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Gila District Fire Management Plan

I. Introduction

A. Purpose

The purpose of the Bureau of Land Management (BLM) Gila District Fire Management Plan (GD-FMP) is to identify and integrate all wildland fire management guidance, direction, and activities required to implement national fire policy and fire management direction. Overall direction from the 1991 Safford Resource Management Plan (SAD-RMP) and the 1988 Phoenix Resource Management Plan (PHX-RMP) and their associated implementation plans, as amended by the 2004 Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management (LUPA), allows fire to be restored as an integral part of an ecosystem function to meet resource management objectives and to improve protection of human life and property through the reduction of hazardous fuels. The GD-FMP allows management direction to be easily accessible by fire and resource personnel. It highlights management direction to facilitate development and implementation of fire management strategies. A Glossary of Terms is provided at the end of this document to assist in clarifying technical terms.

The FMP was developed around a District fire management program and addresses all aspects of it, including Wildland Urban Interface (WUI), rural fire assistance, prescribed fire, fuels management, prevention, and suppression. The FMP identifies a fire program that meets identified fire management objectives. This plan covers all burnable public land acres within the Gila District and is a strategic document.

The fire management organization outlined in the FMP will be utilized in the development of annual budget requests and annual work plans. Proposed actions, alternatives, and environmental analyses, in compliance with the National Environmental Policy Act (NEPA), will be based on these strategies and developed for implementation of site specific projects. In addition, this FMP lays the foundation for future collaborative efforts involving interagency partners and state and local cooperators.

B. Relationship to Environmental Compliance

All fire management objectives, constraints, and activities contained within this plan are consistent with the 1991 SAD-RMP, the 1988 PHX-RMP, as amended by the 2004 Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management and associated Environmental Impact Statements (EIS) and Environmental Analyses (EA).

C. Collaborative Process Identification

This FMP is for the BLM Safford and Tucson Field Offices. The GD-FMP is a strategic document identifying approved fire management direction determined by the RMP's and analyzed in the final environmental impact statements for these plans. Both of these RMP's were developed with input from and consultation with representatives from the Bureau of Indian Affairs (BIA), U.S. Fish and Wildlife Service (USFWS), U.S. Forest Service (USFS), the State of Arizona, the City of Safford, and interested citizens. The GD-FMP meets the national requirement that all BLM administered lands subject to wildland fires are managed under a current FMP. Prior to implementing fire management treatments on-the-ground, additional environmental analysis and compliance with other federal and state regulatory requirements such as the National Historic Preservation Act and the Endangered Species Act, the Clean Water Act and the Clean Air Act will be required.

D. Authorities

The "Principal Wildland Fire Laws" reference guide dated October 2003 consolidates in one guide applicable laws covering the BLM fire management program.

Authorities for the Fire Management program are listed below:

1. PROTECTION AND SUPPRESSION

a. BLM Lands Generally Statutory Law

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- Protection Act of September 20, 1922: Protection of Timber Resource (16 U.S.C. § 594)
 - Taylor Grazing Act: Protection of Grazing Districts and Other Interior Lands (43 U.S.C. § 315a)
 - Federal Land Policy and Management Act (FLPMA): Preservation and Protection of BLM Lands (43 U.S.C. §§ 1701-52)
 - Wildfire Disaster Recovery Act of 1989: Protection of National Forests: Reforestation; Management: Report on Rehabilitation Needs (16 U.S.C. § 551b)
 - Wildfire Disaster Recovery Act of 1989: Protection of National Forests: Reforestation; Management: Planning for Fire Protection (16 U.S.C. § 551c)
 - Appropriations Act: Wildland Fire Management (2001)

b. BLM Lands Generally Administrative Law

- Fire Management: Wildfire Prevention (43 C.F.R. § 9212.0 et seq.)
- Fire Management: Wildfire Prevention, Prohibited Acts on BLM Lands (43 C.F.R. § 9212.1)
- Fire Management: Wildfire Prevention, Fire Prevention Orders (43 C.F.R. § 9212.2)
- Fire Management: Wildfire Prevention, Permits (43 C.F.R. § 9212.3)
- Fire Management: Wildfire Prevention, Penalties (43 C.F.R. § 9212.4)
- Forest Management: Sales of Forest Products May Include Provisions for Fire Safety (43 C.F.R. § 5424.0-6)
- Visitor Services: Closures and Restriction Orders, Recreation Management (43 C.F.R. § 8364.1)
- Recreation Management: Temporary Closure of Lands (43 C.F.R. § 9268.3)
- State and Local Laws (43 C.F.R. § 8365.1-7) Executive Order No. 11644: Use of Off-Road Vehicles on Public Lands

c. Specific BLM Lands: Administrative Law

1. National Wilderness Preservation System

- Regulations for Administration and Use of Wilderness Areas (43 C.F.R. § 19.6)
- Emergency Functions in Wilderness Areas (43 C.F.R.)
- Provisions to Control Fire, Insects, and Disease in Wilderness Areas (43 C.F.R. § 6304.22)
- Wild & Scenic Rivers and National Trails System Acts
- Emergency Motorized Vehicle Use on National Scenic Trails (43 C.F.R. § 8351.1-1)
- Special Rules Exempting Fire Fighters on Official Duty (43 C.F.R. § 8351.2-1)
- Prohibition on Fire within National Wild & Scenic River System (43 C.F.R. § 8351.2-1e)

d. Other DOI Lands (Non-BLM): Statutory Law

- National Wildlife System Administration Act of 1966: Interagency Agreements (42 U.S.C. § 668dd)

2. PRESCRIBED FIRE AND MANAGING WILDLAND FIRE FOR RESOURCE BENEFIT [FIRE USE]

a. BLM Lands Generally: Statutory Law

- McSweeney-McNary Act (16 U.S.C. § 1647) – repealed.
- Taylor Grazing Act (43 U.S.C. § 315a)
- Federal Land Policy and Management Act (FLPMA) (43 U.S.C. §§1701-52)
- Appropriations Act: Wildland Fire Management (2001)

b. State Lands: Statutory Law

- Pittman-Robertson Wildlife Restoration Act or Federal Aid in Wildlife Restoration (16 U.S.C. § 669)

3. CONTRACTS, COOPERATIVE AGREEMENTS, GRANTS AND COMMUNITY ASSISTANCE

a. BLM Generally: Statutory Law, Contracts

- Federal Property and Administrative Services Act: Guidelines for Contracting (40 U.S.C. § 471)
- Federal Land Policy and Management Act (FLPMA) (43 U.S.C. §§ 1701-52)
- Federal Grant and Cooperative Agreement Act: Using Procurement Contracts, Grants and Cooperative Agreements (31 U.S.C. §§ 6301-6307)
- Federal Grant and Cooperative Agreement Act: Intergovernmental Cooperation: Authority to Provide Specialized or Technical Services (31 U.S.C. § 6505)
- Federal Grant and Cooperative Agreement Act: Intergovernmental Cooperation (31 U.S.C. §§ 6501-6508)
- Economy Act of 1932: Interagency Orders for Goods and Services (31 U.S.C. § 1535)

b. BLM Generally: Statutory Law, Cooperative Agreements & Grants

- Federal Grant and Cooperative Agreement Act: Using Procurement Contracts, Grants and Cooperative Agreements (31 U.S.C. §§ 6301-6307)
- Federal Grant and Cooperative Agreement Act: Using Procurement Contracts and Grant and Cooperative Agreements: Authority to Vest Title in Tangible Personal Property for Research (31 U.S.C. § 6306)
 - Federal Grant and Cooperative Agreement Act: Using Procurement Contracts and Grant and Cooperative Agreements: Use of Multiple Relationships for Different Parts of Jointly Financed Projects
 - Reciprocal Fire Protection Act of 1955: Reciprocal Fire Protection Agreements (42 U.S.C. § 1856 (a)-(d))
 - Fish and Wildlife Coordination Act: Protection and Conservation of Wildlife: Game, Fur-bearing Animals and Fish (16 U.S.C. § 661).
 - Appropriations Act: Wildland Fire Management (2001)
 - Appropriations Act: Wildland Fire Management (Public Law 107-63 (HR 2217))
 - Supplemental Appropriations of 1982 (U.S.C.C.A.N. 96 Stat. 837)

c. State Lands: Statutory Law

- Conservation Programs on Government Lands (16 U.S.C. § 670(h))

d. International Agreements, Generally

- Wildfire Suppression Assistance Act of 1989 (42 U.S.C. § 1856(m) - (p))

e. Specific International Agreements, U.S./Canada and U.S./Mexico

- Wildfire Suppression Assistance Act of 1989 (42 U.S.C. § 1856(m) - (p))

f. Community Assistance

- Appropriations Act: Wildland Fire Management (2001)

g. Non-DOI Lands: Administrative Law

- Emergency Fire Protection Aid to Other Fire Departments Not Within DOI (43 C.F.R. § 28)

h. BLM Generally: Administrative Law, Grants

- Grants of Equipment and Supplies from DOI to State and Local Grantees (43 C.F.R. §§ 12.72 & 12.73)
- Enforcement of Grants (43 § C.F.R. 12.83)

4. MAJOR DISASTERS AND EMERGENCIES

a. Statutory Law

- Major Disaster Assistance Programs: Fire Management Assistance (42 U.S.C. § 5187)
- Federal Fire Prevention and Control Act of 1974 as amended: The Federal Emergency Management Administration's Ability to Engage BLM and Other Federal Agencies (15 U.S.C. § 2201)
- National Historic Preservation Act: Historic Sites, Buildings, etc. (16 U.S.C. § 464)

b. Administrative Law

- Emergency Management and Requested Assistance (44 C.F.R. § 10.13)
- Fire Prevention and Control: Assistance by Other Federal Agencies (44 C.F.R. § 206.5)
- Donation or Loan of Federal Equipment and Supplies (44 C.F.R. § 206.6)
- Implementation of Assistance from Other Federal Agencies (44 C.F.R. § 206.7)
- Reimbursement of Other Federal Agencies (44 C.F.R. § 206.8)
- Nonliability of Federal Government (44 C.F.R. § 206.9)
- Standards and Reviews (44 C.F.R. § 206.13)
- Recovery of Assistance: Liable Party (44 C.F.R. § 206.15)
- Audit and Investigations (44 C.F.R. § 206.16)
- Designation of Affected Areas and Eligible Assistance (44 C.F.R. § 206.40)
- Responsibilities of Coordinating Officers (44 C.F.R. § 206.42)
- Emergency Support Teams (44 C.F.R. § 206.43)
- Available Assistance under Emergency Declarations (44 C.F.R. § 206.62)
- Provision of Assistance Limited to the Immediate and Short Term (44 C.F.R. § 206.63)
- Coordination of Assistance under the Federal Coordinating Officer (44 C.F.R. § 206.64)
- Cost Sharing (44 C.F.R. § 206.65)
- Duplication of Benefits to Individuals and Families (44 C.F.R. § 206.191)
- Direct Federal Assistance (44 C.F.R. § 206.208)
- Fire Suppression Assistance (44 C.F.R. § 206.390)
- FEMA-State Agreement Governs Federal Assistance (44 C.F.R. § 206.391)
- Providing Assistance (44 C.F.R. § 206.393)
- Expense Recovery (44 C.F.R. § 206.394)

5. Other Federal Laws That May Apply

- National Environmental Policy Act of 1970 (NEPA) (42 U.S.C. §§ 4321-4370e)
- Endangered Species Act of 1973 (ESA) (16 U.S.C. §§ 1531 - 1544)
- Clean Water Act of 1948, as amended 1966, 1972 (CWA) (33 U.S.C. §§ 1251 – 1387)
- The Clean Air Act of 1970 (CAA) (42 U.S.C. §§ 7401 - 7671q)
- Wilderness Act of 1964 (16 U.S.C. §§ 1131-1136)
- Antiquities Act of 1906 (16 U.S.C. §§ 431-433)
- National Historic Preservation Act of 1966 (NHPA), as amended (1992) (16 U.S.C. §§ 470 et seq.)

6. Other Guidance

- 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)

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- 1998 Departmental Manual 620 Chapter 1, Wildland Fire Management General Policy and Procedures
 - 2009 Instruction Memorandum No. FA IM-2009-011, Modifications to Federal Wildland Fire Policy Implementation Strategy (2003).

II. Relationship to Land Management Planning/Fire Policy

A. Policy

The FMP has been tiered to decisions contained within the approved land use plans for the Gila District, as amended by the 2004 Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management and associated Environmental Impact Statements (EIS) and Environmental Analyses (EA). These plans provide the basis for fire management goals and objectives.

This FMP obtains guidance from the following:

Guidance for Implementation of Federal Wildland Fire Management Policy (February 2009)

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, economic, 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 resource related consequences of wildland fire impacts. 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 the 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 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.

10. **Preparedness:** Agencies will ensure their capability 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, managing wildland fire for resource benefit[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 develop 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.

The GD-FMP also establishes program guidance based on the following information:

- 1998 BLM Handbook 9214, “Prescribed Fire Management” describes authority and policy for prescribed fire use on public lands administered by the Bureau of Land Management.
- 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” 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.”
- 1995 Peloncillo Mountains Wilderness Management Plan, Environmental Assessment, and Decision Record
- 1995 Dos Cabezas Mountains Wilderness Management Plan, Environmental Assessment, and Decision Record
- 1998 Gila Box Management Plan, Environmental Assessment, and Decision Record
- 1993 San Pedro Riparian National Conservation Area Habitat Management Plan.
- 1998 Muleshoe Ecosystem Management Plan and Environmental Assessment
- 2003 Las Cienegas Resource Management Plan and Record of Decision
- Safford District RMP (Date Approved: Record of Decision Part I – 09/1992, Record of Decision Part II – 07/1994)

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- 1988 Phoenix District RMP
 - 1988 Wilderness Management Plan for the Aravaipa Canyon Wilderness
 - Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management (2004)
 - Healthy Forest Restoration Act (2003)

B. Resource Management Plan Guidance

Wildland fire management activities within the Gila District will assist in meeting the following management goals, standards, and guidelines from the following plans: 1991 Safford RMP and the 1988 Phoenix RMP, as amended by the 2004 Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management, 1988 Lower Gila RMP, 2005 Approved Amendment to the Lower Gila North Management Framework Plan and the Lower Gila South Resource Management and Decision Record, 1995 Peloncillo Wilderness Management Plan, 1995 Dos Cabezas Wilderness Management Plan, 1988 Aravaipa Canyon Wilderness Management Plan, 1998 Gila Box Management Plan, 1989 San Pedro Riparian NCA Habitat Management Plan, 1998 Muleshoe Ecosystem Management Plan, and the 2003 Las Cienegas Resource Management Plan.

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

- Protect human life, both the public and firefighters. This is the single, overriding priority in fire management.
- Protect human communities, their infrastructure, and the natural resources on which they depend. Other property and improvements will be protected.
- Promote resource management activities that encourage upland soils to exhibit infiltration, permeability, and erosion rates that are appropriate to soil type, climate and landform.
- Protect riparian and wetland areas in properly functioning condition (PFC) and improve degraded vegetation for long-term health.
- Support the existence and maintenance of productive and diverse native species in upland and riparian-wetland plant communities.
- Protect sensitive areas from fire intrusion.
- Maintain air quality to meet or exceed applicable federal and state standards and regulations.
- Reduce fire risk to Wildland Urban Interface (WUI) communities.
- Manage for healthy and balanced populations of native wildlife species in their natural habitat.
- Manage the habitat for threatened and endangered species of plants and animals to keep viable populations in their natural ecosystems.
- Promote greater diversity within plant communities of the Gila District through the use of fire as a resource management tool.
- Management tools such as mechanical thinning, prescribed fire, biological, cultural and/or chemical treatments may be used to make forests dominated by shade-intolerant species more resilient to fire, insects, and disease.
- Manage land treatments to conserve site moisture and to protect long-term stream health from damage through increased runoff.
- Establish a fire effects monitoring system that inventories pre-burn species composition and resulting post fire response, over time.
- Employ fire prevention strategies that reduce human ignition occurrence in campgrounds and transportation corridors.

Standards

- Air: Meet federal and state air quality standards through proper management of emissions.
- Flora and Fauna– Threatened and Endangered Species: Ensure that BLM actions will not reduce the likelihood of survival or recovery of any listed species or destroy or adversely affect or modify designated critical habitat to those species.
- Water: Meet Federal and State water quality standards and prevent degradation through Best Management Practices during and after fires and vegetative treatments.
- Visual: Meet established Visual Resource Management (VRM) class objectives through appropriately planning fuel reduction treatments. VRM will be a consideration for any post-fire erosion control and other burned area rehabilitation and restoration needs.

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- Public Lands Health: Apply management strategies within this management unit to comply with Arizona Standards and Guidelines for Achieving Rangeland Health through appropriately planning fuel reduction treatment projects.

Resource Use Objectives

Fire and fuels management and related actions will strive to improve areas within the Gila District that are characterized as Fire Regime Condition Class (FRCC) II or III and working towards FRCC I.

Areas classified as FRCC II and III can be characterized as areas:

- Where fire regimes have been moderately to significantly altered from their historical ranges.
- Where there is a moderate to high risk of losing key ecosystem components.
- Where vegetative attributes have been significantly altered from their historical range.
- Where fire return frequencies have departed from their historical frequencies by more than one return interval.

Wilderness/Wilderness Study Areas: Fire and fuels management actions will meet the wilderness non-impairment mandate for Wilderness Areas. For Wilderness Study Areas fire and fuels management will strive to avoid unnecessary impairment that would affect the suitability toward wilderness designation of these areas. The ultimate goal would be to allow fire to play its natural role in fire dependant ecosystems.

III. Wildland Fire Management Strategies

A. General Management Considerations

In order to implement the direction provided in the current Guidance for Implementation of Federal Wildland Fire Management Policy (February 13, 2009), the 1991 Safford RMP, 1988 Phoenix RMP, as amended by the 2004 Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management, 1988 Lower Gila RMP, 2005 Approved Amendment to the Lower Gila North Management Framework Plan and the Lower Gila South Resource Management and Decision Record, 1995 Peloncillo Wilderness Management Plan, 1995 Dos Cabezas Wilderness Management Plan, 1988 Aravaipa Canyon Wilderness Management Plan, 1998 Gila Box Management Plan, 1989 San Pedro Riparian NCA Habitat Management Plan, 1998 Muleshoe Ecosystem Management Plan, and the 2003 Las Cienegas Resource Management Plan., the Gila District developed the following general wildland fire management guidance. The Gila District will:

- Use fire to restore and/or sustain ecosystem health based on sound scientific principles and information, balanced with other societal goals, including public health and safety, and air quality.
- Apply reasonable management strategies and tactics on all wildland fires with emphasis on minimizing suppression costs, considering fire fighter and public safety, managing wildland fires for multiple objectives when appropriate, ensuring the benefits and values to be protected are consistent with resource management objectives, standards and guidelines.
- Meet management goals and objectives through the use of prescribed fire, mechanical treatments, wildland fire managed for resource benefit, chemical treatments, biological treatments, and/or cultural treatments.
- Work collaboratively with communities at risk within the WUI to develop plans for risk reduction.
- Work collaboratively with federal, state, and local partners to develop cross boundary management strategies and prioritize cross agency fire management actions.

B. Wildland Fire Management Goals

The Gila District will conduct all wildland fire management actions in compliance with the Guidance for Implementation of Federal Wildland Fire Management Policy (February 13, 2009). These principles are:

- Firefighter and public safety are the highest priority in every fire management activity.
- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process.
- Fire Management Plans, programs, and activities support land and resource management plans and their implementation.
- Sound risk management is the foundation for all fire management activities.
- Fire management programs and activities are economically viable, based upon values to be

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- protected, costs, and land and resource management.
 - Fire Management Plans and activities are based upon the best available science.
 - Fire Management Plans and activities incorporate public health and environmental quality considerations.
 - Federal, State, tribal, local, interagency, and international coordination and cooperation are essential.
 - Standardization of policies and procedures among federal wildland fire management agencies is an ongoing objective.

Specific fire programmatic direction for each Fire Management Unit (management area) within the Gila District is outlined in Chapter III Section D of the GD-FMP.

C. Wildland Fire Management Options

The Gila District may utilize appropriate management strategies and tactics on all wildland fires, with emphasis on minimizing suppression costs, considering fire fighter and public safety, managing wildland fires for multiple objectives when appropriate, ensuring the benefits and values to be protected are consistent with resource management objectives, standards and guidelines. Responses to each wildland fire will be initiated in a timely manner using the appropriate available resources, based upon established fire management direction. All fire management actions will adhere to the standards outlined in the Interagency Standards for Fire and Aviation Operations.

The 2004 Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management assigned all BLM administered lands in Arizona one of the two following land use allocations (Section 2.0, Subsection 2.2.2 Land Use Allocations; Table 2.1, Figure 2.1):

Allocation 1- Wildland Fire Use: Areas suitable for wildland fire use for resource management benefit:

This includes areas where wildland fire is desired, and there are few or no constraints for its use. Where conditions are suitable, unplanned and planned wildfire may be used to achieve desired objectives, such as to improve vegetation, wildlife habitat or watershed conditions, maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires and meet resource objectives. Where fuel loading is high but conditions are not initially suitable for wildland fire, fuel loads are reduced by mechanical, chemical or biological means to reduce hazardous fuels levels and meet resource objectives (includes WUI areas).

In 2009, Instruction Memorandum Number FA IM-2009-011 *Modifications to Federal Wildland Fire Policy Implementation Strategy (2003)* as well as in the *Guidance for Implementation of Federal Wildland Fire Management Policy* (February 13, 2009), effectively rescinded the use of the term “Wildland Fire Use” stating that individual wildfires can be managed for one or more objectives. Wildland fires are categorized into two distinct types:

- a. Wildfires – Unplanned ignitions or prescribed fires that are declared wildfires.
- b. Prescribed Fires – Planned ignitions.

Guidance for Implementation of Federal Wildland Fire Management Policy (February 13, 2009) states that a wildland fire may be concurrently managed for one or more objectives and objectives can change as the fire spreads across the landscape. Objectives are affected by changes in fuels, weather, topography; varying social understanding and tolerance; and involvement of other governmental jurisdictions having different missions and objectives. Managers will use a decision support process to guide and document wildfire management decisions. The process will provide situational assessment, analyze hazards and risk, define implementation actions, and document decisions and rationale for those decisions.

Allocation 2 –Non Wildland Fire Use: Areas not suitable for wildland fire use for resource benefit.

This allocation includes areas where mitigation and suppression are required to prevent direct threats to life, property, or natural resources. It includes areas where fire never played a large role,

historically, in the development and maintenance of the ecosystem, and some areas where fire return intervals were very long. It also includes areas (including some WUI areas) where an unplanned ignition could have negative effects to the ecosystem unless some form of mitigation takes place. Mitigation may include mechanical, biological, chemical or prescribed fire means to maintain non-hazardous levels of fuels and reduce the hazardous effects of unplanned wildland fires and meet resource objectives.

The allocation of lands is based on the desired future condition of vegetation communities, ecological conditions and ecological risks. The allocation of lands is determined by contrasting current and historical conditions and ecological risks associated with any changes. The condition class concept helps describe alterations in key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings.

The Gila District FMP refers to these two land use allocations and identifies areas where wildland fires can be managed for than one fire management objective, mechanical, biological or chemical means to maintain non-hazardous levels of fuels to reduce the hazardous effects of unplanned wildland fires and meet resource objectives. The Gila District FMP will also identify areas for exclusion from fire (through fire suppression), chemical, mechanical, and/or biological treatments.

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

The following sections contain a description of each management area stating fire management objectives, constraints, and planned actions for that management area. Maps for each management area are in Appendix A of this document.

Fire Management Objectives Common to All Management Areas

- Reduce hazardous fuels by using mechanical, prescribed fire and other means where applicable around communities at risk from wildfire.
- Determine the appropriate management strategies and tactics to manage all fires in accordance with management objectives based on current conditions and locations.
- Review all cooperative agreements annually, update or modify as necessary to promote full cooperation in mutual fire management.

Fire Management Strategies Common to All Management Areas

Utilize appropriate management strategies and tactics to manage wildfires in accordance with natural resource management objectives based on applicable management authorities and plan objectives.

- Monitoring and holding actions to check or confine spread
- Monitoring with pre-planned contingency actions
- Control and extinguishment

Criteria to use for developing management strategies and tactics:

- Risk to firefighters and public health and safety
- Land and resource management objectives
- Technical information provided through the use of fire behavior or fire effects modeling programs
- Weather
- Fuel conditions
- Threats and values to be protected
- Cost efficiencies

Management strategies and action points will be based on fire activity and location. Normally, specific actions or combinations of actions will be determined on site by the incident commander.

Fire and fuels management related actions may improve sites within the various management areas that may be classified as Fire Regime Condition Class (FRCC) II or III and working towards FRCC I. Areas classified as FRCC II and III can be characterized as areas:

-
- Where fire regimes have been moderately or significantly altered from their historical ranges as identified in the 2004 Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management.
 - Where there is a moderate to high risk of losing key ecosystem components.
 - Where vegetative attributes have been significantly altered from their historical range.
 - Where fire return frequencies have departed from their historical frequencies by more than one return interval.

Upland vegetation on public lands within the Gila District will be managed for watershed protection, livestock use, recreational use, reduction of non-point source pollution, T&E species protection, priority wildlife habitat, firewood, and other incidental human uses. Best management practices and vegetation manipulation will be used to achieve desired plant community management objectives. Apply management strategies within this management unit to comply with Arizona Standards and Guidelines for Achieving Rangeland Health.

Altar Valley – Ironwood – Dripping Springs (AZBLM-GD-01)

a. Location

This Fire Management Area is comprised of numerous, non-contiguous parcels of BLM-managed lands located in the southwestern part of the Gila District (see Map 1). The total acreage for BLM-managed lands in this management area is 663,196 acres.

The Altar Valley is located in the southern portion of this management unit. The Buenos Aires Wildlife Refuge borders the BLM managed lands to the west as well a southeastern portion of the Baboquivari Wilderness Area; Arizona State managed and private land parcels border the BLM lands to the north, east, and south. The BLM administered lands within this management unit are not contiguous and are located in and near the Las Guijas Mountains, the Sierrita Mountains, and a few scattered areas to the north and south of the Baboquivari Peak Wilderness, bordering the Tohono O'odham Nation. Ground access to the Las Guijas Mountains is primarily via the Arivaca Road; a few unimproved dirt roads lead into this area from the Arivaca Road.

Ground access into the Sierrita Mountains can be gained from the east by using either Mission Road or Duvall Mine Road and then following various unimproved dirt roads that tier off either Mission Road or Duvall Mine Road. Ground access from the west is by using unnamed roads that tier off State Route 286 south of Three Points; these unimproved dirt roads generally follow such drainageways as Banner Wash and Fresnal Wash.

The scattered BLM parcels that border the Tohono O'odham Nation are generally inaccessible from the ground except for the Three Peaks area. This area can be accessed by following the dirt road that follows the Santa Margarita Wash, west of State Route 286 about 15 miles north of Sasabe, AZ. Overall, ground access into this area from the Sierra Vista Project Office is approximately three hours depending on the destination.

The Baboquivari Peak Wilderness and Coyote Mountain Wilderness Areas are bordered on the west by Tohono O'odham Indian tribal lands. The primary ground access to the Baboquivari Peak Wilderness Area is by traveling west from Tucson, AZ on State Route 86 to its junction with State Highway 286 at Three Points, AZ. Follow State Route 286 south for approximately 30 miles towards Sasabe, AZ to the entrance road to Thomas Canyon. The Nature Conservancy maintains a pedestrian access route to the wilderness area from the Humphrey Ranch located in Thomas Canyon. The primary ground access to the Coyote Mountain Wilderness Area is by traveling west from Tucson, AZ on State Route 86 to its junction with State Highway 286 at Three Points, AZ. Follow State Route 286 south for approximately 8 miles towards Sasabe, AZ. The Coyote Mountains are located four miles east of Kitt Peak. An unimproved dirt road that follows the South Mendoza Wash leads up to the Wilderness boundary. Driving time to this area from the Sierra Vista Project Office is approximately two to three hours. Permission to access the wilderness boundary must be obtained from the private landowner, whose property provides access to this area or the Tohono O'odham Indian Nation if access is desired from the Kitt Peak side of the area.

The Ironwood National Monument is located in the central portion of the management unit. The Ironwood National Monument is bordered by Tohono O'odham tribal lands to the south and west; the north and eastern boundaries are bordered with Arizona State managed lands as well as private land parcels. The Ironwood Forest National Monument is located 25 miles northwest of Tucson, AZ. There are two main points of entry for access into this management unit. Ground access can be gained by either Interstate 10 at Avra Valley Road, or Interstate 10 and using the Red Rock exit, proceed southwest on Sasco Road to Silverbell Road. Driving time from the Sierra Vista Project Office is approximately two hours.

The BLM administered Sonoran Desert lands within this management unit, excluding the Ironwood National Monument, are not contiguous; they are located from the north end of the Altar Valley, north of Tucson to just north of the Gila River and south of Superior, AZ, as well

as west of the San Pedro River to Florence, AZ. These lands are interspersed primarily with Arizona State managed lands as well as numerous privately owned land parcels. These areas are accessible on the ground via a number of Class 1, 2, 3, and 4 roads. This area is accessible on the ground primarily by using various maintained or unimproved dirt roads off either State Route 77 or 177.

The Dripping Springs area is located in the northern portion of the management unit. This area is accessible on the ground via a few improved and unimproved dirt roads that commence off either State Route 77 or State Route 177. Otherwise the area is inaccessible except by air. Driving time from Safford to this area is approximately three hours.

The Needle's Eye Wilderness Area is bordered on the north, east and south by San Carlos Apache tribal lands. The primary ground access to the Needle's Eye Wilderness Area is by traveling west from Safford on State Highway 70 to the Coolidge Dam Road just east of Globe at Cutter Air Field. Another access route is to travel south of Globe on State Route 77 for approximately 26 miles to an unimproved dirt road at Dripping Springs Wash. Driving time from Safford is approximately three to four hours.

The White Canyon Wilderness Area is bordered on the north by the Tonto National Forest. The White Canyon Wilderness management unit can be accessed on the ground by traveling west from Safford on State Route 70 to Globe, AZ and then heading south on State Route 77 to Winkelman, AZ. Travel from Winkelman northwest on State Route 177 to Battleaxe Road near Walnut Canyon. Battleaxe Road is unmarked and most likely has not been maintained; vehicle traffic to the wilderness boundary will require 4x4 vehicles or ATV's. Driving time from Safford is approximately four to five hours.

b. Characteristics

The topography of the Altar Valley can best be described as ranging from primarily steep slopes to more gently sloped hills with various aspects. The plant communities on the lower elevations (< 5,500 feet) are dominated by warm season perennial grasses. The major species are sideoats, black, blue, hairy, sprucetop, and Rothrock gramas; plains lovegrass, cane beardgrass, Arizona cottontop, plains bristlegrass, big sacaton, alkali sacaton, tobosa, vine mesquite, curly mesquite, bush muhly, and mesa, blue, red, poverty, and spidergrass threeawns. Average annual production of these grasslands is about 1,000 pounds per acre (0.5 tons acre⁻¹).

Important shrubs include false mesquite, range ratany, shrubby buckwheat, fourwing saltbush, soaptree yucca, and sacahuista. Mesquite is the dominant tree of the area with other common trees including catclaw acacia, netleaf hackberry, western soapberry, desert willow, Arizona ash, Arizona black walnut, cottonwood, and black willow.

Summer annual grasses are important in the area and include species of grama, panic, sprangletop, and threeawn. Perennial forbs are also important and include species like evolvulus, sida, dyschoriste, wild bean, lotus, matweed, zinnia, hog potato, perezia, cudweeds, and vetch.

The vegetation on the higher elevations (>5,500 feet) is oak-savannah with open canopies (5-10%) of Emory, Mexican blue, Arizona white oak, and one-seed juniper, and perennial grasses in the understory. The major grasses include sideoats, blue, hairy, and purple gramas, bullgrass, deergrass, Texas bluestem, plains lovegrass, woolly bunchgrass, crinkleawn, prairie junegrass, squirreltail, piñon ricegrass, and beggartick threeawn. The dominant shrubs include sacahuista, California brickelbush, wait-a-bit mimosa, and yerba de pasmo. Average annual production of these grasslands is about 1,500 pounds per acre (0.75 tons acre⁻¹).

There are two wilderness areas located in the Altar Valley - Baboquivari Peak & Coyote Mountain Wilderness Areas. The topography in these two wilderness areas is relatively steep and difficult to access by ground. The plant communities on the lower elevations (3,500 – 5,500

feet) are dominated by warm season perennial grasses. The major species are sideoats, black, blue, hairy, sprucetop, and Rothrock grammas; plains lovegrass, cane beardgrass, Arizona cottontop, plains bristlegrass, big sacaton, alkali sacaton, tobosa, vine mesquite, curly mesquite, bush muhly, and mesa, blue, red, poverty, and spidergrass threeawns. Average annual production of these grasslands is about 1,000 pounds per acre.

Important shrubs include false mesquite, range ratany, shrubby buckwheat, fourwing saltbush, soap tree yucca, and sacahuista. Mesquite is the dominant tree of the area with other common trees including catclaw acacia, netleaf hackberry, western soapberry, desert willow, Arizona ash, Arizona black walnut, cottonwood, and black willow.

Summer annual grasses are important in the area and include species of grama, panic, sprangletop, and threeawn. Perennial forbs are also important and include species like evolvulus, sida, dyschoriste, wild bean, lotus, matweed, zinnia, hog potato, perezia, cudweeds, and vetch.

The vegetation on the higher elevations (5,500 – 8,500 feet) is oak-savannah with open canopies (5-10%) of Emory, Mexican blue, Arizona white oak, and one-seed juniper, and perennial grasses in the understory. The major grasses include sideoats, blue, hairy, and purple grammas, Bullgrass, deergrass, Texas bluestem, plains lovegrass, woolly bunchgrass, crinkleawn, prairie junegrass, squirreltail, piñon ricegrass, and beggartick threeawn. The dominant shrubs include sacahuista, California brickelbush, wait-a-bit mimosa, and yerba de pasmo. Average annual production of these grasslands is about 1,500 pounds per acre.

The Ironwood Monument contains a significant system of cultural and historical sites covering a 5,000 year period. The Ironwood Monument has one of the richest stands of ironwood trees (*Olea tesota*) in the Sonoran Desert. The monument also encompasses several desert mountain ranges that include the Silverbell, Waterman, and Sawtooth Mountains with desert valleys in between. Elevation ranges from 1,800 to 4,261 feet.

The vegetation from the Ironwood Monument to the Dripping Springs area, including the Needle's Eye and White Canyon Wilderness Areas, is dominated by desert shrubs, trees, and cacti. Deep, upland sites have overstories of mesquite, littleleaf palo verde, and ironwood, with understories of perennial and annual grasses and forbs. This management unit also supports saguaro cactus as well as a wide diversity of *Opuntia* species (cholla, and prickly pear species) and other cacti on the uplands and hill slopes. Bush muhly is the dominant perennial grass. Other grasses include slender grama, purple threeawn, mesa and spidergrass threeawns, Arizona cottontop, Pima pappusgrass, red grama, slim tridens, and fluffgrass. Major forbs include slender janusia, twinberry, spiny goldenhead, desert globemallow, and yerba del venado. Triangle bursage is the dominant half-shrub in this area. Other shrubs include jojoba, false mesquite, desert zinnia, Mormon tea, creosote bush, flattop buckwheat, ocotillo, limberbush, and wolfberry species. Annual grasses and forbs of both winter and summer seasons are well represented in years with favorable moisture.

The eastern portion of the Dripping Springs area is characterized as a well developed interior chaparral zone where nearly continuous stands of low evergreen shrubs occur on specific hillsites. Deep, heavy textured uplands are open grassland areas dominated by blue grama, curly mesquite, vine mesquite, and bottlebrush squirreltail. Shallow soils over deeply weathered bedrock are shrub lands (chaparral sites in this area). Turbinella oak is the dominant species. Other important shrubs on these sites include yellow-leaf silktassel, holly-leaf buckthorn, mountain mahogany, skunkbush sumac, algerita, manzanita, sacahuista, and wait-a-bit bush. Associated trees include one-seed juniper, piñon pine, Arizona white and Emory oak, and Arizona cypress. Shallow soils over hard bedrock (basalt, quartzite, etc.) have diverse plant communities of perennial grasses and forbs, shrubs, and scattered trees. Major grasses include the grammas, cane beardgrass, plains lovegrass, and bullgrass. Common shrubs include the chaparral species listed above plus shrubby buckwheat, range ratany, cliff fendlerbush, and

bundleflower. Important perennial forbs include rock cress, shrubby deervetch, Indian paintbrush, vetch, breadroot, pink perezia, groundsels, and locoweeds.

c. Fire History

Between 1980 and 2008, BLM fire personnel responded to 31 wildfires within this management area. The largest was the Center Fire in 2002 which was contained at 1,117 acres. The average fire size over the past 28 years is 120 acres.

d. Fire Regime/Condition Class

In the Altar Valley, the fire regime for the areas located in the Las Guijas Mountains is rated at fire regime IV (35-100 year frequency, stand replacement severity). The fire regime for the areas located in the Sierrita Mountains is rated at fire regime II (0-35 year frequency, stand replacement severity). The remaining areas located within this management unit are rated at fire regime III (35-100 year frequency, mixed severity). The Condition Class rating for this management unit is predominantly assessed at level II with some isolated areas being rated at level III.

The fire regime for the majority of the Baboquivari and Coyote Mountain wilderness areas is rated as fire regime IV (35-100 year frequency, stand replacement severity). The Condition Class rating for this area is predominantly assessed at level I with some isolated areas being rated at level II.

The fire regime for The Ironwood National Monument and the numerous scattered parcels of BLM-managed lands in the lower elevations (Sonoran Desert) is rated as fire regime III (35-100 year frequency, mixed severity). The Condition Class rating for this management unit is predominantly assessed at level I with some isolated areas being rated at level II.

The fire regime for the Dripping Springs area is rated as fire regime III (35-100 year frequency, mixed severity). The Condition Class rating for this area is assessed at levels I and II.

The fire regime for both Needle's Eye and White Canyon Wilderness areas is rated as fire regime III (35-100 year frequency, mixed severity). The Condition Class rating for both areas is predominantly assessed at level I with some isolated areas being rated at level II.

e. Values at Risk

Within the Altar Valley, Pima pineapple cactus (*Coryphantha scheeri* var. *robustispina*) populations inhabit specific ecological areas with historically low fire frequencies, and, usually, a distinct lack of fine fuel (fine herbaceous vegetation) continuity (unless above-average winter precipitation is received). No known structures exist within the confines of or immediately adjacent to the BLM-managed habitat locations for this T&E species. The primary reasons for decline/vulnerability for this plant species include illegal collection, habitat degradation due to overuse by livestock, habitat loss due to mining, agriculture, road construction, urbanization, and aggressive non-native plants.

Kearney's blue star (*Amsonia kearneyana*) is known only from the Baboquivari Mountains in Pima County, Arizona. It has been found in South, Brown, and Thomas canyons.

BLM-managed or adjacent lands in this management area includes areas where the Chiricahua leopard frog could potentially occur includes the Baboquivari Mountains (records as recent as 2000 – there are scattered BLM parcels at high elevation nearby), the Coyote Mountains (adjacent to Baboquivari Mountains) and the Las Guijas Mountains (near several extant or recently extant populations in the vicinity of Arivaca and Buenos Aires National Wildlife Refuge (BO-LUPA. 2004. pg. 92).

On the Ironwood National Monument the desired future conditions are for an adequate cover and mix of natural plant species that have good vigor. In terms of fire management and fire

ecology, the desired future conditions are for fire to control or reduce the exotic annual weeds such as red brome, Mediterranean grass, and buffelgrass and to limit woody vegetation to non-hazardous levels.

Upland vegetation on public lands within the Gila District will be managed for watershed protection, livestock use, reduction of non-point source pollution, T&E species protection, priority wildlife habitat, firewood, and other incidental human uses. Best management practices and vegetation manipulation will be used to achieve desired plant community management objectives. Apply management strategies within this management unit to comply with Arizona Standards and Guidelines for Achieving Rangeland Health.

Sonoran desert vegetation is not considered to be fire adapted or dependent. The invasion of non-native species like buffelgrass (perennial, warm-season grass) and red brome (cool-season annual grass), has created areas that are now prone to high intensity fires with high rates of spread. The potential exists for fires to exceed 1,000 acres in a short period of time. Suppression forces must respond quickly to be effective in containing fires at a reasonable size. Firefighter safety is a primary concern due to the high rates of spread in this fuel type.

Within this management area, Nichol Turk's head cactus (*Echinocactus horizonthalonius* var. *nicholii*) populations inhabit a specific ecological area with historically low fire frequencies, and usually a distinct lack of fine fuel (fine herbaceous vegetation) continuity (unless above-average winter precipitation is received). No known structures exist within the confines of or immediately adjacent to the habitat locations for this T&E species. The primary reasons for decline/vulnerability for this plant species include specialized habitat requirements, limited habitat, off-road vehicle use, and other recreational uses of habitat, mining, and road construction.

In the Dripping Springs area there are BLM managed campground sites located on the middle Gila River; these sites are administered out of the Tucson Field Office.

Within all four wilderness areas (Baboquivari Peak, Coyote Mountain, Needle's Eye and White Canyon) the values to be protected include:

- 1) Provide for the long term protection and preservation of the area's wilderness character under a principle of nondegradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they will remain unimpaired.
- 2) Manage the wilderness area for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.
- 3) Manage the area using minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.
- 4) Manage non-conforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character. Non-conforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

The 2001 Federal Wildland Fire Management Policy states, in part, that 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 resource related consequences of wildland fire impacts. 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.

When addressing T&E species and/or T&E species habitat, the Conservation Measures outlined in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (September 2004) will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

The appropriate fire management action(s) to be initiated in the event of a wildfire event within or immediately adjacent to specific vegetative T&E habitat locations may include, and are not limited to, the use of minimum impact suppression techniques (M.I.S.T.), not applying direct suppression procedures within a known area inhabited by a vegetative T&E species, or applying suppression operations outside the known area of habitation to reduce a potential threat from wildfire.

f. Communities at Risk

This management unit encompasses the communities of Dudleyville, Winkelman, Hayden, Kearny, Mammoth, Kelvin, Riverside, and Hayden Junction as well as numerous rural developments where homes have been built or mobile homes have been located. These areas can best be described as having single, narrow, marginally maintained dirt roads that provide ingress and egress.

g. Management Requirements

Wildfire Management

- Firefighter and public safety is the first priority in every fire management activity (2001 Federal Wildland Fire Management Policy).
- Set priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources based on values to be protected, human health and safety, and costs of protection (2001 Federal Wildland Fire Management Policy).
- In areas suitable for fire where conditions allow (Land Use Allocation 1), BLM can allow naturally ignited wildland fire to maintain non-hazardous levels of fuels to reduce the hazardous effects of unplanned wildland fires and meet resource objectives (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004* pp. 2-2 – 2-6, Table 2.1, Figure 2.1).
- The Conservation Measures listed in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (pp. 324-346) will be implemented during fire suppression operations, unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 325-326).
- Assign a qualified Resource Advisor(s) (READ) to coordinate concerns regarding federally protected species, cultural and natural resource issues, and to serve as a

liaison between the Field Office Manager and the Incident Commander (IC)/Incident Management Team (IMT). The READ will also serve as a field contact representative (FCR) responsible for coordination with the USFWS. The READ's will have the necessary information on federally protected species and habitats in the area and the available Conservation Measures for the species. They will be briefed on the intended suppression actions for the fire, and will provide input on which Conservation Measures are appropriate, within the standard constraints of safety and operational procedures. The IC has the final decision-making authority on implementation of Conservation Measures during fire suppression operations (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-4).

- Suppression tactics will be utilized that limit damage or disturbance to the habitat and landscape. No heavy equipment will be used (e.g. dozers) unless approved by the Field Office Manager (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
- All known cultural resources will be protected from disturbance (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
- In Wilderness Areas (i.e. Baboquivari Mountain Wilderness Area, Coyote Mountain Wilderness Area), Wilderness Study Areas, and areas being managed for wilderness characteristics according to LUP's, when suppression actions are required, minimum impact suppression tactics (MIST) will be applied and coordinated with Wilderness Area management objectives and guidelines (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-6). Guidelines and operating procedures for fire management activities in Wilderness Areas are provided in BLM Manual 8560, Management of Designated Wilderness Areas, and in Wilderness Management Plans, where completed for specific Wilderness Areas (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-7).
- Conservation Measures pertaining to Pima pineapple cactus and Nichol Turk's head cactus include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 339-340):
 - Known locations and potential habitat for plant populations will be mapped to facilitate planning for allowing the management of wildland fire for resource benefit [wildland fire use], prescribed fires, and vegetation treatments, and to ensure protection of these populations during fire suppression.
 - During fire suppression, managing a wildland fire incident for resource benefit [wildland fire use], and prescribed fire in habitat occupied by Federally protected plant species, no staging of equipment or personnel will be permitted within 100 meters of identified individuals or populations, nor will off-road vehicles be allowed within the 100-meter buffer area, unless necessary for firefighter or public safety or the protection of property, improvements, or other resources (see **FS-7**). One of the primary threats to many of these plant species is trampling/crushing from personnel and vehicles.
 - The BLM is reasonably certain that in the areas where Nichol Turk's head cactus occurs, it is extremely unlikely that fire suppression activity will be necessary for the reasons provided above. Consequently, the specific areas where populations of Nichol Turk's head cactus occurs on BLM managed land, will be identified, delineated, and avoided by BLM fire suppression crews in the unlikely event that fire suppression activities are required in the immediate region.
- Regarding Kearney's Blue Star, planning and management of wildfire suppression in the watershed of Brown Canyon will be coordinated with the USFWS (Biological and

Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pg. 340).

- Suppress wildfire in sensitive vegetation communities (e.g. palo verde/saguaro) to reduce the detrimental effects on priority wildlife dependent on those communities. Firefighter safety is a primary concern due to the high rates of spread in this fuel type (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2, 2-10).
- Use of fire retardants or chemicals adjacent to waterways will be accomplished in accordance to the “Environmental Guidelines for Delivery of Retardant or Foam Near Waterways” (Interagency Standards for Fire and Aviation Operations, 2009, Chap. 12, NFES 2724).

Fuels Management

- In areas suitable for fire where conditions allow, BLM will use prescribed fire and a combination of biological, mechanical and chemical treatments to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire, BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. If air quality approaches unhealthy levels BLM will delay igniting prescribed fires (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Prescribed fire treatments may be used in areas not characterized by Sonoran Desert vegetation to improve overall ecosystem health, reduce invasive or woody species cover, increase herbaceous cover, improve water infiltration, and reduce soil erosion.
- In areas not suitable for fire where fuel loading high, BLM will utilize biological, mechanical or chemical treatments, and some prescribed fire to maintain non-hazardous levels of fuels and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- For all fire management activities (wildfire suppression, wildfires managed for resource benefit, prescribed fire, and mechanical, chemical, and biological vegetation treatments), Conservation Measures (Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 324-346) will be implemented to reduce the effects of fire management actions on federally threatened, endangered, proposed, and candidate (“federally Protected”) species.
- The BLM will not use prescribed fire in habitats supporting Kearney’s blue star. The BLM will also not use any mechanical or chemical treatments in habitats supporting this species (South, Brown and Thomas Canyons in the Baboquivari Mountains) (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp.339-340).
- The BLM will not use prescribed fire in habitats supporting Pima pineapple cactus. The BLM has chosen not to burn in Sonoran desert grassland habitat that supports Pima pineapple cactus because of the potential to burn, and possibly kill, Pima pineapple cactus. BLM will also not use any mechanical or chemical treatments in habitats

supporting this species (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pg. 339).

- Because the vegetation community in which Nichol Turk's head cactus occurs is not fire-adapted, the BLM will not use prescribed fire in habitats supporting this species. BLM will also not use any mechanical or chemical treatments in these areas (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp.339-340).

Community Assistance/Protection

- To reduce human-caused fires, BLM will undertake education, enforcement and administrative fire prevention mitigation measures (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Education measures will include various media information including a signing program, information as to the natural role of fire within local ecosystems, participation in fairs, parades and public contacts (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Enforcement will be accomplished by providing training opportunities for employees interested in fire cause determination (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Administration includes expanded prevention and education programs with other cooperator agencies (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas not suitable for fire, BLM will implement programs to reduce unwanted ignitions, and emphasize prevention, detection, and rapid suppression response techniques (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Community assistance/protection objectives include identifying hazardous fuel reduction projects, public and firefighter safety issues, and partnering opportunities with local Firewise groups.
- The Arizona Firewise Communities program is the primary tool to achieve wildland fire hazards awareness to the public. Technical assistance is being provided by the BLM allowing Firewise groups to develop local plans that meet mutual goals with the BLM.

h. Strategic Objectives

Wildfire Management

- Unplanned ignitions will be managed using applicable management decisions with regard to public and firefighter safety, cost, and private property along with other improvements (AZ BLM Gila District FMP, 2010, pg. 18).
- Individual wildfires may be managed for more than one fire management objective (managing wildfires for resource benefit). All wildfire management decisions must be consistent with existing land use and fire management plan decisions (IM No. FA IM-2009-011).
- Efforts on unplanned ignitions will be directed towards containing or confining each unplanned ignition to public lands using natural or man-made fuel breaks (AZ BLM Gila District FMP, 2010, pg. 18).
- For all fire management activities in National Monuments and National Conservation Areas, measures will be taken to assure that no adverse effects occur to those resources,

values, and objects identified in the respective proclamations or legislation as reasons for establishing the area (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-6).

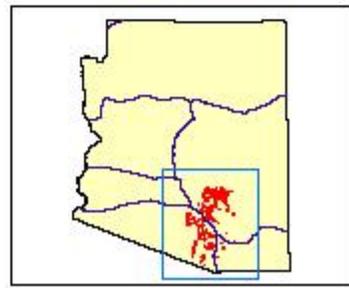
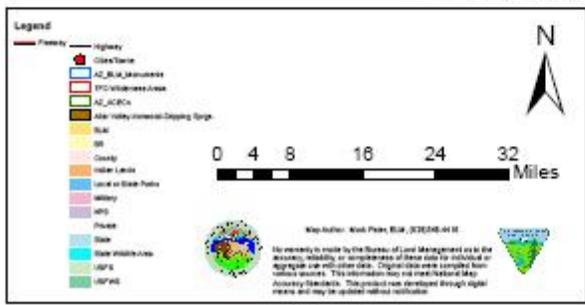
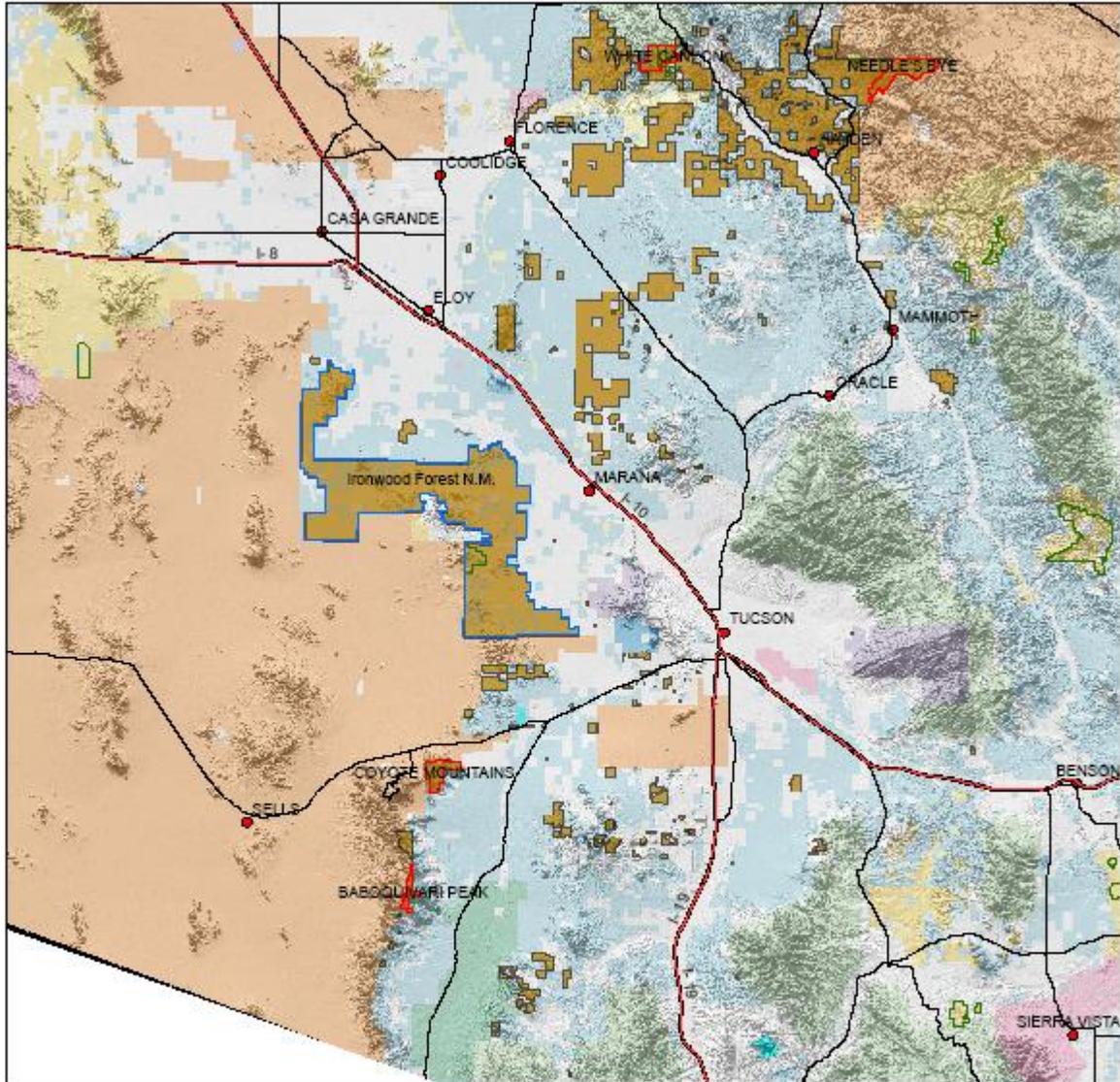
- BLM lands that allow for managing wildland fire for resource benefit [Fire Use] include the BLM-managed lands in the Las Guijas Mountains, the Sierrita Mountains, the Baboquivari Peak and Coyote Mountain Wilderness Areas, the BLM-managed lands south of the Baboquivari Peak Wilderness Area that border the Tohono O'odham Tribal Lands, and areas of BLM-managed lands in the northern end of this FMU that includes the Tortilla, Dripping Springs and Mescal Mountains (areas within the Needles Eye Wilderness Area) (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 2-3 – 2-5).
- Suppress wildfire in sensitive vegetation communities (i.e. palo verde/saguaro) to reduce the detrimental effects on priority wildlife species (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-10). Firefighter safety is a primary concern due to the high rates of spread in this fuel type.

Fuels Management

- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective prescribed fire treatments in those areas not identified as a Sonoran Desert ecotype to achieve resource management objectives.
- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective non-fire treatments to achieve resource management objectives.

Map 1.

AZ BLM Gila District Fire Management Area Altar Valley - Ironwood - Dripping Springs



Apache Navajo (AZBLM-GD-02)

a. Location

BLM-managed lands in this management area are intermixed (“checkerboard” pattern) with private and state lands. This management area is located in Apache and Navajo counties, in east-central Arizona. Interstate 40 runs east-west through the upper half of this management unit. State routes 77, 87, 99; U.S. Route 191; as well as various additional roadways also offer adequate ground access to the management unit. A considerable concern is the distance this management unit is from Safford. Driving time from Safford to this management unit is roughly five hours or approximately 200+ miles (see Map 2). The total acreage for BLM-managed lands in this management area is 217,151 acres.

b. Characteristics

The fuels/vegetation within this management unit is comprised mainly of perennial grasses with extensive stands of piñon pine and juniper. There is little fire potential in the grass fuels due to sparse, discontinuous vegetative coverage.

The vegetation in southern portion of this management unit consists primarily of perennial grasses with scattered stands of piñon pine and juniper.

The vegetation in the northern portion of this management unit is a mixture of mid and short grasses, intermingled with shrubs and half shrubs. The upland soils are dominated by Indian ricegrass, galleta, and black grama. The drainageways support alkali sacaton, galleta, and bottlebrush squirreltail. The soils that are saline or gypsic are dominated by mid grasses, but fourwing saltbush, shadscale, mound saltbush, and black greasewood are also locally abundant.

The terrain in southern portion of this management unit is made up of undulating plains and low hills, with an occasionally deeply incised, steep sided drainageway. Volcanic plugs occasionally stand above the level of the plain. Some buttes and mesas rise abruptly above the level of the plains

The terrain in the northern portion of this management unit is made up of broad alluvial slopes and flood plains bordering the main drainageways of the area. Included, however, are cliffs and scarps where saline and gypsiferous soft geologic materials are exposed.

c. Fire History

Fires greater than 50 acres are uncommon; fires in the piñon/juniper dominated areas tend to be small, often single trees. Fire occurrence is very low. Between 1980 and 2008, no fires were reported on the BLM administered public lands within this management unit.

d. Fire Regime/Condition Class

The fire regime for the majority of this management unit is rated as II (0-35 year frequency, stand replacement severity). Fire has not played its natural role in this management area due to factors such as prolonged periods of drought. These factors contribute towards rating this management area as condition class III.

e. Values at Risk

Within this management area, Peeble’s Navajo cactus (*Pediocactus peeblesianus* var. *peeblesianus*) population inhabits a specific ecological area with historically low fire frequencies, and a distinct lack of fine fuel (fine herbaceous vegetation) continuity. No known structures exist within the confines of or immediately adjacent to the habitat locations for this T&E species. The primary reasons for decline/vulnerability for this plant species include off-road vehicle traffic, road construction, urban development, mining activities, and overuse by livestock.

Also within this management area, the Little Colorado spinedace (*Lepidomeda vittata*) is considered to occupy specific drainages that are adjacent to as well as within BLM administered

lands. These drainages are the Little Colorado main stem, Silver Creek, and Chevelon Creek drainages. Although distribution is patchy, the presence of this species is dependent upon the presence of water as well as the absence or low levels of non-native fishes and crayfish.

BLM-managed or adjacent lands in this management area include areas where the Chiricahua leopard frog could potentially occur. These areas include Chevelon Creek (old records for this drainage – there are scattered BLM parcels along Chevelon Creek (BO-LUPA. 2004. pg. 92).

When addressing T&E species and/or T&E species habitat, the Conservation Measures outlined in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (September 2004) will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

The appropriate management responses to be initiated in the event of a wildfire event within or immediately adjacent to specific vegetative T&E habitat locations may include, and are not limited to, the use of minimum impact suppression techniques (M.I.S.T.), not applying direct suppression procedures within a known area inhabited by a vegetative T&E species, or applying suppression operations outside the known area of habitation to reduce a potential threat from wildfire.

In addition to the vegetative T&E species found in this management unit, other values to be protected include a natural gas pipeline owned by the El Paso Natural Gas Company, a 345 kilovolt (KV) powerline and a 69 KV powerline that are owned by the Arizona Public Service Company. Additionally, there are a few homes that border the southern boundary of the Tanner Wash Area of Critical Environmental Concern (ACEC), north of Interstate 40 located in T17N, R20E, Section 33.

f. Communities at Risk

There are no identified communities at risk within this management area.

g. Management Requirements

Wildfire Management

- Firefighter and public safety is the first priority in every fire management activity (2001 Federal Wildland Fire Management Policy).
- Set priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources based on values to be protected, human health and safety, and costs of protection (2001 Federal Wildland Fire Management Policy).
- In areas suitable for fire where conditions allow (Land Use Allocation 1), BLM can allow naturally ignited wildland fire to maintain non-hazardous levels of fuels to reduce the hazardous effects of unplanned wildland fires and meet resource objectives (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004* pp. 2-2 – 2-6, Table 2.1, Figure 2.1).
- The Conservation Measures listed in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (pp. 324-346) will be implemented during fire suppression operations, unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS (Biological

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- and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp 325-326).
- Assign a qualified Resource Advisor(s) (READ) to coordinate concerns regarding federally protected species, cultural and natural resource issues, and to serve as a liaison between the Field Office Manager and the Incident Commander (IC)/Incident Management Team (IMT). The READ will also serve as a field contact representative (FCR) responsible for coordination with the USFWS. The READ's will have the necessary information on federally protected species and habitats in the area and the available Conservation Measures for the species. They will be briefed on the intended suppression actions for the fire, and will provide input on which Conservation Measures are appropriate, within the standard constraints of safety and operational procedures. The IC has the final decision-making authority on implementation of Conservation Measures during fire suppression operations (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-4).
 - Conservation Measures pertaining to Peeble's Navajo cactus include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 339-340):
 - Known locations and potential habitat for plant populations will be mapped to facilitate planning for management of wildland fire for resource benefit [wildland fire use], prescribed fires, and vegetation treatments, and to ensure protection of these populations during fire suppression.
 - During fire suppression, management of wildland fire for resource benefit [wildland fire use], and prescribed fire in habitat occupied by Federally protected plant species, no staging of equipment or personnel will be permitted within 100 meters of identified individuals or populations, nor will off-road vehicles be allowed within the 100-meter buffer area, unless necessary for firefighter or public safety or the protection of property, improvements, or other resources (see **FS-7**). One of the primary threats to many of these plant species is trampling/crushing from personnel and vehicles.
 - The BLM is reasonably certain that in the areas where Peeble's Navajo cactus occurs, it is extremely unlikely that fire suppression activity will be necessary for the reasons provided above. Consequently, the specific areas where populations of Peeble's Navajo cactus occurs on BLM managed land, will be identified, delineated, and avoided by BLM fire suppression crews in the unlikely event that fire suppression activities are required in the immediate region.
 - Conservation Measures pertaining to Little Colorado spinedace include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pg. 338):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats to minimize adverse effects from fire management activities on BLM-lands to occupied reaches and critical habitat on adjacent lands.
 - Suppression tactics will be utilized that limit damage or disturbance to the habitat and landscape. No heavy equipment will be used (e.g. dozers) unless approved by the Field Office Manager (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - All known cultural resources will be protected from disturbance (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - Use of fire retardants or chemicals adjacent to waterways will be accomplished in accordance to the "Environmental Guidelines for Delivery of Retardant or Foam Near

Waterways” (Interagency Standards for Fire and Aviation Operations, 2009, Chap. 12, NFES 2724).

Fuels Management

- In areas suitable for fire where conditions allow, BLM will use prescribed fire and a combination of biological, mechanical and chemical treatments to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2)
- In areas suitable for fire, BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. If air quality approaches unhealthy levels BLM will delay igniting prescribed fires (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas not suitable for fire where fuel loading high, BLM will utilize biological, mechanical or chemical treatments, and some prescribed fire to maintain non-hazardous levels of fuels and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- For all fire management activities (wildfire suppression, wildfires managed for resource benefit, prescribed fire, and mechanical, chemical, and biological vegetation treatments), Conservation Measures (Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 324-346) will be implemented to reduce the effects of fire management actions on federally threatened, endangered, proposed, and candidate (“federally Protected”) species.
- Conservation Measures pertaining to Peeble’s Navajo cactus include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 339-340):
 - The BLM will not use prescribed fire in habitats supporting Peeble’s Navajo cactus (*Pediocactus peeblesianus* var. *peeblesianus*). The BLM will also not use any mechanical or chemical treatments in habitats supporting this species
- Conservation Measures pertaining to Little Colorado spinedace include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pg. 338):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats to minimize adverse effects from fire management activities on BLM-lands to occupied reaches and critical habitat on adjacent lands.

Community Assistance/Protection

- To reduce human-caused fires, BLM will undertake education, enforcement and administrative fire prevention mitigation measures (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Education measures will include various media information including a signing program, information as to the natural role of fire within local ecosystems, participation in fairs,

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- parades and public contacts (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Enforcement will be accomplished by providing training opportunities for employees interested in fire cause determination (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - Administration includes expanded prevention and education programs with other cooperator agencies (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - In areas suitable for fire where fuel loading is high and current conditions constrain managing wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - In areas not suitable for fire, BLM will implement programs to reduce unwanted ignitions, and emphasize prevention, detection, and rapid suppression response techniques (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - Community assistance/protection objectives include identifying hazardous fuel reduction projects, public and firefighter safety issues, and partnering opportunities with local Firewise groups.
 - The Arizona Firewise Communities program is the primary tool to achieve wildland fire hazards awareness to the public. Technical assistance is being provided by the BLM allowing Firewise groups to develop local plans that meet mutual goals with the BLM.

h. Strategic Objectives

Wildfire Management

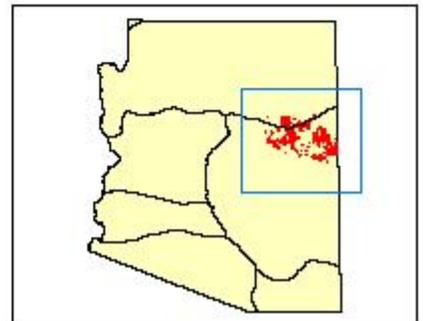
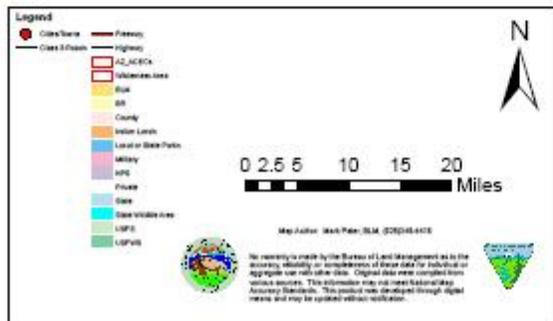
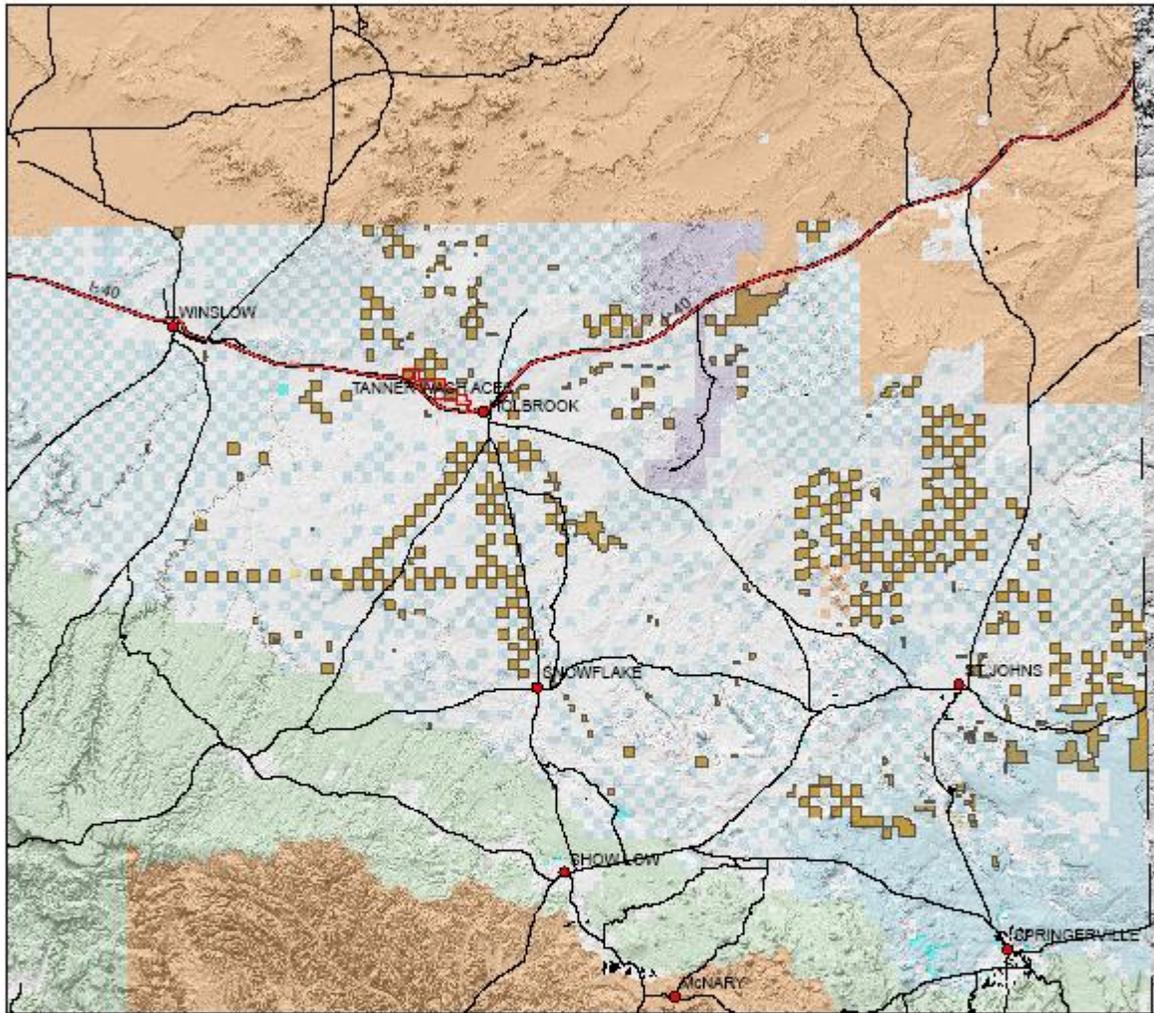
- Unplanned ignitions will be managed using applicable management decisions with regard to public and firefighter safety, cost, and private property along with other improvements (AZ BLM Gila District FMP, 2010, pg.23).
- Individual wildfires may be managed for more than one fire management objective (managing wildfires for resource benefit). All wildfire management decisions must be consistent with existing land use and fire management plan decisions (IM No. FA IM-2009-011).
- Efforts on unplanned ignitions will be directed towards containing or confining each unplanned ignition to public lands using natural or man-made fuel breaks (AZ BLM Gila District FMP, 2010, pg. 23).
- Suppress wildfire in sensitive vegetation communities (i.e. Peeble's Navajo cactus [*Pediocactus peeblesianus* var. *peeblesianus*], Little Colorado spinedace [*Lepidomeda vittata*]) to reduce the detrimental effects on priority wildlife species (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-10).

Fuels Management

- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective prescribed fire treatments in those areas not identified as sensitive vegetation communities (i.e. Peeble's Navajo cactus (*Pediocactus peeblesianus* var. *peeblesianus*)) to achieve resource management objectives.
- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective non-fire treatments to achieve resource management objectives.

Map 2.

AZ BLM Gila District Fire Management Area Apache - Navajo



Aravaipa – Santa Teresa Fire Management Area (AZBLM-GD-03)

a. Location

The Aravaipa portion of this management unit borders the San Carlos Tribal Lands to the north. The southern portion of this area is accessible on the ground via the Klondyke Road (off State Route 70 west of Safford). The Klondyke Road then runs into the Aravaipa Canyon Road which then leads into the area. The northern portion of this area is primarily accessible via the Aravaipa Road off State Route 77, south of Dudleyville. Otherwise the area is inaccessible except by air. Driving time from Safford to this area varies from two to three hours to access the southern portion, to four to five hours to access the northern area. Vehicle traffic into this area is limited to All Terrain Vehicles (ATV's). The total acreage for BLM-managed lands in this management area is 91,957 acres.

The Santa Teresa Mountains area borders San Carlos Tribal Lands to the north. The northern portion of this area is accessible on the ground via either the Black Rock Road or the Emery-Goodwin Wash Road, both of which are accessible from State Route 70. The southern portion of this area is accessible on the ground via some unimproved dirt roads that tier off the Klondyke Road. Driving time from Safford to this area varies from two to three hours. Vehicle traffic into this area is limited to either 4x4 vehicles or ATV's (see Map 3).

b. Characteristics

The topography in the Aravaipa area is variable with flat ridges and narrow to wide draws and canyons. Accessibility is a serious concern, especially on the North Rim; roads in this area have deteriorated and are often impassible. Several locked gates on private land severely limit BLM's legal access to large parts of this area. The lower elevations in this area (<3,000 feet) are dominated by desert shrubs, trees, and cacti. Deep, upland sites have overstories of mesquite and palo verde with understories of perennial and annual grasses and forbs. This area also supports saguaro cactus as well as a wide variety of *Opuntia* species (cholla and prickly pear species) and other cacti on the upland and hill slopes. Bush muhly is the dominant perennial grass. Other grasses include slender grama, purple threeawn, mesa and spidergrass threeawns, Arizona cottontop, Pima pappusgrass, red grama, slim tridens, and fluffgrass. Major forbs include slender janusia, twinberry, spiny goldenhead, desert globemallow, and yerba del vanado. Triangle bursage is the dominant half-shrub in this area. Other shrubs include jojoba, false mesquite, desert zinnia, mormon tea, creosote bush, flattop buckwheat, ocotillo, limber bush, and wolfberry species. Annual grasses and forbs of both winter and summer seasons are well represented in years with favorable precipitation.

The upper elevations in this area (>3,000 feet) can be characterized as deep, heavy textured uplands are open grasslands dominated by tobosa, vine mesquite, and bottlebrush squirreltail. Deep and moderately deep loamy soils are dominated by grama species, curly mesquite, squirreltail, and shrubs like jojoba, mesquite, blue palo verde, algerita, skunkbush, and scattered turbinella oak. Shallow soils on hill slopes are diverse grass, shrub, and tree mixtures. The major grasses include desert stipa, New Mexico feathergrass, black, hairy, sideoats, and slender grammas, tobosa, curly mesquite, squirreltail, and red and blue threeawns. The common trees include canotia, one-seed juniper, mesquite, catclaw, acacia, and blue palo verde. Important shrubs include jojoba, ratany, shrubby buckwheat, algerita, Skunkbush, and shrubby penstemon. This area is a mixture of transition from Upper Sonoran Desert to Interior Chaparral and as such it is not uncommon to see species like saguaro and juniper together on steep southern exposures.

The topography in the Santa Teresa area varies widely and is, for the most part, inaccessible. Roads leading into this area have deteriorated and are impassible. Several locked gates on private land severely limit BLM's legal access to large parts of this area. Firefighter safety is a significant concern due to fuels, terrain, and inaccessibility. The deep, heavy textured uplands are open grasslands dominated by tobosa, vine mesquite, and bottlebrush squirreltail. Deep and moderately deep loamy soils are dominated by grama species, curly mesquite, squirreltail, and shrubs like jojoba, mesquite, blue palo verde, algerita, skunkbush, and scattered turbinella oak. Shallow soils on hill slopes are diverse grass, shrub, and tree mixtures. The major grasses

include black, hairy, sideoats, and slender grammas; tobosa, curly mesquite, squirreltail, and red and blue threeawn species. The common trees include canotia, one-seed juniper, mesquite, catclaw acacia, and blue palo verde. Important shrubs include jojoba, ratany, shrubby buckwheat, algerita, Skunkbush, and shrubby penstemon.

In the semidesert grasslands, fire was probably the single most common disturbance controlling the transition from grassland to shrubland in the volcanic hills, granitic hills, and loamy upland ecological sites prior to European settlement. Periodic wildfires reduced shrub cover and allowed grasses to remain dominant.

c. Fire History

Between 1980 and 2008, 57 fires were reported within this area. Since 1980 these fires burned an estimated 5,489 total acres. The largest fire burned 1,350 acres in June 1991 (Javelina Canyon Fire). The average fire size over the past 28 years is 96 acres. Since 1980 there have been 10 large fires over 100 acres in size.

d. Fire Regime/Condition Class

The fire regime for the majority of this area is rated as fire regime III (35-100 year frequency, mixed severity); some portions of this area are rated at a fire regime II (0-35 year frequency, stand replacement severity). The Condition Class rating for this area is assessed at levels I and II.

e. Values at Risk

Values at risk in the Aravaipa – Santa Teresa fire management area include the Aravaipa Canyon Wilderness (ACW), the North Santa Teresa Wilderness area, private property located near both east and west end Aravaipa access locations; private property areas within Santa Teresa Mountains portion of the management area as well as private property areas that border this unit on the northern, southern and western sides. Arizona State lands border the Santa Teresa portion of the unit to the south and USFS lands border this unit to the west and various range improvement structures (fences, water developments, etc.).

Management of vegetation in the ACW is directed toward allowing natural ecological processes to operate freely and to return plant communities to conditions similar to those described in the 1860's. Natural revegetation and the natural processes of ecological succession are the preferred methods of ecosystem restoration within the ACW. Reseeding or replanting in rare cases may be authorized by the Director when there is no reasonable expectation of natural revegetation. Only native species and primitive methods would be allowed. Exotic plant control will focus on those species, particularly salt cedar that would jeopardize the continued existence of native plants in the ACW. Control by hand methods is preferred.

The preservation of wilderness values for both the ACW and the Santa Teresa Wilderness Area strives to maintain or improve naturalness in the designated wilderness areas by:

- Provide for the long term protection and preservation of the area's wilderness character under a principle of nondegradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they remain unimpaired.
- Manage for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.
- Manage using the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.

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- Manage non-conforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character. Non-conforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

Occupied loach minnow habitat on, or downstream of, BLM-administered lands includes Aravaipa Creek. Spikedace occupy the Middle Gila/Lower San Pedro/Aravaipa System, its population status ranging from rare to common. Only one occupied site, Aravaipa Creek in Aravaipa Canyon, is within or downstream from BLM-administered lands (Safford Field Offices) in Arizona. All other occupied or suitable habitat is located upstream from public lands, or in drainages owned or managed by other agencies or landowners, and not adjacent to public lands (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pp.199-200).

When addressing T&E species and/or T&E species habitat, the Conservation Measures outlined in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (September 2004) will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

f. Communities at Risk

There are no identified communities at risk within or immediately adjacent to this management area.

g. Management Requirements

Wildfire Management

- Firefighter and public safety is the first priority in every fire management activity (2001 Federal Wildland Fire Management Policy).
- Set priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources based on values to be protected, human health and safety, and costs of protection (2001 Federal Wildland Fire Management Policy).
- In areas suitable for fire where conditions allow (Land Use Allocation 1), BLM can allow naturally ignited wildland fire to maintain non-hazardous levels of fuels to reduce the hazardous effects of unplanned wildland fires and meet resource objectives (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004* pp. 2-2 – 2-6, Table 2.1, Figure 2.1).
- The Conservation Measures listed in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (pp. 324-346) will be implemented during fire suppression operations, unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management [BO-LUPA], September 2004, pp 325-326).
- Assign a qualified Resource Advisor(s) (READ) to coordinate concerns regarding federally protected species, cultural and natural resource issues, and to serve as a liaison between the Field Office Manager and the Incident Commander (IC)/Incident Management Team (IMT). The READ will also serve as a field contact representative

(FCR) responsible for coordination with the USFWS. The READ's will have the necessary information on federally protected species and habitats in the area and the available Conservation Measures for the species. They will be briefed on the intended suppression actions for the fire, and will provide input on which Conservation Measures are appropriate, within the standard constraints of safety and operational procedures. The IC has the final decision-making authority on implementation of Conservation Measures during fire suppression operations (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-4).

- Species specific Conservation Measures regarding loach minnow and/or spikedace includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pp.338-339.):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats for occupied reaches and critical habitat.
 - All reasonable efforts shall be made to minimize disturbance within the wetted areas of Aravaipa Creek or tributary channels.
 - No heavy equipment will be used off-road during wildfire suppression and fuels treatment projects within the wetted areas of Aravaipa Creek.
 - All reasonable efforts will be made to ensure that no pollutants, retardants, or chemicals associated with wildfire suppression and fuels treatment projects or activities enter surface waters of reaches occupied by these two fish species.
- Suppression tactics will be utilized that limit damage or disturbance to the habitat and landscape. No heavy equipment will be used (e.g. dozers) unless approved by the Field Office Manager (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
- All known cultural resources will be protected from disturbance (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
- In Wilderness Areas (i.e. Aravaipa Canyon Wilderness Area), Wilderness Study Areas, and areas being managed for wilderness characteristics according to LUP's, when suppression actions are required, minimum impact suppression tactics (MIST) will be applied and coordinated with Wilderness Area management objectives and guidelines (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-6). Guidelines and operating procedures for fire management activities in Wilderness Areas are provided in BLM Manual 8560, Management of Designated Wilderness Areas, and in Wilderness Management Plans, where completed for specific Wilderness Areas (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-7).
- Control fire when the loss of human life or property within the wilderness is threatened or when the spread of fire to areas outside of the wilderness threatens life, property or resources (Aravaipa Canyon Wilderness Management Plan, 1988, pg. 23).
- Allow fire to play its natural role when the fire conforms with an approved fire management plan and any overriding fire guidance (Aravaipa Canyon Wilderness Management Plan, 1988, pg. 23).
- Use of fire retardants or chemicals adjacent to waterways will be accomplished in accordance to the "Environmental Guidelines for Delivery of Retardant or Foam Near Waterways" (Interagency Standards for Fire and Aviation Operations, 2009, Chap. 12, NFES 2724).

Fuels Management

- In areas suitable for fire where conditions allow, BLM will use prescribed fire and a combination of biological, mechanical and chemical treatments to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires and

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- meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain management of wildland fire for resource benefit[fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - In areas suitable for fire, BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. If air quality approaches unhealthy levels BLM will delay igniting prescribed fires (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - In areas not suitable for fire where fuel loading high, BLM will utilize biological, mechanical or chemical treatments, and some prescribed fire to maintain non-hazardous levels of fuels and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - Non-fire treatments may be used to reduce hazardous fuel loads; invasive or woody species cover, increase herbaceous cover, improve ingress/egress routes, improve water infiltration, and reduce soil erosion (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - For all fire management activities (wildfire suppression, wildfires managed for resource benefit, prescribed fire, and mechanical, chemical, and biological vegetation treatments), Conservation Measures (Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 324-346) will be implemented to reduce the effects of fire management actions on federally threatened, endangered, proposed, and candidate (“federally Protected”) species.
 - Species specific Conservation Measures regarding loach minnow and/or spokedace includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pp.338-339.):
 - Develop mitigation plans in coordination with the USFWS for each fuels management project (prescribed fire; vegetation treatments) that may adversely affect the loach minnow and spokedace. Mitigation plans for prescribed fire will limit to the extent practicable the possibility that fire would spread to riparian habitats. Mitigation plans will be approved by the USFWS.
 - Cooperate with the USFWS and AGFD to identify site-specific measures, such as prescribed fires in grassland vegetation types to improve watershed conditions (*e.g.*, in the Aravaipa Creek watershed), to protect populations of loach minnow and spokedace from other resource program impacts.
 - The BLM will not use prescribed fire in riparian habitats supporting loach minnow and spokedace. BLM will also not use any mechanical or chemical treatments in habitats supporting these species (BO-LUPA, September 2004, pp.336, 338).

Community Assistance/Protection

- To reduce human-caused fires, BLM will undertake education, enforcement and administrative fire prevention mitigation measures (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Education measures will include various media information including a signing program, information as to the natural role of fire within local ecosystems, participation in fairs,

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- parades and public contacts (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Enforcement will be accomplished by providing training opportunities for employees interested in fire cause determination (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - Administration includes expanded prevention and education programs with other cooperator agencies (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - In areas suitable for fire where fuel loading is high and current conditions constrain management of fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - In areas not suitable for fire, BLM will implement programs to reduce unwanted ignitions, and emphasize prevention, detection, and rapid suppression response techniques (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - Community assistance/protection objectives include identifying hazardous fuel reduction projects, public and firefighter safety issues, and partnering opportunities with local Firewise groups.
 - The Arizona Firewise Communities program is the primary tool to achieve wildland fire hazards awareness to the public. Technical assistance is being provided by the BLM allowing Firewise groups to develop local plans that meet mutual goals with the BLM.

h. Strategic Objectives

Wildfire Management

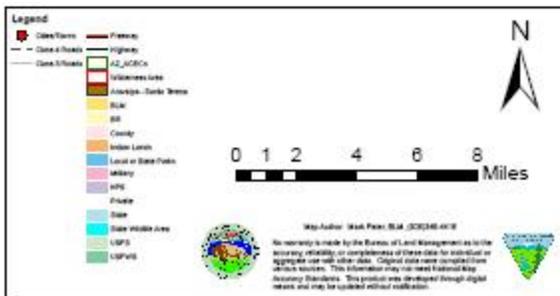
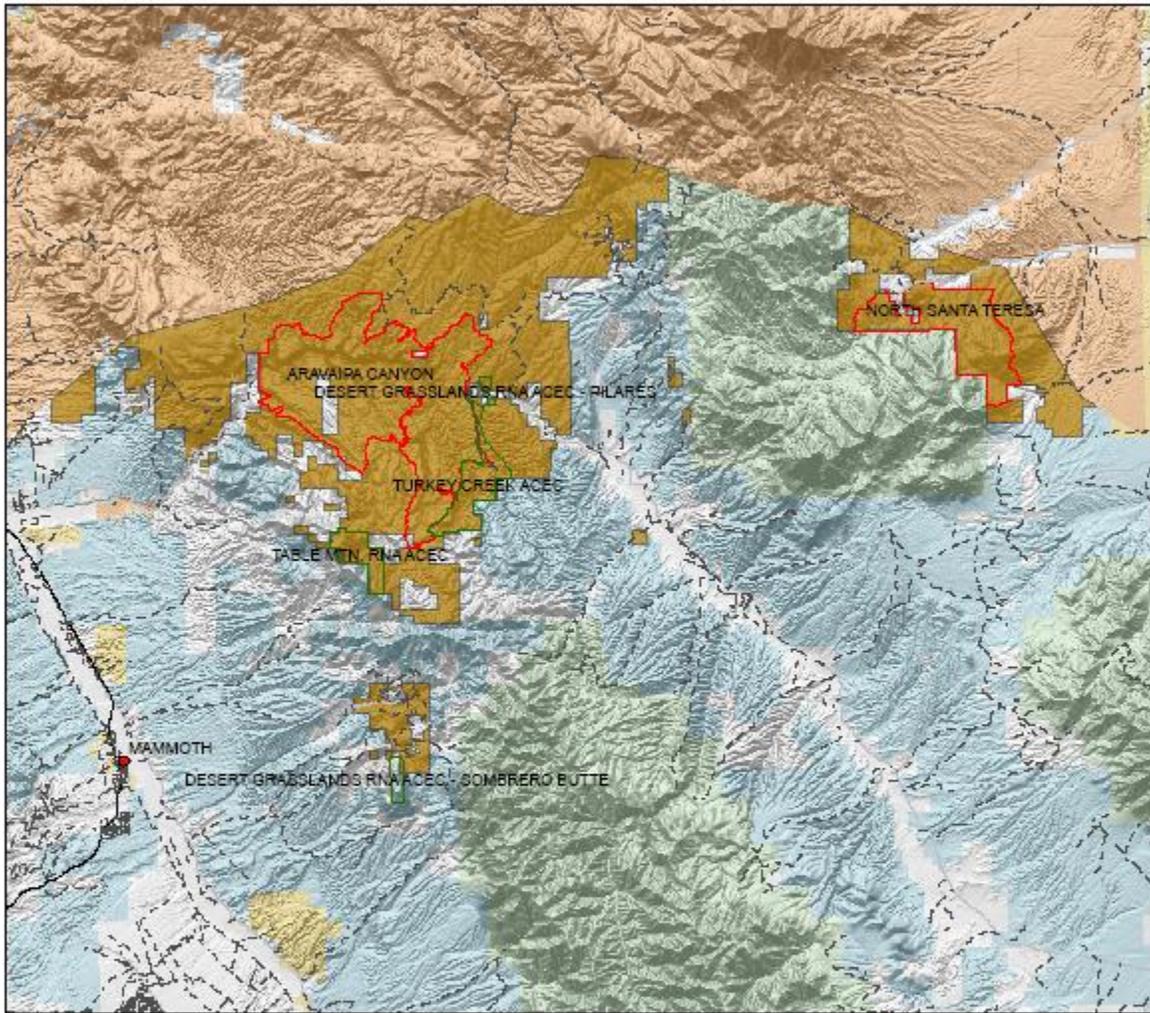
- Unplanned ignitions will be managed using applicable management decisions with regard to public and firefighter safety, cost, and private property along with other improvements (AZ BLM Gila District FMP, 2010, pg. 32).
- Individual wildfires may be managed for more than one fire management objective (managing wildfires for resource benefit). All wildfire management decisions must be consistent with existing land use and fire management plan decisions (IM No. FA IM-2009-011).
- Efforts on unplanned ignitions will be directed towards containing or confining each unplanned ignition to public lands using natural or man-made fuel breaks (AZ BLM Gila District FMP, 2010, pg. 32).
- Suppress wildfire in sensitive vegetation communities (i.e. riparian areas supporting loach minnow [*Rhinichthys cobitis*] and spikedeace [*Meda fulgida*]) to reduce the detrimental effects on priority wildlife dependent on those communities (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2, 2-10).

Fuels Management

- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective prescribed fire treatments in those areas not identified as a Sonoran Desert ecotype to achieve resource management objectives.
- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective non-fire treatments to achieve resource management objectives.

Map 3.

AZ BLM Gila District Fire Management Area Aravaipa - Santa Teresa



Dos Cabezas Mountains (AZBLM-GD-04)

a. Location

This management area is bounded primarily by private and state lands. The Fort Bowie National Historic Site (National Park Service) borders this management area on the southeast. The area is accessible by ground from the west via some improved and unimproved dirt roads off State Route 186 and from the north and east via a few improved and unimproved dirt roads that tier off the Apache Pass Road (see Map 4). Driving time to this management unit from the Safford Field Office is approximately 1.5 – 2.0 hours depending on the destination.

The Dos Cabezas Mountain Wilderness Area is located within this management unit. The area is accessible on the ground via Apache Pass Road heading south from Bowie, AZ; then following the dirt road leading into Happy Camp Canyon. Driving time from Safford to this area is approximately two hours. The total acreage for BLM-managed lands in this management area is 54,234 acres (see Map 4).

b. Characteristics

In the Dos Cabezas Mountains, access is limited due to private lands surrounding the public lands. The topography is variable with steep, broken slopes and deep washes and drainages. At the upper elevations characterized by the oak species and alligator juniper, these species tend to resprout vigorously and quickly following fire and assume dominance which can result in a lower seral stage. At the lower elevations natural fire is a prime factor in maintaining the grass dominated plant community by preventing woody species invasion. The lower elevations (<5,000 feet) are dominated by warm season perennial grasses. The major species are sideoats, black, blue, hairy, sprucetop, and Rothrock gramas; plains lovegrass, cane beardgrass, Arizona cottontop, plains bristlegrass, big sacaton, alkali sacaton, tobosa, vine mesquite, curly mesquite, bush muhly, and mesa, blue, red, poverty, and spidergrass threeawns. Average annual production of these grasslands is about 1,000 pounds per acre (0.5 tons acre⁻¹).

Important shrubs include false mesquite, range ratany, shrubby buckwheat, fourwing saltbush, soap tree yucca, and sacahuista. Mesquite is the dominant tree of the area with other common trees including catclaw acacia, netleaf hackberry, western soapberry, desert willow, Arizona ash, Arizona black walnut, cottonwood, and black willow. Summer annual grasses are important in the area and include species of grama, panic, sprangletop, and threeawn. Perennial forbs are also important and include species like evolvulus, sida, dyschoriste, wild bean, lotus, matweed, zinnia, hog potato, perezia, cudweeds, and vetch.

The vegetation at the higher elevations (> 5,000 feet) is characterized as an oak-savannah with open canopies (5-10%) of Emory, Mexican blue, Arizona white oak, and one-seed juniper, and perennial grasses in the understory. The major grasses include sideoats, blue, hairy, and purple gramas, bullgrass, deergrass, Texas bluestem, plains lovegrass, woolly bunchgrass, crinkleawn, prairie junegrass, squirreltail, piñon ricegrass, and beggartick threeawn. The dominant shrubs include sacahuista, California brickelbush, wait-a-bit mimosa, and yerba de pasmo. Average annual production of these grasslands is about 1,500 pounds per acre (0.75 tons acre⁻¹).

The Dos Cabezas Mountains Wilderness consists of four ecological sites (*Dos Cabezas Mountains Wilderness Management Plan, Environmental Assessment, and Decision Record*. June 1995. pp.4-7):

- Volcanic Hills/Woodland; currently, 5,202 acres of this ecological site are in high seral stage (20% grasses, 15% forbs, 22% shrubs, and 43% trees).
- Volcanic Hills; currently, 1,185 acres of this ecological site are in potential natural community (55% grasses, 15% forbs, 30% shrubs and trees). In addition 2,118 acres are in high seral stage (30% grasses, 10% forbs, 60% shrubs and trees).
- Granitic Hills; currently, 2,079 acres of this ecological site are in high seral stage (47% grasses, 15% forbs, 38% shrubs and trees). In addition, 1,324 acres are currently in mid seral stage (25% grasses, 15% forbs, 60% shrubs and trees).

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- Sand Bottom; currently, all 90 acres of this ecological site are in mid seral stage (10% grasses, 10% forbs, 80% shrubs and trees).

c. Fire History

Between 1980 and 2008, Gila District personnel responded to 22 action type fires within this management unit. The largest fire burned 1,615 acres in June 1984 (Bear Fire). Average fire size is 170 acres. There have been six large fires over 100 acres in size during this time period.

d. Fire Regime/Condition Class

The fire regime for the majority of this area is rated as fire regime III (35-100 year frequency, mixed severity). The Condition Class rating for this area is predominantly assessed at level I with some isolated areas being rated at level II.

e. Values at Risk

The preservation of wilderness values within the Dos Cabezas Mountains Wilderness Area strives to maintain or improve naturalness in the designated wilderness areas by:

- Provide for the long term protection and preservation of the area's wilderness character under a principle of nondegradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they remain unimpaired.
- Manage for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.
- Manage using the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.
- Manage non-conforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character. Non-conforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

When addressing T&E species and/or T&E species habitat, the Conservation Measures outlined in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (September 2004) will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

f. Communities at Risk

There are no identified communities at risk within this management area.

g. Management Requirements

Wildfire Management

- Firefighter and public safety is the first priority in every fire management activity (2001 Federal Wildland Fire Management Policy).
- Set priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources based on values to be protected, human health and safety, and costs of protection (2001 Federal Wildland Fire Management Policy).

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- In areas suitable for fire where conditions allow (Land Use Allocation 1), BLM can allow naturally ignited wildland fire to maintain non-hazardous levels of fuels to reduce the hazardous effects of unplanned wildland fires and meet resource objectives (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004* pp. 2-2 – 2-6, Table 2.1, Figure 2.1).
 - The Conservation Measures listed in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (pp. 324-346) will be implemented during fire suppression operations, unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp 325-326).
 - Assign a qualified Resource Advisor(s) (READ) to coordinate concerns regarding federally protected species, cultural and natural resource issues, and to serve as a liaison between the Field Office Manager and the Incident Commander (IC)/Incident Management Team (IMT). The READ will also serve as a field contact representative (FCR) responsible for coordination with the USFWS. The READ's will have the necessary information on federally protected species and habitats in the area and the available Conservation Measures for the species. They will be briefed on the intended suppression actions for the fire, and will provide input on which Conservation Measures are appropriate, within the standard constraints of safety and operational procedures. The IC has the final decision-making authority on implementation of Conservation Measures during fire suppression operations (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-4).
 - Suppression tactics will be utilized that limit damage or disturbance to the habitat and landscape. No heavy equipment will be used (e.g. dozers) unless approved by the Field Office Manager (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - All known cultural resources will be protected from disturbance (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - In Wilderness Areas (i.e. Dos Cabezas Mountains Wilderness Area), Wilderness Study Areas, and areas being managed for wilderness characteristics according to LUP's, when suppression actions are required, minimum impact suppression tactics (MIST) will be applied and coordinated with Wilderness Area management objectives and guidelines (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-6). Guidelines and operating procedures for fire management activities in Wilderness Areas are provided in BLM Manual 8560, Management of Designated Wilderness Areas, and in Wilderness Management Plans, where completed for specific Wilderness Areas (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-7).
 - Control fire when the loss of human life or property within the Dos Cabezas Mountains Wilderness is threatened or when the spread of fire to areas outside of the wilderness threatens life, property or resources (Dos Cabezas Mountains Wilderness Management Plan, 1995, pp. 63-64).
 - Allow fire to play its natural role when the fire conforms with an approved fire management plan and any overriding fire guidance (Dos Cabezas Mountains Wilderness Management Plan, 1995, pp. 21-22).
 - Use of fire retardants or chemicals adjacent to waterways will be accomplished in accordance to the "Environmental Guidelines for Delivery of Retardant or Foam Near

Waterways” (Interagency Standards for Fire and Aviation Operations, 2009, Chap. 12, NFES 2724).

Fuels Management

- In areas suitable for fire where conditions allow, BLM will use prescribed fire and a combination of biological, mechanical and chemical treatments to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- The Dos Cabezas Mountains Wilderness Management Plan (1995) provides guidance regarding the use of prescribed fire in the Dos Cabezas Mountains Wilderness Area (Dos Cabezas Mountains Wilderness Management Plan, 1995, pp. 21-23).
- In areas suitable for fire where fuel loading is high and current conditions constrain management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire, BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. If air quality approaches unhealthy levels BLM will delay igniting prescribed fires (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas not suitable for fire where fuel loading high, BLM will utilize biological, mechanical or chemical treatments, and some prescribed fire to maintain non-hazardous levels of fuels and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- For all fire management activities (wildfire suppression, wildfires managed for resource benefit, prescribed fire, and mechanical, chemical, and biological vegetation treatments), Conservation Measures (Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004) will be implemented to reduce the effects of fire management actions on federally threatened, endangered, proposed, and candidate (“federally Protected”) species.

Community Assistance/Protection

- To reduce human-caused fires, BLM will undertake education, enforcement and administrative fire prevention mitigation measures (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Education measures will include various media information including a signing program, information as to the natural role of fire within local ecosystems, participation in fairs, parades and public contacts (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Enforcement will be accomplished by providing training opportunities for employees interested in fire cause determination (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Administration includes expanded prevention and education programs with other cooperator agencies (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use

mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).

- In areas not suitable for fire, BLM will implement programs to reduce unwanted ignitions, and emphasize prevention, detection, and rapid suppression response techniques (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Community assistance/protection objectives include identifying hazardous fuel reduction projects, public and firefighter safety issues, and partnering opportunities with local Firewise groups.
- The Arizona Firewise Communities program is the primary tool to achieve wildland fire hazards awareness to the public. Technical assistance is being provided by the BLM allowing Firewise groups to develop local plans that meet mutual goals with the BLM.

h. Strategic Objectives

Wildfire Management

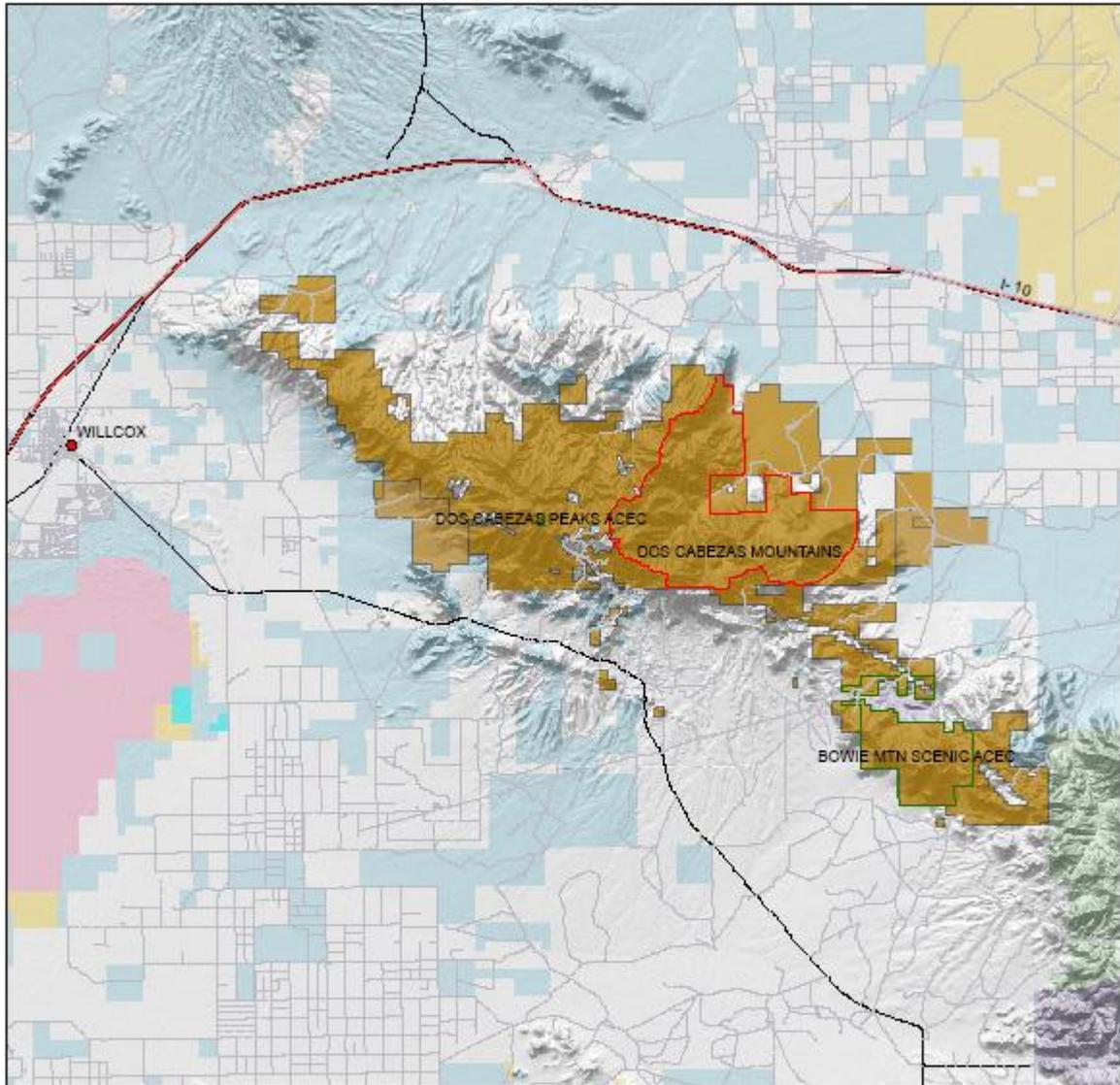
- Unplanned ignitions will be managed using applicable management decisions with regard to public and firefighter safety, cost, and private property along with other improvements (*AZ BLM Gila District FMP, 2010, pg. 39*).
- Individual wildfires may be managed for more than one fire management objective (managing wildfires for resource benefit). All wildfire management decisions must be consistent with existing land use and fire management plan decisions (*IM No. FA IM-2009-011*).
- Efforts on unplanned ignitions will be directed towards containing or confining each unplanned ignition to public lands using natural or man-made fuel breaks (*AZ BLM Gila District FMP, 2010, pg. 39*).
- Concentrate on keeping fire away from adjacent mountaintop communication sites and historic buildings (*Dos Cabezas Mountains Wilderness Management Plan, 1995, pg. 22*).
- Concentrate on keeping fire away from adjacent community of Dos Cabezas and surrounding areas (*Dos Cabezas Mountains Wilderness Management Plan, 1995, pg. 22*).

Fuels Management

- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective fuels treatments (fire, mechanical, or chemical) to achieve resource management objectives.

Map 4.

AZ BLM Gila District Fire Management Area Dos Cabezas Mountains



Gila Mountains – Black Rock (AZBLM-GD-05)

a. Location

All areas within this management unit border San Carlos Tribal Lands to the north. This area is accessible on the ground primarily via a number of both improved and unimproved roads via State Route 70 or U.S. Route 191. Most of these roads are not well maintained and access is significantly limited except by air. Driving time from Safford to this area varies anywhere from two to four hours, depending on the destination. Vehicle traffic into this area is limited to either 4x4 vehicles or ATV's. The total acreage for BLM-managed lands in this management area is 705,397 acres (see Map 5).

The Fishhooks Wilderness Area is located in the northwestern portion of this unit and is bordered on the north by San Carlos Apache Indian tribal lands. This area is accessible via the Diamond Bar Road off U.S. Route 70 at Fort Thomas west of Safford. Driving time to the boundary of this area from Safford is approximately two hours.

The Gila Box Riparian National Conservation Area (RNCA) is in rugged mountainous terrain situated between the Gila and Peloncillo Mountains. The eastern part of the RNCA is located at the northwest extremity of the Peloncillo Mountains and the western part at the southeast extremity of the Gila Mountains.

Access into this area can be gained via Bonita Creek and Gila River (West): From Safford travel approximately 5 miles east on U.S. Highway 70 to the town of Solomon and turn left onto Sanchez road. From there, travel north and cross bridge at the Gila River. Then you will drive seven more miles until you reach a Bonita Creek and Gila Box RNCA BLM sign and turn left onto that dirt road. Once on the dirt road continue traveling approximately 2.5 miles to the West entry sign of the Gila RNCA. Total travel time from Safford is approximately 45 minutes.

Gila River (East): Take U.S. Highway 70 east of Safford for 10 miles then turn north on U.S. Highway 191. Follow highway to milepost 160 (just 4 miles south of Clifton) and turn left onto the Black Hills Back Country Byway. Follow this graded dirt road for 4 miles to the Old Safford Bridge at the Gila River. Total travel time from Safford is approximately 1 ½ hours.

The Black Rock area is accessible on the ground via the Tripp Canyon Road, the Klondyke Road, the Black Rock Road, or the Emery-Goodwin Wash Road, all of which are accessible from State Route 70. Driving time from Safford to this area varies from two to three hours. Vehicle traffic into this area is limited to either 4x4 vehicles or ATV's.

b. Characteristics

The topography in the Gila Mountains varies widely and many areas are inaccessible. Aerial suppression resources have historically been successful in areas of limited access. Firefighter safety is a significant concern due to terrain, fuels, and inaccessibility. The lower elevations within this area are dominated by Chihuahuan and Sonoran desert mixed scrub (mesquite, creosote bush, saltbush, etc.) with minor populations of perennial grasses.

The upper elevations are characterized by semidesert grasslands to mixed oak interspersed with small riparian areas. The topography is rough and broken with steep slopes bordering on the San Carlos Apache Indian Reservation.

The topography in the Fishhooks Wilderness Area varies widely and is, for the most part, accessible by foot or on horseback. This area is characterized as a well developed interior chaparral zone where nearly continuous stands of low evergreen shrubs occur on specific hillsites. Deep, heavy textured uplands are open grasslands dominated by blue grama, curly mesquite, vine mesquite, and bottlebrush squirreltail. Shallow soils over deeply weathered bedrock are shrub lands (chaparral sites in this area). Turbinella oak is the dominant species. Other important shrubs on these sites include yellow-leaf silktassel, holly-leaf buckthorn, mountain mahogany, skunkbush sumac, algerita, manzanita, sacahuista, and wait-a-bit bush.

Associated trees include one-seed juniper, piñon pine, Arizona white and Emory oak, and Arizona cypress. Shallow soils over hard bedrock (basalt, quartzite, etc.) have diverse plant communities of perennial grasses and forbs, shrubs, and scattered trees. Major grasses include the grammas, cane beardgrass, plains lovegrass, and Bullgrass. Common shrubs include the chaparral species listed above plus shrubby buckwheat, range ratany, cliff fendlerbush, and bundleflower. Important perennial forbs include rock cress, shrubby deervetch, Indian paintbrush, vetch, breadroot, pink perezia, groundsels, and locoweeds.

The RNCA is in rugged mountainous terrain situated between the Gila and Peloncillo Mountains. The eastern part of the RNCA is located at the northwest extremity of the Peloncillo Mountains and the western part at the southeast extremity of the Gila Mountains. These mountains form a more or less continuous northwest trending range typical of the Southern Basin and Range Province of Arizona and New Mexico. The RNCA is at the northern edge of the Basin and Range Province, abutting the southern edge of what is known as the Transitional Zone. This zone, essentially comprising the Mogollon Rim, is mountainous terrain that separates the Colorado Plateau province to the north from the Basin and Range Province to the south.

The RNCA shares approximately one mile of its boundary with the San Carlos Apache Reservation (R.27E. T.4S, Sec's. 33, 34, 27, 26). This section of RNCA boundary is located at the northern end of Bonita Creek. The City of Safford owns 309 acres within the RNCA, and about 1,300 acres of private land is within the RNCA.

Upland areas are dominated primarily by perennial grasses, small shrubs, cacti, and mesquite. With adequate winter precipitation, cool-season forbs and grasses are abundant. The riparian areas are dominated by mesquite, cottonwood, and willow galleries.

The topography in the Black Rock area varies widely and for the most part is inaccessible. Roads in the unit are deteriorating and often impassible creating a logistical challenge. Firefighter safety is a significant concern due to fuels, terrain, and inaccessibility. Several locked gates on private land severely limit BLM's legal access to large parts of this area. This area is dominated by desert rangeland with a sparse cover of perennial grasses and shrubs like creosote bush, whitethorn, burroweed, and mesquite. The major perennial grasses are tobosa, black grama, purple and blue threeawns, bush muhly, sand, spike, and mesa dropseed, and burrograss. Sonoran desert shrubs mix with Chihuahuan species. The major trees include mesquite, catclaw acacia, canotia, and palo verde. Dominant shrubs include soap tree yucca, creosote bush, whitethorn acacia, rayless goldenhead, mariola, staghorn cholla, desert saltbush, shortleaf baccharis, Mormon tea, burroweed, snakeweed, and jimmyweed. Average annual production of these shrublands is about 600 pounds per acre. Annual grasses and forbs of both winter and summer seasons are well represented in years with favorable moisture.

c. Fire History

Between 1980 and 2008 Gila District personnel responded to 208 action type fires within this management area. The largest fire burned 5,330 acres in 1987 (Guthrie Fire) and the average fire size is 57 acres. There have been 22 large fires over 100 acres in size during this time period.

d. Fire Regime/Condition Class

The fire regime for the lower elevations within this area (<4,500') is rated at fire regime III (35-100 year frequency, mixed severity); the higher elevations within this area (>4,500') are rated at a fire regime IV (35-100 year frequency, stand replacement severity); The fire regime for the riparian portion of this management unit is rated as III (35-100 year frequency, mixed severity). The riparian zone within this management area is rated as condition class I; the majority of the upland areas are primarily rated at condition class I with a few isolated areas rated at condition class 2.

e. Values at Risk

Guthrie Peak is located on the east side of this management unit, west of Highway 191. Guthrie Peak has numerous communications towers located at the top of this peak that need protection from wildfire events.

The preservation of wilderness values in the Fishhooks Wilderness Area strives to maintain or improve naturalness in the designated wilderness areas by:

- Provide for the long term protection and preservation of the area's wilderness character under a principle of nondegradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they remain unimpaired.
- Manage for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.
- Manage using the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.
- Manage non-conforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character. Non-conforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

The Arizona Desert Wilderness Act of 1990 designated the Gila Box Riparian National Conservation Area in order to conserve, protect, and enhance its riparian areas and associated resources, and the aquatic, wildlife, archaeological, paleontological, scientific, cultural, recreational, educational, scenic, and other resources and values.

The role of fire in riparian areas is not well understood. Since fires historically occurred naturally without suppression it is likely that riparian areas adjacent to grasslands maintained by fire were directly impacted on a regular basis. However, the frequency and amount of historical impact are essentially unknown. The impacts from natural ignitions occurring at a localized source are likely to differ from those from management ignitions which usually are more widespread and burn more thoroughly.

Private lands and structures located within this management area as well as sensitive riparian vegetation require protection from wildfire. The priority management response is to protect the riparian areas and prevent wildfires from spreading to private land.

Threatened and Endangered (T&E) species and/or T&E species habitat within this management area includes: razorback sucker, loach minnow, spokedace, desert pupfish, southwestern willow flycatcher and the Chiricahua leopard frog.

Critical habitat for the razorback sucker within this management unit has been identified on the Gila River and its 100-year flood plain from the Arizona-New Mexico border to Coolidge Dam, including San Carlos Reservoir to the full pool elevation (BO-LUPA. 2004. pg. 100).

Occupied loach minnow habitat on, or downstream of, BLM-administered lands includes the Gila River (Pinal County segment), Eagle Creek and the San Francisco River near its confluence with the Gila River. Spikedace occupy the Middle Gila/Lower San Pedro/Aravaipa System, its population status ranging from rare to common. Only one occupied site, Aravaipa Creek in Aravaipa Canyon, is within or downstream from BLM-administered lands (Safford Field Offices) in Arizona. All other occupied or suitable habitat is located upstream from public

lands, or in drainages owned or managed by other agencies or landowners, and not adjacent to public lands (BO-LUPA. 2004. pg. 103).

Desert pupfish and Gila topminnow historically co-occurred and shared similar adaptations to arduous habitat conditions. The environmental baseline for the desert pupfish is largely similar to that described for the Gila topminnow. Within this fire management area the desert pupfish is currently known to exist in Cold Springs along the Gila River near Safford. This site represents one of only two extant reestablished desert pupfish sites in Arizona. The Cold Springs site is managed by the BLM's Safford field office and represents critical efforts in the recovery of the desert pupfish (BO-LUPA. 2004. pg. 97).

The Gila Recovery Unit (RU) for the southwestern willow flycatcher includes BLM-managed lands in the Tucson and Safford Field Offices that are scattered along the San Pedro River and Middle Gila River. Since 2002, numbers of nests along the Middle Gila River have declined: 44 nests were located in 2002, 21 nests in 2003, and as of June 24, 2004 only 10 nests have been located (BO-LUPA. 2004. pg. 96).

BLM or adjacent lands in this fire management area where the Chiricahua leopard frog could potentially occur includes upper Bonita Creek; 1980's records for this species near Tule Tubs and Ash Creek on the San Carlos Reservation suggest this species could be present in Bonita Creek (BO-LUPA. 2004. pg. 92).

When addressing T&E species and/or T&E species habitat, the Conservation Measures outlined in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (September 2004) will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

f. Communities at Risk

The communities of Safford, Thatcher, Pima, and Fort Thomas border this management area to the south. Morenci and Clifton border this management unit to the northeast. The Freeport-McMoRan Mining Company also borders this management unit to the northeast.

g. Management Requirements

Wildfire Management

- Firefighter and public safety is the first priority in every fire management activity (2001 Federal Wildland Fire Management Policy).
- Set priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources based on values to be protected, human health and safety, and costs of protection (2001 Federal Wildland Fire Management Policy).
- In areas suitable for fire where conditions allow (Land Use Allocation 1), BLM can allow naturally ignited wildland fire to maintain non-hazardous levels of fuels to reduce the hazardous effects of unplanned wildland fires and meet resource objectives (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004* pp. 2-2 – 2-6, Table 2.1, Figure 2.1).
- The Conservation Measures listed in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (pp. 324-346) will be implemented during fire suppression operations, unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be

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- documented by the Resource Advisor, and coordinated with the USFWS (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp 325-326).
- Assign a qualified Resource Advisor(s) (READ) to coordinate concerns regarding federally protected species, cultural and natural resource issues, and to serve as a liaison between the Field Office Manager and the Incident Commander (IC)/Incident Management Team (IMT). The READ will also serve as a field contact representative (FCR) responsible for coordination with the USFWS. The READ's will have the necessary information on federally protected species and habitats in the area and the available Conservation Measures for the species. They will be briefed on the intended suppression actions for the fire, and will provide input on which Conservation Measures are appropriate, within the standard constraints of safety and operational procedures. The IC has the final decision-making authority on implementation of Conservation Measures during fire suppression operations (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-4).
 - Species specific Conservation Measures regarding razorback sucker includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 338):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats to minimize adverse effects from fire management activities to available spawning habitat along shorelines (*i.e.*, occupied sites and critical habitat).
 - Project boundaries for fire management activities will avoid or protect sensitive habitats of the razorback sucker.
 - Species specific Conservation Measures regarding loach minnow and/or spikedace includes: Species specific Conservation Measures regarding loach minnow and/or spikedace includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 338):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats for occupied reaches and critical habitat.
 - All reasonable efforts will be made to ensure that no pollutants, retardants, or chemicals associated with wildfire suppression and fuels treatment projects or activities enter surface waters of reaches occupied by these two fish species.
 - Species specific Conservation Measures regarding desert pupfish includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 337):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats for occupied reaches and critical habitat.
 - When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by desert pupfish.
 - Species specific Conservation Measures regarding southwestern willow flycatcher includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 338):
 - Except where fires are active in occupied habitat, minimize unnecessary low-level helicopter flights during the breeding season (April 1 – September 30). Approach bucket dip sites at a 90-degree direction to rivers to minimize flight time over the river corridor and occupied riparian habitats. Locate landing sites for helicopters at least ¼ mile from occupied sites to avoid impacts to willow flycatchers and their habitat.
 - Minimize use of chainsaws or bulldozers to construct firelines through occupied or suitable habitat except where necessary to reduce the overall acreage of occupied habitat or other important habitat areas that would otherwise be burned.

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- Species specific Conservation Measures regarding Chiricahua leopard frog includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pp.330-331):
 - For fire management sites with habitat for the Chiricahua leopard frog, unsurveyed sites will be considered occupied unless surveyed prior to project implementation.
 - Install sediment traps, as determined by a Resource Advisor or qualified biologist approved by BLM, upstream of tanks and ponds occupied by Chiricahua leopard frogs in order to minimize the amount of ash and sediment entering the water. Consultation with a qualified biologist during the planning phase will aid in determining sediment trap installation requirements (see Conservation Measures FT-1 and FT-3).
 - All personnel performing fire management activities at any creek crossing will be informed of the potential presence of Chiricahua leopard frogs, their status, and the need to perform their duties to avoid impacts to the frog and its habitat.
 - Except as needed in emergency situations to abate immediate fire threat or loss of life or property, no water will be drafted for fire suppression from bodies of water known to be occupied by the Chiricahua leopard frog.
 - Suppression tactics will be utilized that limit damage or disturbance to the habitat and landscape. No heavy equipment will be used (e.g. dozers) unless approved by the Field Office Manager (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - All known cultural resources will be protected from disturbance (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - In Wilderness Areas (i.e. Fishhooks Wilderness Area), Wilderness Study Areas, and areas being managed for wilderness characteristics according to LUP's, when suppression actions are required, minimum impact suppression tactics (MIST) will be applied and coordinated with Wilderness Area management objectives and guidelines (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-6). Guidelines and operating procedures for fire management activities in Wilderness Areas are provided in BLM Manual 8560, Management of Designated Wilderness Areas, and in Wilderness Management Plans, where completed for specific Wilderness Areas (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-7).
 - Improve and protect the resources of the RNCA by effectively managing both prescribed fire and wildfire (Gila Box Management Plan, 1998, pg. 31).
 - BLM will develop and implement a prescribed and natural fire plan for the RNCA commensurate with the Fire Management Plan for the Gila District [re: *Safford/Tucson Fire Management Zone*] (Gila Box Management Plan, 1998, pg. 31).
 - Use of fire retardants or chemicals adjacent to waterways will be accomplished in accordance to the "Environmental Guidelines for Delivery of Retardant or Foam Near Waterways" (Interagency Standards for Fire and Aviation Operations, 2009, Chap. 12, NFES 2724).

Fuels Management

- In areas suitable for fire where conditions allow, BLM will use prescribed fire and a combination of biological, mechanical and chemical treatments to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize

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- prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire, BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. If air quality approaches unhealthy levels BLM will delay igniting prescribed fires (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - Improve and protect the resources of the RNCA by effectively managing both prescribed fire and wildfire (Gila Box Management Plan, 1998, pg. 31).
 - In areas not suitable for fire where fuel loading high, BLM will utilize biological, mechanical or chemical treatments, and some prescribed fire to maintain non-hazardous levels of fuels and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - For all fire management activities (wildfire suppression, wildfires managed for resource benefit, prescribed fire, and mechanical, chemical, and biological vegetation treatments), Conservation Measures (Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 324-346) will be implemented to reduce the effects of fire management actions on federally threatened, endangered, proposed, and candidate (“federally Protected”) species.
 - Species specific Conservation Measures regarding loach minnow and/or spikedace includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pp.338-339):
 - Develop mitigation plans in coordination with the USFWS for each fuels management project (prescribed fire; vegetation treatments) that may adversely affect the loach minnow and spikedace. Mitigation plans for prescribed fire will limit to the extent practicable the possibility that fire would spread to riparian habitats. Mitigation plans will be approved by the USFWS.
 - Cooperate with the USFWS and AGFD to identify site-specific measures, such as prescribed fires in grassland vegetation types to improve watershed conditions, to protect populations of loach minnow and spikedace from other resource program impacts.
 - Species specific Conservation Measures regarding desert pupfish includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 337):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats for occupied reaches and critical habitat.
 - Conduct prescribed burns such that no more than one-half of the watershed of each desert pupfish site is burned in a two-year period (excluding buffers to the streams and/or spring habitats) and repeat treatments at greater than two-year intervals.
 - Monitor, where practical, for fish kill immediately following the first runoff event after prescribed fires in watersheds containing desert pupfish.
 - When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by desert pupfish.
 - Species specific Conservation Measures regarding southwestern willow flycatcher includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 338):

- Implement activities to reduce hazardous fuels or improve riparian habitats (prescribed burning or vegetation treatments) within occupied or unsurveyed suitable habitat for southwestern willow flycatchers only during the non-breeding season (October 1 to March 31).
- Avoid developing access roads that would result in fragmentation or a reduction in habitat quality. Close and rehabilitate all roads that were necessary for project implementation
- Prescribed burning will only be allowed within ½ mile of occupied or unsurveyed suitable habitat when weather conditions allow smoke to disperse away from the habitat when birds may be present (breeding season of April 1 – September 30).
- Vegetation treatment projects adjacent to occupied or unsurveyed suitable habitat will only be conducted when willow flycatchers are not present (October 1 – March 31).
- Species specific Conservation Measures regarding Chiricahua leopard frog includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pp. 330-331):
 - For fire management sites with habitat for the Chiricahua leopard frog, unsurveyed sites will be considered occupied unless surveyed prior to project implementation.
 - Install sediment traps, as determined by a Resource Advisor or qualified biologist approved by BLM, upstream of tanks and ponds occupied by Chiricahua leopard frogs in order to minimize the amount of ash and sediment entering the water. Consultation with a qualified biologist during the planning phase will aid in determining sediment trap installation requirements (see Conservation Measures FT-1 and FT-3).
 - All personnel performing fire management activities at any creek crossing will be informed of the potential presence of Chiricahua leopard frogs, their status, and the need to perform their duties to avoid impacts to the frog and its habitat.
 - Except as needed in emergency situations to abate immediate fire threat or loss of life or property, no water will be drafted for fire suppression from bodies of water known to be occupied by the Chiricahua leopard frog.

Community Assistance/Protection

- To reduce human-caused fires, BLM will undertake education, enforcement and administrative fire prevention mitigation measures (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Education measures will include various media information including a signing program, information as to the natural role of fire within local ecosystems, participation in fairs, parades and public contacts (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Enforcement will be accomplished by providing training opportunities for employees interested in fire cause determination (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Administration includes expanded prevention and education programs with other cooperator agencies (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).

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- In areas not suitable for fire, BLM will implement programs to reduce unwanted ignitions, and emphasize prevention, detection, and rapid suppression response techniques (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - Community assistance/protection objectives include identifying hazardous fuel reduction projects, public and firefighter safety issues, and partnering opportunities with local Firewise groups.
 - The Arizona Firewise Communities program is the primary tool to achieve wildland fire hazards awareness to the public. Technical assistance is being provided by the BLM allowing Firewise groups to develop local plans that meet mutual goals with the BLM.

h. Strategic Objectives

Wildfire Management

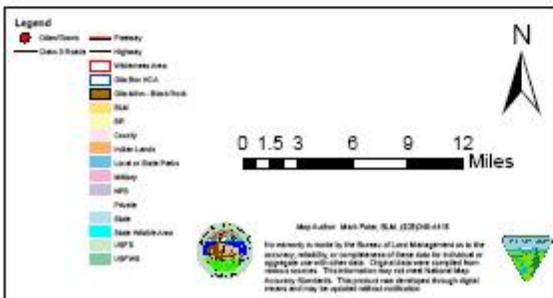
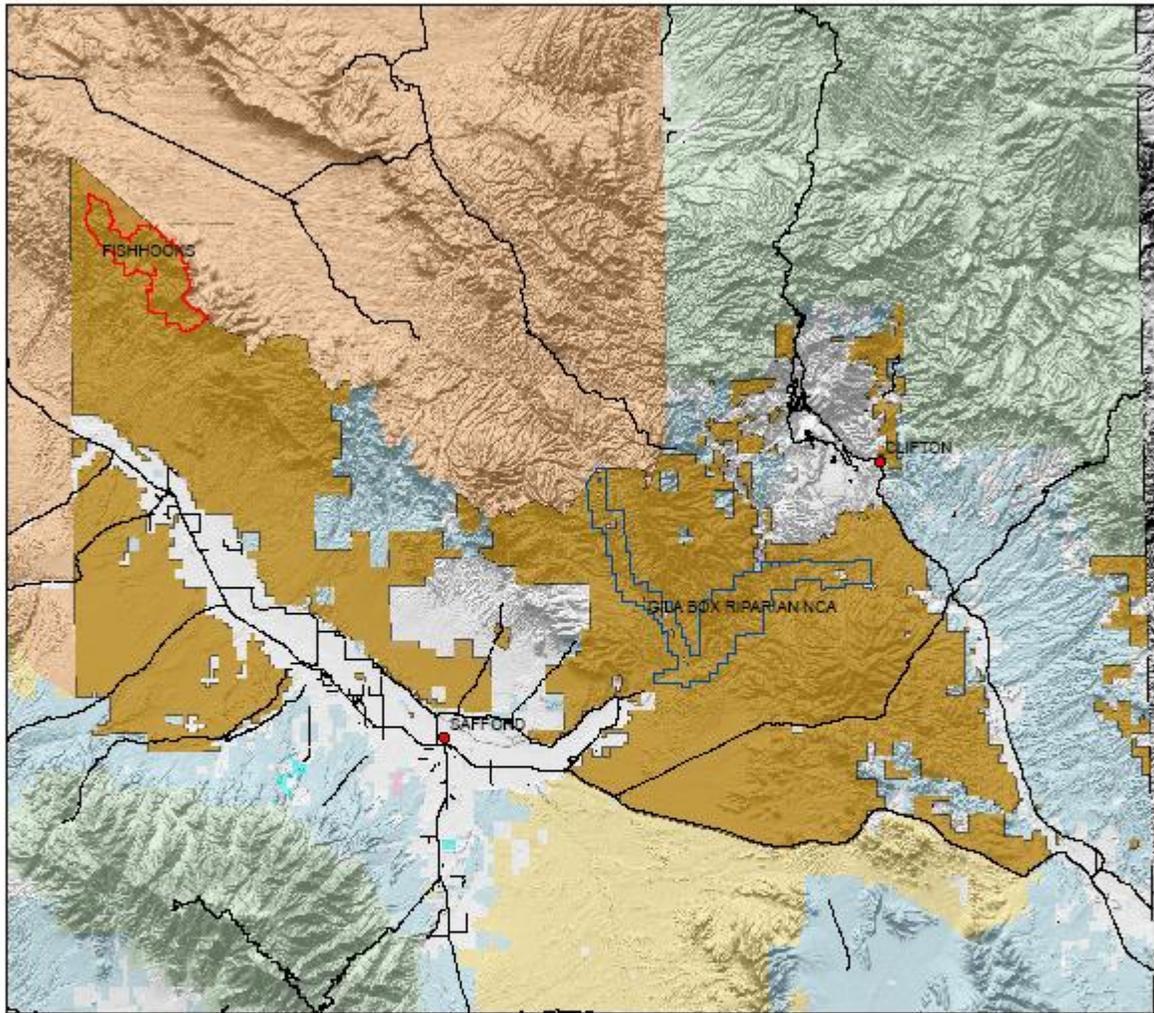
- Unplanned ignitions will be managed using applicable management decisions with regard to public and firefighter safety, cost, and private property along with other improvements (*AZ BLM Gila District FMP, 2010, pg. 49*).
- Individual wildfires may be managed for more than one fire management objective (managing wildfires for resource benefit). All wildfire management decisions must be consistent with existing land use and fire management plan decisions (*IM No. FA IM-2009-011*).
- Efforts on unplanned ignitions will be directed towards containing or confining each unplanned ignition to public lands using natural or man-made fuel breaks (*AZ BLM Gila District FMP, 2010, pg. 49*).
- For all fire management activities in National Monuments and National Conservation Areas, measures will be taken to assure that no adverse effects occur to those resources, values, and objects identified in the respective proclamations or legislation as reasons for establishing the area (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-6*).
- Protect communications towers located on Guthrie Peak.

Fuels Management

- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective prescribed fire and/or non-fire treatments to achieve resource management objectives.

Map 5.

AZ BLM Gila District Fire Management Area Gila Mountains - Black Rock



Muleshoe -Redfield Canyon (AZBLM-GD-06)

a. Location

The Muleshoe ecosystem lies within the Basin and Range physiographic province. The Redfield Canyon Wilderness Area is included within this management area. The topography of much of the Muleshoe is characterized by steep, stony and rocky hills and escarpments as high as 10,000 feet rising from narrow, deeply incised canyons. The escarpments diminish on the southern end of the planning area where the topography consists of subdued rolling hills cut by a few deep canyons. This management area is bounded on the east, south, and west primarily by Arizona State managed lands interspersed with parcels of private lands. The management unit is bounded on the north by USFS managed lands (Coronado N.F.). The total acreage for BLM-managed lands in this management area is 28,876 acres (see Map 6).

The primary ground access to this management unit is via the Muleshoe Road off the Airport Road which originates in Willcox. The Muleshoe Road turns into Forest Road (FR) 691 and runs in a north-south direction through the center of the management unit. Driving time to this management unit from Safford is approximately three hours.

b. Characteristics

Five major vegetation communities from 14 vegetation associations have been mapped within the Muleshoe ecosystem boundaries: Sonoran desert scrub, desert grassland/semi-desert shrub land, broadleaf deciduous woodland (riparian), evergreen woodland chaparral, montane forests and woodlands. The lower elevation mesa tops and hotter south- and west-facing slopes are dominated by Sonoran desert scrub with creosote bush, palo verde, diverse shrubs and saguaro. Mid-elevations have semi-desert grassland/scrub communities consisting of open stands of evergreen and deciduous trees such as mesquite and hackberry with an understory of native perennial grasses such as sideoats grama and curly mesquite and with varying levels of shrubs such as acacias, amole, snakeweed and burroweed. Riparian areas support large broad-leaved deciduous forests of sycamore, cottonwood, willow, walnut, ash, and white oak. Mesquite bosques line higher terraces above the floodplain. Steeper slopes at middle and upper elevations support evergreen woodlands of Mexican blue oak and juniper, and on north slopes, a mixed chaparral with species typical of Sierra Madrean vegetation. The highest elevations of the planning area support montane forests and woodlands consisting of open stands of evergreen trees such as Arizona cypress, piñon pine, and ponderosa pine with dense understories of evergreen chaparral shrub species such as manzanita, buckbrush, and snowberry.

c. Fire History

Between 1980 and 2008 Gila District personnel responded to four action type fires within this management unit. The largest fire burned 160 acres in 1998 (Rim Tank Fire). The average fire size is 70 acres.

d. Fire Regime/Condition Class

The fire regime for the majority of this management unit is rated as fire regime II (0-35 year frequency, stand replacement severity). The current condition class ratings for this management area are I and II. The fire regime for the riparian portions of this management unit are rated as III (35-100 year frequency, mixed severity). The riparian zones within this management area are rated as condition class I.

e. Values at Risk

The Muleshoe ecosystem comprises two major watersheds, Redfield Canyon, which drains 10.1 miles, Hot Springs Canyon, which drains 12.5 miles, and one minor watershed, Cherry Spring, which drains 0.7 miles. Collectively the three watersheds support seven perennial streams and are largely isolated from the major downstream river system, San Pedro River. The above mentioned streams support five native fish species, federally proposed as endangered Gila chub (*Gila intermedia*), four Bureau of Land Management (BLM) sensitive fish species, longfin dace (*Agosia chrysogaster*), speckled dace (*Rhinichthys osculus*), Sonora sucker (*Catostomus*

insignis), and desert sucker (*Pantosteus clarki*), and one wildlife of special concern, lowland leopard frog (*Rana yavapaiensis*).

Redfield Canyon: 2.24 miles of creek extending from T11S, R20S, section 31, southeast, continuing upstream to the confluence with Sycamore Canyon. Gila chub were first documented in Redfield Canyon in 1961. Subsequent surveys have documented Gila chub as being locally abundant and healthy in this segment of Redfield Canyon, likely due to its remoteness and limited impacts from humans and grazing.

Hot Springs Canyon: 0.68 miles of creek extending below the Bass Canyon confluence downstream to the end of perennial flow, approximately 0.25 miles below the Muleshoe Ranch Preserve boundary. Gila chub are rare throughout this reach due to the limited number of pools; however, Gila chub maybe locally abundant and common where suitable pool habitat exists. Hot Springs Canyon provides several primary constituent elements for Gila chub, including perennial pools, cover in the form of overhanging vegetation, root wads, undercut banks, and adequate water quality.

The preservation of wilderness values within the Redfield Canyon Wilderness Area strives to maintain or improve naturalness in the designated wilderness areas by:

- Provide for the long term protection and preservation of the area's wilderness character under a principle of nondegradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they remain unimpaired.
- Manage for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.
- Manage using the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.
- Manage non-conforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character. Non-conforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

When addressing T&E species and/or T&E species habitat, the Conservation Measures outlined in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (September 2004) will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

f. Communities at Risk

There are no identified communities at risk within this management area.

g. Management Requirements

Wildfire Management

- Firefighter and public safety is the first priority in every fire management activity (2001 Federal Wildland Fire Management Policy).

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- Set priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources based on values to be protected, human health and safety, and costs of protection (2001 Federal Wildland Fire Management Policy).
 - In areas suitable for fire where conditions allow (Land Use Allocation 1), BLM can allow naturally ignited wildland fire to maintain non-hazardous levels of fuels to reduce the hazardous effects of unplanned wildland fires and meet resource objectives (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004* pp. 2-2 – 2-6, Table 2.1, Figure 2.1).
 - Restore/allow periodic natural ignition fires to maintain grassland/shrubby grassland ecological states (Muleshoe Ecosystem Management Plan. 1998. pp.55-56).
 - Fire will be used as a tool to promote vegetative change through decreased shrub cover and increased cover by mid- to tall-stature perennial grasses (Muleshoe Ecosystem Management Plan. 1998. pg. 61).
 - The Conservation Measures listed in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (pp. 324-346) will be implemented during fire suppression operations, unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 325-326).
 - Assign a qualified Resource Advisor(s) (READ) to coordinate concerns regarding federally protected species, cultural and natural resource issues, and to serve as a liaison between the Field Office Manager and the Incident Commander (IC)/Incident Management Team (IMT). The READ will also serve as a field contact representative (FCR) responsible for coordination with the USFWS. The READ's will have the necessary information on federally protected species and habitats in the area and the available Conservation Measures for the species. They will be briefed on the intended suppression actions for the fire, and will provide input on which Conservation Measures are appropriate, within the standard constraints of safety and operational procedures. The IC has the final decision-making authority on implementation of Conservation Measures during fire suppression operations (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-4).
 - Species specific Conservation Measures regarding Gila chub includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 337):
 - When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by Gila chub, when possible.
 - Suppression tactics will be utilized that limit damage or disturbance to the habitat and landscape. No heavy equipment will be used (e.g. dozers) unless approved by the Field Office Manager (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - All known cultural resources will be protected from disturbance (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - In Wilderness Areas (i.e. Redfield Canyon Wilderness Area), Wilderness Study Areas, and areas being managed for wilderness characteristics according to LUP's, when suppression actions are required, minimum impact suppression tactics (MIST) will be applied and coordinated with Wilderness Area management objectives and guidelines (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-6). Guidelines and operating procedures for fire

management activities in Wilderness Areas are provided in BLM Manual 8560, Management of Designated Wilderness Areas, and in Wilderness Management Plans, where completed for specific Wilderness Areas (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-7).

- Use of fire retardants or chemicals adjacent to waterways will be accomplished in accordance to the “Environmental Guidelines for Delivery of Retardant or Foam Near Waterways” (Interagency Standards for Fire and Aviation Operations, 2009, Chap. 12, NFES 2724).

Fuels Management

- In areas suitable for fire where conditions allow, BLM will use prescribed fire and a combination of biological, mechanical and chemical treatments to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire, BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. If air quality approaches unhealthy levels BLM will delay igniting prescribed fires (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas not suitable for fire where fuel loading high, BLM will utilize biological, mechanical or chemical treatments, and some prescribed fire to maintain non-hazardous levels of fuels and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Non-fire treatments may be used to reduce hazardous fuel loads; invasive or woody species cover, increase herbaceous cover, improve ingress/egress routes, improve water infiltration, and reduce soil erosion (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- For all fire management activities (wildfire suppression, wildfires managed for resource benefit, prescribed fire, and mechanical, chemical, and biological vegetation treatments), Conservation Measures (Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 324-346) will be implemented to reduce the effects of fire management actions on federally threatened, endangered, proposed, and candidate (“federally Protected”) species.
- Species specific Conservation Measures regarding Gila chub includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 337):
 - When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by Gila chub, when possible.
 - Cooperate with the USFWS and AGFD to identify site-specific measures, such as prescribed fires in grassland vegetation types to improve watershed conditions (*e.g.*, in the Cienega Creek watershed), to protect populations of Gila chub from other resource program impacts.

Community Assistance/Protection

- To reduce human-caused fires, BLM will undertake education, enforcement and administrative fire prevention mitigation measures (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Education measures will include various media information including a signing program, information as to the natural role of fire within local ecosystems, participation in fairs, parades and public contacts (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Enforcement will be accomplished by providing training opportunities for employees interested in fire cause determination (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Administration includes expanded prevention and education programs with other cooperator agencies (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas not suitable for fire, BLM will implement programs to reduce unwanted ignitions, and emphasize prevention, detection, and rapid suppression response techniques (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Community assistance/protection objectives include identifying hazardous fuel reduction projects, public and firefighter safety issues, and partnering opportunities with local Firewise groups.
- The Arizona Firewise Communities program is the primary tool to achieve wildland fire hazards awareness to the public. Technical assistance is being provided by the BLM allowing Firewise groups to develop local plans that meet mutual goals with the BLM.

h. Strategic Objectives

Wildfire Management

- Unplanned ignitions will be managed using applicable management decisions with regard to public and firefighter safety, cost, and private property along with other improvements (*AZ BLM Gila District FMP, 2010, pg. 56*).
- Individual wildfires may be managed for more than one fire management objective (managing wildfires for resource benefit). All wildfire management decisions must be consistent with existing land use and fire management plan decisions (*IM No. FA IM-2009-011*).
- Fire suppression activities in the Redfield Canyon Wilderness Area will adhere to the following general guidelines (*Muleshoe Ecosystem Management Plan. 1998. pp.73-74*):
 - All wildfire will be suppressed with the appropriate suppression response. These responses would be based on the resources at risk, location of the fire, fuel conditions, weather, and time of year.
 - Appropriate suppression responses usually range from the use of hand tools to helicopters, air tankers, water pumps and chainsaws.
 - Suppression actions will be executed to minimize surface disturbance and alterations of the natural landscape and will be consistent with management objectives and constraints.
 - Suppression facilities and improvements will be located outside wilderness boundaries.
 - Fire line construction with motorized equipment will only be used as a last resort.

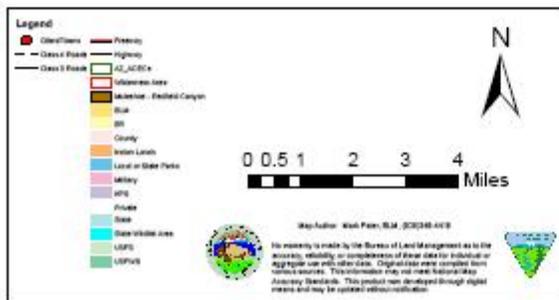
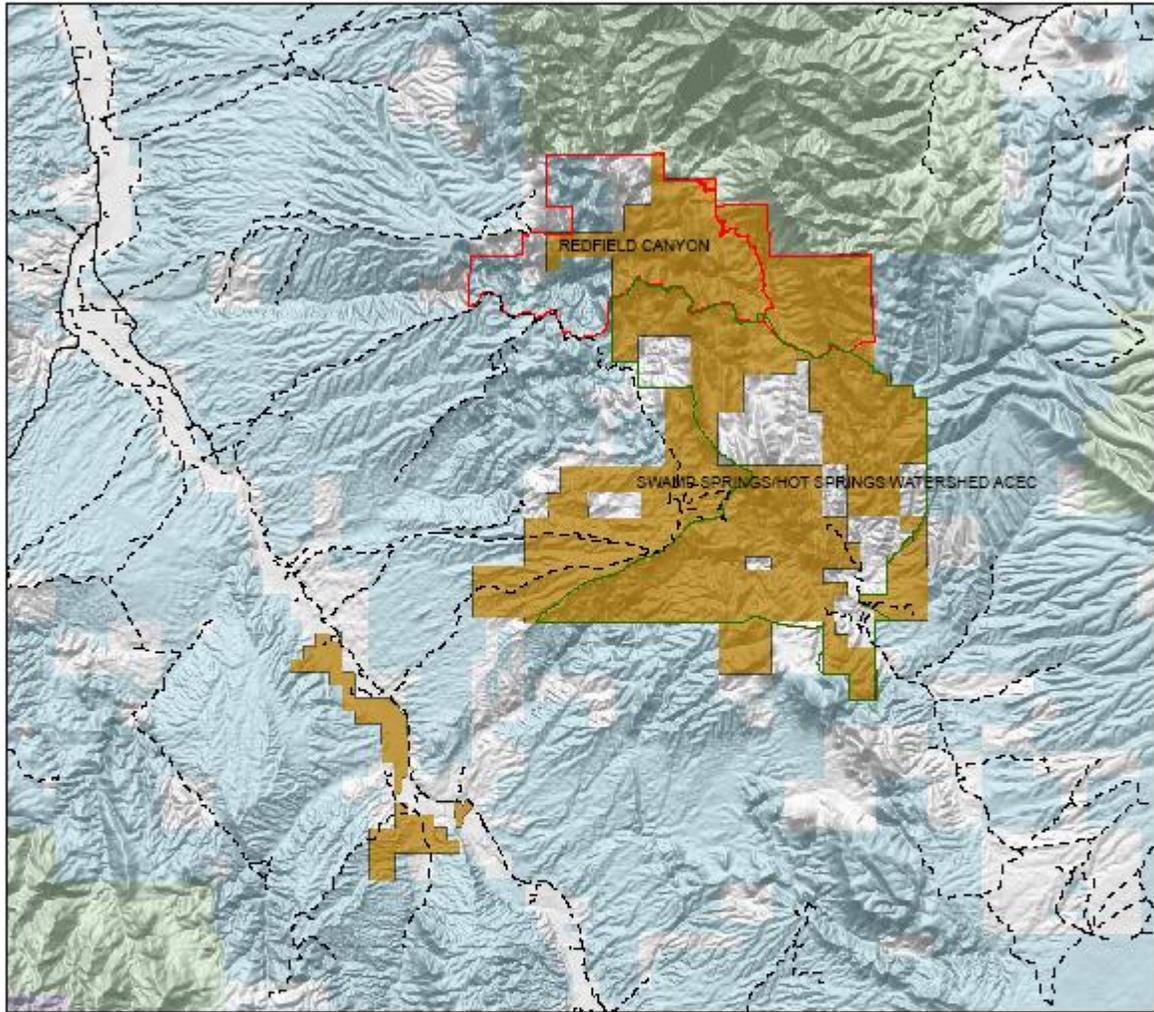
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- Surface disturbance from suppression actions will be rehabilitated to as natural a state as possible.
 - Aerial retardant applied in wilderness will be the fugitive type that fades quickly.
 - Efforts on unplanned ignitions will be directed towards containing or confining each unplanned ignition to public lands using natural or man-made fuel breaks (*AZ BLM Gila District FMP, 2010, pg. 57*).

Fuels Management

- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective prescribed fire treatments to achieve resource management objectives.
- Include small portions of riparian areas in prescribed fire units (both natural and ignited) on an experimental basis. Special considerations of burn units with riparian areas will be factored into the annual burning strategy. Operational burn plans will be designed to minimize the chance of fire damaging riparian areas (*Muleshoe Ecosystem Management Plan, 1998, pg. 53*).
- Implement a prescribed fire program for the grassland ecological sites (Volcanic Hills, Granitic Hills, and Loamy Upland ecological sites) within the Muleshoe Ecosystem as described in the Muleshoe Ecosystem Management Plan (*Muleshoe Ecosystem Management Plan, 1998, pp.58-61, 158-159, 166-168, 170-171, 174, 176, 178*).
- Allow only natural ignition prescribed fires within the wilderness (re: *Redfield Canyon Wilderness*). Implement management-ignited prescribed fires or natural ignition prescribed fires for remainder of burn units outside of wilderness (re: *Redfield Canyon Wilderness*). Management-ignited prescribed fires will be allowed on units which are partially in wilderness as long as the ignition occurs on the portion of the unit outside of wilderness and then burns into wilderness (*Muleshoe Ecosystem Management Plan, 1998, pg. 58*).
- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective non-fire treatments to achieve resource management objectives.

Map 6.

AZ BLM Gila District Fire Management Area Muleshoe - Redfield Canyon



San Simon (AZBLM-GD-07)

a. Location

This management unit is accessible via a variety of class 1, 2, 3, and 4 roads. Haekel road runs north – south in the area north of Interstate 10; U.S. Route 70 borders the management unit on the north; U.S. Route 191 borders the management area to the west. Driving time from Safford to this management unit can vary from 30 minutes to two hours, depending on the destination. The BLM managed lands within this management area are interspersed primarily with Arizona State managed lands and some private land parcels. The total acreage for BLM-managed lands in this management area is 550,797 acres (see Map 7).

To access the northern portion of the Peloncillo Mountains Wilderness Area, travel east from Duncan, AZ on U.S. Route 70, then head south on Summit Road. Access to the southern portion of this area can be gained by traveling north from San Simon, AZ on either the West Doubtful Road or the Indians Springs Road leading to McKenzie Peak. High-clearance or 4x4 vehicles are recommended for access to the wilderness boundary. Driving time from Safford to this area is approximately two hours.

b. Characteristics

The majority of the San Simon management area is dominated by desert rangeland with a sparse cover of perennial grasses and shrubs like creosote bush, whitethorn, burroweed, and mesquite. The major perennial grasses are tobosa, black grama, purple and blue threeawns, bush muhly, sand, spike, and sacaton. Sonoran desert shrubs mix with Chihuahuan species. The major trees include mesquite, catclaw acacia, canotia, and palo verde. Dominant shrubs include soaptree yucca, creosote bush, whitethorn acacia, rayless goldenhead, mariola, staghorn cholla, desert saltbush, shortleaf baccharis, Mormon tea, burroweed, snakeweed, and jimmyweed. Average annual production of these shrublands is about 600 pounds per acre. Annual grasses and forbs of both winter and summer seasons are well represented in years with favorable moisture.

The Peloncillo Mountains Wilderness consists of seven ecological sites (*Peloncillo Mountains Wilderness Management Plan, Environmental Assessment, and Decision Record*. June 1995. pp. 7-12):

- Volcanic Hills cover 17,744 acres in the wilderness of which 17,282 acres are in high seral condition (55-60% grasses, 15% forbs, and 25-30% shrubs and trees) and 462 acres in mid seral condition (40% grasses, 10% forbs, and 50% shrubs and trees).
- Limy Uplands cover 1,015 acres in the wilderness, all currently in high seral condition (15-30% grasses, 10% forbs, and 60-75% shrubs and trees).
- There are 90 acres of loamy upland in the wilderness, all currently in mid seral condition (20% grasses, 10% forbs, and 70% shrubs and trees).
- Clay Uplands cover 359 acres in the wilderness, all currently in potential natural condition (85% grasses, 10% forbs, and 5% shrubs and trees).
- Deep Sand covers 44 acres in the wilderness, all currently in low seral condition (0% grasses, 10% forbs, and 90% shrubs and trees).
- Basalt Hills cover 46 acres in the wilderness, all currently in high seral condition (65% grasses, 10% forbs, and 25% shrubs and trees).
- Clay Loam Uplands cover 142 acres in the wilderness, all currently in high seral condition (35% grasses, 15% forbs, and 50% shrubs and trees).

c. Fire History

Between 1980 and 2008 Gila District personnel responded to 99 action type fires within this management unit. The largest fire burned 14,560 acres in 1989 (Whitlock Fire); the average fire size is 255 acres. There have been 11 large fires over 100 acres in size during this time period.

No long term data has been kept on fires occurring specifically within the Peloncillo Mountains Wilderness. It is known that there has been a very low incidence of fires in the past 26 years,

with a small amount of acres burned in each incident. However, fire has been a natural component in developing the vegetative communities in this area.

d. Fire Regime/Condition Class

The fire regime for the majority of this area is rated as fire regime II (0-35 year frequency, stand replacement severity). The Condition Class rating for this area is predominantly assessed at level II with a few isolated areas being rated at level I.

e. Values at Risk

Private lands and structures located within this management area require protection from wildfire. The priority management strategy is to prevent wildfires from spreading to private land. There are several cultural sites located along the San Simon channel, a natural gas pipeline that follows along U.S. Highway 191, south of Safford, and an Arizona Eastern railroad track that follows the San Simon, from Bowie to Safford. A high voltage power line runs in a north-south direction along the western portion of this management unit.

Range improvement structures (e.g. fences, water lines, tanks, etc.) are at risk from damage by wildfire. Grazing allotments impacted by wildland fire events should be rested from grazing activities by domestic livestock for one to two growing seasons. The Safford BLM range staff should work with the affected grazing permit holders to determine possible changes in pasture rotation schedules, grass banking opportunities, and potential pasture rest schedules to minimize adverse affects.

Natural gas lines will be inspected for leaks by the authorized user if a managed natural fire is predicted to affect the area where the gas line is located. Potential problems involving natural gas lines should be identified and mitigated prior to the implementation of managing a wildland fire incident for resource benefit [a wildland fire use plan (WFIP)]. Power lines will be monitored in the event of a managed natural fire occurring in the area where a power line is located. Potential problems involving power lines should be identified and mitigated prior to the implementation of managing a wildland fire for resource benefit [a wildland fire use plan]. Communications sites will be protected from adverse affects of a wildland fire event. If communications sites are threatened by wildfire, the FMO will be notified and determine whether full suppression actions are to be initiated.

Recreation areas, specifically the Hot Well Dunes recreation site will be monitored and evaluated in the event of a wildland fire event. The restroom and hot tub facilities will be protected if threatened by wildfire.

The preservation of wilderness values within the Peloncillo Mountains Wilderness Area strives to maintain or improve naturalness in the designated wilderness areas by:

- Provide for the long term protection and preservation of the area's wilderness character under a principle of nondegradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they remain unimpaired.
- Manage for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.
- Manage using the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.
- Manage non-conforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's

wilderness character. Non-conforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

Threatened and Endangered (T&E) species and/or T&E species habitat within this management area includes the lesser long-nosed bat. It is found throughout its historical range, from southern Arizona and extreme southwestern New Mexico, through western Mexico, and south to El Salvador. It has been recorded in southern Arizona from the Picacho Mountains (Pinal County) southwest to the Agua Dulce Mountains (Pima County), southeast to the Chiricahua Mountains (Cochise County), and south to the international boundary.

When addressing T&E species and/or T&E species habitat, the Conservation Measures outlined in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (September 2004) will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

f. Communities at Risk

The communities of San Simon and Bowie are located within or adjacent to this management unit. Although vegetation (fuel) is generally not a concern in regard to wildfire these communities still need to be considered when evaluating wildfire or hazardous fuels reduction projects.

g. Management Requirements

Wildfire Management

- Firefighter and public safety is the first priority in every fire management activity (2001 Federal Wildland Fire Management Policy).
- Set priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources based on values to be protected, human health and safety, and costs of protection (2001 Federal Wildland Fire Management Policy).
- In areas suitable for fire where conditions allow (Land Use Allocation 1), BLM can allow naturally ignited wildland fire to maintain non-hazardous levels of fuels to reduce the hazardous effects of unplanned wildland fires and meet resource objectives (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004* pp. 2-2 – 2-6, Table 2.1, Figure 2.1).
- The Conservation Measures listed in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (pp. 324-346) will be implemented during fire suppression operations, unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 325-326).
- Species specific Conservation Measures regarding the lesser long-nosed bat includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 342):
 - Instruct all crew bosses (wildfire suppression, managed wildfire, prescribed fire, and vegetation treatments) in the identification of agave and columnar cacti and the importance of their protection.
 - Protect long-nosed bat forage plants -- saguaros and high concentrations of agaves -- from wildfire and fire suppression activities, and from modification

by fuels treatment activities (prescribed fire, vegetation treatments), to the greatest extent possible. “Agave concentrations” are contiguous stands or concentrations of more than 20 plants per acre. Avoid driving over plants, piling slash on top of plants, and burning on or near plants. Staging areas for fire crews or helicopters will be located in disturbed sites, if possible.

- Assign a qualified Resource Advisor(s) (READ) to coordinate concerns regarding federally protected species, cultural and natural resource issues, and to serve as a liaison between the Field Office Manager and the Incident Commander (IC)/Incident Management Team (IMT). The READ will also serve as a field contact representative (FCR) responsible for coordination with the USFWS. The READ’s will have the necessary information on federally protected species and habitats in the area and the available Conservation Measures for the species. They will be briefed on the intended suppression actions for the fire, and will provide input on which Conservation Measures are appropriate, within the standard constraints of safety and operational procedures. The IC has the final decision-making authority on implementation of Conservation Measures during fire suppression operations (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-4).
- Suppression tactics will be utilized that limit damage or disturbance to the habitat and landscape. No heavy equipment will be used (e.g. dozers) unless approved by the Field Office Manager (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
- All known cultural resources will be protected from disturbance (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
- In Wilderness Areas (i.e. Peloncillo Mountains Wilderness Area), Wilderness Study Areas, and areas being managed for wilderness characteristics according to LUP’s, when suppression actions are required, minimum impact suppression tactics (MIST) will be applied and coordinated with Wilderness Area management objectives and guidelines (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-6). Guidelines and operating procedures for fire management activities in Wilderness Areas are provided in BLM Manual 8560, Management of Designated Wilderness Areas, and in Wilderness Management Plans, where completed for specific Wilderness Areas (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-7).
- In the Peloncillo Mountains Wilderness Area, suppress wildfires that are not within the acceptable prescription ranges or that threaten to escape the wilderness according to the operating guidance listed in [sic] the Peloncillo Mountains Wilderness Area Management Plan (Peloncillo Mountains Wilderness Area Management Plan. 1995. pp.28-29, 71).
- Use of fire retardants or chemicals adjacent to waterways will be accomplished in accordance to the “Environmental Guidelines for Delivery of Retardant or Foam Near Waterways” (Interagency Standards for Fire and Aviation Operations, 2009, Chap. 12, NFES 2724).

Fuels Management

- In areas suitable for fire where conditions allow, BLM will use prescribed fire and a combination of biological, mechanical and chemical treatments to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use

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- mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire, BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. If air quality approaches unhealthy levels BLM will delay igniting prescribed fires (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - In areas not suitable for fire where fuel loading high, BLM will utilize biological, mechanical or chemical treatments, and some prescribed fire to maintain non-hazardous levels of fuels and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - For all fire management activities (wildfire suppression, wildfires managed for resource benefit, prescribed fire, and mechanical, chemical, and biological vegetation treatments), Conservation Measures (Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 324-346) will be implemented to reduce the effects of fire management actions on federally threatened, endangered, proposed, and candidate (“federally Protected”) species.
 - Species specific Conservation Measures regarding the lesser long-nosed bat includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pp. 342-343):
 - Prior to implementing any fuels treatment activities (prescribed fire, vegetation treatments), pre-project surveys will be conducted for paniculate agaves and saguaros that may be directly affected by fuels management activities.
 - No seeding/planting of nonnative plants will occur in any wildfire rehabilitation site or fuels treatment site with paniculate agaves or saguaros.
 - A mitigation plan will be developed by the Bureau in coordination with the USFWS for prescribed fires or fuels management projects (mechanical, chemical, biological treatments) within 0.5 mi of bat roosts or in areas that support paniculate agaves or saguaros. The mitigation plan will ensure that effects to bat roosts and forage plants are minimized and will include monitoring of effects to forage plants. The plan will be approved by the USFWS.
 - BLM personnel would examine concentrations of agaves (including shindagger – *A. schottii*) within each proposed fuels treatment area, and blackline or otherwise protect from treatments any significant concentrations of agaves that appear to be amidst fuel loads that could result in mortality greater than 20 percent (>50% for *A. schottii*). BLM personnel would determine which significant agave stands are prone to mortality greater than 20 percent (>50% for *A. schottii*) (see Conservation Measures FT-1 and FT-3).

Community Assistance/Protection

- To reduce human-caused fires, BLM will undertake education, enforcement and administrative fire prevention mitigation measures (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Education measures will include various media information including a signing program, information as to the natural role of fire within local ecosystems, participation in fairs, parades and public contacts (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).

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- Enforcement will be accomplished by providing training opportunities for employees interested in fire cause determination (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - Administration includes expanded prevention and education programs with other cooperator agencies (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - In areas not suitable for fire, BLM will implement programs to reduce unwanted ignitions, and emphasize prevention, detection, and rapid suppression response techniques (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
 - Community assistance/protection objectives include identifying hazardous fuel reduction projects, public and firefighter safety issues, and partnering opportunities with local Firewise groups.
 - The Arizona Firewise Communities program is the primary tool to achieve wildland fire hazards awareness to the public. Technical assistance is being provided by the BLM allowing Firewise groups to develop local plans that meet mutual goals with the BLM.

h. Strategic Objectives

Wildfire Management

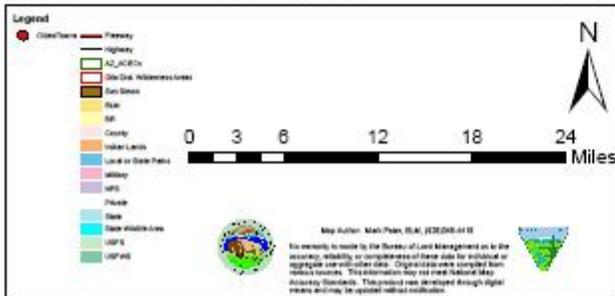
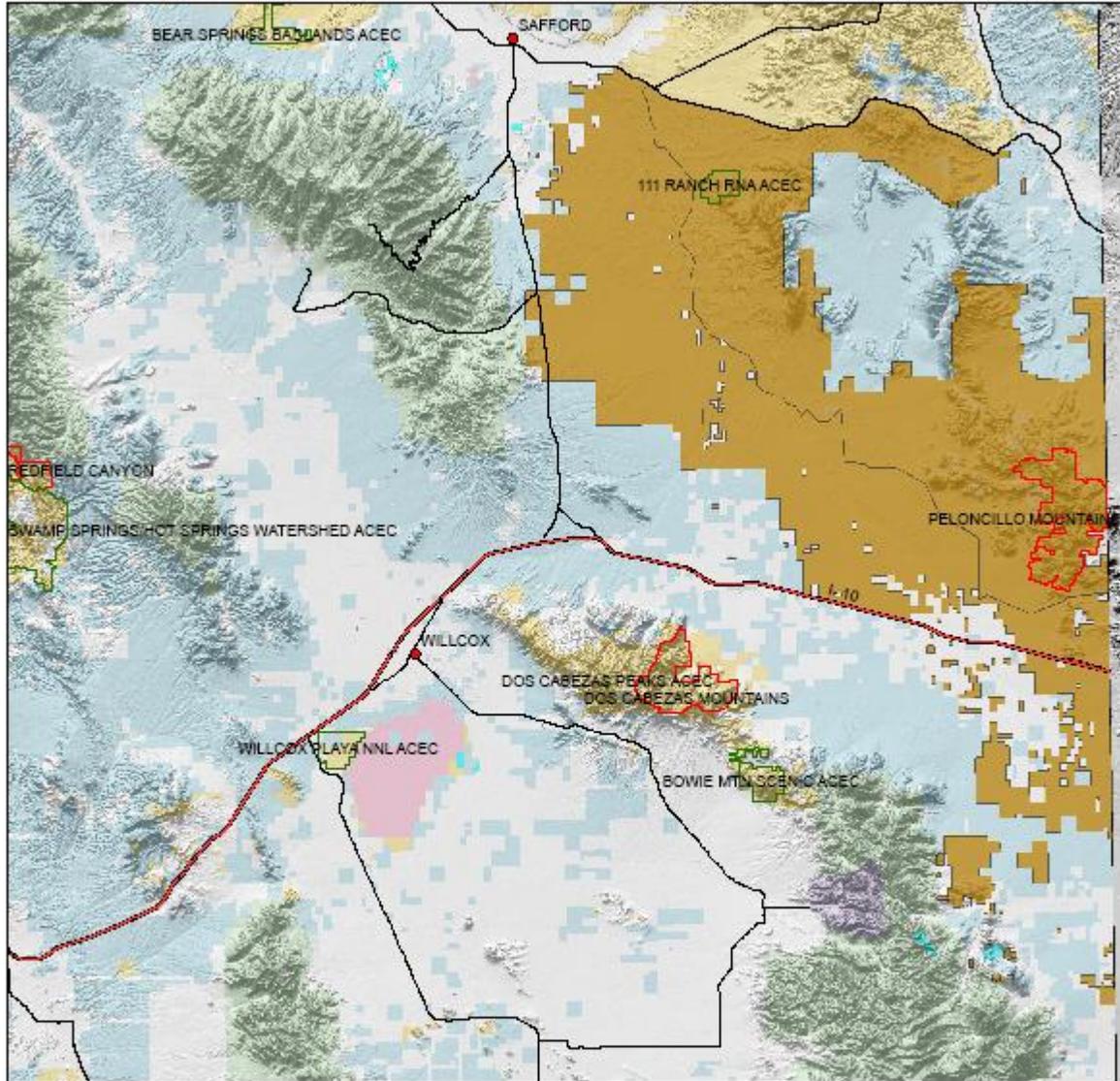
- Unplanned ignitions will be managed using applicable management decisions with regard to public and firefighter safety, cost, and private property along with other improvements (*AZ BLM Gila District FMP, 2010, pg. 64*).
- Individual wildfires may be managed for more than one fire management objective (managing wildfires for resource benefit). All wildfire management decisions must be consistent with existing land use and fire management plan decisions (*IM No. FA IM-2009-011*).
- Efforts on unplanned ignitions will be directed towards containing or confining each unplanned ignition to public lands using natural or man-made fuel breaks (*AZ BLM Gila District FMP, 2010, pg. 65*).

Fuels Management

- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective prescribed fire treatments to achieve resource management objectives.
- In the Peloncillo Mountains Wilderness Area, use prescribed natural ignition fire to maintain volcanic hills, basalt hills, clay loam upland, and clay upland in high seral or better condition (Peloncillo Mountains Wilderness Area Management Plan. 1995. pp.28-29, 71).
- In the Peloncillo Mountains Wilderness Area, use prescribed burning to improve 462 acres of volcanic hills, 90 acres of loamy upland, and 44 acres of deep sand to the next seral condition (Peloncillo Mountains Wilderness Area Management Plan. 1995. pp.28-29, 71).
- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective non-fire treatments to achieve resource management objectives.

Map 7.

AZ BLM Gila District Fire Management Area San Simon Valley



Sierra Vista - Las Cienegas (AZBLM-GD-08)

a. Location

The Las Cienegas National Conservation Area (LCNCA) is located about 50 miles southeast of Tucson, AZ. Combined, the NCA and Acquisition Planning District total 142,000 acres of public, private, county, and state trust lands. There are two main access points into the Las Cienegas NCA. The best is located off State Route 83 about seven miles north of Sonoita, AZ. This maintained dirt road leads three miles to the Empire Ranch House and continues to other areas within the NCA. Another, less developed road, is located five miles east of Sonoita, AZ off State Route 82. Driving time from the Sierra Vista Project Office is approximately two hours. The LCNCA is bordered primarily by Arizona State managed lands and private land parcels; USFS lands (Coronado N.F.) border sections of this management unit to the west.

The San Pedro Riparian National Conservation Area (SPRNCA) is located east of Sierra Vista, AZ and follows the San Pedro River north for approximately 40 miles beginning at the international border with Mexico to just south of the community of St. David, AZ. The area is easily accessible using State Routes 80, 82, 90, or 92. This management area is bordered primarily by Arizona State managed lands and private land parcels; Military managed lands (Fort Huachuca) border sections of this management unit to the west. The total acreage for the SPRNCA is 58,223 acres.

The BLM managed lands within the Tombstone and Bisbee/Mule Mountain area are interspersed primarily with Arizona State managed lands as well as private property; the SPRNCA borders this area to the west. The BLM lands in this area can be easily accessed on the ground via numerous maintained as well as unimproved roads.

The total acreage for all BLM-managed lands located in this management area is 355,321 acres (see Map 8).

b. Characteristics

Together, the LCNCA can best be described as a scenic landscape of vast desert grasslands and rolling oak-studded hills. Cienega Creek flows south to north and sustains a lush riparian corridor. The potential plant communities on the Las Cienegas NCA are dominated by warm season perennial grasses. The major species are sideoats, black, blue, hairy, sprucetop, and Rothrock grammas; plains lovegrass, cane beardgrass, Arizona cottontop, plains bristlegrass, big sacaton, alkali sacaton, tobosa, vine mesquite, curly mesquite, bush muhly, and mesa, blue, red, poverty, and spidergrass threeawns.

Average annual production of these grasslands is about 1,000 pounds per acre. Important shrubs include false mesquite, range ratany, shrubby buckwheat, fourwing saltbush, soap tree yucca, and sacahuista. Mesquite is the dominant tree of the area with other common trees including catclaw acacia, netleaf hackberry, western soapberry, desert willow, Arizona ash, Arizona black walnut, cottonwood, and black willow.

Summer annual grasses are important in the area and include species of grama, panic, sprangletop, and threeawn. Perennial forbs are also important and include species like evolvulus, sida, dyschoriste, wild bean, lotus, matweed, zinnia, hog potato, perezia, cudweeds, and vetch.

The SPRNCA riparian corridor is dominated primarily by cottonwood and willow trees and to a lesser extent by Arizona ash, walnut, netleaf hackberry, and soapberry. The uplands slope gently, for the most part, towards the riparian zone and are dominated by sacaton, mesquite, fourwing saltbush, tarbush, creosote bush, and acacia. The SPRNCA consists of 12 ecological sites.

The Clay Loam Upland is characterized as a Mixed Grass – Mesquite Association and is in poor to fair condition. The site should be grassland with a few shrubs in evidence. The presence of Lehman lovegrass further contributes to the poor rating.

The Clay Bottom is characterized by the typical Big Sacaton (*Sporobolus wrightii*) Association and is in good to excellent condition. The mesquite present in places on this site lowers the rating since this is primarily a bottomland grassland site.

The Deep Sandy Loam site is typified by the mesquite bosque community. This site is in poor to fair condition due to the large numbers of mesquite.

The Granitic Hills site is typified by the Mixed Grass – Mixed Shrub Association and is in a high-poor to a low-fair condition. This site is considered to be a disclimax grassland and has been invaded extensively by shrubby species. The condition is not expected to change either up or down very quickly.

The Limy Slopes are characterized by either a Mixed Chihuahuan Scrub Association or a Creosote Bush – Mixed Scrub Association, usually in high-fair to low-good condition. The only plants that occur are extremely tolerant of drought and limy soils. The site does not respond well to management practices.

The Limy Upland sites are similar to and support the same vegetation communities as the Limy Slopes. However, due to their position on the landscape and the soil characteristics, the potential for grass production is lower than the Limy Slopes. These sites are in high-good to low-excellent condition and will remain so regardless of the management practices applied.

Loamy Upland sites support a variety of vegetation communities: Big Sacaton – Mesquite Association, Mixed Grass – Mesquite Association, Burroweed – Mesquite Association, and Creosote Bush – Mixed Scrub Association. The condition of the ecological site varies from poor in the Burroweed – Mesquite and Creosote Bush Associations to fair in the Mixed Grass – Mesquite Association, from good to excellent in the Big Sacaton – Mesquite Association. Condition on these sites will change slowly regardless of management practices.

The Sandy Upland site is represented primarily by the mesquite bosque community and is generally in fair to good condition.

The Shallow Upland site is characterized by the Mixed Grass – Mixed Scrub Association and is in fair to good condition depending on the relative mix of grasses to shrubs. Grasses should be 70 to 85% of the plant community in excellent condition. The site rating should change fairly rapidly through the use of fire as a management tool to reduce the mixed scrub species.

The Sandy Loam Bottom sites are characterized by the Mixed Chihuahuan Scrub Association and are considered to be in poor condition primarily due to the dominance of the shrubby species in what should be a grass dominated site. A change in the condition of this site would be slow with the application of any management practice.

The Sandy Loam Upland sites are dominated by three major plant communities: Mixed Chihuahuan Scrub, Mixed Grass – Mesquite, and the Burroweed – Mesquite Association. These sites are considered to be in poor condition because they should be dominated by mixed perennial grasses with few shrubs; the opposite is the case. Any change in condition will be slow with or without any management practices.

Volcanic Hills are characterized by the Mixed Grass – Mixed Scrub Association and is considered to be in fair to good condition depending on the amount of perennial grass species present. This site should be dominated by nearly all grass species with few shrubs. Prescribed or natural fire could shift this site to a higher condition class; without fire, change will be slow.

The plant communities in the Tombstone-Bisbee area are dominated by warm season perennial grasses. The major plant species are sideoats, black, sprucetop, and Rothrock grammas, cane beardgrass, Arizona cottontop, plains bristlegrass, sacaton, alkali sacaton, tobosa, vine mesquite, curly mesquite, bush muhly, mesa, blue, red, poverty, and spidergrass threeawns. Average annual production of these grasslands is about 1,000 pounds per acre.

Important shrubs include false mesquite, range ratany, shrubby buckwheat, fourwing saltbush, creosote bush, soaptree yucca, sacahuista, mariola, mortonia, chittam, tarbush, whitethorn acacia, and littleleaf sumac. Mesquite is the dominant tree of the area with other common trees including catclaw acacia, netleaf hackberry, and desert willow.

Summer annual grasses are important in this management unit and include species of grama, panic, sprangletop, and threeawn. Perennial forbs are also important and include species like evolvulous, sida, dyschoriste, wild bean, lotus, matweed, zinnia, hog potato, perezia, cudweeds, and vetch.

The topography in the Mule Mountains varies widely and is, for the most part, inaccessible. Several locked gates on private land severely limit BLM's legal access to large parts of this management area. Firefighter safety is a significant concern due to fuels, terrain, and inaccessibility. Warm season perennial grasses dominate the plant communities in this management area. The major plant species are sideoats, black, sprucetop, and Rothrock grammas, cane beardgrass, Arizona cottontop, plains bristlegrass, sacaton, tobosa, vine mesquite, curly mesquite, bush muhly, mesa, blue, red, poverty, and spidergrass threeawns. Average annual production of these grasslands is about 1,000 pounds per acre.

Important shrubs include false mesquite, range ratany, shrubby buckwheat, fourwing saltbush, creosote bush, soaptree yucca, sacahuista, mariola, mortonia, chittam, tarbush, whitethorn acacia, and littleleaf sumac. Mesquite at the lower elevations and oak at the higher elevations dominate along with other common trees including catclaw acacia, netleaf hackberry, and desert willow.

Summer annual grasses are important in this management area and include species of grama, panic, sprangletop, and threeawn. Perennial forbs are also important and include species like evolvulous, sida, dyschoriste, wild bean, lotus, matweed, zinnia, hog potato, perezia, cudweeds, and vetch.

c. Fire History

Between 1980 and 2008 Gila District personnel responded to 188 action type fires within this management area. The largest fire burned 4,471 acres in 2002 (Oak Tree Fire); the average fire size is 81 acres. There have been 21 large fires over 100 acres in size during this time period.

d. Fire Regime/Condition Class

The fire regime for the majority of the LCNCA is rated as fire regime II (0-35 year frequency, stand replacement severity); the western $\frac{1}{3}$ of this management unit is rated at fire regime IV (35-100 year frequency, stand replacement severity). The Condition Class rating for this management unit is predominantly assessed at level I with some isolated areas being rated at level II. The Condition Class rating for this management unit is predominantly assessed at level I with some isolated locations being rated at level II.

The fire regime for the San Pedro RNCA Upland area is rated as fire regime III (35-100 year frequency, mixed severity). The Condition Class rating for this area is predominantly assessed at level II. Some isolated units within the upland zone are rated at level III.

The fire regime for the San Pedro RNCA Riparian area is rated as fire regime IV (35-100 year frequency, stand replacement severity). The Condition Class rating for this area is

predominantly assessed at level II. Some isolated units within the riparian zone are rated at level I.

The fire regime for the Tombstone-Bisbee/Mule Mountain area is rated as fire regime II (0-35 year frequency, stand replacement severity). The Condition Class rating for this management area is assessed predominantly at level II. Some isolated areas are rated at either level I or III.

e. Values at Risk

Risks associated with fire suppression in the LCNCA: power lines, propane tanks, areas of poor ingress/egress, etc. High potential exists for wildland fire to move onto private lands located within and adjacent to the Las Cienegas NCA.

Within the LCNCA, Pima pineapple cactus (*Coryphantha scheeri* var. *robustispina*) populations inhabit specific ecological areas with historically low fire frequencies, and usually a distinct lack of fine fuel (fine herbaceous vegetation) continuity (unless above-average winter precipitation is received). No known structures exist within the confines of or immediately adjacent to the BLM-managed habitat locations for this T&E species. The primary reasons for decline/vulnerability for this plant species include illegal collection, habitat degradation due to overuse by livestock, habitat loss due to mining, agriculture, road construction, urbanization, and aggressive non-native plants. Other T&E species within the LCNCA include Gila chub (*Gila intermedia*), Gila topminnow (*Poeciliopsis o. occidentalis*), southwestern willow flycatcher (*Empidonax traillii extimus*) and jaguar (*Panthera onca arizonensis*) (Approved Las Cienegas Resource Management Plan and Record of Decision. 2003. pp.A5-4 through A5-33).

Within the SPRNCA, the Huachuca water umbel (*Lilaeopsis schaffneriana* var. *recurva*) population inhabits a specific ecological area where no known structures exist within the confines of or immediately adjacent to the habitat locations for this T&E species. The primary reasons for decline/vulnerability for this plant species appears to be related to watershed degradation.

When addressing T&E species and/or T&E species habitat, the Conservation Measures outlined in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (September 2004) will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS. In addition to the above-mentioned Conservation Measures, the Biological Opinion on the Las Cienegas Resource Management Plan also defines “Reasonable and Prudent Measures and Terms and Conditions” as well as “Conservation Recommendations” for T&E species identified in the Las Cienegas Resource Management Plan (Approved Las Cienegas Resource Management Plan and Record of Decision. 2003. pp.A5-4 through A5-33).

The 2001 Federal Wildland Fire Management Policy states, in part, that 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 resource related consequences of wildland fire impacts. The circumstances under which a fire occurs as well as the potential 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.

The appropriate management responses to be initiated in the event of a wildfire event within or immediately adjacent to specific vegetative T&E habitat locations may include, and are not limited to, the use of minimum impact suppression techniques (M.I.S.T.), not applying direct suppression procedures within a known area inhabited by a vegetative T&E species, or applying

suppression operations outside the known area of habitation to reduce a potential threat from wildfire.

Upland vegetation on public lands within the Gila District will be managed for watershed protection, livestock use, reduction of non-point source pollution, T&E species protection, priority wildlife habitat, firewood, and other incidental human uses. Best management practices and vegetation manipulation will be used to achieve desired plant community management objectives. Apply management strategies within this management unit to comply with Arizona Standards and Guidelines for Achieving Rangeland Health.

State and private lands are interspersed with the BLM managed lands. Scattered structures and range improvements are also located throughout these private lands.

In the Tombstone – Bisbee/Mule Mountain area, State and private lands are interspersed with the BLM managed lands. Scattered structures and range improvements are also located throughout these private lands.

Mule Mountain contains two separate communications tower sites; one site is located on BLM managed lands and the other is located on Arizona State managed lands.

f. Communities at Risk

Communities at risk located adjacent to the Las Cienegas NCA include the town of Sonoita and unincorporated areas with numerous homes and structures. Communities at risk located adjacent to the SPRNCA include Babocomari, Hereford, Lewis Springs, Palominas, and St. David. Communities at risk located within the Tombstone – Bisbee/Mule Mountain area include Tombstone, Bisbee, and scattered, unincorporated areas with numerous homes and structures.

g. Management Requirements

Wildfire Management

- Firefighter and public safety is the first priority in every fire management activity (2001 Federal Wildland Fire Management Policy).
- Set priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources based on values to be protected, human health and safety, and costs of protection (2001 Federal Wildland Fire Management Policy).
- In areas suitable for fire where conditions allow (Land Use Allocation 1), BLM can allow naturally ignited wildland fire to maintain non-hazardous levels of fuels to reduce the hazardous effects of unplanned wildland fires and meet resource objectives (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004* pp. 2-2 – 2-6, Table 2.1, Figure 2.1).
- The Conservation Measures listed in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (pp. 324-346) will be implemented during fire suppression operations, unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp 325-326).
- Conservation Measures regarding the Pima pineapple cactus includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 339):
 - Known locations and potential habitat for plant populations will be mapped to facilitate planning for the management of wildland fire for resource benefit

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- [wildland fire use], prescribed fires, and vegetation treatments, and to ensure protection of these populations during fire suppression.
- BLM will coordinate with FWS to delineate buffer areas around plant populations prior to prescribed fire and vegetation treatment activities. BLM will coordinate with USFWS during any emergency response and the management of wildland fire for resource benefit [wildland fire use activities] to ensure protection of plant populations from fire and fire suppression activities.
 - During fire suppression, the management of wildland fire for resource benefit [wildland fire use], and prescribed fire in habitat occupied by Federally protected plant species, no staging of equipment or personnel will be permitted within 100 meters of identified individuals or populations, nor will off-road vehicles be allowed within the 100-meter buffer area, unless necessary for firefighter or public safety or the protection of property, improvements, or other resources (see **FS-7**). One of the primary threats to many of these plant species is trampling/crushing from personnel and vehicles.
 - No prescribed burning will be implemented within 100 meters of identified locations or unsurveyed suitable habitat for Federally protected and sensitive plant populations unless specifically designed to maintain or improve the existing population.
- Species specific Conservation Measures regarding the Gila chub includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 339):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats for occupied reaches and proposed critical habitat.
 - When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by Gila chub, when possible.
 - Species specific Conservation Measures regarding the Gila topminnow includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg.337):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats.
 - When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by Gila topminnow, when possible.
 - Species specific Conservation Measures regarding the Southwestern willow flycatcher includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg.333):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats.
 - Except where fires are active in occupied habitat, minimize unnecessary low-level helicopter flights during the breeding season (April 1 – September 30). Approach bucket dip sites at a 90-degree direction to rivers to minimize flight time over the river corridor and occupied riparian habitats. Locate landing sites for helicopters at least ¼ mile from occupied sites to avoid impacts to willow flycatchers and their habitat.
 - Minimize use of chainsaws or bulldozers to construct firelines through occupied or suitable habitat except where necessary to reduce the overall acreage of occupied habitat or other important habitat areas that would otherwise be burned.
 - Species specific Conservation Measures regarding the jaguar includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 342):

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- Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats to eliminate adverse effects to jaguars that may occur in dense riparian habitats on BLM-administered lands.
 - Maintain dense, low vegetation in major riparian or xero-riparian corridors on BLM-administered lands in identified locations south of Interstate 10 and Highway 86. Locations will be identified in site-specific fire management plans.
 - Species specific Conservation Measures regarding the Huachuca water umbel includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 339-340):
 - Known locations and potential habitat for plant populations will be mapped to facilitate planning for the management of wildland fire for resource benefit [wildland fire use], prescribed fires, and vegetation treatments, and to ensure protection of these populations during fire suppression.
 - BLM will coordinate with FWS to delineate buffer areas around plant populations prior to prescribed fire and vegetation treatment activities. BLM will coordinate with USFWS during any emergency response and/or management of wildland fire for resource benefit [wildland fire use activities] to ensure protection of plant populations from fire and fire suppression activities.
 - During fire suppression, management of wildland fire for resource benefit [wildland fire use], and prescribed fire in habitat occupied by Federally protected plant species, no staging of equipment or personnel will be permitted within 100 meters of identified individuals or populations, nor will off-road vehicles be allowed within the 100-meter buffer area, unless necessary for firefighter or public safety or the protection of property, improvements, or other resources (see **FS-7**). One of the primary threats to many of these plant species is trampling/crushing from personnel and vehicles.
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats.
 - Assign a qualified Resource Advisor(s) (READ) to coordinate concerns regarding federally protected species, cultural and natural resource issues, and to serve as a liaison between the Field Office Manager and the Incident Commander (IC)/Incident Management Team (IMT). The READ will also serve as a field contact representative (FCR) responsible for coordination with the USFWS. The READ's will have the necessary information on federally protected species and habitats in the area and the available Conservation Measures for the species. They will be briefed on the intended suppression actions for the fire, and will provide input on which Conservation Measures are appropriate, within the standard constraints of safety and operational procedures. The IC has the final decision-making authority on implementation of Conservation Measures during fire suppression operations (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-4).
 - Suppression tactics will be utilized that limit damage or disturbance to the habitat and landscape. No heavy equipment will be used (e.g. dozers) unless approved by the Field Office Manager (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - All known cultural resources will be protected from disturbance (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - Use of fire retardants or chemicals adjacent to waterways will be accomplished in accordance to the "Environmental Guidelines for Delivery of Retardant or Foam Near Waterways" (Interagency Standards for Fire and Aviation Operations, 2009, Chap. 12, NFES 2724).

- Within the SPRNCA, BLM will control wildfires threatening natural resources and structures and reduce the acreage burned (San Pedro River Riparian Management Plan and Environmental Impact Statement. 1989. pg. 25).
- Within the SPRNCA, BLM will suppress wildfires on a high priority basis. All wildfires on or threatening to burn into the EIS area will receive full and sustained suppression action (San Pedro River Riparian Management Plan and Environmental Impact Statement. 1989. pg. 25).
- Wildland fires [*within the SPRNCA management area*] (whether on BLM or adjacent lands) that threaten life, improvements, or the natural resources and facilities under the Bureau's jurisdiction, are emergencies. Their suppression is given priority over other Bureau programs (San Pedro River Riparian Management Plan and Environmental Impact Statement. 1989. pp. 46-47).

Fuels Management

- In areas suitable for fire where conditions allow, BLM will use prescribed fire and a combination of biological, mechanical and chemical treatments to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Prescribed fire treatments may be used to improve overall ecosystem health, reduce invasive or woody species cover, increase herbaceous cover, improve water infiltration, and reduce soil erosion (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire, BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. If air quality approaches unhealthy levels BLM will delay igniting prescribed fires (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas not suitable for fire where fuel loading high, BLM will utilize biological, mechanical or chemical treatments, and some prescribed fire to maintain non-hazardous levels of fuels and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Non-fire treatments may be used to reduce hazardous fuel loads; invasive or woody species cover, increase herbaceous cover, improve ingress/egress routes, improve water infiltration, and reduce soil erosion (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- For all fire management activities (wildfire suppression, wildfires managed for resource benefit, prescribed fire, and mechanical, chemical, and biological vegetation treatments), Conservation Measures (Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 324-346) will be implemented to reduce the effects of fire management actions on federally threatened, endangered, proposed, and candidate ("federally Protected") species.
- Species specific Conservation Measures regarding the Gila chub includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 339):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats for occupied reaches and proposed critical habitat.
 - When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by Gila chub, when possible.
 - Cooperate with the USFWS and AGFD to identify site-specific measures, such as prescribed fires in grassland vegetation types to improve watershed

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- conditions (*e.g.*, in the Cienega Creek watershed), to protect populations of Gila chub from other resource program impacts.
- Species specific Conservation Measures regarding the Gila topminnow includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 337):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats.
 - Conduct prescribed burns such that no more than one-half of the watershed of each Gila topminnow natural or reintroduction site is burned in a two-year period (excluding buffers to the streams and/or spring habitats) and repeat treatments at greater than two-year intervals.
 - Monitor for fish kill, where practical, immediately following the first runoff event after prescribed fires in the watersheds containing gila topminnows.
 - When considering which creek crossings to use for fire management activities, avoid crossings that are known to be occupied by Gila topminnow, when possible.
 - Develop mitigation plans in coordination with the USFWS for each fuels management project (prescribed fire; vegetation treatments) that may adversely affect the gila topminnow. Mitigation plans for prescribed fire will limit to the extent practicable the possibility that fire would spread to riparian habitats. Mitigation plans will be approved by the USFWS.
 - Species specific Conservation Measures regarding the Southwestern willow flycatcher includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 333):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats.
 - Implement activities to reduce hazardous fuels or improve riparian habitats (prescribed burning or vegetation treatments) within occupied or unsurveyed suitable habitat for southwestern willow flycatchers only during the non-breeding season (October 1 to March 31).
 - Avoid developing access roads that would result in fragmentation or a reduction in habitat quality. Close and rehabilitate all roads that were necessary for project implementation.
 - Prescribed burning will only be allowed within ½ mile of occupied or unsurveyed suitable habitat when weather conditions allow smoke to disperse away from the habitat when birds may be present (breeding season of April 1 – September 30).
 - Vegetation treatment projects adjacent to occupied or unsurveyed suitable habitat will only be conducted when willow flycatchers are not present (October 1 – March 31).
 - Species specific Conservation Measures regarding the jaguar includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 342):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats to eliminate adverse effects to jaguars that may occur in dense riparian habitats on BLM-administered lands.
 - Maintain dense, low vegetation in major riparian or xero-riparian corridors on BLM-administered lands in identified locations south of Interstate 10 and Highway 86. Locations will be identified in site-specific fire management plans.
 - Conservation Measures regarding the Pima pineapple cactus includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pg. 339):
 - Known locations and potential habitat for plant populations will be mapped to facilitate planning for the management of wildland fire for resource benefit

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- [wildland fire use], prescribed fires, and vegetation treatments, and to ensure protection of these populations during fire suppression.
 - BLM will coordinate with FWS to delineate buffer areas around plant populations prior to prescribed fire and vegetation treatment activities. BLM will coordinate with USFWS during any emergency response and/or the management of wildland fire for resource benefit [wildland fire use activities] to ensure protection of plant populations from fire and fire suppression activities.
 - During fire suppression, management of wildland fire for resource benefit [wildland fire use], and prescribed fire in habitat occupied by Federally protected plant species, no staging of equipment or personnel will be permitted within 100 meters of identified individuals or populations, nor will off-road vehicles be allowed within the 100-meter buffer area, unless necessary for firefighter or public safety or the protection of property, improvements, or other resources (see **FS-7**). One of the primary threats to many of these plant species is trampling/crushing from personnel and vehicles.
 - No prescribed burning will be implemented within 100 meters of identified locations or unsurveyed suitable habitat for Federally protected and sensitive plant populations unless specifically designed to maintain or improve the existing population.
 - Species specific Conservation Measures regarding the Huachuca water umbel includes (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management. 2004. pp.339-340):
 - Known locations and potential habitat for plant populations will be mapped to facilitate planning for wildland fire use, prescribed fires, and vegetation treatments, and to ensure protection of these populations during fire suppression.
 - BLM will coordinate with FWS to delineate buffer areas around plant populations prior to prescribed fire and vegetation treatment activities. BLM will coordinate with USFWS during any emergency response and/or managing wildland fire for resource benefit [wildland fire use activities] to ensure protection of plant populations from fire and fire suppression activities.
 - During fire suppression, management of wildland fire for resource benefit [wildland fire use], and prescribed fire in habitat occupied by Federally protected plant species, no staging of equipment or personnel will be permitted within 100 meters of identified individuals or populations, nor will off-road vehicles be allowed within the 100-meter buffer area, unless necessary for firefighter or public safety or the protection of property, improvements, or other resources (see **FS-7**). One of the primary threats to many of these plant species is trampling/crushing from personnel and vehicles.
 - No prescribed burning will be implemented within 100 meters of identified locations or unsurveyed suitable habitat for Federally protected and sensitive plant populations unless specifically designed to maintain or improve the existing population.
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats.
 - Within the SPRNCA, BLM will use prescribed fire to maintain wildlife habitat diversity and to reduce hazardous build-up of fuels (San Pedro River Riparian Management Plan and Environmental Impact Statement. 1989. pg. 25).
 - Within the SPRNCA, BLM will reduce the potential for damage to resources and structures within the EIS area and to adjacent land owners' [sic] properties. Do this by using fire breaks, both natural and constructed, as determined by resource and fire objectives. Emphasize the following areas: the southwest portion of the EIS area, where extensive fuels are within one mile of the El Paso Natural Gas pipeline; and near

any structures within the property (San Pedro River Riparian Management Plan and Environmental Impact Statement. 1989. pg. 25).

- Prescribed fire treatments on the LCNCA will be used to promote vegetation change through decreased shrub cover and increased cover by mid- to tall-stature perennial grasses. Management objectives include controlling certain plant species; enhancing growth, reproduction, or vigor of plant species; managing fuel loads, and managing vegetation community types (Appendix 8, Approved Las Cienegas Resource Management Plan and Record of Decision, July 2003).

Community Assistance/Protection

- To reduce human-caused fires, BLM will undertake education, enforcement and administrative fire prevention mitigation measures (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Education measures will include various media information including a signing program, information as to the natural role of fire within local ecosystems, participation in fairs, parades and public contacts (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Enforcement will be accomplished by providing training opportunities for employees interested in fire cause determination (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Administration includes expanded prevention and education programs with other cooperator agencies (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas not suitable for fire, BLM will implement programs to reduce unwanted ignitions, and emphasize prevention, detection, and rapid suppression response techniques (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- Community assistance/protection objectives include identifying hazardous fuel reduction projects, public and firefighter safety issues, and partnering opportunities with local Firewise groups.
- The Arizona Firewise Communities program is the primary tool to achieve wildland fire hazards awareness to the public. Technical assistance is being provided by the BLM allowing Firewise groups to develop local plans that meet mutual goals with the BLM.

h. Strategic Objectives

Wildfire Management

- Unplanned ignitions will be managed using applicable management decisions with regard to public and firefighter safety, cost, and private property along with other improvements (AZ BLM Gila District FMP, 2010, pg. 78).
- Individual wildfires may be managed for more than one fire management objective (managing wildfires for resource benefit). All wildfire management decisions must be consistent with existing land use and fire management plan decisions (IM No. FA IM-2009-011).
- Efforts on unplanned ignitions will be directed towards containing or confining each unplanned ignition to public lands using natural or man-made fuel breaks (AZ BLM Gila District FMP, 2010, pg. 78).
- For all fire management activities in National Monuments and National Conservation Areas, measures will be taken to assure that no adverse effects occur to those resources,

values, and objects identified in the respective proclamations or legislation as reasons for establishing the area (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-6).

- In the Tombstone – Bisbee/Mule Mountain area scattered structures are of significant importance as well as public safety on roadways; impacts from smoke may cause problems by slowing traffic.
 - Suppression resources must respond quickly to be effective in containing fires at a reasonable size.
 - Scattered structures and communication sites are of significant importance in this management unit.

Fuels Management

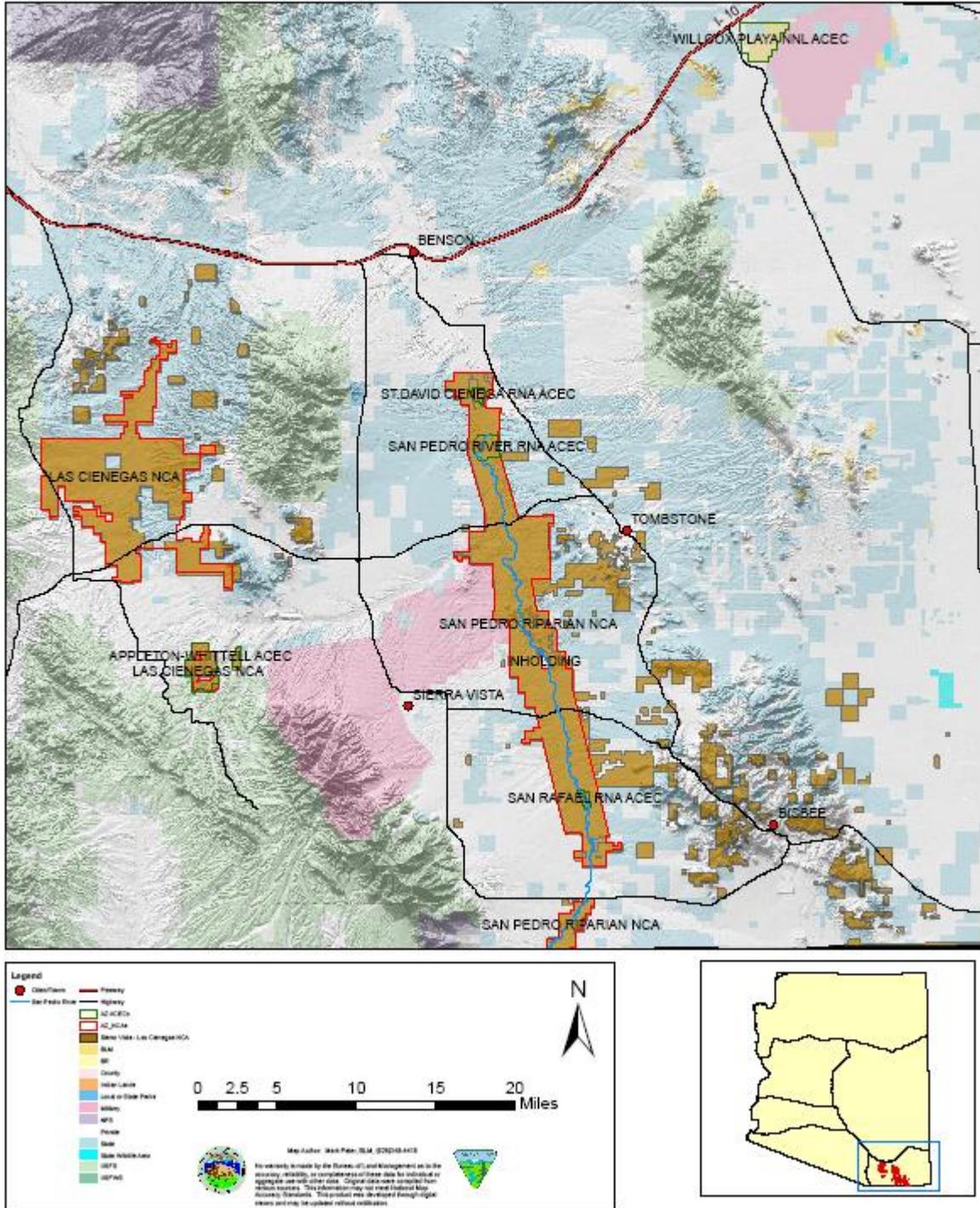
- Non-fire treatments may be used to reduce hazardous fuel loads; invasive or woody species cover, increase herbaceous cover, improve ingress/egress routes, improve water infiltration, and reduce soil erosion.
- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective prescribed fire treatments to achieve resource management objectives. Burn plans will be developed for each planned unit within a project area. The plan will be based on the resource objectives in the environmental analysis for that project. Prescriptions will be developed that will help achieve resource objectives, allow for firefighter and public safety, and achieve smoke management objectives.
- The SPRNCA is comprised of a variety of different vegetative communities that require unique and individual approaches for fire management. Each vegetative category has its own set of objectives that is intended to benefit its particular fuel type. The prescribed fire management objectives for each vegetative community include:
 - 1) Riparian: Maintain canopy cover and structural diversity of cottonwood and willow galleries; reduce the number of flood debris piles concentrated directly against cottonwood trees; reduce the fuel loading in and adjacent to the riparian areas; promote regeneration of cottonwood and willow trees; reduce the number, intensity and size of wildfires in the cottonwood and willow galleries; create mosaic burn patterns.
 - 2) Grasslands: Increase cover and density of native perennial grasses; reduce annual weed cover and density; reduce canopy cover of shrub species; reduce fuel loads; improve wildlife habitat; reduce exotic species; create mosaic burn patterns.
 - 3) Cienegas: maintain or increase reed and sedge cover; reduce exotic, invasive weed cover and density; create open areas for wildlife access to water; improve wildlife habitat; maintain canopy cover of trees around the margins of the cienegas; create mosaic burn patterns.
 - 4) Uplands: Increase density of perennial native grass species; reduce exotic, invasive weed cover; reduce frequency of shrub species; improve wildlife habitat; maintain scattered canopy of desert tree species; create mosaic burn patterns.
- Prescribed fires on the SPRNCA may be used to achieve resource management objectives as defined in prescribed fire management plans (San Pedro River Riparian Management Plan and Environmental Impact Statement. 1989. pg. 47). The development of prescribed fire management plans will involve cooperative efforts from Gila District Fire Management personnel and Resource Management Specialists.
- Desired annual burned acreage on the LCNCA is less than 2,500 acres under Fire Intensity Levels (FIL) 1 and 2, and less than 300 acres under FIL 3. Gila District fire staff and Resource Management Specialists will strive to treat 2,000 acres annually with prescribed fire to create a mosaic pattern in semidesert grasslands and to reduce the increasing and invading brushy species while increasing perennial grasses

(Appendix 8, Approved Las Cienegas Resource Management Plan and Record of Decision, July 2003).

- Prescribed fire treatments in the Tombstone – Bisbee/Mule Mountain area will be used to reduce invasive or woody species cover, increase herbaceous cover, improve water infiltration, and reduce soil erosion.

Map 8.

AZ BLM Gila District Fire Management Area Sierra Vista - Las Cienegas NCA



Sulphur Springs Valley - Guadalupe Canyon (AZBLM-GD-09)

a. Location

The BLM lands in the Sulphur Springs Valley area are located near the top portion of the Swisshelm Mountains as well as scattered randomly within the valley. State and private lands are located at the lower elevations and surround the BLM lands. Scattered structures and range improvements are located throughout these private lands. This management unit is primarily accessible on the ground via either Leslie Canyon Road from the south or Rucker Canyon Road from the north. Both of these roads are accessible from U.S. Route 191. Driving time from Safford is approximately slightly over two hours or about 120 miles.

Guadalupe Canyon and the Baker Canyon Wilderness Study Area (WSA) are located in the southeastern corner of Arizona. This area is bordered on the east by New Mexico; the south boundary of this unit is delineated by the U.S.-Mexico border, and is bordered on the west by Arizona State managed lands. Private land parcels extend into the center of the Guadalupe Canyon area from the southwestern edge of the management unit. This area has been identified as a heavy use area for undocumented illegal entrants as well as drug smugglers for illegally entering the United States. Extreme caution and close coordination with BLM and local law enforcement personnel is to be used when working in this management unit.

This area is accessible by ground using various existing improved and unimproved dirt roads. The Guadalupe Canyon Road provides access to the southern portion of the management unit and the McDonald Ranch Road (off the Geronimo Trail) provides access to the northern part of the management unit. Driving time to this management unit from Safford is approximately four hours or approximately 140 miles.

The total acreage for BLM-managed lands within this management unit is 33,588 acres (see Map 9).

b. Characteristics

The topography in the Sulphur Springs Valley area is best characterized by steep slopes with various aspects; the BLM-managed lands are located at the top of the Swisshelm Mountains. The plant communities in this management unit are dominated by warm season perennial grasses. The major plant species are sideoats, black, blue, sprucetop, and Rothrock grammas, cane beardgrass, plains bristlegrass, alkali sacaton, tobosa, vine mesquite, bush muhly, red threeawn and spidergrass. Average annual production of these grasslands is about 1,000 pounds per acre. Important shrubs include false mesquite, range ratany, shrubby buckwheat, fourwing saltbush, soap tree yucca, sacahuista, mariola, mortonia, chittam, tarbush, and whitethorn acacia. Mesquite is the dominant tree of the area. Summer annual grasses are important in this management unit and include species of grama, panic, sprangletop, and threeawn. Perennial forbs are also important and include species like evolvulus, sida, dyschoriste, wild bean, lotus, matweed, zinnia, hog potato, perezia, cudweeds, and vetch.

The topography in the Guadalupe – Baker Canyon area is broken with rolling hills at lower elevations to steep rocky slopes at higher elevations. The plant communities in this management unit are dominated by warm season perennial grasses. The major plant species are sideoats, black, blue, hairy, sprucetop, and Rothrock grammas, plains lovegrass, cane beardgrass, Arizona cottontop, plains bristlegrass, sacaton, alkali sacaton, tobosa, vine mesquite, curly mesquite, bush muhly, mesa, blue, red, poverty, and spidergrass threeawns. Average annual production of these grasslands is about 1,000 pounds per acre.

Important shrubs include false mesquite, range ratany, shrubby buckwheat, fourwing saltbush, soap tree yucca, sacahuista, mariola, mortonia, chittam, tarbush, whitethorn acacia, and littleleaf sumac. Mesquite is the dominant tree of the area with other common trees including catclaw acacia, netleaf hackberry, western soapberry, desert willow, Arizona ash, Arizona black walnut, cottonwood, and black willow. Summer annual grasses are important in this management unit and include species of grama, panic, sprangletop, and threeawn. Perennial forbs are also

important and include species like evolvolous, sida, dyschoriste, wild bean, lotus, matweed, zinnia, hog potato, perezia, cudweeds, and vetch.

c. Fire History

Between 1980 and 2008 Gila District personnel responded to 14 action type fires within this management unit. The largest fire burned over 3,200 acres in 1994 (Swisshelm Fire); otherwise the average fire size is 67 acres.

d. Fire Regime/Condition Class

The fire regime for the majority of this management unit is rated as IV (35-100 year frequency, stand replacement severity). The fire regime condition class ratings for this management area are primarily rated at I and II. The riparian zone within this management area (Guadalupe Canyon) is rated as condition class I; the upland areas are primarily rated at condition class II.

e. Values at Risk

State and private lands are located at the lower elevations in the Sulphur Springs Valley and surround the BLM lands. Scattered structures and range improvements are also located throughout these private lands.

The preservation of wilderness values in the Baker Canyon WSA strives to maintain or improve naturalness in the designated wilderness areas by:

- Provide for the long term protection and preservation of the area's wilderness character under a principle of nondegradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they remain unimpaired.
- Manage for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.
- Manage using the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be the one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.
- Manage non-conforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character. Non-conforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

Within this management area, T&E species and/or T&E species habitat includes the lesser long-nosed bat (*Leptonycteris curasoae yerbabuena*), Chiricahua leopard frog (*Rana chiricahuensis*), New Mexico ridge-nosed rattlesnake (*Crotalus willardi obscurus*), Northern Aplomado falcon (*Falco femoralis*) and jaguar (*Panthera onca arizonensis*)

The USFWS listed the lesser long-nosed bat (originally, as *Leptonycteris sanborni*; Sanborn's long-nosed bat) as endangered in a Federal Register notice, dated September 30, 1988 (USFWS 1988). Critical habitat has not been designated for this species.

The Chiricahua leopard frog was listed as a threatened species without critical habitat on June 13, 2002 (USFWS 2002).

The USFWS listed the New Mexico ridge-nosed rattlesnake (*Crotalus willardi obscurus*) as a threatened species on August 4, 1978 (USFWS 1978). Critical habitat was also designated in Bear, Spring, and Indian canyons of the Animas Mountains from 6,048 to 8,320 feet elevation. The species has a very limited range and is threatened by habitat destruction and alteration and

collecting. At the time of listing, this subspecies was not known to occur in the Peloncillo Mountains that lie across the border of New Mexico and Arizona, but has since been found in the range.

The northern aplomado falcon was listed as endangered by the USFWS in 1986. This listing was primarily a result of habitat degradation.

The U.S. population of jaguars was listed as endangered (62 FR 39147; July 22, 1997) without critical habitat, dated July 22, 1997. Jaguars persisted in central Arizona as late as the early 1960's, when three were taken on the Fort Apache and San Carlos Indian Reservations. Individuals were reported from southeastern Arizona into the 1970's and 1980's. In 1996, photographs documented two individuals from the Baboquivari Mountains, Pima County, and the Peloncillo Mountains, Cochise County. Another individual was documented in 2001 and 2003 west of Nogales.

When addressing T&E species and/or T&E species habitat, the Conservation Measures outlined in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (September 2004) will be implemented during fire suppression operations unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS.

f. Communities at Risk

There are no identified communities at risk within this management area.

g. Management Requirements

Wildfire Management

- Firefighter and public safety is the first priority in every fire management activity (2001 *Federal Wildland Fire Management Policy*).
- Set priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources based on values to be protected, human health and safety, and costs of protection (2001 *Federal Wildland Fire Management Policy*).
- In areas suitable for fire where conditions allow (Land Use Allocation 1), BLM can allow naturally ignited wildland fire to maintain non-hazardous levels of fuels to reduce the hazardous effects of unplanned wildland fires and meet resource objectives (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004* pp. 2-2 – 2-6, Table 2.1, Figure 2.1).
- The Conservation Measures listed in Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management (pp. 324-346) will be implemented during fire suppression operations, unless firefighter or public safety, or the protection of property, improvements, or natural resources, render them infeasible during a particular operation. Necessary modifications of the Conservation Measures or impacts to federally protected species and habitat during fire suppression operations will be documented by the Resource Advisor, and coordinated with the USFWS (*Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004*, pp 325-326).
- Assign a qualified Resource Advisor(s) (READ) to coordinate concerns regarding federally protected species, cultural and natural resource issues, and to serve as a liaison between the Field Office Manager and the Incident Commander (IC)/Incident Management Team (IMT). The READ will also serve as a field contact representative (FCR) responsible for coordination with the USFWS. The READ's will have the

necessary information on federally protected species and habitats in the area and the available Conservation Measures for the species. They will be briefed on the intended suppression actions for the fire, and will provide input on which Conservation Measures are appropriate, within the standard constraints of safety and operational procedures. The IC has the final decision-making authority on implementation of Conservation Measures during fire suppression operations (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-4*).

- Species-specific Conservation Measures pertaining to the lesser long-nosed bat include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pg. 342):
 - Instruct all crew bosses (wildfire suppression, managed wildfire, prescribed fire, and vegetation treatments) in the identification of agave and columnar cacti and the importance of their protection.
 - Protect long-nosed bat forage plants -- saguaros and high concentrations of agaves -- from wildfire and fire suppression activities, and from modification by fuels treatment activities (prescribed fire, vegetation treatments), to the greatest extent possible. "Agave concentrations" are contiguous stands or concentrations of more than 20 plants per acre. Avoid driving over plants, piling slash on top of plants, and burning on or near plants. Staging areas for fire crews or helicopters will be located in disturbed sites, if possible.
- Species-specific Conservation Measures pertaining to the Chiricahua leopard frog include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 330-331):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats.
 - For fire management sites with habitat for the Chiricahua leopard frog, unsurveyed sites will be considered occupied unless surveyed prior to project implementation.
 - All personnel performing fire management activities at any creek crossing will be informed of the potential presence of Chiricahua leopard frogs, their status, and the need to perform their duties to avoid impacts to the frog and its habitat.
 - Except as needed in emergency situations to abate immediate fire threat or loss of life or property, no water will be drafted for fire suppression from bodies of water known to be occupied by the Chiricahua leopard frog.
- Species-specific Conservation Measures pertaining to the New Mexico ridge-nosed rattlesnake near the Baker Canyon WSA include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp 206, 346):
 - To the extent possible, minimize surface disturbing activities from fire suppression and fuels treatment activities within New Mexico ridge-nosed rattlesnake habitat on BLM-administered lands in the southern Peloncillo Mountains, particularly during active periods for snakes (July through October).
 - Prior to using wildland fire for resource benefit, cool season (November – March) prescribed fire or other fuel treatments should be used to reduce unnatural fuel loads within suitable habitat to avoid catastrophic fires and loss of canopy cover.
 - All fires that occur outside of prescriptions that will not result in low intensity, low severity burns will be fully suppressed within or near suitable New Mexico ridge-nosed rattlesnake habitat.

After reviewing the current status of the New Mexico ridge-nosed rattlesnake, the environmental baseline for the action area, the effects of the proposed action, and the

cumulative effects, it is the USFWS biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the New Mexico ridge-nosed rattlesnake and is not likely to destroy or adversely modify designated critical habitat. Critical habitat for this subspecies has been designated in the Animas Mountains; however, this action does not affect that area and no destruction or adverse modification of that critical habitat is anticipated. The USFWS bases their conclusion on the following:

- Populations of the subspecies currently known to exist are located in the higher elevations of Forest Service-administered lands, not on BLM-administered lands.
 - The USFWS expects that short-term effects will be minimized by implementing the general and species-specific conservation measures (Appendix B) included in the proposed action.
 - Long-term effects are expected to aid in improving rattlesnake suitable habitat and the subspecies' prey base, in addition to reducing the risk of catastrophic fire.
- Species-specific Conservation Measures pertaining to the Northern Aplomado falcon include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pg. 333):
 - If aplomado falcons are reestablished or are discovered on public lands, and they nest in a fuels management project area, BLM will implement temporary closures to human access and project implementation (the management of wildland fire for resource benefit [wildland fire use], prescribed burning, vegetation treatments) within ½ mile of nest sites during the breeding season. Managing wildland fire for resource benefit [Wildland fire use] and prescribed burning will be conducted in a manner to ensure nest sites are more than ½ mile from downwind smoke effects.
 - Species-specific Conservation Measures pertaining to the jaguar include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pg. 342):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats to eliminate adverse effects to jaguars that may occur in dense riparian habitats on BLM-administered lands.
 - Maintain dense, low vegetation in major riparian or xero-riparian corridors on BLM-administered lands in identified locations south of Interstate 10 and Highway 86. Locations will be identified in site-specific fire management plans.
 - Suppression tactics will be utilized that limit damage or disturbance to the habitat and landscape. No heavy equipment will be used (e.g. dozers) unless approved by the Field Office Manager (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - All known cultural resources will be protected from disturbance (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-14).
 - In Wilderness Areas, Wilderness Study Areas (i.e. Baker Canyon Wilderness Study Area), and areas being managed for wilderness characteristics according to LUP's, when suppression actions are required, minimum impact suppression tactics (MIST) will be applied and coordinated with Wilderness Area management objectives and guidelines (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-6). Guidelines and operating procedures for fire management activities in Wilderness Areas are provided in BLM Manual 8560, Management of Designated Wilderness Areas, and in Wilderness Management Plans, where completed for specific Wilderness Areas (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pg. 2-7).

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- Use of fire retardants or chemicals adjacent to waterways will be accomplished in accordance to the “Environmental Guidelines for Delivery of Retardant or Foam Near Waterways” (Interagency Standards for Fire and Aviation Operations, 2009, Chap. 12, NFES 2724).

Fuels Management

- In areas suitable for fire where conditions allow, BLM will use prescribed fire and a combination of biological, mechanical and chemical treatments to maintain non-hazardous levels of fuels, reduce the hazardous effects of unplanned wildland fires and meet resource objectives . (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2)
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas suitable for fire, BLM will monitor existing air quality levels and weather conditions to determine which prescribed fires can be ignited and which, if any, must be delayed to ensure that air quality meets federal and state standards. If air quality approaches unhealthy levels BLM will delay igniting prescribed fires (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- In areas not suitable for fire where fuel loading high, BLM will utilize biological, mechanical or chemical treatments, and some prescribed fire to maintain non-hazardous levels of fuels and meet resource objectives (BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2).
- For all fire management activities (wildfire suppression, wildfires managed for resource benefit, prescribed fire, and mechanical, chemical, and biological vegetation treatments), Conservation Measures (Appendix B of the Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 324-346) will be implemented to reduce the effects of fire management actions on federally threatened, endangered, proposed, and candidate (“federally Protected”) species.
- Species-specific Conservation Measures pertaining to the lesser long-nosed bat include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 342-343):
 - Prior to implementing any fuels treatment activities (prescribed fire, vegetation treatments), pre-project surveys will be conducted for paniculate agaves and saguaros that may be directly affected by fuels management activities.
 - No seeding/planting of nonnative plants will occur in any wildfire rehabilitation site or fuels treatment site with paniculate agaves or saguaros.
 - A mitigation plan will be developed by the Bureau in coordination with the USFWS for prescribed fires or fuels management projects (mechanical, chemical, biological treatments) within 0.5 mi of bat roosts or in areas that support paniculate agaves or saguaros. The mitigation plan will ensure that effects to bat roosts and forage plants are minimized and will include monitoring of effects to forage plants. The plan will be approved by the USFWS.
 - BLM personnel would examine concentrations of agaves (including shindagger – *A. schottii*) within each proposed fuels treatment area, and blackline or otherwise protect from treatments any significant concentrations of agaves that appear to be amidst fuel loads that could result in mortality greater than

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- 20 percent (>50% for *A. schottii*). BLM personnel would determine which significant agave stands are prone to mortality greater than 20 percent (>50% for *A. schottii*) (see Conservation Measures FT-1 and FT-3).
- Species-specific Conservation Measures pertaining to the Chiricahua leopard frog include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pp. 330-331):
 - Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats.
 - For fire management sites with habitat for the Chiricahua leopard frog, unsurveyed sites will be considered occupied unless surveyed prior to project implementation.
 - All personnel performing fire management activities at any creek crossing will be informed of the potential presence of Chiricahua leopard frogs, their status, and the need to perform their duties to avoid impacts to the frog and its habitat.
 - Except as needed in emergency situations to abate immediate fire threat or loss of life or property, no water will be drafted for fire suppression from bodies of water known to be occupied by the Chiricahua leopard frog.
 - Install sediment traps, as determined by a Resource Advisor or qualified biologist approved by BLM, upstream of tanks and ponds occupied by Chiricahua leopard frogs in order to minimize the amount of ash and sediment entering the water. Consultation with a qualified biologist during the planning phase will aid in determining sediment trap installation requirements (see Conservation Measures FT-1 and FT-3).
 - Species-specific Conservation Measures pertaining to the New Mexico ridge-nosed rattlesnake near the Baker Canyon WSA include:
 - To the extent possible, minimize surface disturbing activities from fire suppression and fuels treatment activities within New Mexico ridge-nosed rattlesnake habitat on BLM-administered lands in the southern Peloncillo Mountains, particularly during active periods for snakes (July through October).
 - Prior to using wildland fire for resource benefit, cool season (November – March) prescribed fire or other fuel treatments should be used to reduce unnatural fuel loads within suitable habitat to avoid catastrophic fires and loss of canopy cover.
 - All fires that occur outside of prescriptions that will not result in low intensity, low severity burns will be fully suppressed within or near suitable New Mexico ridge-nosed rattlesnake habitat.
 - Species-specific Conservation Measures pertaining to the Northern Aplomado falcon include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pg. 333):
 - If aplomado falcons are reestablished or are discovered on public lands, and they nest in a fuels management project area, BLM will implement temporary closures to human access and project implementation (managing wildland fire for resource benefit [wildland fire use], prescribed burning, vegetation treatments) within ½ mile of nest sites during the breeding season. Managing wildland fire for resource benefit [Wildland fire use] and prescribed burning will be conducted in a manner to ensure nest sites are more than ½ mile from downwind smoke effects.
 - Species-specific Conservation Measures pertaining to the jaguar include (Biological and Conference Opinion for the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004, pg. 342):

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- Implement the Conservation Measures for Fire Management Activities in Riparian and Aquatic Habitats to eliminate adverse effects to jaguars that may occur in dense riparian habitats on BLM-administered lands.
 - Maintain dense, low vegetation in major riparian or xero-riparian corridors on BLM-administered lands in identified locations south of Interstate 10 and Highway 86. Locations will be identified in site-specific fire management plans.

Community Assistance/Protection

- To reduce human-caused fires, BLM will undertake education, enforcement and administrative fire prevention mitigation measures (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2*).
- Education measures will include various media information including a signing program, information as to the natural role of fire within local ecosystems, participation in fairs, parades and public contacts (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2*).
- Enforcement will be accomplished by providing training opportunities for employees interested in fire cause determination (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2*).
- Administration includes expanded prevention and education programs with other cooperator agencies (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2*).
- In areas suitable for fire where fuel loading is high and current conditions constrain the management of wildland fire for resource benefit [fire use], BLM will emphasize prevention, and mitigation programs to reduce unwanted fire ignitions, and use mechanical, biological or chemical treatments to mitigate the fuel loadings and meet resource objectives (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2*).
- In areas not suitable for fire, BLM will implement programs to reduce unwanted ignitions, and emphasize prevention, detection, and rapid suppression response techniques (*BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels and Air Quality Management, September 2004 pp. 2-2*).
- Community assistance/protection objectives include identifying hazardous fuel reduction projects, public and firefighter safety issues, and partnering opportunities with local Firewise groups.
- The Arizona Firewise Communities program is the primary tool to achieve wildland fire hazards awareness to the public. Technical assistance is being provided by the BLM allowing Firewise groups to develop local plans that meet mutual goals with the BLM.

h. Strategic Objectives

Wildfire Management

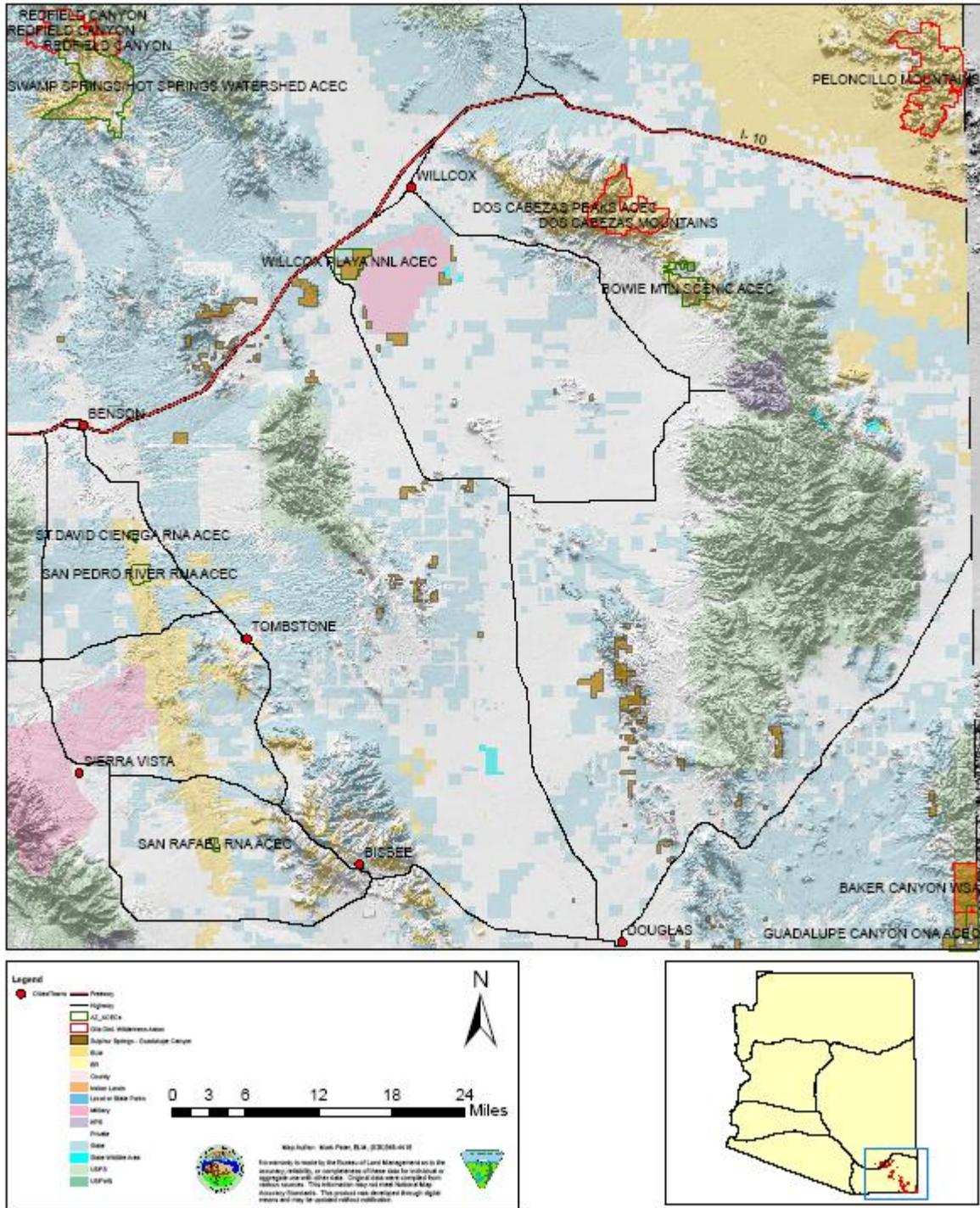
- Unplanned ignitions will be managed using applicable management decisions with regard to public and firefighter safety, cost, and private property along with other improvements (*AZ BLM Gila District FMP, 2010, pg. 88*).
- Individual wildfires may be managed for more than one fire management objective (managing wildfires for resource benefit). All wildfire management decisions must be consistent with existing land use and fire management plan decisions (*IM No. FA IM-2009-011*).
- Efforts on unplanned ignitions will be directed towards containing or confining each unplanned ignition to public lands using natural or man-made fuel breaks (*AZ BLM Gila District FMP, 2010, pg. 88*).

Fuels Management

-
- Gila District fire staff will work with Resource Management Specialists to identify opportunities and implement effective prescribed fire and/or non-fire treatments to achieve resource management objectives.

Map 9.

AZ BLM Gila District Fire Management Area Sulphur Springs Valley - Guadalupe Canyon



IV. Fire Management Components:

A. Wildland Fire Suppression

1. Fire History

From 1980 through 2008 the Gila District has responded to 623 action type fires on BLM managed lands as well as numerous assist-fires on USFS and Arizona State lands. The Gila District averages 22 BLM fires and 112 acres consumed per year. The peak fire season is May through June. The majority of fires are class C or smaller in size. The Gila District does not experience a large number of multiple fire days, where two or more fires are started on BLM lands. Lightning has caused 60 percent of the fires that have occurred within the district.

Annual precipitation and the resulting fine fuel production create a significant impact on fire ignitions and resistance to control. The effect however is different between the fuel types, brush and forested areas as compared to the predominant grassland areas.

2. Suppression / Preparedness Actions

The Gila District will manage all fires in accordance with management objectives based on current conditions and fire location. Firefighter and public safety is the one priority in all fire management and suppression actions. A response can vary from an aggressive initial direct action to indirect actions based on firefighter and public safety. Strategies and tactics will be tailored to address areas of significant constraints including Wildland Urban Interface, Wilderness, Areas of Critical Environmental Concern (ACECs), critical habitat for T&E species, and areas of other resource constraints.

The Gila District goal is to be fire-ready by the end of April/first week in May. This includes the staffing of the three engines ready to respond.

The document “*Guidance for Implementation of Federal Wildland Fire Management Policy*” (February 2009) states: “The current policy clearly states that wildland fire analysis will carefully consider the long-term benefits in relation to risks both in the short and long term:

“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 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 fire.” (*1995/2001 Federal Wildland Fire Management Policy*)

The intent of the 2009 *Guidance for Implementation of Federal Wildland Fire Management Policy* is to solidify that the full range of strategic and tactical options are available and considered in the response to every wildland fire. These options are to be used to achieve objectives as described in Land and Resource Management Plans and/or Fire Management Plans, subject to clear processes defined to manage fire that crosses jurisdictional boundaries. Mutually developed objectives with adjoining jurisdictions for managing fires that crosses jurisdictional boundaries will also be recognized.

This guidance also calls for increased dialogue and collaboration between federal agencies and tribal, local, and state agencies as plans are updated and implemented to manage wildfires in order to accomplish resource and protection objectives.

Required fire operations/suppression plans can be found in the “Interagency Standard for Fire and Fire Aviation Operations” (Red Book) and the Office of Fire and Aviation website at <http://www.fire.blm.gov/>. All plans for the Gila District are located in the Gila District Fire Management Office in Safford, Arizona.

The operational role of the BLM in the wildland/urban interface is wildland firefighting, hazard 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. Chapter 1, Federal Fire Program Policy and Guidance Overview, Elements of the Federal Wildland Fire Management Policy, #7 Wildland Urban Interface, pg.01-3.

Agency Administrators will ensure that their employees are trained, certified, and made available to participate in the wildland fire program locally, and nationally as the situation demands as described in the Interagency Standards for Fire and Fire Aviation Operations. Chapter 1, Federal Fire Program Policy and Guidance Overview, under C. Elements of the Federal Wildland Fire Management Policy # 16 Agency Administrator and Employees Roles, pg.01-4.

3. Fire Prevention, Community Education, Community Risk Assessment, and other Community Assistance Activities

a) Annual Prevention Program

The Gila District Fire, Prevention Program strives to develop and apply efficient and effective prevention efforts to minimize unwanted human caused wildfires. The prevention program focuses on mitigation through education, aimed at changing people's behavior through awareness and knowledge. This is accomplished through printed materials, mass media, personal contacts, group and school presentations, signing, events and parades.

The fire prevention program is also focused on reducing the risk from wildfire in wildland urban interface areas. A primary goal is to work collaboratively and cooperatively with communities, agencies, groups, organizations and private homeowners to develop and implement citizen driven solutions for mitigating wildfire hazards and risks. The mitigation, fire and fuels staff is and will continue to develop cohesive partnerships with community stakeholders. Those partnerships will increase community and public awareness and help them to understand and appreciate the importance of hazardous fuel reduction and risk mitigation. Additionally, the district fire staff works in collaboration with the Arizona State Land Department, fire departments, counties, and other cooperators in preparing community wildfire protection plans which will establish guidelines and procedures for managing incidents with high risk or catastrophic potential.

b) Special Orders and Closures

During times of high fire danger, restrictions and or closures may be imposed to mitigate the risk of wildland fires. Emergency closures have a substantial impact on the public and are only used under the most sever conditions. All Special Orders and Closures will be coordinated with local cooperators and regional agencies.

The Gila District Fire Management Officer will make recommendations to Field Office Managers for the approval of restrictions and/or closures. Those restrictions and/or closures recommendations will follow the guidelines outlined in the Interagency Closures and Restriction Tool Box and will be implemented in the interest of public safety.

c) Industrial Operations and Fire Precautions

Within the Gila District Fire Management Area, industrial operations are limited and have very little impact on BLM public lands as a source of wildfire ignitions. Some commercial mining operations are active. However these operations tend to be in areas of low risk and historically have posed a minimal ignition potential.

d) Community Assistance, Mitigation and Prevention Education

Fire mitigation and prevention are an active part of the Gila District fire management program. Details of the prevention program may be found in the Gila District Wildland Fire Prevention Plan, available at Safford. Current mitigation projects can be found on the Arizona BLM web site under fire management, or through the national BLM Fire and Aviation web site, under Snapshots.

The operational roles of the BLM in the Wildland Urban Interface (WUI) entail wildland firefighting, hazardous fuels reduction, cooperative interagency mitigation and prevention education, as well as technical assistance provided to individual landowners and communities in the WUI. Structural fire suppression is the responsibility of tribal, State, or local governments, as described in the Interagency Standards for Fire and Fire Aviation Operations.

Public awareness programs (Arizona Firewise Communities) are a major emphasis of the zone's fire mitigation program, while prevention messages are also delivered at public functions and through various field messages (signs), and through and discussion literature at public functions.

4. Training Activities

a) Qualification and Fireline Refresher

Only qualified personnel will participate in wildland firefighting activities, prescribed fire implementation projects and support functions. A list of qualified personal, training records and annual requirements are maintained at Dispatch Office, in accordance to the "Interagency Standard for Fire and Fire Aviation Operations" (Red Book) and Bureau policy.

b) Fire Season Readiness

Preparedness Reviews will be completed by end of May of each year. Established fire season on the Gila District varies, based on unusually dry or wet years. The District can expect the bulk of fire season being active from early-May to the end of September.

5. Detection

The District does not maintain any lookouts during the established fire season. Daily monitoring of weather and lighting patterns may trigger zone wide aerial reconns by helicopter or fixed wing aircraft. The District also relies heavily on reports from the public passing through on the multiple transportation corridors within the District.

6. Fire Weather and Fire Danger

The District maintains and updates annually a National Fire Danger Rating Operating Plan, also initiates the calculation of daily and forecasted outputs in the Weather Information Management System (WIMS).

The field office has five permanent Remote Automatic Weather Stations (RAWS) that are used for NFDRS.

Station	Station ID	Elevation (ft)	Location
Horse Camp	0220903	4,040'	N32.9364 / W110.4933
Muleshoe	021007	4,560'	N32.4039 / W110.2719
Black Hills	021008	3,300'	N33.0819 / W109.9511
Guthrie	021104	6,340'	N32.8819 / W109.3092
Empire	021205	4,650'	N31.7836 / W110.6436

7. Aviation Management

As determined annually, the District may be assigned one or more Exclusive Use Single Engine Air Tankers (SEAT), located at the Safford Regional Airport, Safford, Arizona. Additional CWN aircraft are used on an as-needed basis. The Gila District maintains and updates a District Aviation Plan annually.

8. Initial Attack

a. Management Area Suppression Priorities

Management area suppression priorities are ranked as Low, Moderate or High. These rating levels identify the management area priority setting for suppression action and will assist the Fire and Line Manager in setting priorities for suppression actions when wildfires are occurring in multiple management areas.

The highest priority management areas within the fire planning unit for initial attack are ranked as follows:

1. San Pedro RNCA
2. Las Cienegas NCA
3. Aravaipa Management Area
4. Gila Mountains
5. Muleshoe

Preparedness and Dispatch Level Matrix

Staffing Class Preparedness Level (PL)	Burning Index (BI)	Fire Danger	Management Actions
PL-1	0-10 (FIL-1)	<u>LOW</u> Initiating fires low intensity with low resistance to control; fine fuels drying	<ul style="list-style-type: none"> • Normal tour of duty 0745 - 1615 • One engine dispatched initial attack response. • Phone & radio monitored by SAD until 1630 (or longer if initial attack is extended).
PL-2	11-26 (FIL-2)	<u>MODERATE</u> Initiating fires moderate intensity with low-moderate resistance to control; heavy fuels drying.	<p>All above plus:</p> <ul style="list-style-type: none"> • Daily roster/staffing reports to SEZ and ASO started. • Designated acting Field Office Manager for fire season weekends established. • Establish on call dispatcher list • Assess seasonal trends and the need to request severity funding. • Current MOU's with surrounding agencies in place.
PL-3	27-39 (FIL-3)	<u>HIGH</u> Initiating fires of moderate to moderate-high intensity with potential for spotting w/ winds & passive crowning possible; all fuel classes available at high end BI.	<p>All above plus:</p> <ul style="list-style-type: none"> • 7 day staffing 0745–1800 M-F and 0900-1800 S/S. • Consider increased patrols following dry lightning storms. • Consider aerial recon flights after lightning storms. • Consider additional overhead for critical command functions. • Predicted LAL between 4-6, bump up to Level IV.
PL-4	40-53 (FIL-4)	<u>VERY HIGH</u> Fires present moderate to high intensity and high resistance to control; escapes are common at high end BI; all fuels classes available for rapid combustion; air temps high, humidities low with high winds possible; spotting & intermittent crowning likely.	<p>All above plus:</p> <ul style="list-style-type: none"> • Briefings for agency administrators as needed. • Notify all Gila District personnel of red flag warnings. • Increased engine patrols through areas with historically high incidence of fires. • Additional recon flights after lightning. • Consider fire restrictions; fire safety messages distributed. • Consider canceling planned prescribed fires and postponing project work. • Consider staging call when needed crews on weekends.
PL-5	54 + (FIL-5+)	<u>EXTREME</u> High to extreme intensities with crowning, short-long range spotting common; project fires likely under high wind conditions.	<p>All above plus:</p> <p>Work with the State Office to:</p> <ul style="list-style-type: none"> • Issue fire restrictions and closures. • Evaluate the need to order and preposition additional resources. • Consider daily briefings for agency administrators. • Media coverage on any type of additional fire restrictions or closures.

b. Dispatch Procedures

The Tucson Interagency Dispatch Center (TDC) will be staffed seven days per week. Staffing will be increased as fire activity increases.

Dispatchers will initiate an appropriate dispatch considering location, expected fire behavior, fuels, time of day, time of year and availability of resources. The “closest resource concept” will be the guiding principle in all District dispatch operations. District resources are NOT allowed to self-dispatch. Additional resources may be moved up, as the situation requires. The Initial Attack I.C. has the responsibility to assess the situation and adjust the type and quantity of resources being dispatched. When in High to Extreme fire danger or when District resources are not available additional resources can also be ordered from adjacent Federal, State or Local cooperators while in the initial attack phase of the fire, and from the Southwestern Geographic area for extended attack fires.

Beginning in 2010 the TDC will enter the dispatch-related information for all fires into the WFDSS system. The WFDSS process was developed to improve decision documentation, risk assessment/decision support, and operational implementation. The WFDSS process replaces the Wildland Fire Situation Analysis (WFSA), Wildland Fire Implementation Plan (WFIP), Long-Term Implementation Plan (LTIP), and Strategic Implementation Plan (SIP) and enhance managers’ abilities to analyze fire conditions and develop risk informed strategies and tactics.

c. Criteria for the Appropriate Initial Attack Response

The intensity of initial attack and the priority between competing incidents will vary based on the following considerations:

- Threats to human life
- Threats to high value private property and natural resources
- Fuel type
- Predicted fire behavior
- Natural Resource and Fire Management objectives

d. Equipment

The Gila District has two Type 6 Engines located at the Safford Field Office and one Type 3 Engine located at the District Office in Sierra Vista.

9. Extended Attack and Large Fire Suppression

A Wildland Fire Decision Support System (WFDSS) documentation process is completed to evaluate suppression responses to wildland fires that have exceeded initial attack response, exceeded planned management capability.

A complexity analysis is completed as part of the fire management process to determine the appropriate management level for the incident. Procedures and documentation requirements for transitioning to Type III, II, or I Teams will adhere to the protocol in the Interagency Standards for Fire and Aviation Operations (Appendices C through H).

The Gila District should maintain three Type III Incident Commanders to handle extended attack fires.

10. Other Fire Management Considerations

Management area specific considerations are identified in the individual management area descriptions within this document (Chapter III, Section D. for each management area).

B. Managing Wildfire for Multiple Objectives

The document “*Guidance for Implementation of Federal Wildland Fire Management Policy*” (February 2009) states: “A wildland fire may be concurrently managed for one or more objectives and objectives can change as the fire spreads across the landscape. Objectives are affected by

changes in fuels, weather, topography; varying social understanding and tolerance; and involvement of other governmental jurisdictions having different missions and objectives.”

“Managers will use a decision support process (e.g. WFDSS) to guide and document wildfire management decisions. The process will provide situational assessment, analyze hazards and risk, define implementation actions, and document decisions and rationale for those decisions.”

C. Prescribed Fire

1. Planning and Documentation

Projects to treat in areas outside the WUI are prioritized as follows:

- a. Wildlife habitat enhancement
- b. Range improvement
- c. Watershed improvement
- d. Hazardous fuels reduction
- e. Restoration of fire dependant ecosystems (primarily condition class 2 areas).
- f. Maintenance of ecosystems currently in fire condition class 1.

Project level analysis through the NEPA process and other state and federal regulatory compliance processes document the purpose and need for treatment and identifies the goals and objectives that the prescribed fire treatment is intended to realize. The management direction for the management areas identified in the RMP’s and LUPA permits the application of prescribed fire in various management areas as identified.

Primary burn windows occur in the spring. However, burning is also accomplished in the early summer, fall and winter, depending on the prescribed fire objectives. Cool-season burning is normally conducted in riparian zones to minimize fire damage to non-fire adapted vegetation.

All prescribed fire implementation will be completed according to the 2008 Interagency Prescribed Fire Planning and Procedures Implementation Guide.

Prescribed fire 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 resource staff through analysis of study transects established prior to treatment. These transects are subsequently re-assessed every other year. This data is stored in electronic format.

Maps displaying prescribed fire treatments since 1998 are maintained in Geographical Information System (GIS) by the local fuels staff. Future prescribed fire treatments will also listed in the GIS database.

2. Air Quality and Smoke Management

In accordance with the project plan and smoke management permits, a monitoring plan will be established and reviewed for conformance. A Burn Permit from the Arizona Department of Environmental Quality (ADEQ) will be obtained. Lists of proposed projects must be submitted to the state by February 1st of each year. Permits are issued by March 1st. Prior day approval for each burn is required the day before planned ignition from the ADEQ. Best management practices from the Interagency Smoke Management Guide are incorporated into individual prescribed burn plans.

D. Non-Fire Fuels Treatments

1. Annual Activities for Implementation

The Gila District develops out-year program planning and budgeting information for treatments in accordance with the preferred alternative in the Resource Management Plan. Projects are identified and developed in the National Fire Plan Operations and Reporting System (NFPORS).

The development of treatment proposals is typically accomplished one to three years in advance of planned treatments. Field reconnaissance and interdisciplinary analysis are completed one to two years in advance of project implementation. All specific non-fire fuels treatment project plans include pre/post project criteria. For specific action items refer to each individual project plan.

2. Reporting and Documentation Requirements

Project level reporting requirements have been established and include submissions in Rangeland Improvement Project System (RIPS), Annual Work Plan (AWP), and the National Fire Plan Operations and Reporting System (NFPORS). Documentation requirements including weather, monitoring, and project notes are completed or reviewed by the project manager. For information on the requirements refer to the individual project plans.

E. Emergency Stabilization and Rehabilitation (ESR)

The Gila District stabilization and rehabilitation program is undertaken to prevent further and unacceptable resource damage from soil erosion due to the effects of wildland fire. For information see the BLM Supplemental Emergency Stabilization and Rehabilitation Guidance. This supplement provides specific BLM guidance and is tiered to the 2002 Department of the Interior (DOI) ESR Handbook (http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.52739.File.dat/h1742-1.pdf) relative to planning and implementing ESR projects on public lands administered by the BLM. Treatment activities must conform to the BLM Supplemental Emergency Stabilization and Rehabilitation Guidance, the RMP and LUPA.

F. Community Assistance/Protection

There are 6 communities within the FPU that are listed in the Federal Register as communities at risk. These communities have completed a Wildfire Hazard and Mitigation Plan. The communities have held several public meetings to address the WUI situation and collaborative planning efforts have begun. Following is a list of these communities prioritized for accomplishment of Community Risk and Action Plans:

- 1) Bisbee
- 2) Sonoita Rural
- 3) Dudleyville
- 4) Duncan
- 5) Cascabel
- 6) Winkelman
- 7) Graham & Greenlee Counties
- 8) Pinal County
- 9) Southern Gila County
- 10) Central Navajo County

A Wildfire Hazard and Mitigation Plan was completed in 2003 for the communities of Babocomari, Hereford, Lewis Springs, Palominas, St. David, and Tombstone and has been converted to the Upper San Pedro Community Wildfire Protection Plan (CWPP).

V. Organization and Budget

A. Workforce and Equipment Identification

This section contains information pertaining to the wildland fire management organization and budget. It identifies the fire organization and budget needed to achieve the goals and objectives outlined in land and resource management and the fire management plan (Table 1). The wildland fire management organization is based on the Fire Program Decision Support System, and the approved National Fire Plan additions. It identifies both the current fiscal year and the desired (Normal Year Readiness). Attachment 1 in Appendix A shows the fire organization implemented at the peak of fire season. Attachment 2 in Appendix A shows the organization based on the approved Annual Work Plan (AWP). By July 31st each year the table in Attachment 1, Appendix A, showing the fire organization implemented during the year will be updated to show the

organization at the peak of the fire season. These two tables will continue to be updated each year (February and July).

Table 1. Current Table of Organization – Gila District

Position Title	Grade	Emp. Type (P,CS, T)	Vacant (V) Occupied (O) New (N)	Core Organization (Y, N)
FMO	12	P	O	Y
AFMO	11	P	O	Y
Fuels Specialist	11	P	O	Y
Fire Ecologist	11	P	O	Y
Fire Mitigation Specialist	9	P	O	Y
Asst. Center Manager	9	P	O	Y
Unit Aviation Officer	9	P	O	Y
Fire Business Specialist	7	P	O	Y
Heavy Engine Module Leader	7	P	O	Y
Heavy Engine Operator	6	P	O	Y
Heavy Engine Senior Firefighter	5	CS	O	Y
Light Engine Module Leader	7	P	O	Y
Light Engine Operator	6	P	O	Y
Engine/Fuels Crew	5	CS	O	Y
Engine/Fuels Crew	5	CS	O	Y

Table 2. Equipment Costs

Equipment	Current Staffing	Desired Staffing	Normal Activation	Sub Activity	Cost NYR
Heavy Engine (crew cab)					\$35,000
Light Engine					\$25,000
Light Engine (non-WCF)					\$20,000
National Held Funding for Contracts	See BLM National Aviation Plan				
Single Engine Airtanker (90-day contract)					
Base Cost					Variable Term – Determined Annually
Flight Cost (estimated 150 hrs.)					

B. Emergency Equipment Rental Agreements

The Gila District uses emergency equipment rental agreements (EERA) for fire suppression and other incident support activities. These EERA’s are prepared by the Southeast Zone and/or Safford Field Office. Copies are available in the Safford Dispatch office.

C. Assistance Agreements and Intra/Interagency Agreements

Fire suppression is generally handled by the agency/entity responsible for fire protection of the lands on which the fire occurs. However, undue delay in dispatching initial attack crews is not warranted simply because land ownership cannot be immediately determined.

The Interagency Agreement for Fire Management states “that among the Federal Wildland Fire Management Agencies, the Interagency Agreement for Fire Management provides the framework and authority for cooperative arrangements for initial attack efforts by fire suppression forces that can arrive at a fire first, regardless of agency ownership. A Federal agency performing the initial attack will notify the agency that is responsible for the land as soon as ownership is determined, and will continue suppression pursuant to the procedures outlined in the Federal National Interagency Mobilization Guide. Additional provisions for fire suppression efforts are provided for emergency or a declared major disaster through United States Code. Assistance Agreements, which includes Cooperative Agreements and Grants with state, local and non-profit entities provides for mutual or reciprocal fire protection assistance.” The following is a list of agreements that pertain to fire management activities in the Gila District:

Southeastern Arizona Zone Operations Plan – this is an interagency agreement that coordinates fire management activities between the agencies represented in the Zone.

Southwestern Area Mobilization Guide – this guide covers operational procedures for extended attack and other incident support activities within the Southwestern Geographical Area.

Reciprocal Fire Protection Agreement – this agreement is with the Arizona State Land Dept. (ASLD) – Div. of Forestry and the DOI, BLM; the agreement covers fire suppression activities with State Land and BLM resources.

Joint Powers Operating Plan – this plan is between USFS, Coronado N.F.; ASLD; BIA, Western Region; BLM, Safford Field Office; NPS, Chiricahua N.M.; NPS, Saguaro N.P.; USFWS, SW Region; the plan establishes operating procedures for fire protection services between the cooperating agencies.

Joint Powers Agreement between the State of Arizona and Federal Wildland Agencies

Memorandum of Understanding (MOU) with NPS, Fort Bowie National Historic Site; NPS, Chiricahua N.M.; BLM, Safford Field Office; this plan facilitates sharing the Fuels Management Specialist between the agencies in southeastern Arizona.

D. Contract Suppression and Prescribed Fire Resources

None in the Gila District

VI. Monitoring and Evaluation

The Gila District FMP is a working reference for wildland fire management and hazardous fuels treatments within the Gila District. This plan will be reviewed annually and revised as needed to ensure that the strategic guidance provided is assisting the Gila District in meeting its resource management and fire management goals and objectives. Revisions, additions, and adjustments that are compliant with the applicable planning documents may be incorporated into the FMP.

Any major changes may require amending the RMP. The review will also ensure that the fire 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.

Monitoring and evaluating fuels/vegetation treatments applied through the fire program will occur to determine if the program and associated projects are meeting resource management objectives and to determine if the costs of implementing the fire program and management effects are occurring as predicted.

Monitoring related to wildland fire or fire related projects falls under the general monitoring and evaluation guidelines outlined in the Resource Management Plan. Site specific monitoring needs are identified in analysis for individual fire related projects.

Appendix A.

**Attachment 1¹ - Bureau of Land Management Implemented Fire Resources
Fire Organization Implemented at Peak Fire Season**

(Update Annually – July)

Office: Gila District

Resources	Quantity	Number of Personnel	Total Work Months
Number of Engines:	3	10	58.08
Number of Water tenders:	0		
Number of Dozers:	0		
Number of Tractors / plows:	0		
Number of Fire Boats:	0		
Number of Type 1 Crews:	0		
Number of Helitack Crews:	0		
Number of Fuels Crews:	0		
Number of Type 2 Crews sponsored:	0		0
Number of Smokejumpers (AK & NIFC only):	0		
Number of Fire Management Officers:	1		12
Number of Assistant FMOs / FCOs:	1		12
Number of PFT Engine Personnel	4		15.96
Number of Fire Operations Specialists:	0		
Number of Dispatchers:	1		12
Number of Other Aviation Staff (Aviation Mgr., Seat Mgr, etc.):	1		10.68
Number of Mitigation/Education/Prevention Specialists / Techs:	1		9.96
Number of Resource Specialists:	0		0
Number of Fuels Specialists:	0		0
Number of Other Fire Staff (Dist. Mgr.):	1		.96
Number of PFT funded by Preparedness:	11		
Number of Career Seasonals funded by Preparedness:	2		
Number of Temporaries funded by Preparedness:	3		
Number of PFT funded by Fuels:	2		
Number of Career Seasonals funded by Fuels:	0		
Number of Temporaries funded by Fuels:	0		

* In completing this table, only include Preparedness resource numbers funded by Fire Preparedness (2810) and reflect the peak fire organization resources for the year. **Do not include resources funded under severity.** The fuels related resources numbers are to include the resource funded by the non-WUI (2823) and WUI (2824) programs.

¹ Attachment 1 in Appendix F shows the fire organization implemented at the peak of fire season. By July 31st each year the table in Attachment 1, Appendix F, showing the fire organization implemented during the year will be updated to show the organization at the peak of the fire season.

Appendix B. (continued)

**Attachment 2² - Bureau of Land Management Planned Fire Resources
Fire Organization Based on Approved Annual Work Plan
(Update Annually - February)**

Office: Gila District

Resources	Quantity	Number of Personnel	Total Work Months
Number of Engines:	3	10	58.08
Number of Water tenders:	0		
Number of Dozers:	0		
Number of Tractors / plows:	0		
Number of Fire Boats:	0		
Number of Type 1 Crews:	0		
Number of Helitack Crews:	0		
Number of Fuels Crews:	0		
Number of Type 2 Crews sponsored:	0		
Number of Smokejumpers (AK & NIFC only):	0		
Number of Fire Management Officers:	1		12
Number of Assistant FMOs / FCOs:	1		12
Number of PFT Engine Personnel	4		48
Number of Fire Operations Specialists:	0		
Number of Dispatchers:	1		12
Number of Other Aviation Staff (Aviation Mgr., Seat Mgr, etc.):	1		12
Number of Mitigation/Education/Prevention Specialists / Techs:	1		12
Number of Resource Specialists (Ecologist):	1		12
Number of Fuels Specialists:	1		12
Number of Other Fire Staff:	1		12
Number of PFT funded by Preparedness:	11		132
Number of Career Seasonals funded by Preparedness:	2		12
Number of Temporaries funded by Preparedness:	3		14.04
Number of PFT funded by Fuels:	2		24
Number of Career Seasonals funded by Fuels:	2		11
Number of Temporaries funded by Fuels:	0		0

² Attachment 2 in Appendix F shows the organization based on the approved Annual Work Plan (AWP). By July 31st each year the table in Attachment 1, Appendix F, showing the fire organization implemented during the year will be updated to show the organization at the peak of the fire season. These two tables will continue to be updated each year (February and July).