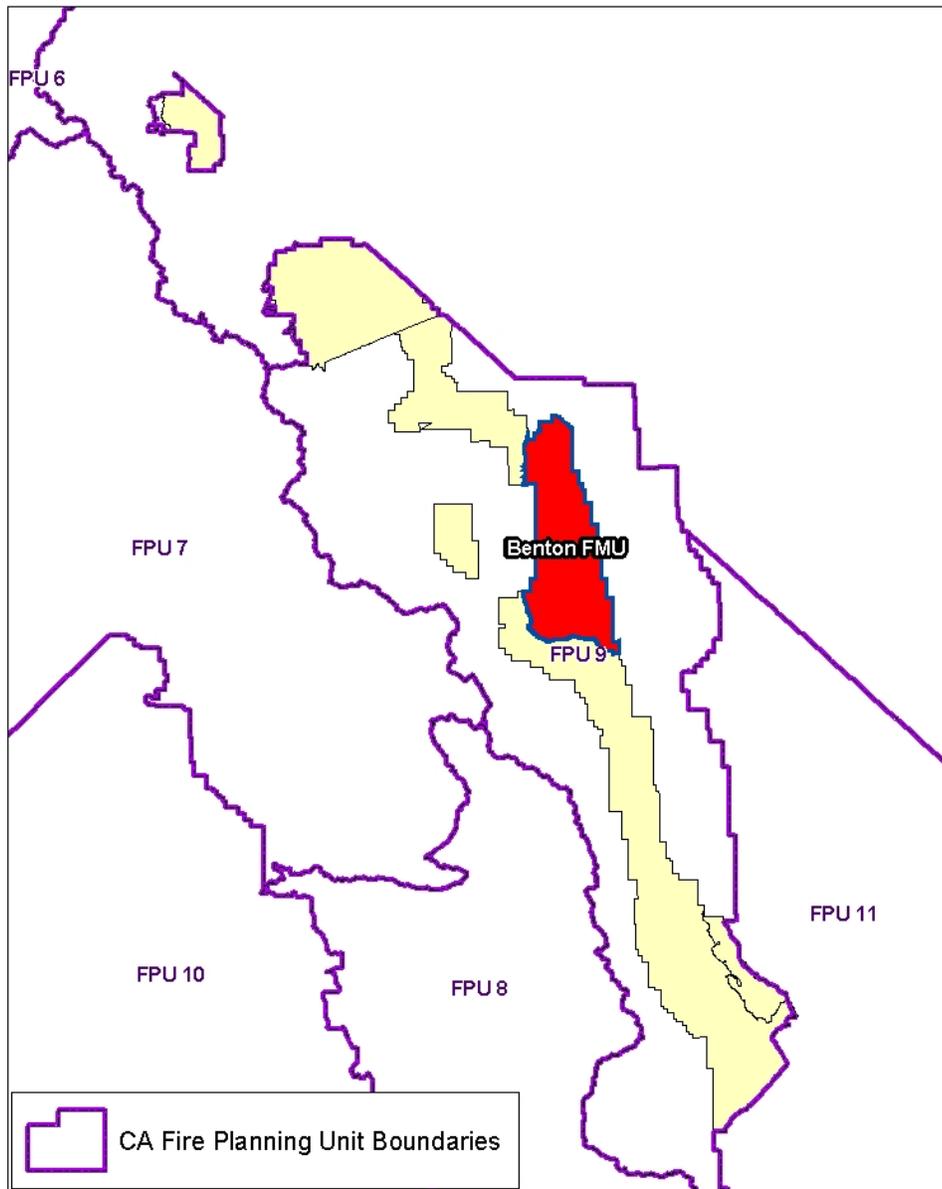
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk
- Develop and implement collaborative mitigation and prevention strategies with communities at risk
- Reduce the risk of human caused wildland fires, with special emphasis on recreationalist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategy:

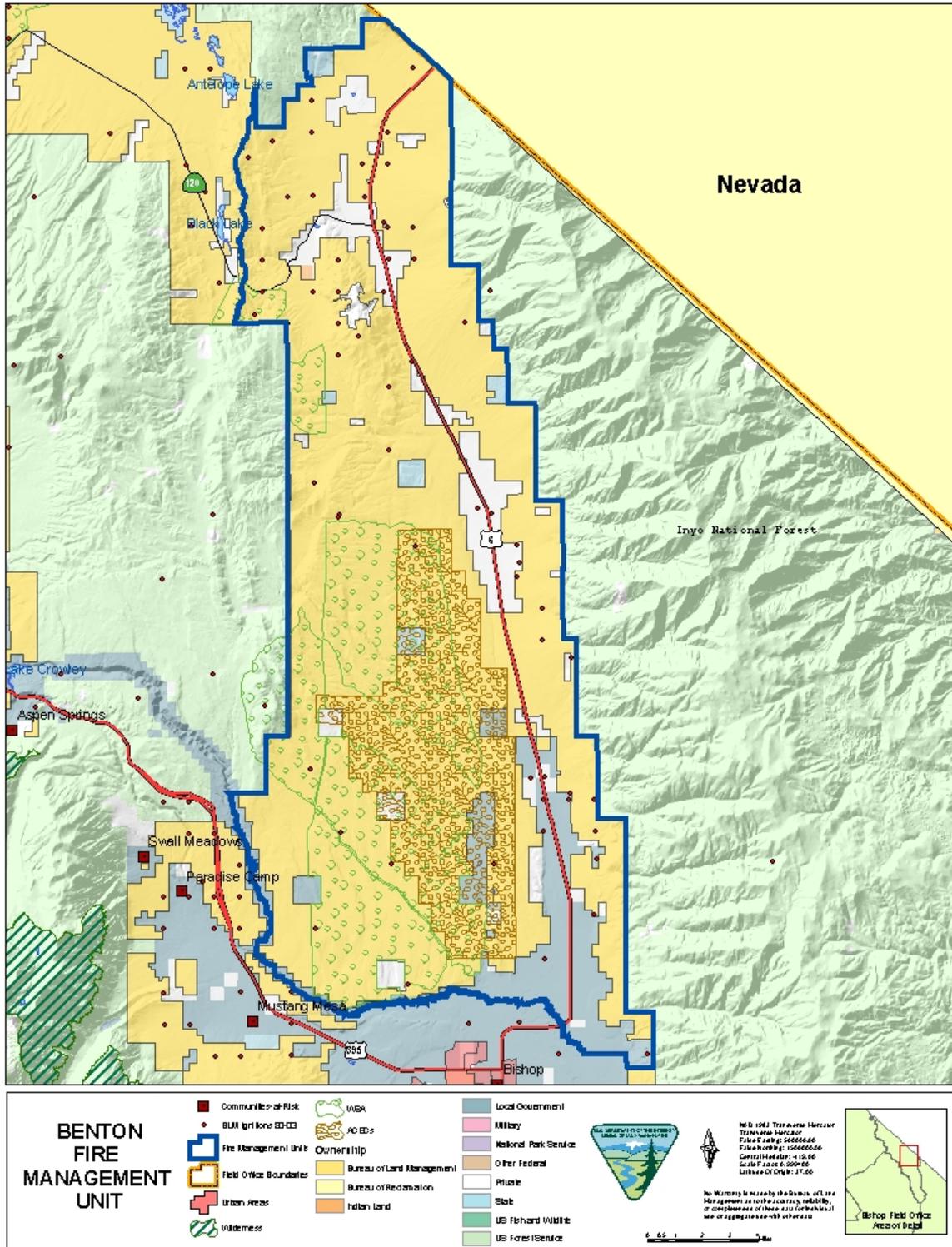
- Pursue formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed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

Benton FMU



CA-170-05



FMU I.D. No.: CA-170-05 Benton

FMU Type: WUI

FMU Location Information:

- **Geographic boundaries:** This 218,959-acre FMU surrounds the Benton, Hammil, and Chalfant Valleys of Mono and Inyo Counties. The Volcanic Tablelands, delineated by the Bishop Tuff geologic formation and the associated Fish Slough ACEC wetland constitute important management areas within this FMU. This FMU includes four WSA's (Chidago Canyon, Fish Slough, Volcanic Tablelands, and Casa Diablo).

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-170-05		Benton
Ownership	Acres	Percent
Bureau of Land Management	177,881	81
Other Federal/State/Private/etc.	41,078	19
Total Acres	218,959	

FMU Characteristics:

This FMU consists of volcanic flows, upland slopes, ridges and valleys, with generally well defined access routes. Elevations range from 4,000 ft. to 7,000 ft. Major plant community types that comprise this FMU include pinyon pine woodlands, sagebrush steppe, including Wyoming sagebrush, saltbush scrub, shadscale scrub, alkali meadow and riparian. Uses include grazing and dispersed recreation.

Soils are comprised primarily of granitic and volcanic parent material that are well drained and slightly-to-moderately susceptible to erosion. There are numerous small canyons and ephemeral drainages that bisect the FMU. Soils within the drainages are rocky to loamy sand in texture.

Fire Occurrence and History:

Fire History Ignitions by Size Class		CA-170-05
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	68	4.5
B (0.3 - 9.9)	11	16.5
C (10 - 99.9)	2	35
D (100 - 299.9)	1	215
E (300 - 999.9)	0	0
F (1000 - 4999.9)	0	0
G (5000+)	0	0
Total	82	271

In the period from 1980 thru 2002, 82 wildland fires occurred wholly or partially within this FMU, burning a total of 271 acres (includes acres burned outside the FMU boundary). Fire cause was 39% natural (lightning), 49% human-caused and 12% unknown.

Normal fire season is April 1st thru November 31st.

Fire Regime and Condition Class:

- Pinyon - juniper woodlands are 3/2 and 3/3
- Shrub steppe is 3/2
- Desert scrub is 3/1

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

Major plant community types that comprise this FMU include pinyon pine woodlands, sagebrush steppe, including Wyoming sagebrush, saltbush scrub, shadscale scrub, alkali meadow and riparian.

Pinyon - juniper woodlands, shrub steppe and desert scrub dominate this FMU. There is a small meadow component in the vicinity of Fish Slough. Fuel Model 6 applies to nearly all of this area.

Orographic influences of the Sierra Nevada and White Mountains significantly affect this FMU. Warm, dry summers are typical. Relative humidity is usually low, and live fuel moisture typically drops to 50 - 70% by late summer and early fall. Thunderstorms are common and frequently these storms produce little or no rain. Multiple ignitions caused by dry lightning are common during these periods. Additionally, these thunderstorms are usually accompanied by strong, erratic winds.

Fire behavior is generally moderate, but in the vicinity of thunderstorms or other periods of high wind, fire behavior readily becomes extreme. Daytime winds are normally upslope and up canyon, with late afternoon shifts to down slope, down canyon. Very strong winds associated with cold fronts moving through the area are not uncommon on the east side of the Sierra Nevada, particularly in the spring and fall.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
 - Mule deer winter range
 - Desert pupfish habitat
 - Rare plants
 - Wyoming sagebrush
 - Riparian habitat
 - Loss of native plant species to conversion to cheat grass
 - Known and unknown cultural sites
 - Chalfant Petroglyphs National Register Site
 - Yellow Jacket National Register Site
 - Carson and Colorado historic railroad grade
 - Stage coach route

- Forage for domestic livestock grazing
- Fences
- Recreational and visual qualities
- Fish Slough ACEC
- Chidago Canyon WSA
- Fish Slough WSA
- Volcanic Tablelands WSA
- Casa Diablo WSA
- Private property and structures
- Power line right-of-ways.

Human Environment/Communities at Risk:

The numerous small communities in the Benton FMU are primarily comprised of permanent residents who live and work within the FMU or nearby commuting area. Some recent development has occurred on private land in this FMU, and additional new homes are planned to be built. Many homeowners recognize the need for and benefits from defensible space and community fuels reduction work. Most residents can be reached through the various media outlets based in Bishop. Traditional home defense brochures, press releases and flyers work well in this FMU. Posted flyers at local gathering place's, such as post offices, general stores, or other businesses, serve as an excellent method for information distribution. The small town atmosphere helps spread information by word-of-mouth and e-mail. The audience consists mainly of permanent residents, many of whom are ranchers, and recreationalists.

Communities at risk include:

- Benton Hot Springs
- Benton
- Benton Indian Reservation
- Chalfant Valley
- Hammil Valley
- Rudolph Ranch
- White Mountain Estates
- Dozens of scattered ranches in the Tri Valley area
- Isolated homes at Yellowjacket Spring and on Volcanic Tableland.

One community (Chalfant Valley) has formed a fire safe council and has implemented fuels reduction projects.

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

"The protection of human life is the single, overriding priority. Setting priorities to protect 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. (Federal Wildland Fire Management Policy, 1995/Updated 2001)"

Wildland Fire Burned Acre Constraints/Targets:

- FMU target Individual Wildland Fire Size: **1 acres**

- FMU Target Wildland Fire Acres Burned Per Decade: **3,558 acres (2%)**

- **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.
 - 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:**
 - Bulldozers and other heavy equipment can only be used in old growth timber stands, prominent viewsheds, riparian areas, aspen groves, cultural sites, ACEC’s, and mule deer winter ranges with authorization from the Field Office Manager, and only to protect human life, private property, structures, visitor safety, or other, sensitive or valuable resources

- **Special Fire Mgt. Considerations/Areas:**
 - Wildland urban interface
 - protection and enhancement of sensitive plant and animal species, including mule deer winter range

Wildland Fire Suppression Strategies:

- At all Fire Intensity Levels (FIL), **90%** of all unplanned ignitions are kept under **1 acre** in size

- If the **2% (3,558 acres) decadal threshold for acres burned by wildland fire** is met, a review of objectives and strategies will be initiated to develop new criteria for suppression of wildland fires and prescribed fire and non-fire fuels treatments

- Use Appropriate Management Response (AMR) to meet suppression objectives listed above, based on current conditions and fire location

- 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
- 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 Bishop Field Office Manager and staff 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:

- No more than 10% of BLM lands (**17,788 acres not including maintenance treatments of WUI fuel breaks**) is treated via prescribed fire and/or non-fire means over the 10-year period
- Use prescribed fire to burn approximately 25 acres of Fish Slough ACEC, Zone 1, every 3 three years
- Treatment emphasis will be in the WUI and for the protection and enhancement of sensitive plant and animal species, including mule deer winter range
- Treatment in desert scrub is minimal, outside of WUI
- Prescribed fire emissions remain within those allowed by state and local air quality regulators

Prescribed Fire Strategies:

- Treat up to 10% of BLM lands (**17,788 acres not including maintenance treatments of WUI fuel breaks**) via prescribed fire and/or non-fire means over the 10-year period
- An interdisciplinary approach is used to determine the best site-specific prescribed 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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Non-Fire Fuels Treatment Objectives and Strategies:

Non-Fire Fuels Treatment Objectives:

- No more than 10% of BLM lands (**17,788 acres not including maintenance treatments of WUI fuel breaks**) is treated via non-fire and/or prescribed fire treatments over the 10-year period
- Treatment emphasis will be in the WUI and for the protection and enhancement of sensitive plant and animal species, including mule deer winter range
- Treatment in desert scrub is minimal, outside of WUI

Non-Fire Fuels Treatment Strategies:

- Treat up to 10% of BLM lands (**17,788 acres not including maintenance treatments of WUI fuel breaks**) via non-fire and/or prescribed fire treatments over the 10-year period
- An interdisciplinary approach is used to determine the best site-specific non-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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine

- 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.

Post Fire Rehab & Restoration Objectives and Strategies:

Post Fire Rehab & Restoration Objectives:

- 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 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 Objectives and Strategies:

Community Protection/Community Assistance Objectives:

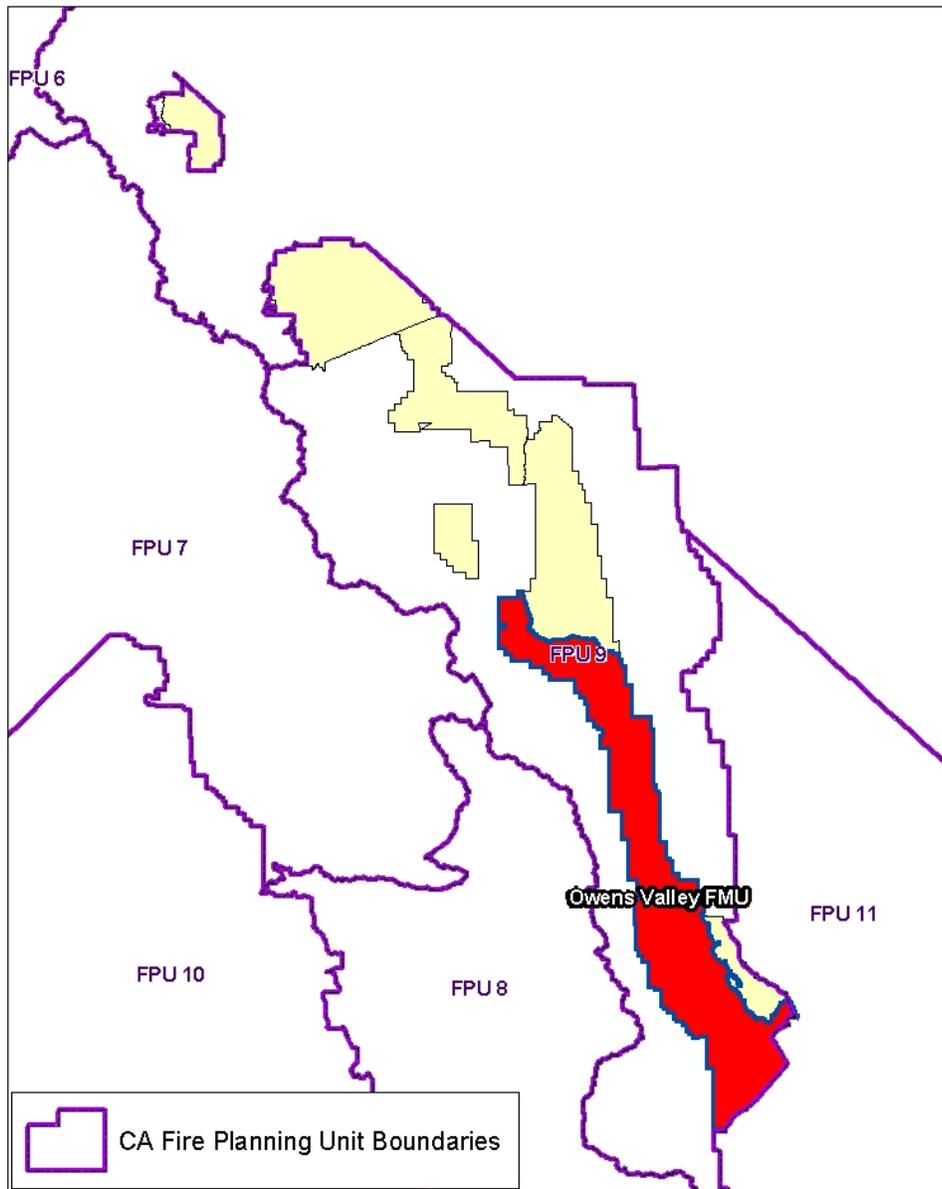
- Increase public awareness, participation, and cooperation pertaining to the mitigation of fire threats in the WUI
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with 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 recreationalist-caused fires
- Improve rural and volunteer fire department readiness and fire fighting capacity

Community Protection/Community Assistance Strategy:

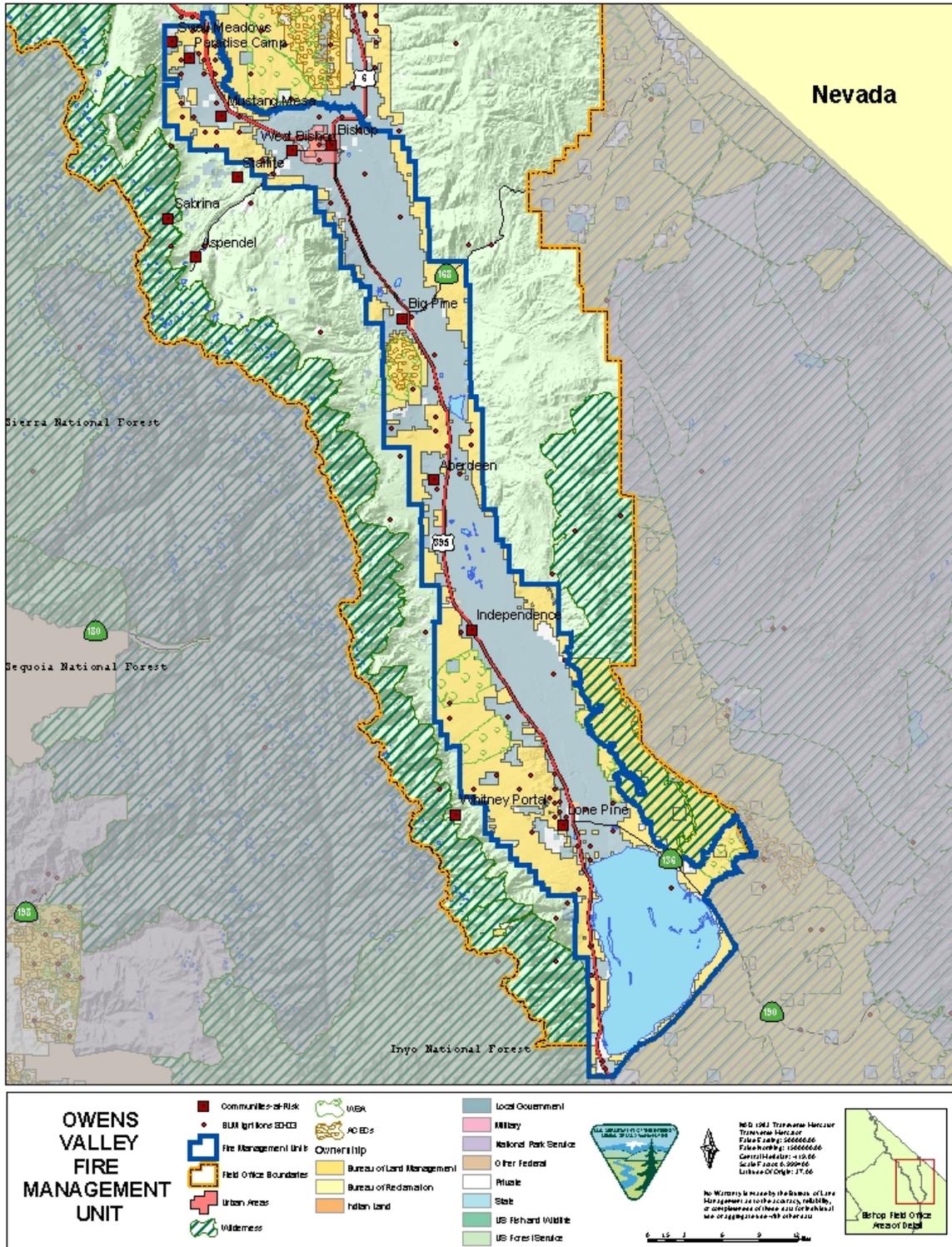
- Pursue formation of fire safe councils in all communities at risk.
- Work collaboratively with communities and other partners to develop a Community Wildfire Protection Plan (CWPP) and will update or amend the FMP as necessary to incorporate mitigation/prevention recommendations and priorities developed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

Owens Valley FMU



CA-170-06



FMU I.D. No.: CA-170-06 Owens Valley

FMU Type: WUI

FMU Location Information:

- **Geographic boundaries:** This 506,859-acre FMU includes the lower alluvial fans surrounding the Owens Valley in Inyo County. This FMU contains the communities of Bishop, Big Pine, Independence, and Lone Pine. This FMU includes the Crater Mountain ACEC and five WSA's (Cerro Gordo, Southern Inyo, Independence Creek, Crater Mountain, and Symmes Creek)

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-170-06	Owens Valley	
Ownership	Acres	Percent
Bureau of Land Management	190,695	38
Other Federal/State/Private/etc.	316,165	62
Total Acres	506,859	

FMU Characteristics:

This FMU consists of volcanic flows, upland slopes, and valleys with generally well defined access routes. Elevations range from 2,500 ft. to 5,000 ft. Major plant community types in this FMU include pinyon pine woodlands, saltbush scrub, shadscale scrub, sagebrush steppe, alkali meadow and riparian. Use in this FMU includes grazing and dispersed recreation.

Soils are comprised primarily of granitic and volcanic parent material that are well drained and slightly to moderately susceptible to erosion. There are numerous perennial drainages that bisect the FMU. The drainages are narrow and soils are generally rocky in texture.

Fire Occurrence and History:

Fire History Ignitions by Size Class		CA-170-06
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	108	7.0
B (0.3 - 9.9)	32	50.7
C (10 - 99.9)	9	437
D (100 - 299.9)	5	743
E (300 - 999.9)	4	2,546
F (1000 - 4999.9)	2	4,540
G (5000+)	3	21,750
Total	163	30,074

In the period from 1980 thru 2002, 163 wildland fires occurred wholly or partially within this FMU, burning a total of 30,074 acres (includes acres burned outside the FMU boundary). Fire cause was 22% natural (lightning), 60% human-caused and 18% unknown.

Normal fire season is April 1st thru November 31st.

Fire Regime and Condition Class:

- Pinyon - juniper woodlands are 3/2 and 3/3
- Shrub steppe is 3/2 and 3/3
- Desert scrub is 3/1

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

Major plant community types in this FMU include pinyon pine woodlands, saltbush scrub, shadscale scrub, sagebrush steppe, alkali meadow and riparian.

Desert scrub, shrub steppe, and pinyon – juniper woodlands dominate this FMU. There is also an alkali flat component at the southern end of this FMU. Fuel Model 6 applies to nearly all of this area.

Orographic influences of the Sierra Nevada and White Mountains/Inyo Mountains significantly affect this FMU. Spring can be extremely windy, and many large, damaging, wind-driven fires have occurred in this FMU during the spring months. Summers are typically hot and dry, with low to very low relative humidity, and live fuel moisture typically drops to 30 – 40% by late summer and early fall. Thunderstorms are common and frequently these storms produce little or no rain. Multiple ignitions caused by dry lightning are common during these periods. Additionally, these thunderstorms are usually accompanied by strong, erratic winds.

Fire behavior is generally moderate, but in the vicinity of thunderstorms or other periods of high wind, fire behavior readily becomes extreme. Daytime winds are normally upslope and up canyon, with late afternoon shifts to down slope, down canyon. Very strong winds associated with cold fronts moving through the area are not uncommon on the east side of the Sierra Nevada, particularly in the spring and fall.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
 - Mule deer winter range
 - Owens Valley vole habitat
 - Rare plants
 - Oak trees
 - Ash trees
 - Joshua trees
 - Riparian habitat
 - Loss of native plant species to conversion to cheat grass
 - Known and unknown cultural sites
 - Cerro Gordo site
 - Manzanar National Monument

- Keeler Dunes
- Soda Plant National Register District at Keeler
- Carson and Colorado historic railroad grade
- Forage for domestic livestock grazing
- Fences
- Recreational and visual qualities
- Alabama Hills Special Recreation Management Area (SRMA)
- Campgrounds
- Crater Mountain ACEC
- Cerro Gordo WSA
- Southern Inyo WSA
- Independence Creek WSA
- Crater Mountain WSA
- Symmes Creek WSA
- Private property and structures
- Power line right-of-ways.

Human Environment/Communities at Risk:

Communities in the Owens Valley FMU are primarily comprised of permanent residents who live and work within the FMU or nearby commuting area. This FMU includes Bishop, the largest community in the eastern Sierra region. Numerous other smaller communities also exist. The communities in this FMU are fairly stable, featuring many families and retirees. Seasonal influxes of tourists are substantial. Many homeowners recognize the need for and benefits from defensible space and community fuels reduction work. Most residents can be reached through the various media outlets based in Bishop. Traditional home defense brochures, press releases and flyers work well in this FMU. Posted flyers at local gathering places, such as post offices, general stores, or other businesses, serve as an excellent method for information distribution. The small town atmosphere helps spread information by word-of-mouth and e-mail. More challenging is reaching the tourists who come from outside the area to recreate on public lands. The audience consists mainly of permanent residents and tourists.

Communities at risk include: Several fire safe councils are already operating in these Owens Valley communities.

- Aberdeen
- Alabama Hills
- Big Pine
- Birch Creek
- Bishop
- Cartago
- Chipmunk Canyon
- Fort Independence
- Forty Acres
- Granite View
- Independence
- Keeler
- Keough's Hot Springs

- Lone Pine
- Mustang Mesa
- Oak Creek.
- Olancha
- Paradise
- Rocking K
- Round Valley
- Rovana
- Seven Pines
- Swall Meadows
- Wilkerson

OBJECTIVES AND STRATEGIES

Fire Management Objective Priority Statement:

"The protection of human life is the single, overriding priority. Setting priorities to protect 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. (Federal Wildland Fire Management Policy, 1995/Updated 2001)"

Wildland Fire Burned Acre Constraints/Targets:

- FMU target Individual Wildland Fire Size: **1 acres**
- FMU Target Wildland Fire Acres Burned Per Decade: **3,814 acres (2%)**
- **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.
 - 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:**
 - Bulldozers and other heavy equipment can only be used in old growth timber stands, prominent viewsheds, riparian areas, aspen groves, cultural sites,

ACEC's, and mule deer winter ranges with authorization from the Field Office Manager, and only to protect human life, private property, structures, visitor safety, or other, sensitive or valuable resources

- **Special Fire Mgt. Considerations/Areas:**
 - Wildland urban interface
 - Protection and enhancement of sensitive plant and animal species, including mule deer winter range

Wildland Fire Suppression Strategies:

- At all Fire Intensity Levels (FIL), **90%** of all unplanned ignitions are kept under **1 acre** in size
- If the **2% (3,814 acres) decadal threshold for acres burned by wildland fire** is met, a review of objectives and strategies will be initiated to develop new criteria for suppression of wildland fires and prescribed fire and non-fire fuels treatments
- Use Appropriate Management Response (AMR) to meet suppression objectives listed above, based on current conditions and fire location
- 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
- 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 Bishop Field Office 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:

- No more than 3% of BLM lands (**5,721 acres not including maintenance treatments of WUI fuel breaks**) is treated via prescribed fire and/or non-fire means over the 10-year period
- Treatment emphasis will be in the WUI and for the protection and enhancement of sensitive plant and animal species, including mule deer winter range
- Treatment in desert scrub is minimal, outside of WUI
- Prescribed fire emissions remain within those allowed by state and local air quality regulators

Prescribed Fire Strategies:

- Treat up to 3% of BLM lands (**5,721 acres not including maintenance treatments of WUI fuel breaks**) via prescribed fire and/or non-fire means over the 10-year period
- Treatment emphasis is in the WUI, pinyon – juniper, and shrub steppe vegetation types
- 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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Non-Fire Fuels Treatment Objectives and Strategies:

Non-Fire Fuels Treatment Objectives:

- No more than 3% of BLM lands (**5,721 acres not including maintenance treatments of WUI fuel breaks**) is treated via non-fire and/or prescribed fire treatments over the 10-year period
- Treatment emphasis will be in the WUI and for the protection and enhancement of sensitive plant and animal species, including mule deer winter range
- Treatment in desert scrub is minimal, outside of WUI

Non-Fire Fuels Treatment Strategies:

- Treat up to 3% of BLM lands (**5,721 acres not including maintenance treatments of WUI fuel breaks**) via non-fire and/or prescribed fire treatments over the 10-year period
- Treatment emphasis is in the WUI, pinyon – juniper, and shrub steppe vegetation types
- An interdisciplinary approach is used to determine the best site-specific non-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
- Use of herbicides as a vegetation treatment option will be carefully examined, for potential impacts to water sources, wildlife habitat, and cultural/traditional uses
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Post Fire Rehab & Restoration Objectives and Strategies:

Post Fire Rehab & Restoration Objectives:

- 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 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 Objectives and Strategies:

Community Protection/Community Assistance Objectives:

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

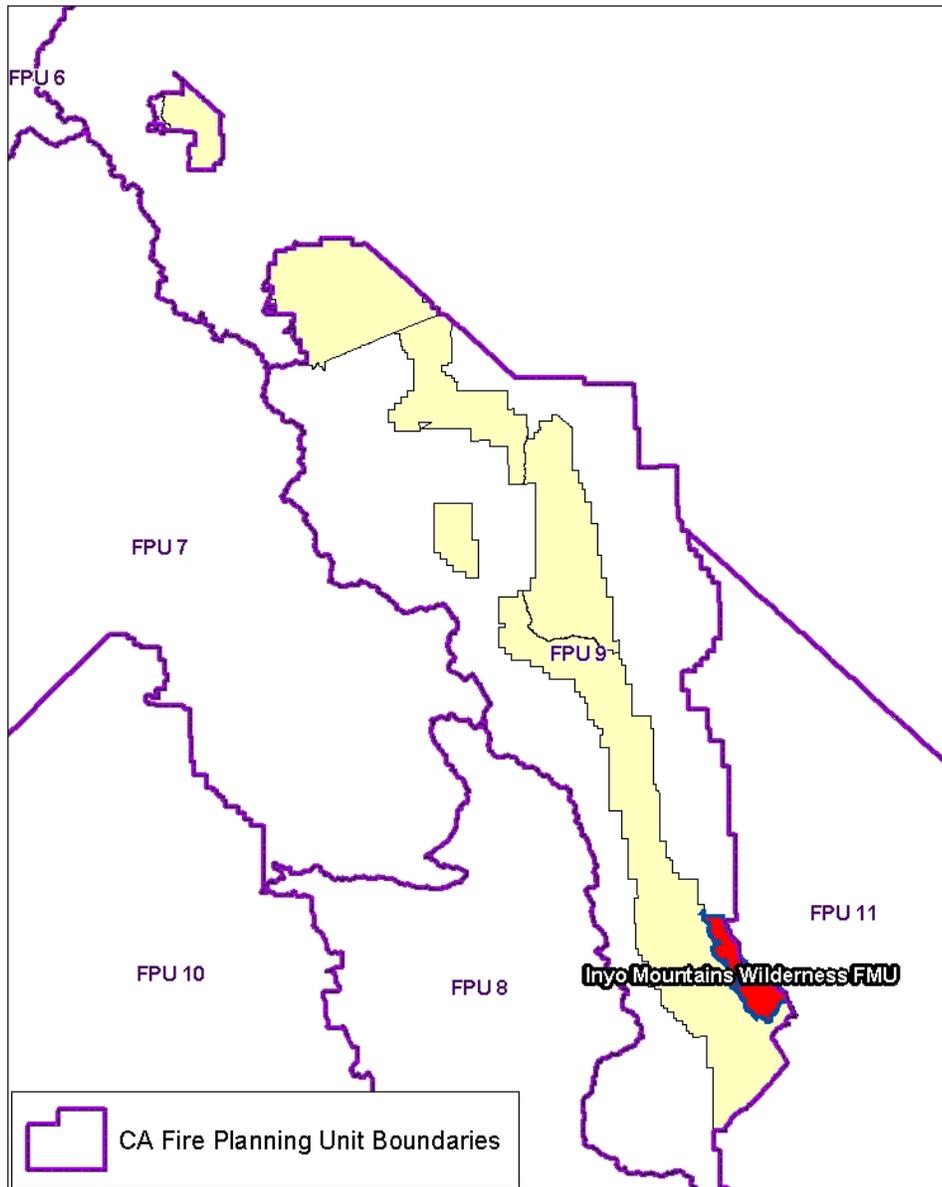
- Educate area population on the basic principles of fire ecology and fire's role in the environment
- Build public support for fuels reduction efforts in and around WUI
- Collaborate with local fire departments and other entities and individuals regarding federal grants available to communities at-risk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

Community Protection/Community Assistance Strategy:

- Pursue 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 prevention staff through an interagency agreement to make sure campsites 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.

Inyo Mountain Wilderness FMU



CA-170-07



FMU I.D. No.: CA-170-07 Inyo Mountain Wilderness

FMU Type: Wilderness (WFU)

FMU Location Information:

- **Geographic boundaries:** This 45,374-acre FMU is located east of the Owens Valley and encompasses the Inyo Mountain range that includes the Inyo Mountains Wilderness and the Keynot Peak ACEC.

FMU Area Acre Total:

Ownership by Acres and Percent		
CA-170-07	Inyo Mountains Wilderness	
Ownership	Acres	Percent
Bureau of Land Management	45,029	99
Other Federal/State/Private/etc.	345	1
Total Acres	45,374	

FMU Characteristics:

This FMU consists of mountains, ridges and upland slopes with difficult 4-wheel drive access routes. Elevations range from 4,000 ft. to 9,000 ft. Major plant community types that comprise this FMU include shadscale scrub, sagebrush steppe, montane shrub, mountain mahogany, limber pine, pinyon pine woodlands and bristlecone pine. Use in this FMU is limited, and mainly consists of dispersed recreation.

Soils are comprised primarily of calcareous and metamorphic parent materials that are well drained and slightly to moderately susceptible to erosion. There are numerous intermittent drainages that bisect the FMU. The drainages are narrow and soils are generally rocky to sandy loam in texture.

Fire Occurrence and History:

Fire History Ignitions by Size Class		CA-170-07
Size Class (Acres)	Number of Ignitions	Number of Acres
A (0.0 - 0.2)	1	0.1
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
Total	1	0.1

In the period from 1980 thru 2002, 1 wildland fire occurred wholly or partially within this FMU, burning a total of 0.1 acres (includes acres burned outside the FMU boundary). Fire cause was 0% natural (lightning), 100% human-caused and 0% unknown.

Normal fire season is May 1st and October 31st.

Fire Regime and Condition Class:

- Pinyon - juniper woodlands are predominantly 3/2
- Shrub steppe is 3/2
- Desert scrub is 3/1
- Bristlecone pine is 1/2

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

Major plant community types that comprise this FMU include shadscale scrub, sagebrush steppe, montane shrub, mountain mahogany, limber pine, pinyon pine woodlands and bristlecone pine.

Pinyon – juniper woodlands, shrub steppe, and desert scrub dominate this FMU, and thus Fuel Model 6 applies to the vast majority of this area. A narrow band of bristlecone pine forest exists along the Inyo Mountains ridge line. Fuel Model 8 best represents the conditions found in this area.

Orographic influences of the Inyo Mountains and the Sierra Nevada significantly affect this FMU. Warm, dry summers are typical. Relative humidity is usually low, and live fuel moisture typically drops to 40 – 60% by late summer and early fall. Thunderstorms are common and frequently these storms produce little or no rain. Multiple ignitions caused by dry lightning are likely during these periods. Additionally, these thunderstorms are usually accompanied by strong, erratic winds.

Fire behavior is generally moderate, but in the vicinity of thunderstorms or other periods of high wind, fire behavior readily becomes extreme. Daytime winds are normally upslope and up canyon, with late afternoon shifts to down slope, down canyon. Very strong winds associated with cold fronts moving through the area are not uncommon on the east side of the Sierra Nevada, particularly in the spring and fall.

Values at Risk:

- **Primary values (resource values and private property) to be protected:**
 - Saline Valley Salt Tram National Register Site
 - Historic features
 - Bristlecone pines
 - Wilderness values
 - Rare plants
 - Mule deer habitat
 - Visual resources.

Human Environment/Communities at Risk:

No residential areas exist in this FMU. Recreational use is low, and is primarily Off-Highway Vehicle users, hunters, hikers and dispersed campers.

There are no communities at risk in this FMU.

OBJECTIVES AND STRATEGIES**Fire Management Objective Priority Statement:**

The 1964 Wilderness Act defines wilderness as “lands that appear to be natural or undisturbed, where human changes are essentially unnoticeable, where earth and its community of life are untrammelled by man as well as lands that contain ecological, geological or other features of scientific or historical value.” For this definition of wilderness, Congress intended “untrammelled” to mean “unrestricted, unimpeded, or unhindered” - - that is, they envisioned landscapes where natural processes and physical forces would occur naturally without human influence.

BLM’s Wilderness Management Policy recognizes the importance fire plays in maintaining or restoring natural ecosystems. It further recognizes that all fires will be controlled to prevent human loss of life or property within or outside the wilderness. BLM’s management direction for fire in the Inyo Mountains Wilderness is to restore fire to its natural role in the ecosystem to the maximum extent consistent with safety of persons, property and other resources. The long term objectives below identify how Wildland Fire Use will be implemented to create a landscape where plant diversity, competition, and succession will occur in its natural cycle. The overall objective is to allow natural processes to occur, thus restoring or maintaining the cycle of naturalness in the wilderness ecosystem.

Over the years, a buildup of fuels and changes in vegetation structure has occurred in the wilderness, primarily in the pinyon-juniper zones. A natural-caused wildfire would burn intensely in these plant communities. In the southern portion of the wilderness, a fire such as this would threaten the Saline Valley Salt Tram and other historic features. These historic features are considered integral elements of the wilderness area and any potential wildland fire threatening these values would be immediately suppressed to the extent possible.

Fuel reduction treatments around historic features are prescribed below. The purpose of these measures is to more effectively protect historic features by reducing the fuels around the sites and diminishing the potential for loss of these sites to wildland fire. Prior to fuel reduction treatments to protect cultural resources in the wilderness, the appropriate level of environmental analysis will be conducted and include “minimum tool” applications to meet the minimum requirements for wilderness administration.

Wildland Fire Burned Acre Constraints/Targets:

- FMU target Individual Wildland Fire Size: **100 acres**
- FMU Target Wildland Fire Acres Burned Per Decade: **2,251 acres (5%)**
- **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.
 - 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.
- **Special Fire Mgt. Considerations/Areas:**
 - Protect the Saline Valley Salt Tram, other historic structures, and the bristlecone pines

Wildland Fire Suppression Strategies:

- At all Fire Intensity Levels (FIL), **90%** of all unplanned ignitions are kept under **100 acres** in size
- If the 5% of BLM lands (**2,251 acres**) decadal threshold for acres burned by wildland fire is met, a review of objectives and strategies will be initiated to develop new criteria for suppression of wildland fires, WFU, and prescribed fire and non-fire fuels treatments
- Use Appropriate Management Response (AMR) to meet suppression objectives listed above, based on current conditions and fire location
- 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
- 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 Bishop Field Office 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 Objectives:

- No more than 10% of BLM lands (**4,503 acres**) are burned via WFU over the 10-year period
- No loss of “Values at Risk” or “Communities at Risk” from WFU
- All Wildland Fire Implementation Plan (WFIP) protocols are followed for each WFU fire
- WFU emissions remain within those allowed by state and local air quality regulators

Wildland Fire Use Strategies:

- Treat up to 10% of BLM lands (**4,503 acres**) via WFU
- If the 10% (**4,503 acres**) **decadal threshold for acres burned by WFU and wildland fire** is met, a review of objectives and strategies will be initiated to develop new criteria for WFU, wildland fire suppression, and prescribed fire and non-fire fuels treatments
- WFU is not an option for fires threatening the Saline Valley Salt Tram or the bristlecone pines
- Use WFIP process to ensure involvement of Bishop Field Office Manager and appropriate resource specialists in all WFU fires
- Assign an archaeologist to fire crews who may build fire line or conduct other ground disturbing fire control activities, to ensure sites are not inadvertently damaged
- Conduct post-fire surveys, as needed, to determine the type and extent of cultural resources affected by the application of the wildland fire use strategy, and to assess resource impacts, such as the effects to the birefringent fronts of obsidian artifacts. These evaluations could be used to provide quantifiable data for making more informed decisions regarding wildland fire use models for fire management purposes

Prescribed Fire Objectives and Strategies:

Prescribed Fire Objectives:

- No more than 1% of BLM lands (**450 acres**) are treated via prescribed fire and/or non-fire means over the 10-year period

- Protect the Saline Valley Salt Tram, other historic structures, and the bristlecone pines
- Prescribed fire emissions remain within those allowed by state and local air quality regulators

Prescribed Fire Strategies:

- Treat up to 1% of BLM lands (**450 acres**) via prescribed fire and/or non-fire means over the 10-year period
- Treatment emphasis will be on protection of the Saline Valley Salt Tram structures and bristlecone pines
- An interdisciplinary approach is used to determine the best site-specific prescribed fire treatments to accomplish fuels reduction and other resource goals and objectives
- Fire and fuels management specialists will work closely with in local air quality regulators to ensure prescribed fire emissions stay within permitted levels
- Conduct appropriate pre-treatment surveys (archeological, botanical, etc...) to ensure no unintended loss of other resource values
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Non-Fire Fuels Treatment Objectives and Strategies:**Non-Fire Fuels Treatment Objectives:**

- No more than 1% of BLM lands (**450 acres**) are treated via non-fire and/or prescribed fire treatments over the 10-year period
- Protect the Saline Valley Salt Tram, other historic structures, and the bristlecone pines

Non-Fire Fuels Treatment Strategies:

- Treat up to 1% of BLM lands (**450 acres**) via non-fire and/or prescribed fire treatments over the 10-year period
- Treatment emphasis will be on protection of the Saline Valley Salt Tram structures and bristlecone pines

- An interdisciplinary approach is used to determine the best site-specific non-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
- Consult with all affected Native American communities prior to any vegetation treatment of pinyon pine
- 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.

Post Fire Rehab & Restoration Objectives and Strategies:

Post Fire Rehab & Restoration Objectives:

- 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 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 Objectives and Strategies:

Community Protection/Community Assistance Objectives:

- Reduce the risk of human caused wildland fires, with special emphasis on recreationalist-caused fires

Community Protection/Community Assistance Strategy:

- 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.

IV. FIELD OFFICE FIRE MANAGEMENT COMPONENTS

A. *Wildland Fire Suppression*

1. Wildland Fire History – During the 23-year period from 1980 through 2002, 587 wildland fires occurred wholly or partially within the seven FMU’s covered under this FMP and burned a total of 75,179.5 acres (includes acres burned outside the FMU boundaries). The average is 25.5 fires, burning 3,269 acres annually, across the seven FMU’s. Fire cause for these 587 fires was determined to be 52% natural (lightning), 37% human-caused, and the remaining 11% were of unknown origin. While the majority of these 587 fires were relatively insignificant in terms of size and intensity, several large, damaging fires did occur. Typically, these large fires were wind-driven and burned at FIL 5 or 6, quickly consuming several thousand acres before suppression efforts were successful.

Fire Size Class	# of Fires	Acres Burned
A (0.25 ac. or less)	421	31.9
B (0.26 - 9.9 ac.)	108	217.6
C (10.0 - 99.9 ac.)	28	1,272
D (100 - 299 ac.)	9	1,521
E (300 - 999 ac.)	10	6,157
F (1,000 - 4,999 ac.)	6	12,570
G (5,000 + ac.)	5	53,410
Total	587	75,179.5

2. Suppression/Preparedness Actions – The Appropriate Management Response (AMR) system is used to manage and suppress all wildland fires. In general, unless a fire is to be managed as a WFU fire, rapid suppression while the fire is small in size is the safest and most cost-effective strategy. The following types of fires are not candidates for Wildland Fire Use (WFU), and thus are managed for suppression:
 - a) Any fire in any location likely to be human-caused.
 - b) Any naturally ignited fire not within a designated Wildland Fire Use (WFU) area.
 - c) Any naturally ignited fire within a designated WFU area which the Field Office Manager, District Ranger, or other designated official believes cannot be managed under WFU to safely and effectively meet WFU and other resource management objectives for the given area.

When a fire is determined to not be a candidate for WFU, a wide range of suppression strategies and tactics can be employed. Fires threatening human life and private property receive the highest priority, and AMR in this situation includes water and retardant drops from aircraft, bulldozers, back-firing, hand crews, etc...

For fires not threatening human life or property, safe, rapid, cost-effective suppression is still the goal. In this situation however, AMR considers other resource management issues and generally results in a lighter-on-the-land suppression effort. The following AMR strategies and tactics are to be considered in these situations:

- Avoid retardant use within 300 feet of creeks and other waterways
- Use clear retardant when visual resources are a concern
- The Field Office Manager must authorize the use of bulldozers and other heavy equipment in prominent viewsheds, riparian areas, aspen groves, cultural sites, ACEC's, and mule deer winter ranges, and only to protect human life, private property, structures, or other, sensitive and valuable resources.
- Use natural and pre-existing human-made barriers to minimize fire line construction
- Consider back firing to minimize fire line construction
- Minimize fire line construction through riparian areas, meadows, low sagebrush, and other important habitat areas
- Construct fire lines perpendicular to riparian areas, not parallel to them
- Equipment coming from outside the FPU must be clean and free of soil and other vegetative material, to prevent the spread of noxious and invasive weeds

These strategies and tactics should be employed wherever possible, but are especially appropriate in ACEC's, WSA's, and other areas known to have other significant resource values.

All BFO fire suppression activities will be conducted in a manner that:

- 1) Ensure fire fighter and public safety is identified as the highest incident management priority;
- 2) Ensure that the protection of public infrastructure, private property and resource values will be weighed in all fire management suppression decisions;
- 3) Ensure that all Federal fire forces engaged in suppression and prescribed fire activities within the BFO's jurisdiction will meet or exceed the PMS 310-1 publication for all positions they are in;
- 4) Ensure that all aspects of the "*Interagency Standards for Fire and Aviation Operations*" will be adhered to at all times.

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, due to unsafe conditions associated with trying to put suppression personnel on the fire.

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.

BLM Line Officers 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.

3. Fire Prevention, Community Education, Community Risk Assessment, and Other Community Protection Assistance Activities (Firewise)

a) Annual Prevention Program - The fire prevention program is an active component of the fire management program. The Bishop Field Office and the Inyo NF fire prevention personnel work under one document, The Interagency Wildfire Prevention Plan, which outlines the prevention objectives and guidelines.

The Bishop Field Office fire prevention program strives to develop and apply maximum prevention efforts to minimize the ignition of human caused wildland fires. The primary human cause fire risk for the Bishop Field Office is debris burning and escaped campfires. The prevention program focuses on mitigation through education, engineering, and enforcement. Education is aimed at changing people's behavior by awareness and knowledge. This is accomplished through printed materials, mass media, personal contacts or group presentations, signs, displays, fair booths, and parade entries. Engineering is an activity designed to reduce or eliminate fire risks. Spark arrestors and clearing are an example of an engineering activity. Enforcement is used to gain compliance with fire regulation and ordinances.

The fire prevention program also focuses on fire danger in the WUI through risk and hazard mitigation. The primary effort is toward increased awareness through education, to make communities and individual property owners understand and appreciate the importance of hazard reduction on private land. Development of Fire Safe Councils in local communities is a key to risk and hazard reduction on private land. Additionally, there is collaboration with local fire departments and other cooperators working to reduce fire risk on and around private land.

b) Special Orders and Closures - All Special Orders and Closures will be coordinated with local cooperators, recommended by the Interagency Fire Management Officer and approved by the Field Office Manager and Forest Supervisor. See the Interagency Fire Restriction and Emergency Closure Plan for more details.

c) Industrial Operations and Fire Precautions - See the Interagency Wildfire Prevention Plan for details.

4. Annual Fire Training Activities

a) Qualifications and Fireline refresher – Training and fitness requirements for all Bishop 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 BFO 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.

Additionally, fire engine crews spend up to another 80 hours of hands-on training and drills, including fire line construction, progressive hose-lays, mobile attack, firing operations, etc. Air Attack Base personnel also have additional training to complete which includes annual fire extinguisher and crash/rescue training.

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 Field Office 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.

f) 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.

g) CDL's/Liability Insurance/Other Special Training and Fire Qualification Needs – All Engine Module Leaders, Engine Operators and Fire Operations Supervisors are required to have a Commercial Driver's License (CDL). In addition to the initial license fee and CDL medical examination, they are required to renew the license every 4 years and undergo the CDL medical examination every two years.

Due to the present climate of litigation and liability issues, fire managers and supervisors are encouraged to subscribe to professional liability insurance. Agency rules allow reimbursement of up to \$150 towards annual insurance fees per individual. The current budget allows a total of \$15,000 for training tuitions, travel and per diem for all preparedness staffs.

5. Detection – The interagency fire management staff may request aerial detection services on an as-needed basis from OVICC. The Inyo NF maintains one lookout (Bald Mountain in Mono County), which is sometimes useful in detecting wildland fires in two or three FMU's covered under this plan, depending on visibility.
6. Fire Weather and Fire Danger – There are eight Remote Automated Weather Stations (RAWS) applicable for use in the FPU. The OVICC staff is responsible for the daily and seasonal activities associated with RAWS data management. The table below provides summary characteristics for each of these eight RAWS.

<u>Name</u>	<u>Owner</u>	<u>Sta. ID</u>	<u>NFDRS</u>			
			<u>Fuel Model(s)</u>	<u>Elev.</u>	<u>Latitude</u>	<u>Longitude</u>
Walker	USFS-HTNF	43707	T and G	5,680 ft.	38.57000	118.25200
Bridgeport	USFS-HTNF	43702	G and T	6,560 ft.	38.24800	119.21900
Benton	BLM-Bishop	43708	C	5,377 ft.	37.83500	118.48300
Crestview	USFS-INF	43709	C, T, and G	7,518 ft.	37.73500	119.00000
Rock Creek	USFS-INF	43710	C and T	7,040 ft.	37.55100	118.66700
Owens Valley	CDF	44803	C	4,635 ft.	37.38500	118.55100
Oak Creek	BLM-Bishop	44804	C	4,280 ft.	36.83300	118.25200
Panamint	BLM-CDD	44806	A, B and G	6,880 ft.	36.11600	117.08300

Data collected from these RAWS are used to compute fire danger ratings on a daily basis. Portable RAWS stations are available and can be set up to provide site-specific weather information necessary for project implementation.

7. Aviation Management – The Interagency fire organization maintains a Type III helicopter at Independence, California, and an air tanker re-load base at the Bishop Airport. Local aviation service vendors are available to provide point-to-point transportation and reconnaissance missions.
8. Initial Attack – All fires on BLM lands covered under this FMP will be managed with suppression actions consistent with pre-planned dispatch protocols and in accordance with the resource management objectives identified in this plan. Fires potentially threatening human life and property always receive response priority over those not threatening human life and property.

The Owens Valley Interagency Communication Center is designed to provide direction and standards for initial attack on emergency incidents, and uses a state-of-the-art Computer Aided Dispatching (CAD) system. The CAD system determines the appropriate resource response, the number of resources necessary based on fire location, weather conditions, and resource availability. All responses are based on closest resource concept. Once the Incident Commander is on-scene, they will adjust resource orders as necessary.

9. Extended Attack and Large Fire Suppression – BLM direction for extended attack and large fire suppression follows the direction in the Interagency Standards for Fire and Fire Aviation Operations 2004 handbook.
10. Other Fire Suppression Considerations – none

B. Wildland Fire Use

1. Description of Wildland Fire Use Opportunities – This FMP covers only those lands within the FPU which are managed by the BLM – Bishop Field Office. Through an interdisciplinary effort, one FMU (Inyo Mountains Wilderness, CA-170-007) was identified for WFU. The specific fire management objectives for this FMU are addressed in Chapter III, Section D of this document.
2. Pre-Planned Implementation Procedures – This FMP establishes the Inyo Mountains Wilderness as the one FMU where WFU is allowable. Since this FMP will be in conformance with the RMP through an Amendment to the plan, there has been an open process for local and tribal governments, other agencies, and the public to comment on WFU designation and management objectives and strategies for this FMU through the NEPA process. Specific WFU management objectives and strategies for the Inyo Mountains Wilderness, CA-170-007 FMU can be found in Chapter III, Section D of this document.
3. Initial Action Procedures – All wildland fires will be subject to an initial attack response. This response will include size up of current fire situation, determination of probable 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 WFU fire. 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 AMR.
4. Required Personnel – The interagency fire organization is capable of managing WFU incidents up to and including those at the Stage III complexity level. A Fire Use Management Team can be ordered for incidents which require additional support personnel. 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 Interagency Dispatch Center.

5. Public Information – Timely public information is crucial for public support for WFU. Information should be targeted to all segments of the public, from those directly impacted by the fire, to those whose interest is merely curiosity. Phone call, letters, newspaper articles, and radio and TV news should all be utilized to spread information to the public. The information distributed should not only include specifics about the WFU fire, but also include other resource objectives and fuels reduction benefits.

C. Prescribed Fire

1. Planning and Documentation – Until recently, the Bishop Field Office use of prescribed fire had been relatively limited. Most prescribed fire treatments were conducted to meet other resource goals and objectives. For FY2004, the Bishop Field Office intends to implement three prescribed fire fuels reduction projects to treat approximately 102 acres. All projects are in the WUI. For FY2005, prescribed fire treatments total one project, treating approximately 350 acres, all within the WUI. In all cases, these treatments are being designed to move from a higher risk Condition Class (2 or 3), to a lower risk Condition Class (1 or 2).

Initial emphasis areas for prescribed fire treatments are the WUI, habitat enhancement and protection for threatened, endangered, or otherwise sensitive species, and Condition Class 3 areas. Over time, as these areas are treated, it is anticipated that prescribed fire and WFU will become the preferred and dominant treatment methods to restore and maintain these fire-adapted ecosystems, especially outside the WUI.

2. Air Quality and Smoke Management – Air quality across the FPU is generally good. There are two moderate PM 10 non-attainment areas within the FPU (Mammoth Lakes and Mono Basin) and one serious PM 10 non-attainment area (Owens Valley).

There are three Class 1 airsheds within the FPU (Hoover Wilderness, Ansel Adams Wilderness, and John Muir Wilderness). Prevailing winds usually favor smoke dispersal away from these airsheds. These airsheds are more commonly impacted by prescribed fire conducted by agencies on the west side of the Sierra Nevada. Favorable burn days within this FPU usually include adequate lifting of smoke into the transport layer for good smoke dispersal. Smoke impacts from prescribed fire are short term in nature.

Each prescribed fire project requires a Burn Plan. An approved Smoke Management Plan is contained within the Burn Plan. This Smoke Management Plan must be approved at least 30 days prior to ignition, by the local air pollution control district. Additionally, prior day ignition approval is required from the local air pollution control district.

D. Non-Fire Treatments

Until recently, the Bishop Field Office use of non-fire treatments has been relatively limited. Most vegetation manipulation was conducted to meet other resource goals and objectives. In all cases, these treatments are designed to move vegetation from a higher risk Condition Class (2 or 3), to a lower risk Condition Class (1 or 2). As the fuels program becomes more established, it is anticipated that annual non-fire treatments could reach several thousand acres.

Initial emphasis areas for non-fire treatments are WUI hazard reduction, habitat enhancement and protection of threatened, endangered, or otherwise sensitive species. Other non-fire treatment targets include Condition Class 3 vegetation areas, where prescribed fire or WFU cannot safely be introduced without pre-treatment to modify the fuels condition. Over time, as these areas are treated, it is anticipated that prescribed fire and WFU will become the preferred and dominant treatment methods to restore and maintain these fire-adapted ecosystems, especially outside the WUI.

The Bishop Field Office will also employ mechanical fuels reduction contracts with by-product (fuelwood) utilization, via stewardship contracting authorities. Additional by-product utilization will be pursued if markets continue to develop.

E. Emergency Stabilization and Rehabilitation

Historically, Emergency Stabilization and Rehabilitation (ESR) workload has been approximately 500 acres per year. Most ESR needs have been in the desert scrub and shrub steppe vegetative communities. Once these native plant communities burn, cheat grass frequently invades the site.

The short term ESR actions are aimed primarily at damage caused by the suppression effort itself, and include fire line rehabilitation and erosion control measures. Short and long term goals are to help mitigate fire-related degradation to natural and cultural resources, minimize threats to life and property resulting from the effects of the fire, and repair/replace/construct physical improvements necessary to prevent degradation of the land or resources. The long term objective is the re-establishment of the appropriate native plant community.

F. Community Protection/Community Assistance

1. Number of WUI communities at risk with completed and current fire management plans or risk assessments - There are 22 communities within the FPU that are listed in the Federal Register as Communities-at-Risk. Numerous other communities exist which appear to have been missed and should have been included in the Federal Register listing. Lone Pine Paiute-Shoshone Reservation has a current fire management plan. Fort Independence Indian Reservation has a current plan, but is not listed as a Community-at-Risk. Numerous communities have held public meetings to address the WUI situation and organize fuel reduction projects. These communities are in the early

stages of forming local Fire Safe Council chapters under the Eastern Sierra Regional Fire Safe Council.

2. Total number of WUI communities at risk with fire prevention programs in place and being implemented - Of the 22 Communities-at-Risk, 15 have active interagency fire prevention programs. The programs range from press releases, school programs, defensible space education, billboards, fairs, events, and Fire Safe Councils, to actual on-the-ground fuels reduction projects. Several Fire Safe Councils and local volunteer fire departments are very involved in educating the homeowners in the risk reduction in the WUI.
3. Total number of WUI Communities At-Risk that initiated volunteer and community funded efforts to reduce hazardous fuels resulting in the removal of the community from the at-risk list - None.
4. Overview of the rural fire assistance program within the FPU - The rural fire departments are a crucial element to our fire agency response area. Commonly these volunteer fire departments are first on-scene at wildland fires, vehicle accidents, and medical emergencies. Numerous departments border BLM response areas. The rural fire assistance program is an invaluable program for our local volunteer fire departments, which provide the opportunity to purchase or update much needed equipment.

Rural fire assistance grants have been awarded to numerous local volunteer fire departments, including: Paradise, Long Valley, Keeler, Bridgeport, Big Pine, Antelope Valley, and Aspendell. These volunteer fire departments used these grants to purchase Personal Protective Equipment (gloves, hard hats, Nomex pants and shirts), I.A. packs and web gear, and radios. Grant money has also been used to train personnel in wildland fire suppression strategies and tactics.

V. ORGANIZATION, BUDGET, AND AGREEMENTS

A. Organization and Budget

The following tables display the Normal Year Readiness and desired organization for the Bishop Field Office to meet the following fire management priorities:

- Provide for firefighter and public safety.
- Protect communities, property and natural and cultural resources.
- Reduce hazardous fuels, restore and maintain healthy ecosystems, recognizing wildland fire as a critical natural process.
- Assist communities with hazardous fuel reduction, fire safe planning, and fire prevention.
- Provide education as to fire's natural role and ecosystem process.
- Provide emergency stabilization and rehabilitation of burned areas.

This office maintains a vehicle fleet, fire equipment, and fire cache at their respective locations to meet most initial attack, limited extended attack fires, as well as sustained fuels management and prescribed fire programs. Inventories, records management and budgeting for this office program is the responsibility of the Field Office FMO. Regional fire staff provides advice and guidance in this area.

This office also supports other field offices and cooperating agencies such as the U.S. Forest Service, National Park Service, and California Department of Forestry and Fire Protection, with their fire management programs.

The following tables reflect 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 Bishop Field Office Fuels and Prevention Plan on file at the BFO. The costs displayed below does not include the complete cost of running the Bishop 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 in the table below are those positions that have been approved through the BLM California Fire & Aviation Management Plan (2002), the Field Office RAMS report, and the USFS/BLM Interagency Service First Agreement. 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.

Resources	Approved Staffing	Funding Availability (As of FY04)	Normal Activation	Sub-activity	Total Yearly Cost ¹
Deputy Inter-agency FMO	1	1	Year-round	2810/2824	\$120,000
Fire Operations Specialist	1	1	Year-round	2810/2824	\$112,000
Fuels Management Specialist	1	0 ³	Year-round	2823/2824	\$100,000
Fire Education and Mitigation Specialist	1	.5 ⁴	Year-round	2810/2824	\$100,000
Dispatch	2.5	2	Year-round	2810/2824	\$160,000
Vehicles	Needed	Currently Available			Total Yearly Cost
Command Vehicles	7	6	Yearly	2810/2824	\$56,000
Type 3 Engine ² (Type 4 - National Standard)	2	2	May 1 - Oct. 31	2810/2824	\$559,402
Type 4 Engine ² (Type 6 - National Standard)	2	2	May 1 - Oct. 31	2810/2824	\$377,232

- 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 Refer to CA BLM State-level FMP for breakdown of module configuration, including staff.
- ³ This position is currently filled, but there is no base funding provided for this position. The funding for this position is completely through projects. The desire would be that base funding be provided for 50%, if not 100%, of this position.
- ⁴ This position is currently funded by both BLM and USFS.

Mechanical fuels treatments rely heavily on contracting services from the private sector, while prescribed fire treatments utilize the joint Bishop Field Office/Inyo NF interagency fire specialists and personnel.

Support Staffing

The Bishop 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 staff will be figured into the project costs when submitted into BPS and NFPORS.

Fire Funded Support Staff/Resources*	Desired Staffing	Normal Activation	Sub-activity	Total Yearly Cost
LE Ranger Support	.5*	June - Oct	2810/2824	35,000
Administrative Support	.5*	Yearly	2810/2824	25,000
GIS Support	.5*	Yearly	2810/2824	40,000

* Partial funding to use or augment existing staff to help support the fire management program.

Desired Staffing

There are no positions and/or equipment that are desired by the Bishop Field Office that is currently not approved through the BLM California Fire & Aviation Management Plan (2002) and the Field Office RAMS report.

Facilities

The costs associated with facilities for the engines located currently in the two fire stations, will be displayed in the California BLM State Office Fire Management Plan for this version. The costs for the third station, currently planned for construction, will also be displayed in the California BLM State Office Fire Management Plan. The next version of this FMP will display those costs in this chapter.

IM OF&A No. 2004-028 - Budget Tables (Implemented/Planned)

Refer to the appendices for the tables that were requested by the Office of Fire and Aviation for inclusion into all FMPs.

B. Assistance Agreements and Intra/Interagency Agreements

The Bishop Field Office and the Inyo National Forest operate a fully integrated interagency fire management organization. Additionally, the Bishop Field Office has a Cooperative Fire Protection Agreement with California Department of Forestry (CDF), whereby CDF provides fire protection services for all BLM land in Inyo County and the BLM provides fire protection services for all State land in Mono County. Agreements also exist between the Bishop Field Office and Bodie State Park, as well as numerous local volunteer fire departments. A complete listing of all such agreements is available in the dispatch center.

C. Equipment Rental Agreements - None

D. Contract Suppression and Prescribed Fire Resources - None

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 Bishop 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 be 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 BFO 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 the 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 BFO in meeting its resource management and fire/fuels management goals and objectives in the Bishop RMP. Revisions, additions, and adjustments that are in conformance with the 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 – BFO Deputy Fire Management Officer (FMO) will ensure that his suppression and prevention modules, 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 BFO 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 BFO 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. BFO 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 BFO 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 BFO 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 BFO by analysis of study transects established prior to treatment. These transects are subsequently studied 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 BFO. Future prescribed fire treatments will be displayed in the Geographical Information System (GIS) data base.

2. Wildland Fire Use:

Wildland fire use projects will be allowed to burn within current and predicted weather/climatological parameters and associated fire behavior that ensure:

- 1) Fire stays within a delineated area defined in the *Wildland Fire Implementation Plan* (WFIP)
- 2) Vegetation changes are within an accepted ecological range of values for the affected ecosystem
- 3) No identifiable threat will occur to significant historic or cultural resources

- 4) No identifiable threat to life or private property
- 5) Cooperation with state or federal air quality guidelines for particulate matter.
- 6) Concurrence of BLM California State Office staff during national preparedness level 4 and BLM national staff concurrence at preparedness level 5.

The following procedures will be followed to ensure the results listed above:

- 1) Monitor weather and associated fire danger along with climatological comparisons to historical averages and past, known fire years.
- 2) Install portable air quality monitoring stations at smoke sensitive sites affected by fire use projects.
- 3) Complete adequate fire behavior spread predictions for all ignitions. A long-term fire behavior analyst will be used for all Stage III analyses.
- 4) Consult with local archeologists and natural resource managers.
- 5) Consult with cooperators on their fire management activity to gauge effects of total fire load on region.
- 6) Assign sufficient wildland firefighting resources to manage the fire use project. This includes operational and logistical resources for implementation as well as managers and decision makers.

Post-fire monitoring will be the same as for a prescribed fire.

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 BFO is responsible for effectiveness monitoring of emergency stabilization (ES) and rehabilitation (R) treatments. The BFO 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 are planned actions:

- to stabilize and prevent unacceptable degradation to natural and cultural resources
- to minimize threats to life and property resulting from the effects of a fire
- to 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 are planned actions:

- specifies treatments required to implement post-fire rehabilitation policies

- to repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions
- to repair minor facilities damaged by fire
- actions must be taken within three years of containment of a wildland fire

The BFO is responsible for monitoring both implementation of the rehabilitation and stabilization activities, and also monitoring for species recovery and noxious weeds. Usually, the BFO 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 (NFORS).

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)

All Wildland Fire Use fires (WFU) will follow the Wildland Fire Use Coordination and Communication Protocol developed June 2004 via a partnership with NPS, USFS, BLM, California Air Resource Board (CARB), and individual Air Districts from around the state. In addition all Wildland Fire use fires will be recorded and tracked within the NFORS database. For all Wildland Fire Use Fires over 10 acres in size, the Field Office will develop and submit to the appropriate Air District, a Smoke Management Plan (SMP) that provides the information and procedures required in title 17, § 80160 and applicable Air District rules.

General and on-going planning and communication with Air Districts regarding (WFU):

- a) Land management agencies (LMAs) will seek input from the appropriate Air Districts when amending their Resource Management Plans and their Fire Management Plans.
- b) LMAs will include areas where WFUs may be used on the annual Air District Burn Registrations.

- c) Prior to each fire season, the LMAs and Air Districts will meet to discuss successes and shortfalls identified during the previous burn year and determine improvements that can be made to this Protocol.
- d) LMAs and Air Districts will work together to establish:
- Criteria for managing WFUs in progress based on existing and projected air quality conditions
 - Fire and emission reporting criteria and timelines
 - Smoke mitigation measures to minimize smoke/emission impacts from active WFUs
 - Coordinated outreach opportunities and methods
 - Other needed resources and tools

Available Reporting and Record Keeping Tools:

- Wildland Fire Emission Spreadsheet
- WFU Fire Emission Dispersal Advisory (FEDA)
- Wildland Fire Use Smoke Management Summary Form
- WFIP Stage Analysis and Periodic Fire Assessment documentation

The first 3 tools are available electronically at <http://www.arb.ca.gov/smp/wfu/wfu.htm>.

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 BFO 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 BFO'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 of 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 BFO 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 BFO 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 BFO 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 (DPAs). Within these DPAs, 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 possess the recognition, knowledge and understanding of each other’s mission objectives, policies and authorities.

DPAs 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 - Planned actions 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."

(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

APPENDIX

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)

Appendix D - Fire Occurrence History Data (for FPA use)

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: Bishop Field Office, CA

Resources	Quantity	Number of Personnel	Total Work Months
Number of Engines:	4	24	173
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:	1		12
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:	7		
Number of Career Seasonals funded by Preparedness:	1		
Number of Temporaries funded by Preparedness:	3		
Number of PFT funded by Fuels:	7		
Number of Career Seasonals funded by Fuels:	1		
Number of Temporaries funded by Fuels:	3		

* 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: Bishop Field Office, CA

Resources	Quantity	Number of Personnel	Total Work Months
Number of Engines:	4	24	173
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:	1		12
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:	3		18
Number of Fuels Specialists:	1		12
Number of Other Fire Staff:	0		0
Number of PFT funded by Preparedness:	7		
Number of Career Seasonals funded by Preparedness:	1		
Number of Temporaries funded by Preparedness:	3		
Number of PFT funded by Fuels:	10		
Number of Career Seasonals funded by Fuels:	1		
Number of Temporaries funded by Fuels:	3		

Fire Occurrence History Data (for FPA use)

The following fire occurrence history data were created based on the criteria used by FPA. This information only displays those fires that started on BLM lands within the Bishop Field Office. The size of the fires displayed includes the acreage burned on both BLM and non-BLM lands. This information does not display the BLM acreage that was burned by fires that started off BLM land and then burned onto BLM land.

Bishop Field Office Fire Occurrence and History Tables (all FMUs combined)

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 Total Acres (80-03)	23 Year Average Acres (80-03)
CA-170-01	21	8,600	707	14,848	43	8,600	349	14,992
CA-170-02	44	85	3	128	137	370	6	852
CA-170-03	20	75	4	78	51	2,980	61	3,129
CA-170-04	12	0	0	1	20	0	0	2
CA-170-05	29	10	1	21	73	25	1	57
CA-170-06	20	120	12	243	93	2,000	49	4,583
CA-170-07	0	NA	NA	NA	0	NA	NA	NA

Size Class (Acres)	Number of Fires	Largest Fire (Acres)	Average Fire Size (Acres)	Total Acres Burned
A (0.0 - 0.2)	281	0.1	0.1	21.3
B (0.3 - 9.9)	97	8.0	1.4	135.0
C (10 - 99.9)	22	85.0	47.7	1,049.0
D (100 - 299.9)	6	200.0	157.2	943.0
E (300 - 999.9)	5	913.0	567.4	2,837.0
F (1000 - 4999.9)	5	2,980.0	2,006.0	10,030.0
G (5000+)	1	8,600.0	8,600.0	8,600.0

Fire Acres by Year for 1980-2003, Bishop Field Office				
Year	Number of Ignitions	Largest Fire (Acres)	Average Fire (Acres)	Total Acres
1980	11	39	3.5	39
1981	12	39	3.8	46
1982	14	15	2.0	28
1983	6	520	92.2	553
1984	15	2,980	230.0	3,450
1985	19	8	0.8	14
1986	27	60	3.4	92
1987	31	3	0.3	10
1988	19	3	0.3	5
1989	32	913	42.8	1,370
1990	13	100	18.8	245
1991	21	193	9.3	196
1992	26	2,000	80.5	2,093
1993	25	150	6.2	156
1994	23	72	4.0	93
1995	5	75	23.5	118
1996	25	1,600	147.0	3,674
1997	17	120	12.5	212
1998	6	1	0.4	2
1999	8	1	0.4	3
2000	15	2,150	143.6	2,155
2001	15	75	5.8	87
2002	11	8,600	815.2	8,967
2003	21	5	0.41	8.70

Bishop Field Office Fire Occurrence and History Tables (by individual FMU)

Coleville FMU

FMU Number	Decadal	24 Years	Ignition Cause (80-03)	
CA-170-01	(94-03)	(80-03)	Lightning	26
Number of Fires	21	43	Human/Other	17
Largest Fire (Acres)	8,600.0	8,600.0	Multiple Fire Days (80-03)	
Total Acres Burned	14,847.7	14,992.1	Total Multiple Fire Days (MFD)	11
			Number of MFD Fires	15
Average Fire Size (Acres)	707.0	348.7	Total Acres Burned by Multiple Fires	2,014.3

Bridgeport Valley - Bodie Hills FMU

FMU Number	Decadal	24 Years	Ignition Cause (80-03)	
CA-170-02	(94-03)	(80-03)	Lightning	111
Number of Fires	44	137	Human/Other	26
Largest Fire (Acres)	85.0	370.0	Multiple Fire Days (80-03)	
Total Acres Burned	128.0	851.7	Total Multiple Fire Days (MFD)	38
			Number of MFD Fires	64
Average Fire Size (Acres)	2.9	6.2	Total Acres Burned by Multiple Fires	680.9

Granite Mountain FMU

FMU Number	Decadal	24 Years	Ignition Cause (80-03)	
CA-170-03	(94-03)	(80-03)	Lightning	46
Number of Fires	20	51	Human/Other	5
Largest Fire (Acres)	75.0	2,980.0	Multiple Fire Days (80-03)	
Total Acres Burned	78.0	3,129.0	Total Multiple Fire Days (MFD)	20
			Number of MFD Fires	27
Average Fire Size (Acres)	3.9	61.4	Total Acres Burned by Multiple Fires	3,058.4

Long Valley FMU

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)	
CA-170-04				
Number of Fires	12	20	Human/Other	10
Largest Fire (Acres)	0.2	0.2	Multiple Fire Days (80-03)	
Total Acres Burned	1.3	1.7	Total Multiple Fire Days (MFD)	5
			Number of MFD Fires	6
Average Fire Size (Acres)	0.1	0.1	Total Acres Burned by Multiple Fires	0.5

Benton FMU

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)	
CA-170-05				
Number of Fires	29	73	Human/Other	43
Largest Fire (Acres)	10.0	25.0	Multiple Fire Days (80-03)	
Total Acres Burned	20.6	57.4	Total Multiple Fire Days (MFD)	12
			Number of MFD Fires	12
Average Fire Size (Acres)	0.7	0.8	Total Acres Burned by Multiple Fires	1.2

Owens Valley FMU

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)	
CA-170-06				
Number of Fires	20	93	Human/Other	72
Largest Fire (Acres)	120.0	2,000.0	Multiple Fire Days (80-03)	
Total Acres Burned	242.8	4,583.4	Total Multiple Fire Days (MFD)	12
			Number of MFD Fires	15
Average Fire Size (Acres)	12.1	49.3	Total Acres Burned by Multiple Fires	184.1

Inyo Mountains Wilderness FMU

FMU Number	Decadal (94-03)	24 Years (80-03)	Ignition Cause (80-03)	
CA-170-07			Lightning	0
Number of Fires	0	0	Human/Other	0
Largest Fire (Acres)	0.0	0.0	Multiple Fire Days (80-03)	
Total Acres Burned	0.0	0.0	Total Multiple Fire Days (MFD)	0
			Number of MFD Fires	0
Average Fire Size (Acres)	0.0	0.0	Total Acres Burned by Multiple Fires	0.0

Desired vs. Actual Initial Attack Success Analysis Table (by individual FMU)

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-170-01	<1 Acres @ 90%	43	24	56
CA-170-02	<1 Acres @ 90%	137	111	81
CA-170-03	<10 Acres @ 90%	51	48	94
CA-170-04	<1 Acres @ 90%	20	20	100
CA-170-05	<1 Acres @ 90%	73	63	86
CA-170-06	<1 Acres @ 90%	93	67	72
CA-170-07	<100 Acres @ 90%	0	NA	NA