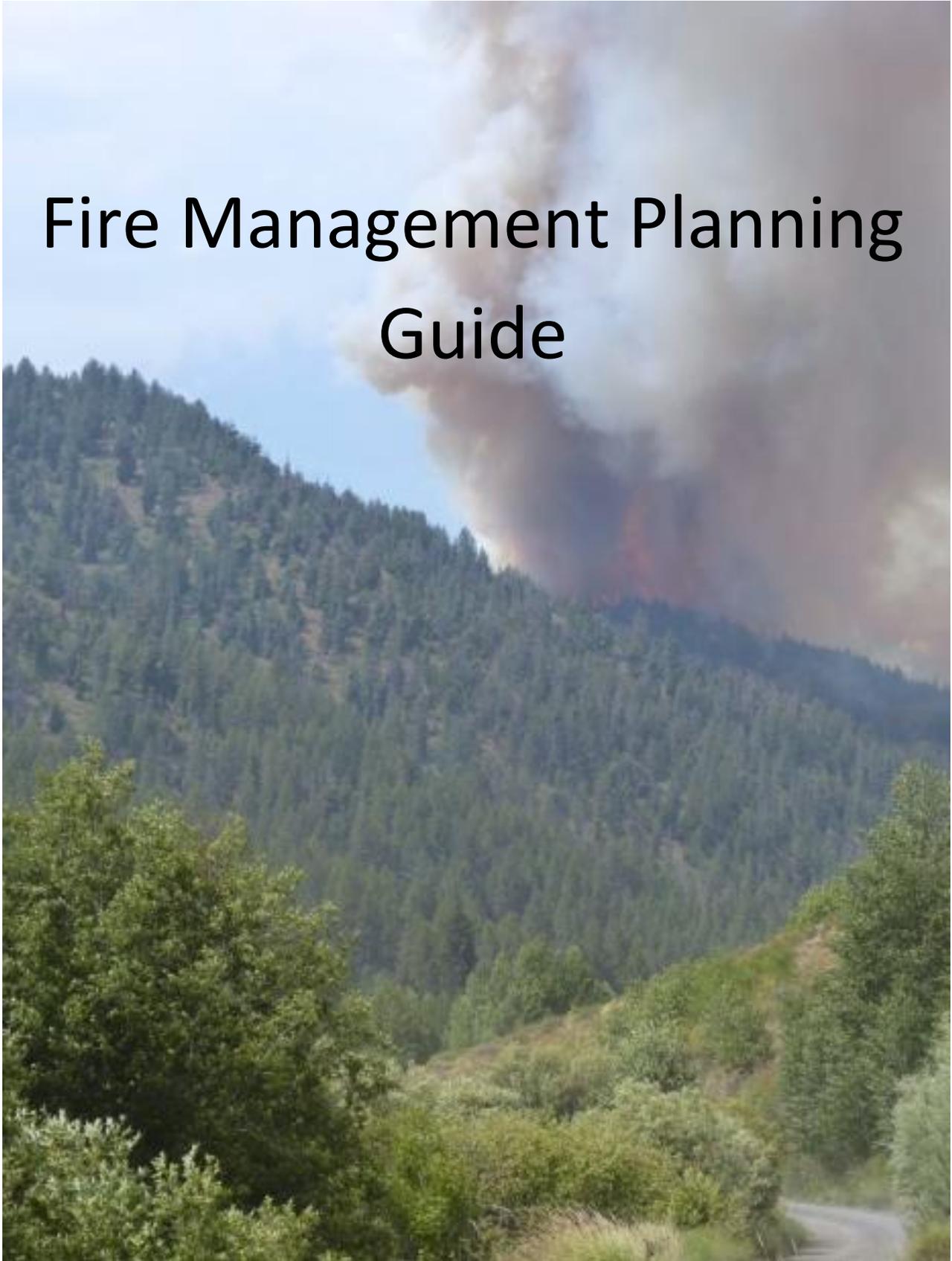


Fire Management Planning Guide



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INTRODUCTION

This Fire Management Planning Guide is a replacement for Forest Service Handbook 5109.19.

This guide introduces the Fire Management Reference System (FMRS) and Spatial Fire Planning (SFP) concept as a replacement for Fire Management Plans (FMP) referenced in [Guidance for Implementation of Federal Wildland Fire Management Policy](#), February 2009, and previous policy issuance. The SFP and the FMRS, when prepared according to this guide, will meet the intent of the Federal Wildland Fire Policy requiring an FMP for each acre of burnable vegetation.

Wildfire management, in response to ignitions, can help maintain or improve current conditions toward the desired conditions stated in the Land and Resource Management Plan (LRMP). However, current fuel conditions are dynamic, due to wildfires and prescribed fires, which can be easily displayed spatially, hence, the need for a spatial Fire Management Planning rather than a narrative Fire Management Plan.

The LRMPs of the National Forests and Grasslands provide direction and make decisions while SFP products visually depict that direction and FMRS documents guide implementation of the LRMP direction and decisions. Strategic objectives, represented in the SFP format, must link back to the resource management objectives found in the LRMP. LRMP objectives will also provide the basis for development and periodic revision of the FMRS implementation documents. These documents will be completed in collaboration with partner agencies to identify issues or concerns, especially regarding values at risk. Our strategy for response should be reflective of the Cohesive Strategy and collaboration with adjoining land managers, after a thorough assessment of risk, in relation to communities and other values.

SFP will more clearly represent only those LRMP objectives, requirements, social and resources/values at risk necessary to inform decisions related to a potential incident. SFP is implemented using Strategic Objective shapes and Management Requirement shapes that best represent an administrative unit's planning direction. Administrative units moving to the SFP process can keep their current fire management unit (FMU) shape layer when the shapes are representative of the Strategic Objective shapes found in the LRMP. However, if the FMU shapes do not represent the LRMP-defined areas, those shapes should not be converted into Strategic Objective shapes and new Strategic Objective shapes must be defined and loaded into Wildland Fire Decision Support System (WFDSS) using the SFP process.

CHAPTER 1 – General Fire Planning

Overview:

The [Guidance for Implementation of Federal Wildland Fire Management Policy-2009](#) (Guide) reiterates the fundamental basis for fire management planning as stated in Federal Wildfire Policy (Review of 1995 Federal Wildland Fire Management Policy, 2001):

“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 response to fire.”

To integrate wildland fire management into LRMPs, fire managers should participate in the LRMP planning process. Fire management participation ensures LRMPs are “developed consistent with both ecological conditions, and fire regime dynamics, and consider the short and long term effects of both action and no action alternatives for planned vegetation management activities as well as response to wildfire.” (*Guide*) Further, because “Fire management activities will be based on planning and decision analysis processes that address current and anticipated situational conditions.” (*Guide*), this participation will provide the background for fire planning.

General Fire Planning Objectives

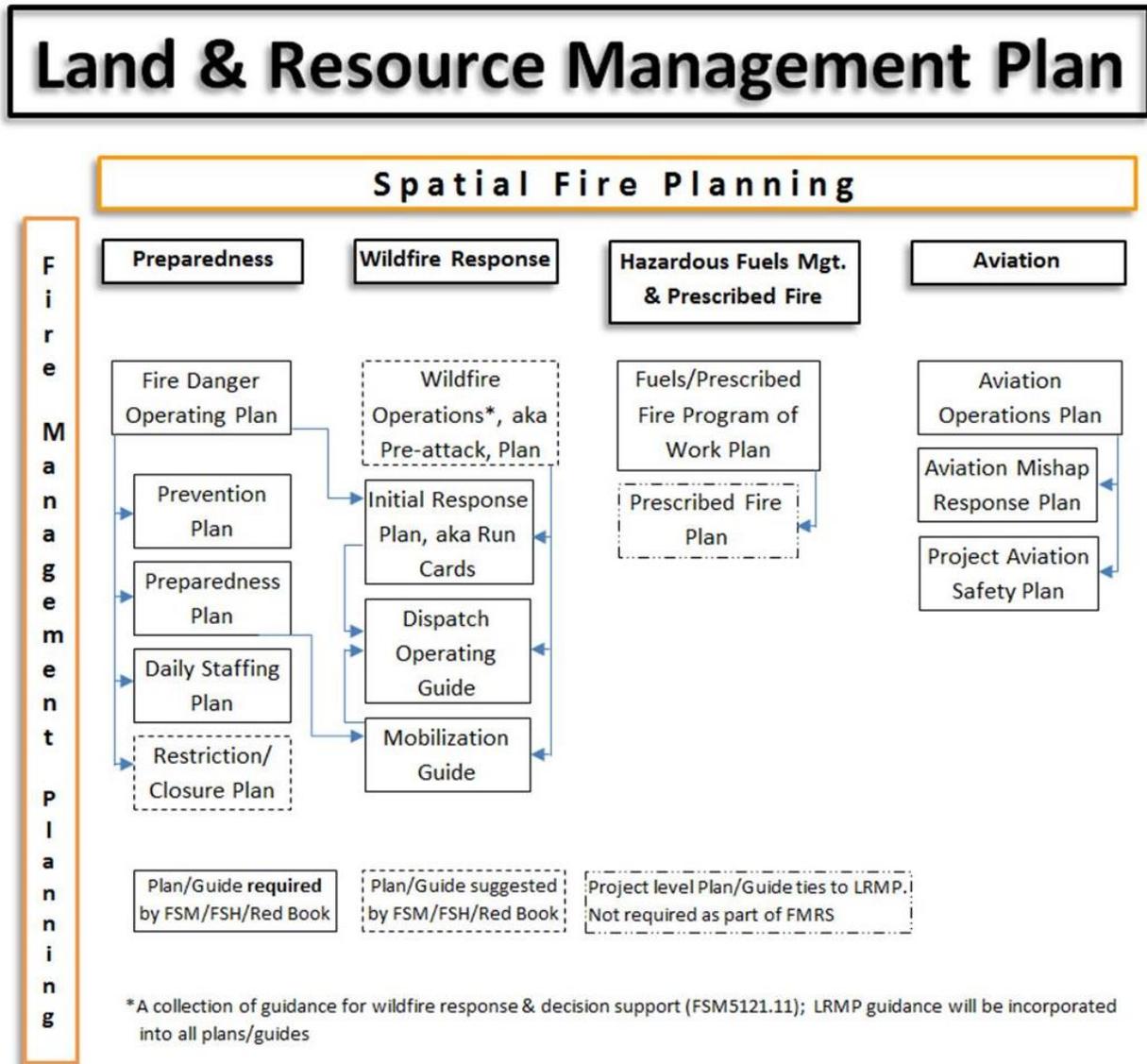
The objective of fire planning is to “Provide managers with relevant information and procedures based on the best available science to develop strategy and implement actions that reduce the number of unplanned ignitions from human causes, and support timely and effective risk-based decisions to prepare an effective response to all wildland fires” (FSM 5121.02). While plans are to be prepared at national, geographic, and unit levels, the focus of this Guide is unit level planning.

Specific Objectives:

1. Base fire program planning and implementation on management direction and decisions from the Unit LRMP.
2. Develop, review, approve, and maintain spatial fire management planning and fire management reference system information for documenting the fire management program that is based on the unit LRMP, and that conforms to applicable authorities and references cited in FSM 5101 and 5107.
3. Present accurate, current information in a consistent format needed for the full breadth of the fire management program, including, but not limited to, wildfire response, hazardous fuels and prescribed fire management, and WFDSS development.

Forest Service directives and interagency guidance requires numerous unit plans and guides in order to meet fire planning objectives. Some of these plans and guides are inter-related; one or more plans/guides provide the basis for other plans/guides as shown in Figure 1.

Figure 1. Fire Management Planning Schematic



CHAPTER 2 – Fire Management Planning

Objectives

The objectives of Spatial Fire Planning (SFP) and a Fire Management Reference System (FMRS) are to

1. Inform and assist line officers in making strategic and tactical decisions when implementing the objectives and decisions from the LRMP.
2. Develop, review, and update the SFP and FMRS information that is based on the Unit LRMP and in compliance with current policy.
3. Present accurate, current information in a consistent format needed for the management of the full breadth of the fire program, including, but not limited to, wildfire response, WFDSS, and associated decision making, based upon desired condition in the LRMP.

Guidance

Each National Forest unit with burnable vegetation should spatially summarize fire-related LRMP direction, loading it into WFDSS, and assemble a FMRS using this Guide. National Forest Units, in conjunction with collaborative partners, should review any changes to LRMP direction annually and after significant landscape-changing activity or policy changes, ensuring applicable changes are represented spatially in WFDSS, FMRS documents, and, if desired, on a Fire Management Mapsheet (Mapsheet) (see Appendix A). In addition, a pre-season Risk Assessment should be conducted and any changed information incorporated into WFDSS, FMRS, and/or Fire Management Mapsheets.

Fire Management Planning must provide for firefighter and public safety, consideration of values to be protected, and consistency with policy and direction from the unit LRMP.

The FMRS should address the full range of fire management program activities and requirements on each unit.

Procedures

Resource and fire management specialists should be assembled to interpret the resource and social goals and objectives in the Unit LRMP as it relates to how fire management may be consistent with or help move toward desired conditions.

Where the LRMP does not support a full range of fire response options and additional options should be considered, a LRMP amendment may be considered by the Forest Supervisor to reflect a broader wildland fire management program.

Fire, fuels, and aviation specialists should provide the subject matter expertise for the plans, guides, and other documents that outline the fire management program processes and procedures.

The Unit SFP and FMRS is prepared, and reviewed periodically, by the Forest Supervisor to:

1. Annually plan a specific, detailed fire program that most efficiently meets the fire management direction, from the LRMP, including organization, facilities, equipment, staffing needs, activities, timing, locations and related costs.

2. Formally document the Unit fire program elements, objectives, strategies and resource considerations based on the Unit LRMP.
3. Provide the fire manager specific guidance for implementing fire-related direction on the ground.
4. Interpret LRMP direction for each spatial polygon, i.e. Strategic Objective (previously FMUs) and Management Requirement shapes. Units must represent objectives and requirements in unique polygons (spatial planning) specific to where the objectives and requirements apply, i.e. the polygons should be sized to the area to which the direction applies.

The Forest Supervisor must review the SFP and FMRS periodically and after significant activity, policy change, or LRMP revision/amendment. Inclusion of collaborative partners during these reviews is encouraged to meet the principles of the Cohesive Strategy.

Spatial Fire Planning (SFP)

Because the objective of SFP is to replace narrative Fire Management Plans by representing LRMP direction spatially, Strategic Objective shapes, which may be management areas or management prescription categories, must be delineated based on LRMPs. Once the SFP process in WFDSS is selected, Management Requirement shapes may also be delineated, and must be based on NEPA-approved direction. The textual direction associated with each shape type must be compiled for insertion in WFDSS and, if desired, onto mapsheets. Mapsheets are for administrative use and use in collaboration with key stakeholders and partner agencies, whereas the LRMP direction in WFDSS is used to inform incident decisions. For specific instructions on the SFP process in WFDSS, see the *WFDSS: Spatial Fire Planning Guide* at:

http://www.wfmrda.nwcg.gov/docs/Spatial_Planning_111413_Final.pdf

Fire Management Mapsheets, which are a collection of succinct text, maps, and tables are made to spatially portray LRMP direction and, if appropriate, infrastructure, values at risk, past wildfire and prescribed fire areas, and operational information, such as helispots, dip and drafting sites, and staging and camp locations. A Mapsheet, with LRMP Direction that provides a basis for pre-season risk analysis and dialogue with managers, operational staff, cooperators, and the public, is suggested to facilitate collaboration with key stakeholders. Mapsheets with other elements are optional to provide critical fire management information. An example Fire Management Mapsheet can be found in Appendix A.

Fire Management Reference System (FMRS) Contents

The FMRS lists the fire management program required and suggested plans, guides, and other documents to be developed by each unit and provides a way to organize them. The FMRS is organized to allow customization by individual units.

The FMRS is organized into four sections: Preparedness, Wildfire Response, Hazardous Fuels Management & Prescribed Fire, and Aviation. Under each section, fire management plans, guides, and other documents which are required or suggested for unit-level management of the fire, fuels, and aviation program are listed. For those that are required, references to the applicable Forest Service directive (manual or handbook), Interagency Standards for Fire and Fire Aviation Operations (Red Book), Interagency Prescribed Fire Planning and Implementation Procedures Guide (Rx Fire Guide), or other guides are noted. For those that are not required, inclusion in the FMRS is recommended, i.e. this is a suggested list of items to include. All listed items are organized in a suggested structure, based on relationships between plans and/or organization in directives and guides. **Required documents are bolded with an accompanying reference.**

Note: Because this FMRS is designed to include unit-level plans, guides, and other documents, a comprehensive list of Forest Service Manuals (FSM) and Handbooks (FSH), the Red Book, and numerous interagency guides are not specifically listed as they are required for all units, providing over-arching direction and guidance, and applicable to each unit based on fire program complexity. However, acronyms for those directives and guides that **require** plans or other documents are defined at the end of this list.

Preparedness

- **Fire Danger Rating Operating Plan (FSM 5124.1, 1, & Red Book, Chp. 10)**
 - **Pocket cards (FSM 5124.2 & Red Book, Chp. 10)**
 - Remote Automated Weather Station (RAWS) Maintenance
- **Fire Prevention Plan (FSM 5110.4, 2a.)**
- **Preparedness Plan (FSM 5121.11, 1 & Red Book, Chp. 10)**
- **Daily Staffing Plan (FSM 5121.11, 1 & Red Book, Chp. 10)**
- Fire Restriction/Closure Plan
- **Forest Qualification Review Committee Operating Plan (FSM 5120.46, 3, FSM 5142.44, 4, FSH 5109.17, 04.4 & FSFAQG 2.2, 6)**
 - Work Capacity Fitness Test procedures
- **Individual Development Plans or Incident Responders Development Plan (FSH 5109.17, 04.41, 5)**
- **Lights & Sirens Plan (FSM 5120.46, 11)**
- **Equipment/Supply Standards (FSM5126.02, 1)**
- Self-Contained Breathing Apparatus (SCBA) Plan
- Annual Preparedness Review Checklists
- Unit Wildfire Risk Analysis (reference Chief's Annual Letter)

Wildfire Response

- **Mobilization Guide (FSM 5120.46, 6)**
 - **Cooperative Firefighting Agreements/Annual Operating Plans (FSM 5122.2 & FSM 3170)**
 - Emergency Equipment Rental Agreements
 - Service & Supply Plan/Logistic Support Process
 - Cooperator and incident support telephone directories
- **Dispatch Operating Guide (FSM 5121.11, 2)**
 - **Initial Response Plan, aka Run Cards (FSM 5120.46, 6 & Red Book, Chp. 10)**

- **Wildfire Operations Plan, based on LRMP direction (FSM5120.46)**
 - Pre-season Delegations/Certifications or conveyance of expectations/responsibilities for:
 - Unit Fire Management Officer*
 - **Type 3/4/5 Incident Commander (FSM5130.45, 9)**
 - Duty Officer Responsibilities
 - Incident Qualifications Card issuance
 - **Casual Hires (AD) (FSM5120.46, 9: IIBMH, Chp. 20)**
 - Line Officer or Acting Wildland Fire Decision Support System (WFDSS) Certification to approve Decisions
 - Motorized Equipment in Wilderness approval**
 - Incident Organizer
 - Type 2 Crew Operations Plan
 - Incoming Resource Briefing Packet
 - Agency Administrator Fire Site Visit Questions*
 - After-Action Review (Post-fire Review; reference Chief's Annual Letter)*
 - Type III Incident Management Team Standard Operating Procedures
 - Line Officer Briefing Agenda
 - Line Officer/Agency Administrator Briefing to IMT*
 - Line Officer Delegation of Authority to Incident Commander template*
 - Minimum Impact Suppression Tactic (MIST) Guidelines
 - Wilderness Motorized Equipment Use Guidelines
 - Mop-up Standards
 - **Medical Emergency Procedures Plan, including burn protocols (FSM5130.45, 13 & 5134.03, 5)**
 - Weed Washing Guidelines/Plan
 - Hazmat Plan
 - Fire Recycling Plan
 - Smoke Management Plan
 - Fire Information Plan
 - WUI Evacuation Plans
 - Facility, infrastructure, structure protection plans
 - Critical Incident Stress Management procedures
 - Local Rest and Relaxation Guidelines
 - Radio Frequency Guide
 - **Incident History Records responsibilities (Red Book, Chp. 11)**

*See Red Book example but customize for unit.

**Include relevant information regarding wilderness fire policy & documentation standards for motorized equipment use.

Hazardous Fuels Management & Prescribed Fire

- **Current and Out-Year Hazardous Fuels & Prescribed Fire Prioritized Program of Work - including support to BD, wildlife & other programs (regionally defined-FSM5140.2; Chief's Annual Letter)**
- **Line Officers or Acting's Delegation of Authority to Approve Prescribed Fire Plans (FSM5142.5, Red Book, Chp. 5)**
- **Local Air Quality/Smoke Management Policy and Procedures (FSM5142.8)**
- Prescribed Fire Public Information Plan
- Community Wildfire Protection Plans and other planned work with partners/collaborators

- Cost Share, Reimbursable, or other Agreements supporting fuels work
- Unit fuel treatment history- map

Aviation

- **Aviation Operations Plan (FSM5711.04c, b)**
 - **Local Airtanker Base Operations Guide Supplement (IABOG, Introduction)**
 - Air Hazard Materials Plan
 - Helibase Communications Plan
- **Project Aviation Safety Plan (FSM5711.04c, c. & 5711.1)**
- **Fire Aircraft Aviation Safety Plan (IHOG, Chp. 3)**
- **Aviation Mishap Response Plan (FSM5723.21, 1)**

Directive and Guide Acronyms

FSM 5110	Wildland Fire Management, Wildfire Prevention
FSM 5120	Wildland Fire Management, Preparedness
FSM 5130	Wildland Fire Management, Wildfire Response
FSM 5140	Wildland Fire Management, Hazardous Fuels Management and Prescribed Fire
FSH 5109.17	Fire and Aviation Management Qualifications Handbook
FSM 5710	Aviation Management, Administration
FSM 5720	Aviation Management, Aviation Safety Program
FSFAQG	Forest Service Fire and Aviation Qualification Guide
Red Book	Interagency Standards for Fire and Fire Aviation Operations, Chapter 10 Preparedness
IABOG	Interagency Airtanker Base Operations Guide
IHOG	Interagency Helicopter Operations Guide
IIBMh	Interagency Incident Business Management Handbook
Rx Fire Guide	Interagency Prescribed Fire Planning and Implementation Procedures Guide

CHAPTER 3 – Fire Budgeting

Fire Program Analysis (FPA) is the current National Strategic tool used to inform the budget. Information on FPA can be found at:

<http://www.forestsandrangelands.gov/FPA/overview.shtml>

Currently, a new tool is under development called the Wildland Fire Investment Planning System (WFIPS).

Annually, final Program Direction requires regional submission of Form 5100-2, Integrated Fire Management Organization and Financial Plan. The objective of the 5100-2 is to display the planned fire organization and Wildland Fire Preparedness (WFPR) funding. For any personnel with WFPR funding, also include fuels and other funding used to support them.

APPENDIX A – Fire Management Mapsheet Example

The purpose of Fire Management Mapsheets is to display the link between the LRMP decisions and fire management actions. Mapsheets provide a quick reference by graphically displaying LRMP strategies and management requirements, including succinct text, maps, and tables. Content and design are dependent on the intended audience; such as key stakeholders, IA resources, etc. Consider other fire plans and information, as well as how the information will be distributed (electronic versus printed).

Possible content to include in a basic template for mapsheets, can depend on the focus, strategic or tactical.

Strategic focus	Tactical focus
*Strategic objective shapes and text	Fire protection boundary
*Management requirement/constraint shapes and text	Values at risk (e.g., utility lines, WUI, etc.)
Boundaries (Ownership, Watershed, Airshed)	Fire management requirements/constraints
	Fuels (e.g., treated areas, vegetation, and insect and disease infestations)
	Communications (repeater locations)
	Infrastructure for operations (e.g., roads, water sources)

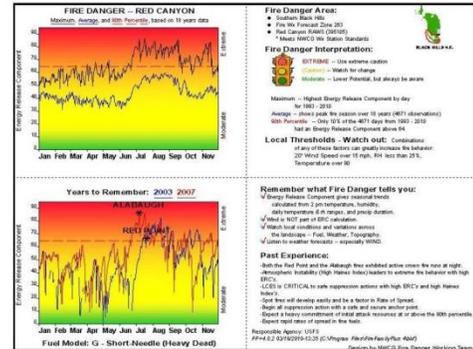
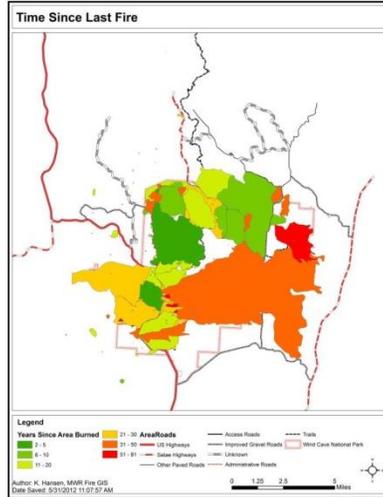
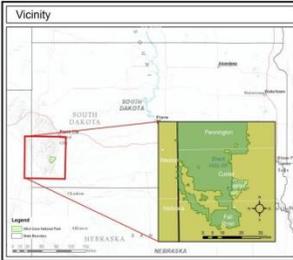
*Must tie to LRMP & NEPA decisions

The following example mapsheet was generated using 2 different mapsheets from the Wind Cave (NPS) and Bosque del Apache NWR (FWS). Some information was edited from the source mapsheet for the purpose of this illustration.

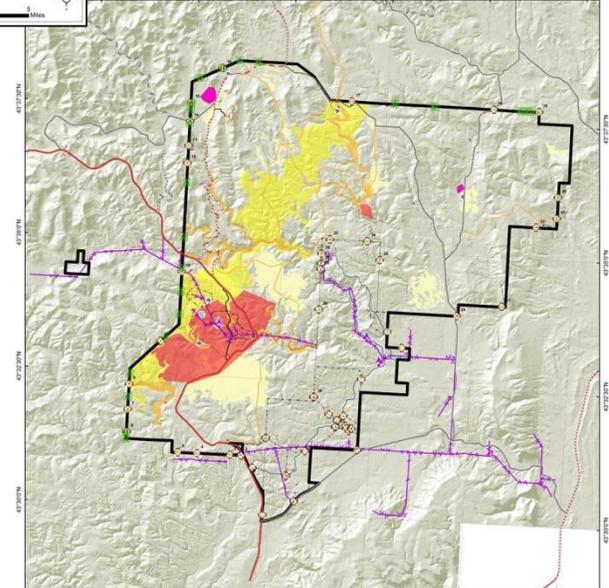
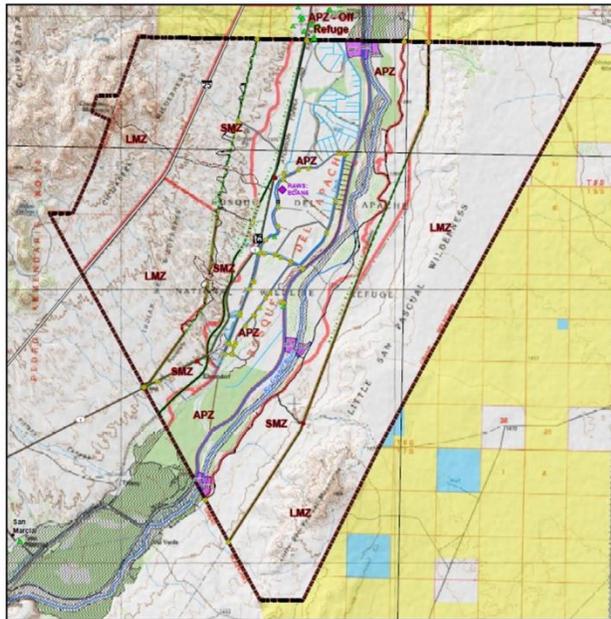


Operational Mapsheet

Disclaimer/Contact/Date/File Location



Operational Considerations



Zones are obtained from the LRMP and provide land managers, incident personnel, cooperators, and adjacent landowners a clear picture of geographic areas associated with a certain set of management actions.

APZ—Asset Protection Zone

- Primary Objective: Protection of life/property or other high value resources including critical habitat requiring protection from fire. Resource values are secondary
- Primary Strategies: Reduce fire hazard through pro-active fuels treatments for point protection, institute full suppression of wildfire

SMZ—Strategic Management Zone

- Primary Objective: reduce fuel intensity at landscape level to allow for safer, less costly wildfire management while balancing resource values
- Primary Strategy: full range of wildfire management options considering resource values. Areas with high hazard will be identified for fuels projects to reduce to moderate fire behavior

LMZ—Land Management Zone

- Primary Objective: manage fire to promote resource values, restore or maintain desired conditions
- Primary Strategies: full range of wildfire management options with primary consideration for resource values and objectives. Fuels projects will be identified to restore or maintain resource conditions within desired conditions

OPERATIONAL OBJECTIVES, CONSTRAINTS AND REQUIREMENTS

Fire Management Requirements & Constraints

- No use of dozers or other ground disturbing equipment without permission from District Ranger (Red above)
- No retardant use in identified areas without express permission from District Ranger (Orange & Yellow)
- Avoid line construction or other ground disturbing activity in identified areas of highly erodible soil

MIST Tactics (Red & Cream above)

- Use of wetline or foam is preferable to line construction
- Keep all equipment on established roads
- Maximize the use of natural and manmade features to establish holding boundaries
- Use existing campsites if available, select impact resistant sites at least 200' from water resources.

Fire Rehabilitation Standards (All colored zones above)

- Before closing the fire incident, rehabilitation will be completed to eliminate impacts from the suppression effort
- Areas with handlines will be restored to their pre-fire condition as soon as possible
 - Backfill cup trenches and scarify wide firelines
 - Construct waterbars to prevent erosion
- All equipment and debris will be removed from the area for proper disposal
- Position cut ends of logs so as to be inconspicuous to visitors and camouflage where possible.
- Flush cut stumps, camouflage with soil and moss.
- Minimize use of helispots and use natural openings for helicopter landings.