



United States Department of the Interior
FISH AND WILDLIFE SERVICE
Fire Management Branch
National Interagency Fire Center
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Boise, Idaho 83705



February 14, 2008

To: Fire Management Coordinators, Regions 1-8
From: Acting Chief, Fire Management Branch
Subject: 2008 FWS Fire Management Handbook Update

The FWS Fire Management Handbook has been updated for 2008 and attached for your use. The Fire Management Handbook is intended to be a program reference guide that documents the standards for operational procedures and practices for fire management activities in the U. S. Fish and Wildlife Service. These standards and practices are based on current Service, Departmental, and Interagency policy, and are intended to provide program guidance to ensure safe, efficient, and effective wildland fire operations.

The Handbook is formatted similarly to the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) which should be familiar to all involved in fire management. To minimize duplication, the Handbook references, instead of restating, supplemental guidance in the Interagency Standards for Fire and Fire Aviation Operations Handbook (NFES #2724) and other common sources.

Significant changes in the 2008 FWS Fire Management Handbook are described in the attached list. The FWS Fire Management Handbook will be updated annually in January to coincide with the annual update of the Interagency Standards for Fire and Fire Aviation Operations Handbook. Please contact your Region's representative on the FWS National Fire Operations and Safety Team if you have suggestions for improving the Handbook.

Attachments

2008 FWS Fire Management Handbook Update

Significant Changes in the 2008 Fire Management Handbook (FMH) include:

- **General Changes**
 - The FMH format was changed to clearly integrate the Interagency Standards for Fire and Fire Aviation Operations Handbook (Redbook) and the FWS FMH through reference.
 - Added a table of contents
 - Renumbered chapters to match with the new Redbook numbering system
 - Combined Chapters 13 and 14 into one chapter titled “Training, Qualifications and Personnel”.
 - Subsequent Chapters re-numbered (Chapter 14 now becomes “Firefighting Equipment”, Chapter 15, Communications, Chapter 16, Aviation Operations/Resources, Chapter 17, Prescribed Fire, etc.)
- **Chapter 1 – Federal Fire Program Policy and Guidance Overview**
 - Added introduction language to clarify the intent of the FMH, and to summarize the various sources of policy and guidance which impact FWS fire management.
- **Chapter 4 – FWS Program Organization and Responsibilities**
 - Removed Fire Management Branch, Regional and Refuge responsibilities from Chapter 4 because this information is contained in Chapter 4 of the Redbook.
 - Re-inserted appropriate FWS Program Organization and Responsibilities.
 - Included responsibilities of the NFLT from NFLT charter
- **Chapter 9 – Planning**
 - Updated Chapter 9 to include the new Interagency FMP template and FWS guidance for using the template.
 - Updated to include the FWS NEPA Checklist.
 - Clarifies 5 year FMP update responsibilities.
- **Chapter 10 – Preparedness**
 - Updated Chapter 10 in order to remove duplicate guidance covered in the Redbook.
 - Incorporated appropriate portions of the old FWS Trespass Handbook.
- **Chapter 11 – Incident Management**
 - Updated Chapter 10 in order to remove duplicate guidance covered in the Redbook.
 - Updated Chapter 11 to reflect the latest Post Fire Activities reporting guidance.
- **Chapter 13 – Training, Qualifications and Personnel**

- Updated guidance on the use of the RXCM position as approved by the NFLT. Changes include the process and form to be used in requesting approval to use the RXCM on prescribed fires.
 - Clarified the RXCM position qualifications.
 - Updated to reflect change in RXB3 language concerning limitations to the use of the position, referencing the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide.
 - Updated to reflect revised qualification standards for agency determined positions (Engine Operator, Prescribed Fire Burn Boss Type 3, Incident Commander Type 5, Faller Class A/B/C, and Prescribed Fire Crew Member).
 - Changed language concerning fallers and tree sizes to read ‘ “A” positions can fell trees up to 8 inches DBH, “B” positions can fell trees up to 24 inches DBH, and “C” positions have no size limit on tree size’, removing the arbitrary reference to tree sizes.
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- **Chapter 17, Prescribed Fire**
 - Updated to clarify new guidance from the Redbook and the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide.
 - Updated to reflect revised Service guidance for prescribed fire planning and implementation on private lands through the Service’s private lands programs.
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- **Chapter 18, Reviews and Investigations**
 - Deleted Service specific fire review and investigation guidance because it duplicated the guidance found in Chapter 19 of the Interagency Standards for Fire and Fire Aviation Operations Handbook.

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Chapter 01

Federal Wildland Fire Policy & Guidance Overview

Scope

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook NFES #2724) Chapter 1 in addition to the following FWS specific clarifications:

The FWS Fire Management Handbook is intended to be a program reference guide that documents the standards for operational procedures and practices for fire management activities in the U. S. Fish and Wildlife Service. These standards and practices are based on current Service, Departmental, and Interagency policy, and are intended to provide program guidance to ensure safe, efficient, and effective wildland fire operations.

The Fire Management Handbook is formatted similarly to the Redbook which should be familiar to all involved in fire management. To minimize duplication, the Fire Management Handbook references, instead of restating, supplemental guidance in the Redbook and other policy and guidance documents.

Policy and Guidance Affecting FWS Fire Management Operations:

Federal – DOI and FWS adhere to Federal Wildland Fire Management Policy and Guidance. Most documents can be found at: http://www.nifc.gov/fire_policy/index.htm including:

- *Review and Update of the 1995 Federal Wildland Fire Management Policy January 2001*
- *Federal Wildland Fire Management Policy and Program Review, Final Report, December 18, 1995.*
- *National Interagency Mobilization Guide (NFES 2092).*
- *Prescribed Fire Complexity Rating System Guide (NWCG, NFES 2474, PMS 424).*
- *Prescribed Fire Smoke Management Guide (NWCG, NFES 1279, PMS 420-1).*
- *Interagency Strategy for the Implementation of Federal Wildland Fire Management Policy (June 20, 2003).*
- *NWCG PMS 310-1 Wildland Fire and Prescribed Fire Qualifications System Guide (2000).*
- *Interagency Wildland Fire Use Implementation Procedures Reference Guide.*
- *Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (2006).*

Departmental – The FWS adheres to Departmental policy documented in the Departmental Manual and guidance transmitted through memo or email. Most Interagency policy is incorporated directly or by reference into the Departmental Manual.

Service – The [Fish and Wildlife Service Directives System](#) contains the current policy and management directives that affect the daily activities of the FWS and its employees. The Directives system consists of the FWS Manual, Director's Orders, and National Policy Issuances. The Fish and Wildlife Service Manual describes the structure and functions of the Service's organizational units, documents re-delegations of the Director's authority, and

prescribes the policies and procedures for administrative activities and program operations. We use it to communicate instructions and provide guidance in administrative and program operations. The Manual is the primary source of information on organizational structure, authority to function, policy, and general procedures. Director's Orders are limited to temporary policy, procedures, delegations of authority, emergency regulations, special assignments of functions, and initial functional statements on the establishment of new organizational units. These policies are necessarily broad and generally require management discretion or judgment in their implementation. They represent the Director's expectations of how the Service and its employees will act in carrying out their official responsibilities. These policies are often supplemented with guidance distributed by memo or email.

FWS Fire Management Handbook – The Fire Management Handbook is incorporated by reference into the Service Manual (621 FW 1) and is designed to meet the intent stated above. The Fire Business Reference Guide provides FWS standardized fire business guidance for the Fire Management Program, and contains specific business rules, definitions, and standard operating procedures to ensure consistent accounting and reporting requirements set forth by the FWS, Department of the Interior (DOI), and Congress.

Chapter 04

U.S. Fish & Wildlife Service Program Organization & Responsibilities

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) 04 in addition to the following FWS specific clarifications:

Agency Administrator Responsibilities

Regional Director

- Ensuring that stations conduct prescribed fire use in compliance with National and Regional fire management policies and standards.
- Ensuring Project Leaders are qualified to approve prescribed fire plans.
- Conducting administrative reviews (and reporting review results to the Director within 90 days) of all prescribed fires that:
 - Result in serious or multiple personal injuries; or
 - Are converted to wildfire status that burn significant private or other agency lands; or
 - Result in the issuance of an air quality regulatory Notice-of-Violation from the state, air pollution control district, and/or county.
- Ensuring that emergency stabilization and burned area rehabilitation plans with estimated costs < \$500,000 are consistent with Department and Service policy and guidelines.

Project Leader

- Developing and implementing emergency stabilization and burned area rehabilitation plans.
- Integrating the role and use of fire by establishing fire management direction to meet resource objectives in Comprehensive Conservation Plans (CCP) and Fire Management Plans (FMP).
- Approving or rejecting the Prescribed Fire Burn Plans (RxBPs), and delegating this authority to Refuge Managers on the basis of qualification, experience, and demonstrated ability.
- Ensuring that the RxBPs and the personnel implementing them meet Interagency, Service wide and Regional requirements.
- Reporting all wildfires resulting from prescribed fire actions to the Regional Director within 24 hours of the wildfire declaration.
- Conducting reviews of all prescribed fires that are converted to wildfire status.
- Reporting the review results to the Regional Director within 60 days after the prescribed fire was declared a wildfire.
- Ensuring that prescribed fire personnel are trained in the After Action Review (AAR) process and that they routinely complete AARs after prescribed fire operations.
- Ensure that Burn Bosses (RXB1, RXB2, and RXB3) participate in “refreshers” no less frequently than every 2 years. Refreshers should be designed to ensure that Burn Bosses are kept current on policy and lessons learned from recent escapes, innovations and other learning associated with prescribed fire. These refreshers may take a variety

of forms including (but not limited to) sand table exercises, reviews of recent escapes, staff rides, workshops, mentoring, or interactive web-based exercises.

Fire Management Staff Responsibilities

Refuge Fire Management Officer (FMO)

- Ensuring that the RxBP and the personnel implementing them meet Service wide and Regional requirements.
- Ensuring adequate oversight and status reporting of all prescribed fires.
- Reporting all wildfires resulting from prescribed fires to the Regional Fire Management Coordinator within 12 hours of the wildfire declaration.
- Develop and update fire management plans and associated operational plans for approval by project leaders.

Delegation of Authority

Zone/District Fire Management Officer

In order to effectively perform their duties, the FMO may have certain authorities delegated from the Agency Administrator(s). A sample “Delegation of Authority” can be found at the end of this chapter.

National Fire Leadership Team

The National Fire Leadership Team is established under the guidance and support of the NWRS Leadership Team. The team is established to provide regional input on issues of National importance, to advise the Chief, Fire Management Branch (FMB), and provide leadership, coordination, and guidance in the development and implementation of a safe and effective fire management program within the Service. The team serves as a national clearing house, provides discussion of wildland fire management issues, and recommends actions to improve coordination and integration of regional fire management activities into national direction. The team will be responsible for the following:

- Provide leadership, coordination, and guidance for the Service’s fire management program.
- Identify potential fire management issues, and recommend strategies that will enhance the Service’s ability to safely and effectively manage fire on Service lands.
- Develop and recommend common guidance and business rules as needed to manage fire management activities while recognizing individual regional needs.
- Provide a forum for the exchange of ideas, best management practices, and lessons learned relating to Service fire management activities.
- Provide a forum to discuss budget methodology applications that are consistent with appropriation language authority as well as providing for the collaboration and coordination within FWS and with our interagency partners.
- Form task groups, working teams, or other collections of subject matter experts as needed to deal with specific tasks or long-term issues. These groups or teams will each have a Leader who usually works in the subject matter area with members assigned who may have the subject area as a collateral duty. They will have representation from across the Service, and will provide guidance or operational recommendations to the NFLT.

Sample Delegation for Zone/District Fire Management Officer

The Fire Management Officer for the Arizona Fire District (including: Buenos Aires NWR, San Bernardino NWR, Leslie Canyon NWR, Imperial NWR, Cibola NWR, Bill Williams NWR, Kofa NWR, Havasu NWR, Alchesay-Williams Creek Fish Hatchery Complex) is delegated authority to act on my behalf for the following duties and actions:

1. Provide direction, supervision and leadership to District Fire Management Staff outlined in the attached organization chart.
2. Coordinate with and provide timely and accurate reports to Project Leaders, Deputy Project Leaders, and Appropriate Refuge Managers on all activities of the district and personnel.
3. Responsible for Fire Budget coordination and oversight to assure the fiscal guidelines are adhered to within the District.
4. Coordinate all prescribed fire activities for the district including requests and oversight of funding for Hazardous Fuel and WUI projects.
5. Assure personnel participating in prescribed fire and wildfire operations are fully qualified.
6. Request and Oversee distribution of Severity and Emergency Pre-suppression Funding for District Fire and Aviation.
7. Ensure all district incidents are managed in a safe and cost-effective manner.
8. Oversee the recruitment and hiring of district fire personnel.
9. Responsible for representing the Arizona Fire District in all matters related to the Wildland/Prescribed Fire Management Program with local cooperators and on the Southeast Zone and Central West Zone Boards.
10. Coordinate district fire and prevention activities and provide appropriate program direction and guidance.
11. Provide for management of property records for equipment and supplies purchased with program allocations.
12. Coordinate, preposition, send and order fire and aviation resources in response to current and anticipated district, regional and national fire conditions.
13. Hire emergency firefighters in accordance with Department of Interior "Pay Plan for Emergency Workers."
14. Manage Incident Qualification Certification System and certify Incident Qualification

Cards within the District.

Buenos Aires NWR Refuge Manager

Date

San Bernardino/
Leslie Canyon NWR Refuge Manager

Date

Imperial NWR Refuge Manager

Date

Cibola NWR Refuge Manager

Date

Bill Williams River NWR Refuge Manager

Date

Kofa NWR Refuge Manager

Date

Havasu NWR Refuge Manager

Date

Alchesay-Williams Creek Complex Manager

Date

FWS Region 2 Fire Management Coordinator

Date

Arizona Fire Management District FMO

Date

Chapter 7

Safety

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 7 in addition to the following FWS specific clarifications:

No additional guidance at this time.

Chapter 8

Interagency Coordination and Cooperation

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 8 in addition to the following FWS specific clarifications:

No additional guidance at this time.

Chapter 09

Fire Management Planning

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 09 in addition to the following FWS specific clarifications:

Policy.

U.S. Fish and Wildlife Service fire management planning is an integrated and complex activity incorporating interagency fire management obligations and coordination at local, regional and national levels, the mission of the Service and the National Wildlife Refuge System, local Refuge operations, and resource management. It occurs within the overall National Wildlife Refuge System and National Fish Hatchery planning process and is much more efficient and effective if the requisite complement of land/resource management plans (Comprehensive Conservation Plans) have been completed and approved.

Regional Offices are responsible for coordinating unit, interagency and geographic area fire management planning, within the Region. In addition, the Regional Offices are responsible for establishing a formal review and approval process of the plans which involves identifying who will provide biological, technical, policy, and fiscal reviews of the plans and also provide guidance to the reviewers on the parameters of the review process.

National Environmental Policy Act Compliance

As required by the National Environmental Policy Act (NEPA), the Fish and Wildlife Service has procedures for assessing environmental effects of specific Service actions. For actions not categorically excluded, an Environmental Assessment (EA), and if necessary, an Environmental Impact Statement (EIS) is prepared before making any land use decision, including fire management actions. See the Service NEPA guidance in 30 AM 2-3, 550 FW 1-3, and Departmental procedures in 516 DM 1-6; or consult with the Regional Environmental (NEPA) Coordinator for details on the NEPA process. The NEPA checklist (Exhibit 1) is required to determine the specific NEPA document necessary for the unit fire management plan development. The completed NEPA Checklist is to be included with the documentation for any project or Plan conducted by the Service.

Categorical exclusions are classes of actions that do not individually or cumulatively have a significant effect on the human environment. Departmental Categorical Exclusions are listed in 516 DM 2, Appendix 1. If exceptions to categorical exclusions apply, under 516 DM 2, Appendix 2, other Department or Service categorical exclusions cannot be used.

Service-specific categorical exclusions are listed in 516 DM 8. Actions included in Service categorical exclusions that may apply to FWS wildland fire activities include:

- Personnel training, environmental interpretation, public safety efforts, and other educational activities, which do not involve new construction or major additions to existing facilities.

- Minor changes in existing master plans, comprehensive conservation plans, or operations, when no or minor effects are anticipated. Examples could include minor changes in the type and location of compatible public use activities and land management practices.
- The issuance of new or revised site, unit, or activity-specific management plans for public use, land use, or other management activities when only minor changes are planned. Examples include an amended public use plan or fire management plan.
- Fire management activities, including prevention and restoration measures, when conducted in accordance with Departmental and Service procedures.
- The use of prescribed burning for habitat improvement purposes, when conducted in accordance with local and State ordinances and laws.

National Historic Preservation Act Compliance

Service National Historic Preservation Act (NHPA) policy is found in Service Manual, Chapters 614 FW 1-5 and the Secretary of the Interior's Standards and Guidelines on Historic Preservation.

Other Legal Mandates

Other compliance requirements include Section 7 of the Endangered Species Act (as amended in 1973), Section 810 of the 1980 Alaska National Interest Land Conservation Act, and Section 118 of the Clean Air Act (as amended in 1990). Additional federal, state and local compliance requirements may also exist.

Fire Management Plan (FMP)

Every area with burnable vegetation must have an approved FMP, unless exempted by the Regional Director. An approved FMP enables a FWS unit to consider a wide range of appropriate management responses to wildland fires and to conduct prescribed fires. Federal fire policy requires that an FMP must make firefighter and public safety the first priority in all fire management program plans and activities. It also specifies that appropriate management responses to unplanned wildland fires be consistent with values to protect, cost effectiveness, and land, natural, and cultural resource management plans. It also states that public health issues – specifically potential smoke impacts, must be addressed. FMPs must address a range of potential wildland fire occurrences and may include a wide range of appropriate management responses.

FMPs must be coordinated, reviewed, and approved by responsible project leaders/agency administrators to ensure consistency with approved land management plans. In addition, initial FMPs, and revisions at five-year intervals, must be reviewed by the Regional Fire Management Coordinator and Regional Refuge staff for comment and concurrence, with approval by the Regional Director.

FMPs are intended to be dynamic and reflect current situations and policies; therefore, they must be reviewed once a year and sections updated if need be. Refuges will revise FMPs every five years (or less - when significant changes on FWS or adjacent lands occur). Extensions not to exceed six months for meeting the 5-year revision timeframe may be granted

by Regional Directors. Without a current FMP, prescribed fires cannot be conducted and response to unplanned wildfire ignitions can only consider suppression strategies.

Guidance for the Interagency Fire Management Plan Template

All new FWS FMPs and FMPs needing revisions according to the 5-year revision timeframe will use the 2007 Interagency Fire Management Plan template found in Exhibit 2. Exhibit 3 (“FWS Guidance for the Interagency Fire Management Plan Template”) contains chapter specific guidance for converting existing FWS Fire Management Plans to the 2007 Interagency Fire Management Plan Template format.

Exhibit 1: NEPA Compliance Checklist, Form 3-2185

NEPA COMPLIANCE CHECKLIST

State: _____ Federal Financial Assistance Grant/Agreement/Amendment Number: _____
Grant/Project Name: _____

This proposal is; is **not** completely covered by categorical exclusion _____ in 516 DM 2, Appendix _____; and/or 516 DM 6, Appendix _____.
(check (✓) one) (Review proposed activities. An appropriate categorical exclusion must be identified before completing the remainder of the checklist. If a categorical exclusion cannot be identified, or the proposal cannot meet the qualifying criteria in the categorical exclusion, or an extraordinary circumstance applies (see below), an EA must be prepared.)

Extraordinary Circumstances:

Will This Proposal (check (✓) yes or no for each item below):

Yes No

- 1. Have significant adverse effects on public health or safety.
- 2. Have significant adverse effects on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds (Executive Order 13186); and other ecologically significant or critical areas under Federal ownership or jurisdiction.
- 3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)].
- 4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.
- 5. Have a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.
- 6. Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.
- 7. Have significant adverse effects on properties listed or eligible for listing on the National Register of Historic Places as determined by either the bureau or office, the State Historic Preservation Officer, the Tribal Historic Preservation Officer, the Advisory Council on Historic Preservation, or a consulting party under 36 CFR 800.
- 8. Have significant adverse effects on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant adverse effects on designated Critical Habitat for these species.
- 9. Have the possibility of violating a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment.
- 10. Have the possibility for a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).
- 11. Have the possibility to limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly affect the physical integrity of such sacred sites (Executive Order 13007).
- 12. Have the possibility to significantly contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).

(If any of the above extraordinary circumstances receive a "Yes" check (✓), an EA must be prepared.)

Yes No This grant/project includes additional information supporting the Checklist.

Concurrences/Approvals:

Project Leader: _____ Date: _____

State Authority Concurrence: _____ Date: _____

(with financial assistance signature authority, if applicable)

Within the spirit and intent of the Council of Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA) and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and have determined that the grant/agreement/amendment:

- is a categorical exclusion as provided by 516 DM 6, Appendix 1 and/or 516 DM 2, Appendix 1. No further NEPA documentation will therefore be made.
- is not completely covered by the categorical exclusion as provided by 516 DM 6, Appendix 1 and/or 516 DM 2, Appendix 1. An EA must be prepared.

Service signature approval:

RO or WO Environmental Coordinator: _____ Date: _____

Staff Specialist, Division of Federal Assistance: _____ Date: _____

(or authorized Service representative with financial assistance signature authority)

Exhibit 2: Interagency Fire Management Plan Template -Updated September 19, 2007

Federal wildland fire policy requires that every area with burnable vegetation must have a fire management plan (FMP). Fires in areas without approved FMPs must be suppressed. Each plan will be based on the area's approved land management plan; in the absence of such a plan, the FMP may stand alone. Wildland fire management planning activities and program components (e.g., fuels management, initial response, etc.) for each agency will be coordinated across administrative boundaries.

Purpose of an FMP - The fire management planning process and requirements may differ among agencies. However, for all agencies (Forest Service, BIA, BLM, FWS, NPS), a common purpose of a fire management plan is to provide decision support to aid managers in making informed decisions on the appropriate management response (AMR). The FMP includes a concise summary of information organized by fire management unit (FMU) or units.

In addition, for the DOI agencies, the FMP contains strategic and operational elements that describe how to manage applicable fire program components such as; response to unplanned ignitions, hazardous fuels and vegetation management, burned area emergency stabilization and rehabilitation, prevention, community interactions and collaborative partnerships roles, and monitoring and evaluation programs. The Forest Service will have related information in separate fire management reference documents.

Each FMP will evolve over time as new information becomes available, conditions change on the ground and changes are made to land/resource management plans.

Purpose of the Interagency Fire Management Template- The purpose of the interagency fire management plan template is to provide a framework to facilitate cooperation across administrative boundaries. This template provides the minimum standard for FMP structure and content. The FMP has differing audiences and detail depending upon program complexities, agency need and direction. This template is designed for agency flexibility. Each agency may expand on this common template to meet agency specific needs, and that agency's approved template will dictate the final requirements for a unit's FMP.

All agencies are required to use Chapters 1, 2, and 3 with the major headings below (in bold). DOI agencies are required to use Chapters 4 and 5, and may opt to add additional chapters or sections if deemed necessary.

1. Introduction

The intent of this Chapter is to introduce the reader to the area covered by the FMP.

State the reasons for developing the FMP. Provide a general description of location of the area covered by the FMP with vicinity map and agencies involved. Briefly describe land ownership, significant resources, mission or direction for the area and different management designations (e.g. wilderness, timber harvest areas, research natural areas, cultural/religious areas, habitat management areas) for agencies participating in the planning effort.

2. Policy, Land Management Planning and Partnerships

The intent of this Chapter is to establish the linkage between higher level planning documents, legislation and policies and the actions described in the document.

2.1 Fire Policy

Identify sources of guidance and direction that relate to actions described in the FMP.

These include:

- national interagency and departmental policy (e.g. National Fire Plan, Departmental manuals)
- agency specific policies (e.g. Handbooks, Manuals, Direction, strategic plans)
- unit specific policies may be included if they exist (e.g. tribal direction, unit specific CFRs)
- compliance and authorities may be included (e.g. NEPA, NHPA, ESA and any programmatic agreements involved).

2.2 Land/Resource Management Planning (LMP)

Identify documents that relate to the area covered by the FMP including interagency efforts.

Examples include:

- land management plans,
- habitat management plans,
- resource management plans,
- forest management plans,
- comprehensive conservation plans,
- regional management plans such as the Northwest Forest Plan.

2.3 Partnerships

Identify any internal and external fire management partnerships or planning teams that helped you develop this FMP. This information documents the level of cooperation occurring.

Examples include:

- interagency planning teams (e.g. local groups that share boundaries, FPA partners)
- non-federal agencies/departments
- tribal government
- internal interdisciplinary planning teams

3. Fire Management Unit Characteristics

The intent of this Chapter is to articulate specific objectives, practices and considerations common to all FMUs and unique to individual FMUs.

The primary purpose of developing FMUs in fire management planning is to assist in organizing information in complex landscapes. The process of creating FMUs divides the landscape into smaller geographic areas to more easily describe physical/biological/social characteristics and frame associated planning guidance based on these characteristics (see

NWCG glossary for the definition of FMU). If possible, FMUs should be developed through interagency efforts and interactions to facilitate common fire management across boundaries.

As a plan is being written, each area will determine the amount of detail located within the area-wide considerations section below (3.1) versus the separate detailed FMUs section (3.2). For example, if an area is of low complexity or small size, then the area-wide description may contain most of the information and little is needed for each FMU. Conversely, large complex landscapes may have few common characteristics and may have most information contained in the FMU specific section.

The following sections provide guidance on what to include in this Chapter.

3.1 Area-wide Management Considerations

The intent of this section is to document overall wildland fire management program guidance and characteristics common to all FMUs.

- Describe fire management related goals, objectives, standards, guidelines, and/or desired future conditions as found in the appropriate LMP(s) that apply across all FMUs. Include fire management related goals that may come from non-fire program areas within the LMP or other planning documents.

Examples of these goals, objectives, standards, guidelines, and desired conditions are:

- firefighter and public safety,
 - using fire to restore ecosystem health,
 - use of appropriate management response (AMR),
 - cost containment,
 - desired plant community composition and structure,
 - constraints common to all FMUs (e.g. restrictions on retardant use, preventing spread of invasive species through washing of vehicles)
- Identify area-wide guidance, such as regional initiatives that contain additional fire management goals or objectives (e.g. sage grouse strategies)
 - Describe any common characteristics (e.g. topography, fuels, prevailing winds) that may occur across all FMUs.

3.2 Fire Management Unit - Specific Descriptions

The intent of this section is to describe the characteristics of the FMU. The organization of this section is at the discretion of the agency

FMU characteristics must be described. Examples are:

- physical and biological description of FMU (e.g. topographic features, fuel types, special conditions that may result in extreme fire behavior, access, FRCC, high value concerns, special areas),
- jurisdictional boundaries (e.g. adjacent or intermingled federal, private, tribal, state, county ownership),
- communities and other values at risk within and adjacent to FMU,

- fire behavior and weather descriptions (e.g. ERC tables, past fire behavior and perimeter histories, control problems).

FMU management guidance must be described. Examples are:

- FMU specific objectives (e.g. appropriate management response objectives, fire intensity levels, fire frequency concerns),
- FMU specific desired conditions (e.g. desired vegetation conditions),
- description of approved wildland fire management strategies (e.g. AMR, fuels treatments: prescribed fire or mechanical/other treatments allowed, wildland fire use),
- FMU specific guidelines, constraints, or mitigation considerations (e.g. MIST, minimum suppression in special areas, retardant or chemical limitations, etc.),
- Burned area emergency stabilization and rehabilitation considerations if applicable (e.g. seeding requirements or treatments in special areas).

FMU safety considerations must be described. Examples are:

- gas lines,
- power lines,
- mine shafts,
- aviation hazards,
- restricted access due to hazards,
- poisonous plants and venomous animals.

Also, operational information may be detailed or added as an appendix, such as:

- permanent repeater locations, recommendations of successful temporary sites,
- radio frequencies,
- radio 'dead spots',
- communication plan,
- evacuation plan,
- water dip sites,
- helispots,
- remote automated weather stations (RAWS).
- potential fire camp locations for Type 3 to Type 1 organizations

4. Wildland Fire Operational Guidance

This chapter applies to DOI agencies only. Forest Service guidance is available separately.

The intent of this chapter is to document the procedures used in the area covered by the FMP to implement the wildland fire management program. The following sections 4.1, 4.2, 4.3, 4.4 should be addressed either in this section, or a reference should be cited as to where this type of information can be found.

4.1 Appropriate Management Response

Describe or reference program procedures that should be in place for planning and responding to fires. Procedures to be included are dependent on local and interagency agency needs.

Examples include:

- preparedness (including training, qualifications, readiness, detection and aviation),
- cooperative or mutual aid fire management agreements,
- cost apportionment agreements
- protection agreements,
- cross-boundary fire agreements,
- size up, initial response and extended response procedures,
- WFIP and WFSA procedures,
- dispatching/obtaining resources (e.g. interagency dispatch centers, interagency teams, MAC groups),
- prioritizing allocation of resources,
- large fire cost management ,
- processes for complying with regulatory requirements (e.g. smoke, SHPO, ESA)
- public interaction (e.g. information plans, CWPPs) ,
- reporting requirements (forms such as 209s, 1202s),
- records management,
- suppression damage repair.

4.2 Fuels Management

Describe or reference planning and implementation processes for fuels treatments by mechanical, chemical, biological or prescribed fire methods. Procedures to be included are dependent on local needs.

Examples include:

- processes to identify and prioritize fuels treatments (e.g. consultations with communities, use of community wildfire protection plans - CWPPs), interdisciplinary teams, risk assessments and mitigation plans),
- potential size and scope of vegetation treatments to meet both fire and land management goals,
- procedures for implementing prescribed fire (e.g. requirements for development of burn plan, responsibilities for preparing and approving Rx fires, requirements for safety, qualifications, interagency prescribed fire guidance),
- process for complying with regulatory requirements (e.g. NEPA, smoke, SHPO, ESA) ,
- treatment effects monitoring description,
- reporting requirements (NFPORS) and agency specific systems,
- fuels committees or local coordinating or special interest groups,
- funding processes,

4.3 Emergency Stabilization and Burned Area Rehabilitation

Describe or reference emergency stabilization (ES) and post-fire burned area rehabilitation (BAR) planning and implementation. Use the Departmental Manual (620 DM 3) and agency-specific direction for guidance.

Examples include:

- process and thresholds for determining ES and BAR teams,
- regional coordinator contact information,
- local resource specialist positions that may assist the teams,
- considerations that should be addressed (e.g. values to be protected such as T&E species, cultural concerns, wilderness),
- potential treatments that should be considered (e.g. programmatic plans),
- anticipated post-fire recovery issues,
- allowable actions or local restrictions,
- standardized monitoring protocols,
- requirements for planning,
- funding processes,
- reporting requirements (accomplishment reports and NFORS).

4.4 Prevention, Mitigation and Education

Describe or reference wildland fire prevention, education, and mitigation strategies. Procedures to be included are dependent on local agency needs.

Examples include:

- human caused ignition patterns and problems,
- fire investigation policies and procedures,
- closures/restricted access process,
- burn permit systems,
- law enforcement operating procedures and agreements,
- community involvement,
- Firewise,
- annual meetings with public, other agencies and local fire districts,
- education programs,
- community grant programs and assistance,
- CWPPs,
- memorandum of understanding (MOU),
- funding processes,
- reporting requirements.

5. Monitoring and Evaluation

This chapter applies to DOI agencies only. Forest Service guidance is available separately.

The intent of this chapter is to document processes for determining whether the FMP is being implemented as planned and fire-related goals and objectives are being achieved. Information obtained from monitoring and evaluations is used to update the FMP and land management plans.

Describe monitoring processes that will be used to measure achievement of FMP objectives. Procedures to be included are dependent on local agency needs.

Processes may include:

- fire and non-fire treatment effects monitoring including broader scale long-term monitoring based on fire and land management objectives,
- collaboration with other disciplines for monitoring broader resource management objectives,
- information on annual performance (e.g. annual targets),
- annual process to review and/or update the FMP, including triggers for major revisions.
-

Glossary

Use NWCG on-line glossary for common terms. Include full definition and references for agency or unit specific terminology.

Appendices – Optional

Exhibit 3: FWS Guidance for the Interagency Fire Management Plan Template

All new and revised FWS fire management plans will use the September 2007 Interagency Fire Management Plan Template. The following information will be helpful in adapting existing FWS FMPs to the new template.

The tables following below contain the following information:

- The five required major sections of the interagency template, the intent of each section, and their required elements in the template language.
- Guidance, examples, and recommendations for each required element in the template. This includes references to FWS policy chapters, some of which are in revision to correspond to the language used in this guidance.
- Suggested examples of language to use in FWS guidance sections (*in italic font*).
- And in some cases, suggestions for additional elements or information. Please note the recommendation of a new appendix relating to interface growth and cost containment.

Those involved in fire planning activities should note the following:

- The focus of the new template is goals, objectives, strategies, and constraints for operations. Stations revising older plans may find the new plans are shorter, since some information can be referenced in other policy/supplemental policy documents and handbooks.
- FWS offices are not required to revise current FMPs into this new template until full FMP revisions are required to meet the Service 5 year revision policy.
- Annual updates to existing plans do not require plans to be converted to the new template unless the plan no longer meets the 5-year currency standard.
- Items likely to need annual updates are best found in appendices (step-up plans, agreements and memorandums of understanding, personnel/qualification lists, readiness activities, etc).

1.0 Introduction

The intent of this chapter is to introduce the reader to the area covered by the FMP.

Required Elements	1.a.	State the reasons for developing the FMP.
	1.b.	Provide a general description of location of the area covered by the FMP with vicinity map and agencies involved.
	1.c.	Briefly describe land ownership, significant resources, mission or

	<p>direction for the area and different management designations (e.g. wilderness, timber harvest areas, research natural areas, cultural/religious areas, habitat management areas) for agencies participating in the planning effort.</p>
<p>FWS Guidance</p>	<p>1.1. Reasons for Developing the FMP. Example language: <i>This plan is written to meet Department and Service requirements that every area with burnable vegetation must have an approved Fire Management (FMP). It complies with a Service requirement that Refuges review and/or revise FMPs at a minimum of five-year intervals or when significant changes are proposed, such as might occur if significant land use changes are made adjacent to FWS lands. (621 FW 2.3C-4)</i></p> <p><i>The goal of wildland fire management is to plan and make decisions that help accomplish the mission of the National Wildlife Refuge System. That mission is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. (095 FW 3.2)</i></p> <p><i>This FMP identifies and integrates all wildland fire management and related activities in the context of an approved Comprehensive Conservation Plan (CCP). It defines a program to manage wildland fires and to assure that program goals and components are coordinated.</i></p> <p>1.2. Include the following information:</p> <ul style="list-style-type: none"> • Location (a vicinity map and a map of the FMP area), • Total acres, • Land ownership of surrounding lands and/or in-holdings, • acres within acquisition boundaries in non-FWS ownership, • Agencies involved, • FWS units included in the FMP. • The mission or direction for the lands in the FMP, • Special land management designations (e.g., wilderness, research natural area), • Significant values to protect (e.g., timber, cultural/religious areas, habitat management areas, T & E species, FWS structures, watersheds, air sheds) <p>1.3. An overview of significant values to protect (e.g., timber, cultural/religious areas, habitat management areas, T&E species, FWS structures, watersheds, air sheds)</p>

Example Table 1: Management Units in the Fire Management Complex

<i>FWS Management Units within the FMP</i>	<i>Total Acres (Burnable Acres)</i>
<i>National Wildlife Refuge 1</i>	<i>21,498 (18,455)</i>
<i>National Wildlife Refuge 2</i>	<i>2,585 (2,000)</i>
<i>Waterfowl Production Areas</i>	<i>44,032 (25,000)</i>
<i>Wetland Easements</i>	<i>196,462</i>
<i>Federal Fish Hatchery</i>	<i>600 (200)</i>
<i>FmHA Conservation Easements</i>	<i>6,368</i>

2.0 Policy, Land Management Planning and Partnerships

The intent of this chapter is to establish the linkage between higher level planning documents, legislation and policies and the actions described in the document.

2.1 Fire Policy

Required Elements	2.1 Identify sources of guidance and direction that relate to actions described in the FMP.
FWS Guidance	<p>2.1. Fire Management Plan compliance with fire policy Summarize how the FMP meets the following policies:</p> <p>2.1.a Federal Wildland Fire Policy Example: <i>This FMP meets the Federal Wildland Fire Management Policy by implementing following these guiding principles:</i></p> <ul style="list-style-type: none"> • <i>Firefighter and public safety is the first priority in every fire management activity.</i> • <i>The role of wildland fire as an essential ecological process and natural change agent has been incorporated into the planning process. Federal agency land and resource management plans set the objectives for the use and desired future condition of the various public lands.</i> • <i>Fire management plans, programs, and activities support land and resource management plans and their implementation.</i> • <i>Sound risk management is a foundation for all fire management activities. Risks and uncertainties relating to fire management activities must be understood, analyzed, communicated, and managed as they relate to the cost of either doing or not doing an activity.</i>

- *Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives,*
- *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 agencies is an ongoing objective.*

2.1.b. National Fire Plan

Example: This FMP meets the policy and direction in the National Fire Plan because it emphasizes the following primary goals of the 10 Year Comprehensive Strategy and Cohesive Strategy for Protecting People and Sustaining Natural Resources:

- *Improving fire prevention and suppression,*
- *Reducing hazardous fuels,*
- *Restoring fire-adapted ecosystems, and*
- *Promoting community assistance.*

2.1.c. Department of Interior (DOI) Fire Policy

Example: This FMP meets DOI policy found in 620 DM 1 (620 DM2 for Alaska) by making full use of wildland fire as a natural process and as a tool in the planning process.

2.1.d. U.S. Fish and Wildlife Service Fire Policy

Examples: By addressing the range of potential wildland fires and considering a full spectrum of tactical options (from monitoring to intensive management actions) for appropriate management response (AMR) in order to meet Fire Management Unit (FMU) objectives, this FMP meets Service wildland fire policy, and is consistent with the Service Fire Management Handbook and the Interagency Standards for Fire and Fire Aviation Operations, which are supplemental policy.

This plan affirms these key elements of FWS fire policy (621 FW 1):

- *Firefighter and public safety is the first priority of the wildland fire management program and all associated activities,*
- *Only trained and qualified leaders and agency administrators will be responsible for, and conduct, wildland fire management duties and operations,*
- *Trained and certified employees will participate in the wildland fire management program as the situation requires, and non-certified employees will provide needed support as necessary,*
- *Fire management planning, preparedness, wildfire and prescribed fire operations, other hazardous fuels operations, monitoring, and*

	<p><i>research will be conducted on an interagency basis with involvement by all partners to the extent practicable,</i></p> <ul style="list-style-type: none"> • <i>The responsible agency administrator has coordinated, reviewed, and approved this FMP to ensure consistency with approved land management plans, values to be protected, and natural and cultural resource management plans, and that it addresses public health issues related to smoke and air quality,</i> • <i>Fire, as an ecological process, has been integrated into resource management plans and activities on a landscape scale, across agency boundaries, based upon the best available science,</i> • <i>Wildland fire is used to meet identified resource management objectives and benefits when appropriate,</i> • <i>Prescribed fire and other treatment types will be employed whenever they are the appropriate tool to reduce hazardous fuels and the associated risk of wildfire to human life, property, and cultural and natural resources and to manage our lands for habitats as mandated by statute, treaty, and other authorities.</i> • <i>Appropriate management response will consider firefighter and public safety, cost effectiveness, values to protect, and natural and cultural resource objectives,</i> • <i>Staff members will work with local cooperators and the public to prevent unauthorized ignition of wildfires on our lands.</i> <p>2.1.e. List any FWS unit-specific policies related to fire management (e.g. unit-specific CFRs); describe how your FMP meets this direction.</p>
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2.2 Land / Resource Management Planning

Required Elements	2.2	Identify documents that relate to the area covered by the FMP including interagency efforts.
FWS Guidance	2.2	Land/Resource Management Planning documents.
	2.2.a	List FWS and other agency land management documents (CCPs, habitat management plans, regional management plans, etc.) that establish the goals, objectives, standards, guidelines, desired future conditions, and constraints detailed in Chapter 3.
	2.2.b.	<p>Compliance Documents</p> <p>Although not required, FWS recommends listing compliance documents relating to, at minimum, the National Environmental Policy Act (NEPA), the Endangered Species Act of 1973 (ESA), the National Historic Preservation Act of 1966 (NHPA), and the Archeological Resources Protection Act of 1979. (And any others pertinent to the FMP area.) Provide short statements of how compliance was accomplished.</p> <p>NEPA Compliance – The Service has procedures for assessing environmental effects of specific Service actions. Consult with the Regional NEPA</p>

	<p>Coordinator for details on Service policy and processes.</p> <p>Example statements: <i>NEPA compliance was accomplished by completion of an Environmental Assessment (EA) for the fire management program in May 2002. After a public comment period, on October 14, 2002 the Refuge Project Leader signed a Finding of No Significant Impact (FONSI), which is in official files at Refuge Headquarters. The project leader has determined that the activities envisioned in this FMP update are similar in scope and effect as those covered by the EA and therefore a new EA is not needed.</i></p> <p><i>In conjunction with the 2002 EA, the refuge requested a Biological Assessment from Ecological Services in March 2002. In May of that year, ES concurred with the refuge that actions authorized by the FMP would not have adverse affects.</i></p> <p><i>All FMP actions/decisions comply with Section 106 of NHPA per the terms of the working agreement between the refuge and the State Historic Preservation Offices.</i></p>

2.3 Fire Management Partnerships

Required Elements	2.3	Identify any internal and external fire management partnerships or planning teams that help you develop this FMP.
FWS Guidance	2.3.a.	Internal partners or interdisciplinary teams that assisted in developing FMP.
	2.2.b.	List external partnerships that assisted in developing the FMP; i.e., FPA partners, tribal governments, state and local governments, local fire departments, collaborative community efforts, etc.

3.0 Fire Management Unit Characteristics

The intent of this chapter is to articulate specific objectives, practices, and considerations common to all FMUs and unique to individual FMUs.

3.1 Area Wide Management Considerations

Required Elements	3.1. a.	Describe fire management related goals, objectives, standards, guidelines and/or desired future conditions found in appropriate land or resource management plans that apply across all FMUs. Include fire management related goals that may come from non-fire program areas within the land use plan or other planning documents. <u>(If only one FMU, consider elements and guidance in both 3.1 and 3.2)</u>
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	<p>3.1. b. Identify additional fire management goals or objectives found in area-wide guidance, such as regional initiatives.</p> <p>3.1.c. Describe any common characteristics (e.g. topography, fuels, prevailing winds) that occur across all FMUs</p>
<p>FWS Guidance</p>	<p>3.1.a. Fire management related goals, objectives, standards, guidelines, desired future conditions and constraints common to all FMUs from land management plans.</p> <p>List the goals, objectives, etc. Goals could be in a CCP or in older/other land use plans (Review FWS planning process in 602 FW 1 -4, and 602 FW 1 exhibit 1)</p> <p>Example goals, objectives, constraints -- from CCPs (3.1.a) or step-down plans (3.1.b):</p> <ul style="list-style-type: none"> • <i>Manage fire suppression to minimize risks to firefighter and public safety,</i> • <i>Allow fire its natural role in wilderness areas and in fire-dependent ecosystems,</i> • <i>Reduce and maintain hazardous fuels in WUI areas at non-hazardous levels to provide for public and firefighter health and safety,</i> • <i>Reduce and maintain hazardous fuels in non-WUI areas non-hazardous levels to provide for firefighter health and safety and to protect habitats critical to endangered species, migratory birds, and ecosystem integrity,</i> • <i>Where appropriate, use prescribed fire programs to mimic pre-settlement fire intervals and intensities to restore ecosystem integrity and endangered species habitat,</i> • <i>Use other treatment types to reduce hazardous fuels where prescribed fire is not appropriate,</i> • <i>Aerial retardants and foams will not be used within 300 feet of any waterway,</i> • <i>No wildland fire camp with more than 40 people is allowed in wilderness areas,</i> • <i>Ground disturbed by suppression activities will be rehabilitated,</i> • <i>Heavy equipment use will be closely monitored in designated areas to minimize impacts on cultural resources, and</i> • <i>Prevent the further spread of invasive plants</i> <p>3.1. b. List fire management related goals, objectives, standards, guidelines, desired future conditions and constraints found in documents</p> <p>List goals, etc. and source. Examples of source documents include:</p> <ul style="list-style-type: none"> • NEPA/other compliance associated with the FMP, CCR, or other plans, • Treaties or agreements with tribes, local governments, or other

	<p>entities,</p> <ul style="list-style-type: none"> • State or tribal air quality plans or SIPs; i.e., smoke sensitive areas, • Species or habitat conservation plans, • Regional initiatives. • Service Manual <p>Example: <i>Structural fire suppression is the responsibility of local governments. We may assist with exterior structural protection activities under formal Fire Protection Agreements that specify mutual responsibilities, including funding. (Red Book 01-3)</i></p> <p>Example: <i>These operational standards in the Service manual (095 FW 3):</i></p> <ul style="list-style-type: none"> • <i>An initial action and an appropriate management response is required for every wildfire on or threatening our lands.</i> • <i>The range of appropriate management responses to wildfires may include direct or indirect attack of high and/or low intensities, or surveillance and monitoring to ensure fire spread will be limited to a designated area.</i> • <i>When specifically addressed in approved FMPs, we can use naturally ignited wildland fires to accomplish resource management objectives.</i> • <i>Surveillance is an appropriate management response to a wildfire if so designated in an approved FMP or selected through an appropriate analysis (WFSA) process.</i> • <i>If a wildland fire changes so it will not meet objectives listed in operational plans (WFIP/ prescribed fire plan), it must be declared a wildfire, receive an appropriate management response, and have a new strategy selected through a new analysis process (WFSA).</i> • <i>Wildfires in wilderness or other special reserved areas will receive an appropriate management response that includes consideration of wilderness values and completion of a minimum tool analysis in support of the AMR.</i> <p>(Note: <u>A reason wilderness might be considered for its own FMU.</u>)</p> <p>3.1.c. Common characteristics of all FMUs</p> <ul style="list-style-type: none"> • Climate regime, • Soils, vegetation, wildlife, cultural resources, public use/recreation, • fuels models, fuel conditions, and associated fire behavior characteristics, • Past fire effects, • Public and firefighter safety concerns or issues.
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3.2 Fire Management Unit – Specific Descriptions

Required Elements	3.2.a.	FMU characteristics must be described.
	3.2.b.	FMU management guidance must be described.

FWS Guidance	<p>3.2.c. FMU safety considerations must be described.</p>											
	<p>A Fire Management Unit (FMU) is a land management area definable by objectives, management constraints, topographic features, access, values to protect, political boundaries, fuel types, major fire regime groups, etc. that set it apart from the characteristics of an adjacent FMU. The FMU may have dominant management objectives and pre-selected strategies assigned to accomplish these objectives.</p> <p>Consider using a table: <i>Example Table 2: Fire Management Units</i></p> <table border="1" data-bbox="231 381 998 469"> <thead> <tr> <th><i>FMU Name</i></th> <th><i>AMR Strategy</i></th> <th><i>Acres (Burnable)</i></th> <th><i>Fire Regime</i></th> </tr> </thead> <tbody> <tr> <td><i>A</i></td> <td><i>Protection</i></td> <td><i>50,300 (42,300)</i></td> <td></td> </tr> <tr> <td><i>B</i></td> <td><i>Wildland Fire Use</i></td> <td><i>140,111 (125,000)</i></td> <td></td> </tr> </tbody> </table> <p>3.2.a. The description of each FMU should include: (consider using maps or tables in this section).</p> <ul style="list-style-type: none"> • FMU name, location and vicinity map, • Acres by ownership, and adjacent ownership and jurisdiction, • Unique physical characteristics affecting fire management (topography, soils, access, fire effects, etc.), (or lumped in 3.1.c) • Vegetation types/fuel models and burnable acres, (or lumped in 3.1.c) • Ten year average number of wildfires and acres burned, (or lumped in 3.1.c) • Ten year (or five year) average fuel treatment acres by WUI and non-WUI fuels, and by treatment type - prescribed fire and non-fire, • Number and acres of Burned Area Rehabilitation projects, (if any), • LANDFIRE vegetation descriptions/information (if useful), <p>3.2.b Values to protect:.</p> <ul style="list-style-type: none"> • T&E or special status species, • Air quality (Class I airsheds, non-attainment areas, and sensitive receptors), • Cultural resources, • WUI location and information such as Communities at Risk (CARs), Communities of Interest (COIs) information, CWPPs or equivalent, • Natural resources (winter range, timber, watersheds) • Special designations (Wilderness, Wild & Scenic River, HMAs), • Hunting and recreation, subsistence use (Alaska), • Mining, oil and gas wells and right-of-ways, • Acres within acquisition boundaries in other ownership, • Structures lacking defensible space, water supply issues, • Agency owned structures and structures/communities off-FWS land where FWS has wildfire protection responsibility. 	<i>FMU Name</i>	<i>AMR Strategy</i>	<i>Acres (Burnable)</i>	<i>Fire Regime</i>	<i>A</i>	<i>Protection</i>	<i>50,300 (42,300)</i>		<i>B</i>	<i>Wildland Fire Use</i>	<i>140,111 (125,000)</i>
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<i>B</i>	<i>Wildland Fire Use</i>	<i>140,111 (125,000)</i>										

	<p>3.2.c. FMU-specific fire management goals, objectives, standards, guidelines, desired future conditions and constraints, for example:</p> <ul style="list-style-type: none"> • Fire regime and fire intensity levels, • Desired vegetation communities, • Types of fuels treatments, • Any acreage limits by vegetation communities, desired FRCC changes, etc. <p>3.2.d. FMU-specific Appropriate Management Response (AMR) response strategies.</p> <ul style="list-style-type: none"> • Retardant or chemical use restrictions (limitations). • Equipment limitations • Preferred strategies and tactics <p>3.2.e. Safety considerations specific to the FMU. Consider, for example:</p> <ul style="list-style-type: none"> • Public access to fire areas • Smoke impacts on highway safety • Gas and power lines, • Mine shafts, • Unexploded ordnance (UXO), • Communications issues, • Hazards from poisonous plants, venomous animals, predatory animals, • Illegal dump sites, illegal drug operations

4.0 Wildland Fire Operational Guidance

The intent of this chapter is to document the procedures used in the area covered by the FMP to implement the Wildland Fire Management Program.

4.1. Appropriate Management Response

Required Element	4.1 Describe or reference program procedures that should be in place for planning and responding to fires. Procedures to be included are dependent on local, agency and interagency needs.
FWS Guidance	<p>4.1. Summarize the general wildfire program direction for the FMP area. Include how to apply AMR, how to make decisions on initial actions, extended attack and large fire suppression. Incorporate sections of <u>Interagency Standards for Fire and Fire Aviation Operations.</u>, chapters 10 – 18, by reference.</p> <p>4.1.a. Overview of AMR direction and constraints</p> <ul style="list-style-type: none"> • Examples of the range of typical fire complexity and size. • Range of appropriate management response allowed – include statement regarding wildland fire use – is it allowed or not

	<p>allowed?</p> <ul style="list-style-type: none"> • Incident Commander authority to implement AMR. • Summarize and reference interagency or inter-governmental agreements (e.g., mutual aid agreements, fire protection agreements) included in appendices <p>4.1.b. Preparedness</p> <ul style="list-style-type: none"> • Seasonal readiness activities (consider table in appendix) • Fire weather station and fire danger rating operating plans (appendix), • Cache and supply levels, • Management direction and response for escalating burning conditions, fire activity, and resource commitment (local, regional, and national preparedness levels), and associated unit step-up/staffing plans, dispatch plans, etc. <p><u>For step-up and readiness plans, a unit should use the index (ERC, BI, KBDI, Canadian index) that best represents a typical fire season.</u> If drought and other influences suggest actual conditions diverge from “typical,” consider building a table that includes different indices for different conditions; i.e., typical and extreme.</p> <p>4.1.c Detection capabilities</p> <p>4.1.d Initial response and initial attack operations</p> <ul style="list-style-type: none"> • Dispatching • Size-up • Implementing AMP on initial attack • Communications <p>4.1.e. Extended attack and large fire management</p> <ul style="list-style-type: none"> • Unit-specific process for completing analysis tools (WFIP, WFSA, etc.) delegations of authority to ICs (detail responsibilities as needed). <p>4.1.f. Wildland fire use operations (if applicable: otherwise, not needed)</p> <ul style="list-style-type: none"> • historic and future wildland fire use activity or potential, • decision criteria (Go, No-GO checklist), • implementation procedures (reference Wildland Fire Use Implementation Procedures Reference Guide, May 2005), • general FMU-wide constraints, <p>4.1.g Reports</p> <ul style="list-style-type: none"> • Standards and responsibility for daily fire reports and individual fire reports, <p>4.1.h. <i>Summarize the unit’s aviation use or aviation program plan, if any.</i></p> <ul style="list-style-type: none"> • (appendix), • Cache and supply levels, • Detection capabilities,
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- Standards and responsibility for daily fire reports and individual

Examples of suppression direction:

- When evaluating appropriate management response, we will consider risks to public and firefighter safety and to values to protect, and the cost of the various mitigation strategies and tactics.*
- Wildfires will be staffed or monitored during active burning periods until under control and as needed to maintain control until declared out.*

All wildfires will be supervised by a qualified incident commander (IC) responsible to

- Assess the fire situation and make a report to dispatch as soon as possible.*
- Use guidance in this FMP or a delegation of Authority to determine and implement an appropriate management response.*
- Determine organization, resource needs, strategy and tactics.*
- Brief incoming and assigned resources on the organization, strategy and tactics, weather and fire behavior, LCES, seasonal and historic ERCs, and radio frequencies.*
- Advise dispatch of resources needed for the AMR.*
- Manage the incident until relieved or the fire is suppressed.*

The FMP and a delegation of authority can provide a general strategy to an IC, who has discretion to select and implement appropriate tactics within the limits described for the FMU(s), including when and where to use minimum impact suppression tactics (MIST) unless otherwise specified. All resources, including mutual aid resources, will report to the IC (in person or by radio) and receive an assignment prior to tactical deployment.

Example language for reports (095 FW 3):

We will file an Individual Fire Report (DI-1202) for the following types of fires within 10 days of a fire being declared out:

- *All wildfires on FWS and FWS-protected lands.*
- *Wildfires threatening our lands on which we take action.*
- *All prescribed fires that remain within prescription on our lands.*
- *All escaped prescribed fires. When a fire exceeds prescription, treat must be declared a wildfire, and a separate new report filed to report acres burned by the wildfire from the time of declaration to the time of being declared out.*
- *All false alarms responded to by field office staff.*

DI-1202s are required regardless of who takes action, e.g., FWS engine, cooperator, or contractor. When we take initial attack off our lands, the

	<p><i>agency with jurisdiction where the fire occurs will file a report and we will file a limited report to document our response and to support potential billing to non-federal entities for trespass fires.</i></p> <p>Example for wildland fire use: <i>Wildland fire use results from ignitions by lightning in areas identified on FMU maps where the strategy of wildland fire use is suitable. We will use an analysis aid (WFIP) to examine potential response strategies. ERCs for the appropriate fuel model will be used as constraints within the Go-no-go checklists. The specific criteria are included within sections 3.1 and 3.2 above.</i></p>
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4.2 Hazardous Fuels Management

If within the FMP area, no prescribed fires are planned and there is no intent to report non-fire vegetation work as hazardous fuels treatments, and there is no expenditure of hazard fuels projects funds, this section is not needed, unless for low complexity debris burning.

Required Elements	<p>4.2 Describe or reference planning and implementation processes for fuels treatment by mechanical, chemical, biological, or prescribed fire methods. Procedures to be included are dependent on local needs.</p>
FWS Guidance	<p>4.2.a. Describe the hazardous fuels and prescribed fire for habitat programs including compliance with agency policy.</p> <p>Incorporate by reference the <u>Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide, September 2006</u>), chapter 18 of the <u>FWS Fire Management Handbook</u> and <u>Interagency Standards for Fire and Fire Aviation Operations</u>.</p> <p>4.2.a.1 Overview of program objectives, strategies, and scope</p> <ul style="list-style-type: none"> • Season of activity • Range of typical prescribed fire complexity and size • NEPA compliance if needed on a project by project basis • Summarize historic and expected prescribed fire and hazardous fuels activity in WUI/non-WUI. (Consider a map to identify WUI and non-WUI areas). • List annual or ten year targets/limits (if identified). • Correlation with FMUs (if applicable) • Incorporate and summarize other pertinent references (local fire history studies, fire and habitat studies, fire effects information and reports, etc.) (IF not in 3.1.c) <p>4.2.a.2. Regional and National preparedness levels and their effect</p> <p>4.2.a.3. Project planning</p> <p>4.2.a.4 Project implementation</p>

4.2.a.5 Smoke Management

4.2.a.6. After Action Reviews

4.2.a.7. Reports

Example language:

All prescribed fires must comply with NEPA requirements. An EA must be prepared for each Prescribed Fire Plan unless: (a) the field office's approved FMP or planning documents and the accompanying environmental document adequately discuss the action; or (b) a categorical exclusion covers the activity. (621 FW 2)

Cooperators, contractors, and casual hires (AD) may be used to implement prescribed fires. ADs must meet FWS standards. Cooperators, such as members of Volunteer Fire Departments, must have appropriate qualifications certified by their agency. Those who supervise FWS employees during prescribed fires must meet FWS standards.

An After Action Review (AAR) should be completed after all prescribed fire and hazardous fuels activities. This AAR will focus on performance standards to enable agency administrators and firefighters to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses.

The Burn Boss will document the conditions under which the burn was conducted in order to evaluate how closely the prescribed fire conformed to planned fire behavior, what unanticipated difficulties were encountered during the action, and how well the prescribed fire accomplished the desired results.

A prescribed fire must be declared a wildfire by those identified in the burn plan when that person(s) determines that the contingency actions have failed or are likely to fail and cannot be mitigated by the end of the next burning period. An escaped prescribed fire must be declared a wildfire when the fire has spread outside the project boundary, or is likely to do so, and cannot be contained by the end of the next burning period. A prescribed fire can be converted to a wildfire for reasons other than an escape. An appropriate management response will be made to such incidents and a formal analysis (WFSA) undertaken when needed.

Prescribed fires may be ignited during National Preparedness Level 4 or 5 as specified in the National Interagency Mobilization Guide.

The public will be informed of prescribed fires through news releases, interpretive messages, and educational programs. Individual prescribed fires should not be conducted without informing those agencies and members of the

	<p><i>public likely to be impacted</i></p> <p><i>We use a low complexity debris burn plan for debris disposal projects. The FMO will review the complexity of planned projects to ensure use of the plan is consistent with its intent. The plan (in appendix) will be reviewed annually and updated as needed.</i></p> <p>4.2.b. Describe the non-fire hazardous fuels program including planning and implementation.</p> <ul style="list-style-type: none"> • Summarize historic and future non-fire fuels treatments by WUI/non-WUI. • Give examples of the range of typical project complexity and size. • List annual or ten year targets/limits, if established. • Incorporate by reference and summarize local agreements (formal/informal), and other pertinent references <p>4.2.c. Describe processes used to identify hazardous fuels treatments.</p> <ul style="list-style-type: none"> • Risk assessments (potential of spread off FWS-lands and consequences), • Treatment plans developed in collaboration with adjacent landowners/agencies, • Community Wildfire Protection Plans or equivalent, etc. • Collaboration meetings with State, country, Tribal and/or private partners
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4.3 Emergency Stabilization and Rehabilitation

<p>Required Elements</p>	<p>4.3 Describe or reference emergency stabilization (ES) and post-fire burned area rehabilitation (BAR) planning and implementation. Use the Department Manual (620 DM 3) and agency specific-direction for guidance.</p>
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<p>FWS Guidance</p>	<p>4.3. This section only needs to address situations where natural recovery is not likely to be a viable option.</p> <ul style="list-style-type: none"> • Summarize previous ES and BAR treatments, their effectiveness and costs. • Describe or reference the process to be used to develop ES and BAR plans. • Describe (specifically as possible) anticipated post-wildfire ES and BAR issues and their relationship to approved management plans, (e.g., fire damage to desert bighorn sheep guzzlers in the Coot Creek watershed -- desert bighorn sheep management requires artificial water sources in this watershed [HMP]), • Identify which Department Manual 620 DM 3.7.M (ES) or 620 DM 3.8.M (BAR) allowable actions will be used to address the anticipated issues (e.g., repair or replacement of fire damaged guzzlers [BAR]). <p>Suggested language: <i>Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health, safety, and to help communities protect infrastructure.</i></p> <p><i>Natural recovery is the preferred ES or BAR treatment.</i></p>
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4.4 Prevention, Mitigation and Education

<p>Required Elements</p>	<p>4.4.a. Describe or reference wildland fire prevention, education, and mitigation strategies. Procedures to be included depend on local agency needs.</p>
<p>FWS Guidance</p>	<p>4.4.a. Summarize and reference local prevention, mitigation, and education plan and activities (if applicable). Include community assistance activities (school programs, fairs, mailers, annual public meetings and cooperative activities, signing, wildfire coordinating councils, etc.), and grant programs.</p> <p>Consider the following language:</p> <ol style="list-style-type: none"> (1) <i>The objective of fire prevention activities is to prevent human-caused wildfires.</i> (2) <i>Our outreach goal is to enhance knowledge and understanding of wildland fire management policies and practices through internal and external communication and educations.</i> (3) <i>The inadvertent or intentional ignition of wildland fuels by humans is illegal. We will investigate all human-caused wildfires at the earliest possible time. The investigation may range from a documented determination of cause by the initial attack crew to criminal investigation by a qualified arson investigator.</i>

5.0 Monitoring and Evaluation

The intent of this chapter is to document processes for determining whether the FMP is being implemented as planned and fire-related goals and objectives are being achieved.

Required Elements	5.0 Describe monitoring processes that will be used to measure achievement of FMP objectives. Procedures to be included are dependent on local agency needs.
FWS Guidance	<p>5.1 Fire Management Plan monitoring. Example language: <i>FMPs will be reviewed annually and updated as needed, upon local agency administrator approval. Revisions of FMPs with Regional review and concurrence are required every five years and following completion of a new (or significantly revised) CCP or habitat management plan.</i></p> <p>5.2 Treatment effectiveness monitoring,</p> <ul style="list-style-type: none"> • Describe processes used to monitor fire and non-fire treatment effects (methods such as FIREMON and others set up locally), • Include review of post-treatment AARs and fire effects evaluations.

FWS guidance for Glossary

Reference NWCG glossary. In FMP glossary, only include words used locally/regionally.

FWS guidance for Appendices

Include plans and documents that need to be reviewed and/or updated annually, e.g.:

- Preparedness step-up/staffing plan,
- Fire danger operating plan,
- Agreements and MOUs,
- Staff responsibilities, personnel qualifications, directory/call-up list,
- Fire equipment/vehicle list,
- Radio frequencies,
- Burn plan for debris burning (if applicable),
- Maps related to the FMUs,
- Documents that provide significant input into the fire program or the FMP, such as CWPPs (or similar) or program reviews

We strongly suggest an **additional new appendix** to:

- Assess/update post-2000 fire history in terms of expected fire behavior and risk,
- Describe expansion of adjacent and nearby WUI and compare fire management priorities and protection policies with state, local, tribal neighbors – and public and private interests,
- Briefly state cost management expectations for fire management programs, and
- Ensure strong links between cost expectations and other FMP constraints in the analysis process (WFSA/WFIP).

FMP Template Guidance – Extension 1

This extension is included as a reference only. A list of authorities for wildland fire management is not a required element in the 2007 interagency FMP template or the FWS guidance for that template. One possible exception may be when FMPs are stand-alone documents, not a step-down plan from a CCP and with no associated NEPA document. Including the list of authorities as an appendix in this case should be considered.

The following statutes authorize us and provide the means for managing wildland fires on our lands or that threaten FWS lands and on adjacent lands:

- A. Protection Act of September 20, 1922 (42 Stat. 857; 16 U.S.C. 594) Authorizes the Secretary of the Interior to protect, from fire, lands under his/her jurisdiction and to cooperate with other Federal agencies, States, or owners of timber.
- B. Economy Act of June 30, 1932 (47 Stat. 417; 31 U.S.C. 1535). Authorizes Federal agencies to enter into contracts and agreements for services with each other.
- C. Reciprocal Fire Protection Act of May 27, 1955 as amended by the Wildfire Suppression Assistance Act of 1989 (69 Stat. 66, 67; 42 U.S.C. 1856a)(102 Stat. 1615). Authorizes reciprocal fire protection agreements with any fire organization for mutual aid with or without reimbursement and allows for emergency assistance in the vicinity of agency facilities in extinguishing fires when no agreement exists.
- D. National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 and the Refuge Recreation Act of 1962.(80 Stat. 927)(16 U.S.C. 668dd-668ee)(16 U.S.C. 460k-460k4). Governs the administration and use of the National Wildlife Refuge System.
- E. Alaska Native Claims Settlement Act of December 18, 1971. (88 Stat. 668; 43 U.S.C. 1601). Alaska Natives' lands are to continue to receive forest fire protection from the United States at no cost until they become economically self-sufficient.
- F. Disaster Relief Act of May 22, 1974. (88 Stat. 143; 42 U.S.C. 5121). Authorizes Federal agencies to assist State and local governments during emergency or major disaster by direction of the President.
- G. Federal Fire Prevention and Control Act of October 29, 1974 et seq. (88 Stat. 1535; 15 U.S.C. 2201) as amended. Authorizes reimbursement to State and local fire services for costs incurred in firefighting on Federal property.
- H. Federal Grants and Cooperative Act of 1977. (Pub. L. 95-244, as amended by Pub. L. 97-258, September 13, 1982. 96 Stat. 1003; 31 U.S.C. 6301-6308). Eliminates unnecessary administrative requirements on recipients of Government awards by characterizing the relationship between executive agencies and contractors, States and local governments and other recipients in acquiring property and services in providing U.S. Government assistance.

I. Alaska National Interest Lands Conservation Act of December 2, 1980. (94 Stat. 2371, 43 U.S.C. 1602-1784). Designates certain public lands in Alaska as units of the National Park, National Wildlife Refuge, Wild and Scenic Rivers, National Wilderness Preservation, and National Forest systems resulting in general expansion of all systems. Any contracts or agreements with the jurisdictions for fire management services listed above that were previously executed will remain valid.

J. Supplemental Appropriation Act of September 10, 1982. (96 Stat. 837). Authorizes Secretary of the Interior and Secretary of Agriculture to enter into contracts with State and local government entities, including local fire districts, for procurement of services in pre-suppression, detection, and suppression of fires on any unit within their jurisdiction.

K. Wildfire Suppression Assistance Act of 1989. (Pub. L. 100-428, as amended by Pub. L. 101-11, April 7, 1989). Authorizes reciprocal fire protection agreements with any fire organization for mutual aid with or without reimbursement and allows for emergency assistance in the vicinity of agency facilities in extinguishing fires when no agreement exists.

Other Policy References

1. Departmental Manual, 620 DM 1-3, Wildland Fire Management, General Policy and Procedures; Wildland Fire Management, General Policy and Procedures – Alaska; and Burned Area Emergency Stabilization and Rehabilitation.

2. United States Fish and Wildlife Service Manual sections 095 FW 3 Emergency Preparedness and Response -- Wildland Fire Management, 241 FW 7 Wildland Fire Safety, 232 FW 6 Training Standards for Wildland and Prescribed Fire Operations, 621 FW 1 Wildland Fire Policies and Responsibilities, 621 FW 2 Fire Management Planning, and 621 FW 3 Prescribed Fire.

3. United States Fish and Wildlife Service Fire Management Handbook

4. Interagency Standards for Fire and Fire Aviation Operations

5. Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide, September 2006

6. National Wildlife Refuge System Wildland Fire Management Strategic Plan (May 2006)

7. Wildland Fire Use Implementation Procedure Reference Guide, May 2005

8. A Collaborative Approach for Reducing Wildfire Risks to Communities and the Environment: 10-Year Strategy Implementation Plan (December 2006)

9. National Fire Plan (September 2001) and Healthy Forest Initiative (August 2002)

FMP Template Guidance Extension 2 – Examples

Examples of tables for appendices shown here are not required, but could be modified and used.

Example Table 3: Annual Refuge Fire Management Readiness Activities

<i>Activities – Complete before end of month</i>	<i>J</i>	<i>F</i>	<i>M</i>	<i>A</i>	<i>M</i>	<i>J</i>	<i>J</i>	<i>A</i>	<i>S</i>	<i>O</i>	<i>N</i>	<i>D</i>
<i>Update Interagency Fire Agreements/AOP's</i>	x											
<i>Winterize Fire Management Equipment</i>										x		
<i>Inventory Fire Engine and Cache</i>		x										
<i>Complete Training Analysis</i>										x		
<i>Annual Refresher Training</i>			x									
<i>Annual Fitness Testing</i>			x									
<i>Pre-Season Engine Preparation</i>			x									
<i>Weigh Engines to verify GVW Compliance</i>			x									
<i>Prescribed Fire Plan Preparation</i>			x									
<i>Review and Update Fire Management Plan</i>				x								
<i>Prepare Pre-season Risk Analysis</i>			x									
<i>Weather Station Maintenance and Calibration</i>										x		

Example Table 4. Appropriate Management Response

<i>Potential situation</i>	<i>Potential strategy</i>	<i>Potential tactics</i>
<i>Unplanned ignition on Refuge lands which does not threaten life, natural or cultural resources or property values.</i>	<i>If FMU objectives allow, evaluate fire for wildland fire use. If not, identify area where fire might be expected to remain with limited or partial perimeter control.</i>	<ol style="list-style-type: none"> <i>1. Monitor fire spread and intensity.</i> <i>2. Identify management action points and tactical actions at those points. Prepare to respond as needed.</i> <i>3. Public information.</i> <i>4. Patrol and surveillance.</i>

<p><i>Wildfire burning onto Service lands with no immediate threat to human life and no high value resources to protect.</i></p>	<p><i>Suppression strategy with effective cost management in line with values to protect.</i></p> <p><i>Protect values as needed by point protection or partial perimeter control.</i></p>	<ol style="list-style-type: none"> <i>1. Monitor fire spread and intensity.</i> <i>2. Use natural and constructed barriers to keep fire within a planned boundary. As needed, construct, burnout, and hold direct and indirect line.</i> <i>3. Assess need for mop-up inside fire edge.</i> <i>4. Patrol and surveillance.</i>
<ol style="list-style-type: none"> <i>1. Wildfire that threatens life, property or sensitive resources.</i> <i>2. Extreme fire behavior observed or expected.</i> 	<p><i>Protect values threatened.</i></p> <p><i>Where safe, attack full fire perimeter aggressively to keep fire small.</i></p>	<ol style="list-style-type: none"> <i>1. Continually monitor advance of fire edge as possible.</i> <i>2. Deploy forces to protect values.</i> <i>3. Use air and ground attack where safe and effective.</i> <i>4. Plan for extended attack.</i>

Chapter 10

Preparedness

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 10 in addition to the following FWS specific clarifications:

Preparedness Level/Step-up Plans

Step-up Plans are developed for information in the Fire Danger Rating Operating Plan. For Service-wide planning, the burning index (BI) will be the standard for making comparisons, etc. Another fire danger index other than the BI can be used if there is sufficient justification. All proposed indexes must be based on objective historic weather data appropriate for each refuge. The same climatological breakpoints will be used (90th and 97th percentiles). Regional approval is needed for making the change.

Step-up Plan Funding - Subactivity 9141: Emergency Preparedness

Emergency preparedness actions carried out in response to an approved Step-Up Plan. During the wildland fire season there may be short-term weather events and increased human activity that increase the fire danger beyond what is normal. These types of occurrences cannot be planned or budgeted for as part of the normal fire season.

Emergency preparedness planning may call for movement of additional firefighting resources into the area or lengthening the duty day to provide extended initial attack coverage. The duration of this type of event may be from one day to a maximum of two weeks, and may occur several times during the fire season. The triggering of emergency preparedness funding is documented in the refuge Step-Up Plan. It should be not be confused with severity funding which is justified by prolonged environmental problems.

The decision to use emergency preparedness funds is made at the refuge level with approval of the Regional Fire Management Coordinator. Authorization for use of emergency preparedness funding will be found in an approved refuge Step-Up Plan when staffing classes reach level 4 or 5. If a refuge Step-Up Plan is not complete, the RFMC will establish interim guidance for initiating emergency preparedness. The frequency and use of emergency preparedness funding will be documented through the use of the following Region specific project numbers:

Region	Project Number
1	PE01
2	PE02
3	PE03
4	PE04
5	PE05
6	PE06
7	PE07
8	PE08

Sample Step-Up Plan

Staffing Class	Burning Index	Step-Up Action
1	0-11	Fire danger rating signs at visitor concentration areas activated at start of fire season. Normal tours of duty and normal numbers of initial attack/monitor personnel will be available.
2	12-22	Same as SC-1.
3	23-55	<p>All fire equipment use for project work will be brought in at the end of each day and maintained in a fire ready condition.</p> <p>In addition to SC-1. If predicted or observed lightning activity level (LAL) is 4, 5, or 6, automatically move up to SC-4.</p> <p>If a high visitation period has been determined to pose exceptional human caused risk of wildland fire, move to SC-4 (e.g. historic records of a specific three-day holiday weekend, opening days of hunting seasons on adjacent lands producing additional human caused fires).</p> <p>If live and/or dead fuel moistures are sufficiently low (e.g. live fuel moisture in sagebrush of 90%, 100 HR TL FM 7%, 1000 HR TL FM 9%) to allow rapid fire spread or high fire intensity in the presence of wind, step-up may be moved to SC-4. This section is included because wind velocities often increase in late afternoon after NFDRS indices have been obtained for the day.</p>
4	56-71	<p>All fire equipment will be kept in a fire ready condition and positioned appropriately. No fire equipment will be used for project work.</p> <p>If the LAL is between 3 and 6, a fixed wing detection over-flight may be requested from an adjacent cooperator. If cooperating aircraft are not available, a fixed wing aircraft may be hired for a detection flight. Cooperators and the RFMC will be advised of these situations daily.</p> <p>The normal tour of duty for fire lookouts will ordinarily be staggered, with one lookout staffed from 0800 to 1630 and the other staffed from 0930 to 1800. Tours of duty will be extended through the burning period and/or during distinct evening and nighttime periods when the observed LAL is 3 or greater or when observations suggest the likelihood of LAL between 3 and 6. If these LAL levels occur during the night, the lookouts should begin detection efforts by 0800 the next morning.</p>

		<p>Intensified road and campground patrols for prevention and detection purposes may be initiated. Interagency detection and suppression efforts will be coordinated by the FMO.</p> <p>In these situations, the initial continued attack/monitoring crew will consist of a minimum of two people, one of whom should be qualified as either a fire monitor or a Type IV incident commander, and will be held on duty through the burning period. The standby team in any SC-4 incident should be stationed in the area where risk is considered highest. Other initial attack/monitoring teams may be held on standby in other areas if conditions warrant.</p> <p>Key seasonal personnel will be identified by name and position and evaluated for fire experience after the area's full complement of initial attack/monitoring personnel has been hired.</p> <p>Workweeks and/or daily tours of duty for regular initial attack/monitoring personnel may be expanded, particularly when the observed LAL is between 3 and 6, the predicted LAL is from 4 to 6, and/or the human caused risk is exceptionally high (MR=80).</p> <p>Backcountry permits may be amended to prohibit open fires.</p>
5	72+	<p>All SC-4 actions with further constraints noted below.</p> <p>Tours of duty for fire lookouts will be extended through the burning period and/or during distinct evening and nighttime periods when the observed or predicted LAL is 3 or greater.</p> <p>Workweeks and/or daily tours of duty for regular initial attack/monitoring personnel and key permanent personnel may be expanded, particularly when predicted or observed LAL is between 3 and 6 and/or human caused risk is exceptionally high (MR=80).</p> <p>In these situations, the initial attack/monitoring team will, if possible, consist of a minimum of three qualified people, and will be held on duty through the burning period.</p> <p>The main standby initial attack/monitoring team in any SC-5 incident should be in the area where risk is considered highest. Initial attack/monitoring teams may be held on standby in other areas if conditions warrant.</p> <p>Temporary closures may be imposed on areas in the refuge or for certain activities (e.g. open fires) in conjunction with similar impositions by adjacent land managing agencies.</p>

Wildland Fire Mitigation and Prevention: Information on risk assessments and planning can be found at:

- <http://www.nwccg.gov/pms/pubs>
- [PMS 454 Wildfire Prevention and the Media \(1998\)](#)
- [PMS 456 Wildfire Prevention Patrol Guide \(1998\)](#)
- [PMS 457 Recreation Area Fire Prevention \(1999\)](#)
- [PMS 458 Fire Communication and Education \(1999\)](#)
- [PMS 459 Fire Education Exhibits and Displays \(1999\)](#)
- http://www.nifc.blm.gov/nsdu/fire_planning/rams/
- [Risk Assessment and Mitigation Strategies](#)

Information Systems: There are a number of computer applications, which provide analysis and decision support for fire manager/resource manager. Numerous other computer applications exist which have merit and can be used by refugees, but are not supported by the national office. Supported applications include:

- **Weather Information Management System (WIMS):** A comprehensive system that helps you manage weather information. WIMS is the host for the National Fire Danger Rating System (NFDRS). WIMS accesses the National Interagency Fire Management Integrated Database (NIFMID). NIFMID is a relational database that contains historic fire weather and historic fire record information. WIMS and NIFMID run on the IBM mainframe computer at the USDA National Information Technology Center in Kansas City, and are available on a twenty-four hour basis. WIMS allows you to retrieve weather information by providing timely access to many weather information sources, efficient tools for managing data, data manipulation and display functions, and interactive communications environment. System access is user specific and requires a user identification and password. A WIMS user guide is located on the Internet at <http://famweb.nwccg.gov>. For questions concerning WIMS access please call the WIMS help desk at NIFC (208) 387-5290.
- **Remote Automated Weather Stations (RAWS):** There are nearly 2,200 interagency Remote Automated Weather Stations (RAWS) strategically located throughout the United States – mostly in the Western states. Weather data assists land management agencies with a variety of projects – monitoring air quality, rating fire danger, and providing information for research applications. More information on RAWS is located on the Internet at <http://www.fs.fed.us/raws>.

Most of the stations owned by the wildland fire agencies are placed in locations where they can monitor fire danger. RAWS units collect, store, and forward data to a computer system at the National Interagency Fire Center (NIFC) in Boise, Idaho via the Geo-stationary Operational Environmental Satellite (GOES). The data is automatically forwarded to several other computer systems including the Weather Information Management System (WIMS) and the Western Regional Climate Center in Reno, Nevada.

Fire managers use the data to predict fire behavior and monitor fuels; resource managers also use the data to monitor environmental conditions. Locations of RAWS

stations can be searched online courtesy of the Western Regional Climate Center at <http://www.wrcc.dri.edu>.

- **The Fire Effects Information System (FEIS):** A computerized encyclopedia of scientific information describing the fire ecology of more than 1,000 plants and animal species and plant communities. Access to FEIS is available through the Internet at <http://www.fire.org/perl/tools.cgi>.
- **Wildland Fire Assessment System (WFAS-MAPS):** The broad area component of the Wildland Fire Assessment System (WFAS-MAPS) is generating National Maps of selected fire weather and fire danger components of the National Fire Danger Rating System (NFDRS). NFDRS computations are based on once-daily, mid-afternoon observations (2 p.m. LST) from the Fire Weather Network that is comprised of some 1,500 weather stations throughout the Conterminous United States and Alaska.

Observations are reported to the Weather Information Management System (WIMS) where they are processed by NFDRS algorithms. Many of the stations are seasonal and do not report during the off season. WFAS queries WIMS each afternoon and generates maps from the days weather observations. Each afternoon Fire Weather Forecasters from the National Weather Service also view these local observations and issue trend forecasts for fire weather forecast zones. WIMS processes these forecasts into next-day index forecasts. Additional information is located on the Internet at <http://www.fs.fed.us/land/wfas>.

- **Lightning Detection System (LDS):** Fish and Wildlife Service (FWS), National Interagency Fire Center (NIFC) has an Annual licensing contract with the Bureau of Land Management (BLM) for a pre-determined amount of Lightning User licenses. The User Licenses enables identified FWS Users access to the Bureau of Land Management (BLM) Lightning Detection System. FWS User licenses are updated each time this annual contract becomes due. Identified FWS users can access the site via internet at <http://www.nifc.blm.gov>. A Username and Password is required to access the system. Near real time lightning data can be acquired once logged onto BLM Lightning. Users can generate custom maps for their specific purpose.

Normal Unit Strength (NUS) - Refuges that have a Fire Management Plan should also have a cache of firefighting tools and personal protective equipment (PPE) adequate to support all refuge initial attack staff. The numbers, types, and distribution of materials in caches will be dictated by the staffing, suppression strategy, fuels and fire history of the refuge. Cache equipment, other than capitalized property, is considered to be the station's Normal Unit Strength (NUS). It is the responsibility of the refuge to establish specific refuge and complex initial attack NUS levels. Requirements beyond the initial attack level will be supported through the regional and national fire cache system. Maintenance of NUS is the responsibility of the refuge. NUS is a maximum level of all items for initial attack fire suppression efforts, not for support of fires exceeding initial attack or prescribed fire activities. NUS will include personal protective equipment and safety items required by personnel for prescribed fire assignments. Personnel ordered for extended attack activities

are not to be equipped from the refuge's NUS, but will either come equipped or equipped by a ground support facility. All refuges will develop a NUS list and have it approved by the RFMC. The list will become an attachment to the refuge's Fire Management Plan. Only those approved items may be replaced. The initial stocking of the cache with NUS items is a one-time expenditure of preparedness funds. If additional items are needed, they must be approved through the RFMC. All NUS items are to be maintained in such a way that they are not used for routine refuge operations. This may be accomplished by storing equipment in designated areas protected by a seal or in an individual locked enclosure. The inventory and location of these items should be included in the pre-attack plan. Excess and unneeded supplies and equipment should be transferred to other refuges or interagency caches.

Once a NUS level of equipment and PPE is established, routine replacement of lost, broken or worn out equipment should be through the normal GSA supply channel. Items can be ordered by using the National Stock Number found in the NWCG National Fire Equipment System Catalog, Part 1: Fire Supplies and Equipment, or through the GSA Wildfire Protection Equipment and Supplies catalog. GSA should be considered the first source of supply, but other sources can also be used.

Supporting Ongoing Fires - Ordering - During wildland and prescribed fire operations, support in the form of NUS supplies, other fire suppression equipment, crews and overhead can be ordered through the local interagency zone dispatch/coordination center. In most areas of the country, your order for supplies and/or equipment will not come directly from NIFC, but from the nearest fire cache operated by another Federal agency. Crews and overhead are brought in using the closest forces concept. Resource Order Forms are available that simplify tracking orders from initiation to receipt. These forms are color coded for overhead, crews, supplies and equipment. Fire Management Officers or Regional Fire Management Coordinators can assist in preparing requests.

<u>Item</u>	<u>NUS Formula</u>
Rations, Shelters, Hard Hats, Head Lamps, Goggles, Packs, Line Gear, First Aid Kits, Sleeping Bags, Water Bottles	1 per red-carded individual plus 20%
Tents	1 per red-carded individual
Aramid Pants, Aramid Shirts, Gloves	2 per red-carded individual plus 20% for each size issued
Shovels, Pulaskis, McLeods,	2 per red-carded individual plus 10%

<p>Flaps, Fire Rakes (Hand Tools)</p>	<p>for each type of tool. Mix of tools is determined by station based on local needs.</p>
<p>Flight Helmets</p>	<p>6 per helicopter contract plus 2 spares. Stations w/o contract aircraft that frequently use helicopters for fire activities should obtain 4.</p>
<p>Back Pack Pumps</p>	<p>1 per 2 red-carded individuals</p>
<p>Chain Saws, Portable Pumps, Fold-A-Tank</p>	<p>As approved by the RFMC depending on firefighting tactics.</p>
<p>Foam</p>	<p>15 gallons per engine</p>
<p>Hose - Portable Pump used for hose lays or any size engine</p>	<p>1.5 inch -900 feet 1 inch - 900 feet</p>
<p>Nozzles (1" and 1.5" - total)</p>	<p>2 - Portable Pump 4 - Light Engine 5 - Medium or Heavy Engine Plus 20% for total number of nozzles on engines, water and foam combined</p>
<p>Wyes, Tees, Wrenches, Relief Valves, Hose Clamps, etc.</p>	<p>2 - Portable Pump 2 - Light Engine 3 - Medium Engine 4 - Heavy Engine Plus 10% for each item listed as required in the inventory</p>
<p>Adapters and Reducers (Based on local and anticipated needs)</p>	<p>2 - Portable Pump 2 - Light Engine 4 - Medium Engine 5 - Heavy Engine Plus 10% for each item listed as required in the inventory.</p>

Fire Prevention/Mitigation**Wildland Fire Cause Determination & Fire Trespass**

Wildland fire trespass refers to the occurrence of unwanted and unplanned wildland fire on Fish and Wildlife Service (Service) lands where the source of ignition is tied to some type of human activity. Fire trespass is a legal/law enforcement activity and the appropriate Service and local law enforcement authorities should be contacted and standard criminal and/or civil investigative procedures and reports used.

The initial determination of the ignition as being human-caused usually results from an eyewitness report or with the arrival of the Initial Attack Incident Commander at the fire scene. Service policy requires any fire to be investigated to determine cause, origin, and responsibility. For all human-caused wildfires where responsibility can be determined, trespass actions are to be taken to recover the cost of suppression activities, land rehabilitation, and damages to the resources and improvements.

To start things in motion, make a thorough investigation of the facts surrounding the fire and provide documentation in a trespass report. The report is completed by the Service employee who discovered the wildland fire trespass or is assigned to the investigation. The trespass report is submitted to the Project Leader. Management shall at this point request assistance from Law Enforcement if there is any question on civil versus criminal penalties.

If the recommendation is to pursue as a trespass action because responsibility can be determined, a case number is assigned from the Refuge Case Log and the investigative file begins. If information at this point indicates the case to be criminal in nature, Law Enforcement takes over further investigation. If information indicates the case will be a civil action, a Refuge employee with knowledge of investigative procedures may pursue the investigative process.

If the investigation is successful, then a Bill for Collection form, DI-1040 (along with other supporting documents) is issued to recover costs. The actions taken at this point are administrative in nature. If the trespasser pays in full, the trespass process ends within administrative channels. If less than full payment is made, then the next recourse is through the court system. At this point, the case will fall into either the civil or criminal process. The Finance Center will be responsible for any subsequent collection notices, and copies of these notices will be furnished to the appropriate organization.

This is a very simple, holistic picture of trespass as related to fire. Depending upon a number of actions and reactions, there are situations where managers must seek advice from appropriate Service specialists and Field or Regional Solicitors (Solicitor) through established channels. The question of civil versus criminal recourse requires outside input from technical experts. The nuances of investigation under civil versus criminal cases differ, and require expert advice.

This Chapter should not be relied upon as the final authority in pursuing wildland fire trespass cost recovery. The references cited in the Departmental Manual, Part 620, 50 CFR, Part 28.32, and the Service Manual should be reviewed by those involved in wildland fire trespass. Managers need to know or be advised on what their roles, limitations, and capabilities are in trespass cases (Service Manual 621 FW 1.5).

The costs incurred during suppression operations must be recovered in full if there is the ability to pay. There is no room for negotiation on these costs. If the ability to pay does not exist, a court decision could be handed down that might provide for payment in kind.

The manager does have the latitude to recommend alternative methods for recovery of damages to natural resources or improvements. This recommendation would be forwarded to the Solicitor through appropriate channels for a decision. If full payment is not made to the Service while in the administrative phase of trespass, then it falls to the legal system and its representatives to recover costs in whatever form is most appropriate.

It should also be remembered that an aggressive trespass program is also an excellent prevention program. An appropriate level of media attention should be given to successes of the trespass program in an effort to emphasize the positive preventative actions that can be gained.

Fire Investigation

Introduction

All fires must be thoroughly investigated to determine cause and if negligence and/or criminal intent were factors. Whether the fire was started from a careless act or was willfully set must be determined in order to develop a successful fire investigation. Fire investigation must be concurrent with fire suppression. The investigator must arrive on the fire scene and complete the investigation as soon as possible, since evidence is easily destroyed. The information in this chapter will assist all personnel in completing this important, but tedious and time consuming job.

Cause Determination - Initial Attack

Things To Do En Route To The Fire

YOU MUST START YOUR FIELD NOTES AT THE TIME YOU RECEIVE THE FIRE REPORT. Your notes from the time the initial report of fire is received until you arrive at the fire should include the following information: Reference NFES 1874 – Wildfire Origin & Cause Determination Handbook 1 (Revised 2005)

- **Identification of yourself.** Put your name, unit, and a title on your notes.
- **Time and date.** Record the time and date you received the initial report of the fire.
- **Person reporting fire.** Record the complete identification of the person reporting the fire. This person may be the only witness your fire investigator will be able to interview. Be sure to get their address and telephone number, if possible.

- **People and/or vehicles.** Record complete descriptions (including license numbers), locations, and time of any people or vehicles observed coming from the direction of the fire.
- **Gates and/or tracks.** Record any gates that are broken, open, or locked. If on dirt roads or trails, watch carefully for vehicle tracks or footprints. Drive or walk in such a manner as to avoid disturbing these tracks. Notify the fire fighters following you of their presence and the need for protection.
- **Smoke column.** While en route, observe the appearance of the smoke column and make an estimate of wind direction and approximate speed. Estimate the size of the fire and record the time and observations in your notebook.
- **Weather items.** Record weather conditions, temperature, type of clouds, rain, etc.
- **Other items.** Things that are missing may be as important as things that are obvious. Make a note of both. If a camera is available, take pictures.

Lightning-caused fires

Lightning detection information, weather forecasts, and reports from the public can be used to determine whether there is a high probability of a lightning-caused fire. No further action is required if the fire is determined to be lightning caused.

Person-Caused Fires

Treat each fire investigation as if it is a criminal case. When you get to the fire, your first responsibility is to prevent further spread of the fire. At the same time, you should be able to do the following: MAKE NOTES OF YOUR ACTIONS.

- Estimate fire size. Record your estimate and the time of your estimate. Note direction and rate of spread, type of fuel, slope, wind direction and speed, and other weather conditions. Determine legal location of fire and verify with dispatch.
- Locate and protect general origin area of fire. If you are able to locate the fire's general area of origin as soon as you arrive, immediately flag the area. Evaluate the size of the fire and other factors in "A" above. Post a guard if possible, and flag the area surrounding the general origin. Keep suppression efforts in this area to a minimum. Ensure fire fighters do not put materials such as cigarette butts into this flagged area. If the fire is so large that the origin area is not easy to find, flag off or restrict access to a large area which you suspect contains the fire's immediate origin point. At this time, it is most important to protect the entire area from further disturbance.
- Search for and protect evidence. After protecting the origin area, look for such things as vehicle tracks, footprints, ignition devices, discarded Polaroid backings, paper bags, beer cans, or any other objects. DO NOT DISTURB THESE OBJECTS. Use flagging to mark anything you find. Tracks on roads can be protected by parking a vehicle over them. Footprints or tracks on trails should be protected by routing traffic to one side of the trail. If there is no way to avoid disturbing evidence, photograph if possible. Handle all evidence carefully and put it in a safe place. If the fire is determined to be person-caused but accidental, proceed with a normal civil course of action. If the fire is determined to be a person-caused suspected felony violation, involve a Service Law Enforcement Officer or Special Agent. At this point they will assume general case responsibility.

- **Identify witnesses.** Interviewing witnesses at the scene is a very important part of a fire investigation but, because of varied State and Federal laws, possible suspects should be interviewed only by a trained investigator. You can help by recording the following information in your field notes:
 - Names, addresses, phone numbers, and descriptions of persons at the scene.
 - Make, license number, and description of vehicles at the scene; notes of any remarks made by persons at the scene that are in any way related to the fire.
- **Other persons.** Persons at the scene when you arrive or who arrive during the progress of a fire will often give written statements voluntarily, but would be reluctant to do so at a later date. Do not hesitate to capitalize on this situation. This should not be confused with interviewing a possible suspect. You are merely asking these persons to record any observations or other knowledge they are willing to give in their own handwriting. Whether this statement is ever introduced in a court of law is not as important as having an immediate and accurate record of all stated observations and knowledge. Do not share facts concerning the fire with anyone other than the Law Enforcement Officer, Fire Investigator, or the Fire Management Officer (FMO) who has responsibility for the Fire Management Program. The following guidelines can be used when obtaining voluntary statements:
 - Have the person write the facts in detail.
 - If possible, provide the person with some degree of privacy so this can be accomplished without interruption.
 - Have the person number, date, and sign each page and include their address and phone number.
 - The person obtaining a voluntary statement should witness the statement by signing, dating, and recording time of statement.
- **Initial Attack Incident Commander (IAIC).** The IAIC is responsible for protecting the fire scene origin and, if possible, starting the preliminary fire investigation or notifying the Fire Investigator.
- **Service employees (Resource Specialist, fire crew).** Service employees are responsible for protecting the fire scene origin and notifying their supervisor of any observation made relating to the fire. The fire investigation job cannot be accomplished by the Fire Investigator alone. The assistance of all Service employees is required.

Wildland Fire Investigator Responsibilities

Service or local (State, county, etc.). Different violations have different burdens of proof and elements to be proven. It is also recommended to look for signs of wildlife mortality and destroyed nests. (See Appendix for other violations.)

Duties and responsibilities.

It is the responsibility of the Fire Investigator to determine and/or verify the point of origin and determine the cause of ignition. It is the duty of the Fire Investigator to attempt to locate individuals responsible for ignition of the fire. The Fire Investigator will be adequately prepared to process a case from the beginning to its conclusion.

Training and qualifications

The Fire Investigator should have successfully completed an intermediate fire cause determination class. Normally, these classes are 40 to 80 hours in duration and cover char patterns and ignition sources, interviewing and case report preparation, and courtroom procedures and presentation.

Evidence

Evidence has been defined as all the means by which any alleged matter of facts is established or disproved. It includes testimony, records, documents, objects, etc., that can be legally presented at a trial for the purpose of inducing a belief in the minds of the court and jury as to the truth of the issue involved.

- **Collection of evidence.** Evidence should be collected by a Fire Investigator whenever possible. Photograph and sketch the fire scene before collecting evidence
- **Preservation of evidence.** Utmost care must be taken in the preservation of evidence. Use clean, sealable metal containers. Avoid the use of plastic containers when accelerants are suspected. Keep damage to a minimum and protect the integrity of the evidence, i.e., fingerprints, etc.
- **Recording of evidence.**
 - Physical evidence: Photograph and inventory physical evidence.
 - Witnesses' statements: Record in the case report exhibits, as appropriate.
- **Chain of custody.** To further ensure the integrity of evidence and its "admissibility" in court, make sure all evidence shows a "track of security" and has not been tainted in any manner. Appropriate chain of custody receipts and storage in a secure, locked area ensure the chain of custody. The back of the FWS Evidence Seizure Tag (FWS Form 3-487) is a good place to track chain of custody.
- **Disposition of evidence.** Upon a finding by the court of the suspect's guilt or innocence, the court will direct the disposition of evidence. Be sure to obtain a written document as to the court's disposition directions and a receipt for the action completed. In out-of-court settlements, the disposition of evidence should be included in the settlement agreement. If not addressed in the written agreement, the property will be disposed of in accordance with Service Property Disposal Procedures.

Wildland Fire Investigation Case Reports

At this point, an Initial Report of Unauthorized Use (Exhibit 1-1: Wildland Fire Investigation Illustration and Exhibit 1-2: Sample Case Report) has been completed and submitted to the Project Leader. The recommendation is to proceed with further investigation. The only question at this point is whether this will be a civil or criminal investigation. Law Enforcement will be consulted to determine in which direction to proceed. The Initial Report of Unauthorized Use will become a part of the investigative report.

A trespass case number will be assigned from the Document Control Register (LEMAS) or Law Enforcement Incident Log maintained at each Refuge office. The investigation will then proceed. At this point, the trespass is still in the administrative process. The Service could issue a billing and make full recovery of costs. We have not gone to the judicial system yet.

Civil

- **Format.** The case report should be divided into five parts: Title Page, Synopsis, Persons Named in the Report, Fire Investigation, and Appendix.
 - **Title Page.**
 - Fire name and number
 - Refuge
 - Fire date
 - Report prepared by
 - Position title
 - Period of investigation
 - Date of report
 - **Synopsis.** The Synopsis should be as brief as the writer deems necessary to explain the case and to tie evidence into a narrative description. Discuss specific elements of the violation (e.g., willfully and without Authority, sets fire on National Wildlife Refuge). The writer should present facts that show negligence and discuss any problems of conflicting evidence. It is not a substitute for the investigation portion of the report. It should be factual, rather than conclusive. It should be based upon the evidence developed during the investigation.
 - **Persons named in the report.** Attach a list of all persons mentioned in the report by full name, address, phone number, and occupation
 - **Investigation.** This is the body of the report. It should consist of a chronological description of what the Fire Investigator did in the investigation, whom he spoke with and when, what was said, and what was observed. It is an account of all matters developed in the investigation. Even minor things can prove extremely important at a later date. Give authentic information regarding the names of property owners who are involved in the case and any other individuals who might be connected with the case, either as defendants or in any other direct manner.
 - **Appendix.** Attach maps, sketches, and photographs which will aid in comprehending locations, conditions, and circumstances described in the report. Attach any statements taken from witnesses and a list of who was interviewed without written statements, and to what they can attest. Include all related reports and forms relevant to the case such as burning permits, Notice of Violation, record of fire conditions, operating permits, slash status, weather records, dispatch and radio logs.

- **Processing.** Once evidence has been processed and suppression costs determined, the case report should be put in final form. The case report should be submitted for review to the FMO and Project Leader.

If a responsible party has been identified, a billing will be prepared and cost collection procedures begun. A copy of the fire investigative report should be included in the fire package.

Criminal

- **Investigative Reports – Criminal**
- The incident report is given a number and opens the case. It includes:
 - Subject - address and physical description.
 - Reporting person - either a confidential informant (CI) or informant. Include address and phone number for informant, but not for the CI.
 - Details clearly stating the violation and the "who, what, where, when, why, and how" in a brief paragraph or two.
 - Action and recommendation - describe what actions are to be initiated and recommendations to consider.
- The investigative report consists of:
 - Cover page with primary information as to suspect, witnesses, violation, and a short synopsis.
 - Investigative results report which includes all actions taken by the Fire Investigator concerning evidence collected, persons interviewed, sketches, photographs, chain of custody receipts, and disposition form used when the case has been adjudicated.
 - Format example of the chronological order of a criminal report
 - Criminal complaint
 - Investigative report
 - Investigative results
 - Statement(s) of witness(es)
 - Statement(s) of suspect(s)
 - Photographs
 - Sketches
 - Evidence exhibits

Cost Determination

Introduction

All costs associated with a fire are to be determined by a qualified specialist who can assess damages and complete a damage appraisal report to accompany the fire trespass case.

Based on the appraisal, all costs to be reimbursed by the responsible party are determined and prepared by the associated refuge office. Calculation should encompass all costs, including those associated with the Service, States, other Federal agencies, rural fire districts, etc., and include resource damage rehabilitation costs, costs of repair or replacement of physical improvements, as well as all associated administrative costs.

Every attempt should be made to include all costs on the initial Bill for Collection. However, costs incurred after the initial bill has been sent should be documented with a subsequent Bill for Collection being sent or added during negotiation or with any settlement as a result of a court trial. The Service's Finance Center will follow up on any bills issued and not paid or not paid in full.

Resource Damages

Each burned area will be examined and the damages evaluated. The appropriate Resource Specialist should make the appraisal. Generally, damages will be the cost of emergency fire rehabilitation plus any value of resources burned, less any salvage value.

Emergency Fire Stabilization Costs

These are charged to emergency stabilization funds and must be tied to a specific fire number (i.e., five-digit organization code-9142-fire number). Emergency stabilization is planned actions taken during and after a wildland fire to stabilize and prevent unacceptable resource degradation or to minimize threats to life or property resulting from the fire. It includes such costs as reseeding to prevent immediate wind or water erosion and to prevent establishment of undesirable vegetative species, fencing of areas to prevent animals or humans from entering sensitive areas, and felling damaged trees posing threats to human safety.

Rehabilitation Costs

This is the non-emergency replacement of facilities and resources damaged by wildland fire or the re-establishment of ecosystem structure and functions. Rehabilitation is tied to a specific fire number (i.e., fire digit organization code 9262_fire number).

Suppression Related Rehabilitation Costs

These are charged to suppression operations (subactivity 9141) for rehabilitating on-site and off-site damage to resources caused by fire fighting actions, and are part of the fire bill.

Physical Improvement Damage

The damage or destruction of an improvement caused by the fire or fire suppression acts should be examined by qualified specialists and the cost of repair or replacement determined through bid estimates, appraisal, or contracting. Include only refuge-owned improvements.

Off-Site Values

These values are usually related to water structures which have dried up or in some other way have been damaged as a result of fire. Damage should be assessed using replacement cost. The damage of off-site values caused by the fire and/or fire suppression acts should be examined by qualified specialists and the cost of rehabilitation and/or values lost and repair or replacement determined through bid estimates, appraisal, or contracting.

Service Suppression Operations Costs

All direct costs incurred for the benefit of a specific fire are properly included as true fire costs for that case. They will include charges by the Service through Refuge(s), Regional Office(s), Aviation Management Directorate (AMD), National Interagency Fire Center (NIFC), Alaska Fire Service, agency fire caches, and agency coordination and dispatch

centers. Other direct costs, such as the cost of fire investigation and preparing and processing a report, should be charged to suppression operations (subactivity 9141).

These direct costs are the amounts applicable to a specific fire case that can be accurately and readily determined. Fire costs improperly charged to a fire should not be included in a billing. In order to accurately account for these fire costs, it is important that all Service financial input documents are coded directly to the specific fire number. Subsequently, all reasonable and necessary Service suppression costs will be reflected on the Fire Suppression Cost Report/Project Obligation Transactions Report produced by the Service's Financial Management Section.

Indirect (Administrative) Costs

An indirect cost rate will be added to the Service's direct amount being billed.

Administrative/indirect costs include centralized data management, general administration, and other support functions performed jointly for which the amounts pertaining to specific fires cannot be determined accurately. These costs also are incurred for the benefit of more than one subactivity or fire, and in amounts too small to be reported on time and attendance reports or other financial documents that obligate monies.

Cost Database

The Service's Finance Center issues a monthly Project Obligation Transaction Report (POTR) that displays the costs associated with fire incidents. Correct costing to these fire codes is the responsibility of the organization. If costs are not coded to the correct fire code, it will be nearly impossible to determine the exact cost of a particular fire.

- Costs associated with aircraft services must be obligated/paid before these will be reflected in the POTR.
- Payroll costs will be recorded in the month during which the actual payday falls.
- Emergency Fire Fighter payroll will not be recorded until the certified schedule reaches the Service's Payroll Office (Bureau of Reclamation), Denver, Colorado.

Other Related Direct Costs

Costs incurred by third parties such as State organizations, rural fire districts, protection associations, and other Federal or State organizations must be compiled accurately for billings and recovery from the party or parties responsible for the fire. These costs will not appear on the Suppression Cost Report, and must be added. Use of a form such as the Firefighting Cost Report is suggested (Exhibit 2-1: Sample Firefighting Cost Report).

Civil Case Procedures and Billing

Fire Trespass and Case File

All information regarding the fire case should be included in the case file. Included in the case file are the fire investigation case report, photos, newspaper clippings, cost report documents, and any correspondence. It should be organized in a logical manner and kept in chronological order. Each case should be treated as if it will go into litigation.

Trespass Register

The case should be assigned a trespass case number from the regular Document Control Register log.

Case Preparation

Back-up documentation for court litigations can be tremendous and in many cases, originals of everything are required, i.e., T&As, invoices, etc. Once the fire investigation case report has been completed and the case folder is in order, there are several options to be considered in recovering costs associated with a trespass fire:

- If it is apparent that collection of the costs will be uncontested, the refuge should generate a Bill for Collection form, DI-1040 (revised August 1973) (Exhibit 3-2: Sample Bill For Collection). This action does not eliminate the use of the judicial systems, if necessary. It is important, however, that the criminal case is resolved before pursuing civil remedies. It always strengthens the civil case if any kind of criminal judgment is passed against the responsible party. This can be a grand jury indictment up to and including an arson conviction. Each case should be treated as if it will go into litigation.
- In most cases the Service is under proprietary jurisdiction, and the option exists to either use the State court system or the Federal judicial system to pursue collection of fire costs. The option to pursue a State court remedy is not available in those cases where the Service holds exclusive jurisdiction. Each case should be reviewed to see which system will be most effective. Often, State laws are more appropriate when dealing with negligent type offenses, such as reckless burning. These factors, along with applicable State and Federal laws, should be considered when deciding what avenue to pursue. If the facts and evidence of the investigation are insufficient to show probable cause or the starting of the fire was clearly accidental and without intent or negligence, then cases should be collected through a billing or demand letter process. If this administrative procedure fails to obtain a full settlement, then it may be necessary to file a civil suit against the person in U.S. District Court. This is normally done through the Solicitor with the advice and consent of the U.S. Attorney.

Trespass Notification

Personal contact should be made, if possible, with the responsible party before a Bill for Collection is sent. A cover letter (Exhibit 3-1: Sample Billing Cover Letter) should accompany each bill. The cover letter should contain information such as the fire date, location, and cause of fire. It should list why the individual is the responsible party and is receiving a bill. It should also outline procedures and due dates for payment.

Trespass Billing

All Bills for Collection must be combined with the cover letter and a supplemental sheet that itemizes a breakdown of costs (retardant, etc). Once a bill has been issued (Exhibit 3-2: Sample Bill For Collection). All Bills for Collection must be sent by certified mail, return receipt requested.

The Bill for Collection form, DI-1040 (Exhibit 3-2: Sample Bill For Collection), is used by all field stations to notify individuals or companies of outstanding debts owed the Service.

One copy of the completed form is to be submitted in a blue envelope to the Service Finance Center, Cost Accounting Section, promptly upon issuance by field stations.

The Service Finance Center will be responsible for any subsequent notices to the customer. A copy of all ensuing notices will be furnished to the appropriate organization. Instructions for preparing a Bill for Collection are as follows:

- The "Bill Number" will consist of 10 numbers, with the first 5 digits being the organization code, the sixth digit being the fiscal year, the seventh digit being a "C," and the last 3 digits corresponding to your sequential document numbering system. Numbers can be obtained either from the regular Document Control Register log or a Collection Control Register log maintained at the Regional/field office. Example: Bill Number 61520-4-C001
- The "Remit To" portion will be mailed to the current lockbox address:

Mailed Correspondence:

U.S. Fish and Wildlife Service
 Cost Accounting Section
 P.O. Box 272065
 Denver, CO 80227-9060

FedEx Delivery:

U.S. Fish and Wildlife Service
 Cost Accounting Section
 7333 W. Jefferson Avenue, Suite 300
 Lake Wood, CO 82035
 Phone (303) 984-6800

- The "Date" is the billing date. With the "Description," a due date will be placed which is 30 days from the billing date. NOTE: The first overdue notice will be sent out 32 days from the date the Finance Center loads the bill into FFS. The bill will be loaded within 1 work day of receipt. The 32-day period allows for interest and administrative charges to be assessed prior to the overdue notice being generated.
 - "Payer" is the name and address of the individual or company billed.
 - In the "Description," furnish a detailed explanation of the materials/services performed for the payer. In addition, the statement which follows must appear on all DI-1040s: NOTE: Full payment is due within 30 days after the above billing date. Prompt remittance is required to avoid the interest, administrative, and penalty charges on delinquent debts. The interest rate applicable to this bill is _____%, in addition to the \$_____ administrative charge per each delinquent notice. In order for your account to be properly credited, please include a copy of this bill with your payment. If you have any questions regarding this bill, please contact _____.
- Accounts more than 120 days overdue will be assessed a 6 % penalty.
- The interest rate applicable for inclusion into the above statement is determined by the Department of Treasury. As this percent changes, notification will be provided through subsequent FFS Bulletins. The current rate for Calendar Year 97 is 5 percent. The current administrative charge, determined periodically as the Service's cost of follow-up notices, is \$8. Penalties are charged in accordance with the Debt Collection Act of 1982.
 - In addition, provide the payer with the name of a contact who is knowledgeable about the specific nature of the issued bill.
 - Fill in the "Amount Due This Bill."

- Provide all pertinent information necessary to properly classify the funds. This includes organization, subactivity, project, and fiscal year to which the billing is applied. Upon remittance, the Service Finance Center will apply the collection to the billing document number. The originating organization will be responsible for sending any confirmation of receipt of payment to the payer. The Finance Center must be notified any time the amount of the bill is going to be modified (upward or downward), and also "cc" the Finance Center with any correspondence regarding the billing. This documentation is required in the files if the bill has to be referred elsewhere.

Less Than Full Payment

If at any time it appears that less than full payment may be negotiated, the Regional Solicitor (Solicitor) will be involved. A complete case file should be submitted to the Regional Office with a memo recommending the case be forwarded to the Solicitor. The Solicitor acts upon recommendations by the Refuge and Regional Offices regarding compromised settlements. The receiving office will apply monies received to the bill using established collection procedures. At the same time, the difference between the original bill amount and compromise amount will be written off as uncollectible.

Litigation

Each case should be handled as if it will ultimately end up in litigation. Careful attention should be paid to following proper investigation and reporting techniques. Since wildland fire cases are relatively new to the judicial community, it may be necessary to spend some time familiarizing the attorneys with char patterns and burn indicators, as well as general fire terminology. It is well worth the effort to establish a rapport with these individuals.

Once the case is received and put into the judicial system, the attorneys will be in control of the case. However, they will still work closely with Service personnel when additional information or recommendations are needed.

Case Follow-up and Closeout

Not every case will come to a hasty conclusion. There are statutes of limitations from the fire date to when action must be taken to identify the responsible party and prosecute or pursue collection. Cases should be considered active until termination for cause or the statute of limitations has expired.

Closeout of a case should include notification of the Regional Office, the appropriate Refuge Manager, and any outside agencies involved. It should include letters to key witnesses and notification to the news media.

Criminal Case Procedures

If the facts and evidence in the investigation indicate possible criminal intent, a law enforcement officer should be contacted to determine if sufficient probable cause exists to seek prosecution. Upon determination of probable cause, criminal prosecution may be initiated.

Misdemeanors

Misdemeanors of a less serious nature may be handled administratively by oral and/or written warnings. This is normally done when there is a technical violation of the law (misdemeanor), but under the circumstances, the violation appears to have occurred inadvertently or through ignorance of the law. Remember that the law requires us to prove willful neglect under Section 303 of the Federal Land Policy and Management Act. Either a Service resource or law enforcement personnel can issue a warning.

- More serious misdemeanor violations are to be treated by the violation notice that calls for mandatory appearance before a U.S. Magistrate or by forfeiture of collateral in accordance with a bail schedule. Only delegated Law Enforcement Officers are authorized to issue violation notices.
- The option of filing a criminal complaint with the U.S. Attorney's office instead of a violation notice is an option of the Law Enforcement Officer, depending on circumstances and gravity of the violation.
- As in all law enforcement actions, appropriate line officials should be kept informed of the law enforcement actions taken.
- After appropriate administrative measures have been completed, the case should be closed with the closeout disposition form.

Felonies

In most cases, a felony committed in the presence of a Law Enforcement Officer should be dealt with by making an arrest. Some circumstances might merit serving an arrest warrant when more assistance is available, e.g., other refuge officers, special agents, local law enforcement, etc.

- Where an actual physical arrest was not made, a criminal complaint becomes the necessary document to bring the violator into custody.
 - An affidavit clearly spelling out the crime and the probable cause to arrest is then reviewed by a judge.
 - When an arrest is made with or without an arrest warrant, a thorough search of the suspect is to be performed to ensure the safety of the officer, the suspect, and other persons.
- Only delegated Law Enforcement Officers are authorized to make arrests.

Channel for Prosecution

U.S. Attorneys prosecute all Federal laws, but will many times allow District Attorneys at the county level to handle particular cases. Many times, District Attorneys will prosecute cases when there is a corresponding State statute.

- A clear policy and understanding should be obtained from the U.S. Attorney's office and individual District Attorneys to ensure appropriate procedures
- Law Enforcement Officers will coordinate criminal cases with appropriate prosecutors.

- The Service policy regarding news releases relative to criminal investigations or charges should be coordinated between Service Public Affairs personnel and the Office of the U.S. Attorney with regard to Federal cases, and the local prosecutor for State law violations. Normally, a press release is proper only after charges have been filed with the court and/or the defendant has made an initial appearance before the court system. These guidelines can vary, and should be formulated according to local rules.

Trespass Glossary of Terms

Civil case

A civil case involves a trespass or civil wrong against a person or corporation. A civil case can be proven upon a preponderance of evidence, whereas a crime must be "proven beyond a reasonable doubt."

Civil offense

Any negligent act with causes damage to resources or properties of the United States.

Chain of custody

The steps an officer takes to ensure evidence is not "tainted" constitute the chain of custody. All persons handling the evidence must be able to show the evidence was not tampered with, and was in a secure location at all times prior to being introduced into court action.

Criminal case

A criminal case involves a felony or a misdemeanor crime. A crime is a positive or negative act in violation of treaties, statutes, and regulations pursuant to statutes. A criminal case must prove the elements of the crime charged.

Criminal complaint

There are two types of criminal complaints - misdemeanor and felony. The complaint charges a person or persons with a particular crime. It involves the use of witnesses and confidential informants, evidentiary material, and shows "probable cause." Probable cause is needed in the complaint to show the legal reasons why a person is charged with a crime.

Criminal offense

Any unlawful ignition act intended to damage the United States or its properties, or persons using public lands.

Evidence

Evidence has been defined as all the means by which any alleged matter of fact is established or disproved. It includes testimony, records, documents, objects, etc., that can be legally presented at a trial for the purpose of inducing a belief in the minds of the court and jury as to the truth of the issue involved.

Federal prosecution

After a citation, criminal complaint, or arrest is made by an officer, the case is written up as an official criminal report for review by an Assistant U.S. Attorney. When the case warrants court action, the Assistant U.S. Attorney introduces the complaint to the court. The

defendant is then brought before the court for his initial appearance. At that time, the judge will set a court date involving a court trial or trial by jury, or set sentencing if the defendant pleads guilty.

Felony

Any offense punishable by death or imprisonment for a term exceeding 1 year is a felony. An example of a felony would be 18 U.S.C. 1855, Wildlands Arson. This felony is punishable by a fine of \$5,000 or imprisonment of not more than 5 years, or both.

Fire investigation

The process of determining the ignition source, materials first ignited, ignition factors, and party responsible for a fire.

Fire origin

The primary purpose of a fire investigation is to determine what caused the fire, and whether it was started by a natural ignition source (lightning) or person-caused. In most fires, the first step is to determine where the fire originated. Determining the origin narrows the search for and frequently pinpoints what caused the fire.

Fire trespass

Any unauthorized ignition of fire upon lands of the United States under the jurisdiction of the Service.

Fire suppression

All work and activities connected with control and fire-extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.

Incident Commander (ICT1, ICT2, ICT3, ICT4, or ICT5)

These ICS positions are responsible for overall management of the incident and reports to the Agency Administrator for the agency having incident jurisdiction. These positions may have one or more deputies assigned from the agency or from an assisting agency (s).

Initial attack forces

The first people assigned to a wildland fire incident.

Initial Attack Incident Commander (IAIC)

The Incident Commander at the time the first attack forces commence suppression work on a fire.

Law Enforcement Officer

The Service has two types of Law Enforcement Officers.

- **Special Agent** - A criminal investigator of the Service who is qualified, trained, and delegated authority by the Director to enforce applicable laws and regulations by conducting criminal investigations.

- **Zone/Refuge Officers** - An employee of the Service who is qualified, trained, uniformed, and who is delegated authority by the Director to enforce applicable laws and regulations for the protection of resources.

Litigation

Any time a case has been referred to a Solicitor or prosecuting attorney for consideration, it is said to be in litigation until conclusion of the case.

Misdemeanor

An offense less than a felony. A misdemeanor involves a monetary fine and/or imprisonment not exceeding 1 year. An example would be 18 U.S.C. 1856, Fires Left Unattended and Un-extinguished. This misdemeanor is punishable by a fine not to exceed \$500.00 and/or imprisonment of not more than 6 months.

Negligent act

Any unplanned act which lacks sufficient caution to prevent unwilling damage to properties of the United States.

State prosecution

Crimes are prosecuted in a similar manner at the State level as at the Federal level.

Witness

Witnesses are persons who, through their senses, have knowledge of an act. Witnesses have information that can be used in legal proceedings. The courts may require that witnesses testify to first-hand information.

Trespass References

NFES 1874 – Wildfire Origin & Cause Determination Handbook 1 (Revised 2005)

Exhibit 1-1: Wildfire Investigation Illustration

INITIAL REPORT OF UNAUTHORIZED USE				Number	
				Region	
				Refuge	
				Date	
1. Name of person reporting violation*					
Address (include zip code)					
2. Occupation and title					
3. Date		a) Reported (month, day, year)		b) Discovered (month, day, year)	
4. Type of unauthorized use					
FIRE					
5. LOCATION					
Section		Township		Range	
Meridian		County		Subdivision	
		State			
6. How was the unauthorized use discovered?					
7. What does unauthorized use appear to be? (Check One)		Criminal		Civil in nature	
8. What is the recommendation? (Check one)		Report immediately to FWS Special Agent		Investigate further	
Name of reporting Officer				Title	
Comments and Recommendations (Include name and address of suspected unauthorized user, if known)					
(Signature of Reporting Officer)					
*Informant=s name may be held confidential at their request					

Exhibit 1-2: Sample Case Report

CONFIDENTIAL
WILDFIRE INVESTIGATIVE CASE REPORT

Fire Name & Number: Banner Fire #096
Refuge: Chincoteaque
Fire Date: June 23, 1997
Report Prepared By: John Rones
Position Title: Forest Technician
Period of Investigation: June 24 - August 23, 1997¹
Date of Report: August 26, 1997

SYNOPSIS

Investigation reveals that the above fire was caused by sparks from an HD 14 Allis-Chalmers loader being used by Don Banner Logging Company on the day the fire started. This loader was not equipped with a spark arrester or any device to prevent the escape of sparks as required by Oregon Forest Law, Chapter 477.645, and OAR 629-43-015. There is also evidence that on the morning of the fire there was a small fire at the landing in the vicinity of the origin of the later fire which was not properly extinguished, and either caused the main fire or contributed to its ignition and spread.

On June 23, 1997, the Don Banner Logging Company was conducting logging operations in Section 2, Township 33 South, Range 8 West, near the town of Mono in Josephine County. Sometime during the morning a fire started near the diesel loader, which was being used to load logs on Banner's trucks to take to his mill in Mono. These logs had been cut during the previous year, and there was much dry slash on the ground. During the week preceding this operation the temperature had been high, with low afternoon humidity and easterly winds. These conditions prevailed on June 23.

During the morning of the operation on the 23rd, there had been a small fire on the north slope of the landing near the loader. Harper, the loader operator, claims to have put this fire out. Banner claims to have sent a man to the landing from Mono to have the operation shut down because of low humidity around 11 a.m.; however, Herman Franks, Banner's foreman at the landing, had the loader operate until 12:45 p.m. to finish loading. The fire was reported at 2:11 p.m. The State Forestry Department arrived at 2:30 p.m. and observed the fire burning on the north slope of the landing behind the loader.

Investigation of the origin area revealed the fire had started in or near a clump of matted, dried grass about 25 feet from and in line with the tailpipe of the loader. The undersigned is of the opinion that the fire was caused by sparks from the loader, which was not equipped with a spark arrester.

This is further borne out by the observation of persons who were at the scene at the time and said they first observed the fire behind the loader on the north slope. It was apparently commonly known that the loader could start a fire and that it shot out sparks "like a Roman candle." The sparks from this loader either directly caused the fire to break out, or the fire earlier that morning had not been properly extinguished and smoldered, causing the fire.

A Notice of Violation and Notice to Appear were issued to Banner, and a complaint charging Banner with violation of ORS 477.645 has been filed in Josephine County District Court. Hearing has been set for September 15, 1976.

Persons Named in the Report

John J. Ronos Oregon State Department of Forestry 1825 West Elm Street Roseburg, Oregon 97842 Telephone (503) 627-4831 Unit Forester	Box 296 Mono, Oregon 97842 Telephone (503) 627-4931 Foreman, Banner Logging Company
William Able Mono Guard Station 927 Fury Lane Mono, Oregon 97247 Telephone (503) 726-1384 Forest Officer	Ansil Adams 12684 Highland Circle Roseburg, Oregon 97924 Telephone (503) 496-8721 Timber Owner
Fred Cook Robert Day Mono Guard Station 927 Fury Lane Mono, Oregon 97247 Telephone (503) 726-1384 Fire Fighters	A. L. Harper 710-1/2 Clover Lane Mono, Oregon 97842
Don Banner 231 West High Street Mono, Oregon 97842 Telephone (503) 627-4832 Owner, Banner Logging Company	Bill Isle 17 Bush Street Mono, Oregon 97842 Logging Crew Member
Herman Franks	Jake Jones 3120 Flower Street Mono, Oregon 97842
	"Loop" Klappett Box 30 Mono, Oregon 97842
	Clark Mann Address Unknown

(Moved to Alaska)

Mrs. Clara Nodel
Mount Baldy Lookout
No Telephone
Lookout

97274 Honeydew Boulevard
Halfway, Oregon 97392
Telephone (503) 222-2222
Fire Boss

T. V. Quick
Address/Phone Burned
Mono, Oregon 97842
Burned-out/Upset Homeowner

Syd O'Neal
72 Maiden Lane
Mono, Oregon 97842
Telephone (503) 672-9112
Adjacent Owner

Fred Pratt

INVESTIGATION¹

1. On June 24, 1997, the undersigned was assigned to investigate the subject fire.

2. That day at 1530 hours I contacted William Able, Forest Officer at the Mono Guard Station. He was the first person to arrive at the fire.² Able said that on the previous day, June 23, 1997, at 2:11 p.m., he was at the station and received a radio call from the Mount Baldy Lookout reporting a fire about 2 miles north of the station near the Banner Logging Company logging operations.

He said he and Fred Cook and Bob Day,³ both fire fighters, arrived at the fire about 2:30 p.m. The fire was around 5 acres in size, burning on the north slope of a log landing. The fire had burned and was burning in a "V" shape up the slope, with the base of the "V" about 20 feet above the level of the landing. There was no one at the landing at the time, but he later saw several men working at the head of the fire, over the ridge above it. The fire was burning fast and hot in slash and brush. There was very little wind at the landing, but he could see that a wind was blowing the fire at the top of the ridge near the head.⁴

He said he called for help when he returned to the truck, and went around to the other side of the hill to start work on the head of the fire. He said he worked on the fire the rest of that day, and had not talked with any of the men who were already there about the fire or how it started.

3. At the same time I talked with Fred Cook and Bob Day, both fire fighters. Cook stated he went with Able to see the fire when they first arrived. They had to park the truck on the hill leading up to the landing since they couldn't get through. He affirmed what Able had said. Day stated he hadn't seen anything since he had remained with the truck.⁵

4. Able, Cook, Day, and I went to the landing that day about 5 p.m. Able and Cook pointed out where the fire was when they first saw it. At this time, I took a photo of the north slope of the hill. Later on July 5, 1997, Able made the marks shown on the photo to indicate where the fire was burning and had burned when he arrived and first saw it.⁶

The landing is about 1 acre in size. When we were there, there was a log deck in approximately the center with around a dozen logs on it.

The landing is saucer shaped, surrounded on the north, east, and south sides by steep slopes covered with burned remains of slash, logs, and brush. A spar pole is located to the north of the deck, and an AC HC 14 diesel loader was about 50 feet to the east and about 10 feet from the north slope. The attached diagram shows their relative positions. The road leading into the landing is on the west.⁷

The place on the hill where Able said he first saw the base of the "V" of already burned material was on the slope behind the loader. The tailpipe of the loader was canted at an angle and pointed toward the direction of the slope. We measured and found that the

distance from the end of the pipe to the slope in a clump of charred and matted grass near the base of the "V" to be 25 feet. This area was practically in direct line with the tailpipe.

The loader had no muffler or spark arrester of any kind. The attached photo shows the loader and the tailpipe, and the absence of any spark arrester. Photos demonstrate the line of the tailpipe with the deeply charred and matted grass on the hill behind it.⁸

5. The following day, June 25, 1997, at 10:30 a.m., I talked with Don Banner, owner and operator of the Banner Logging Company,⁹ at his home at 231 West High Street, Mono, Oregon.¹⁰

He stated he had not been present at the landing when the fire started.¹¹ He said he had been at his mill in Mono at the time. He stated he had been logging at the landing during the morning of June 23, 1997, but had shut down about noon because of low humidity.

He said he had sent a man out around noon from the mill to tell his foreman, Herman Franks, to close down.¹²

Banner stated he had around 12 men working at the landing on the morning of the fire. They were skidding and loading logs he had cut during the previous season under a contract he had with Ansil Adams, owner of the timber. The logs were being hauled to his mill in Mono.

Banner said he had no idea how the fire started. He suggested that it may have been started by hunters.

6. Franks, Banner's foreman, was at the mill at the time and I talked with him after talking with Banner. Banner was present when I spoke with Franks. Franks' address is Box 296, Mono. He lives about 3 miles east of Mono on Highway 19 at the Happy Dell Trailer Oasis.¹³

Franks stated he had started working on the morning of the fire about 6 a.m., skidding cut logs and loading them. I asked him if he had seen the fire start, and he said that he had not. I asked him when it started, and he said around 1 p.m. I asked him how he remembered the time. He said he had shut down about 12 noon because of low humidity. Everyone was sitting around eating lunch when the fire was first observed. I asked him where the fire was when he first saw it, and he said it was high on the ridge above the landing. He drew a sketch to show me; he located the fire at that time about 200 feet up the north slope.

He said the fire was about 20 feet in diameter when he first saw it. A copy of this sketch and his distances, written by him, is attached.¹⁴

I asked him whether this was the fire that escaped and caused the wildfire. He said all of his men went up to put it out but by the time they could reach it, it was too big to handle.

I asked him whether he had a fire anywhere on the slope in back of the loader that morning. He said there had been a "smudge" in some grass near there a little earlier in the morning,

but that it had been put out. He was sure that hadn't caused the fire because that fire had been put all the way out.

I again asked him how long after he first saw the fire that it got away. He said, "Almost immediately. It seemed to explode."

I asked him whether he could be mistaken as to the time the fire got away. Could it have been around 2 p.m.?

He said no, because he was at the mill at 2 p.m. He had gone back to report the fire and get help.¹⁵

He added that the cats had stopped working around noon, but that they had loaded until about 12:45 p.m. because he did not want to send any trucks back empty.

I asked him who had been working at the landing that morning. He couldn't remember all their names, but said the following were there:

A. L. Harper, operated the ladder, address unknown.

Bill Isle, a faller, address unknown.

Jake Jones, a cat operator, address unknown.

"Loop" Klappett, a cat operator, address unknown.¹⁶

Banner said he had their addresses, but it would take some time to round them up.

6. On June 26, 1997, I contacted Mrs. Clara Nodel (lookout at the Mount Baldy Lookout Station), who was on duty the afternoon of June 23, 1997.¹⁷

She stated she remembered the report of the fire very clearly. The lookout is located about 3 miles west of where the smoke was first observed. It looks down into the canyon where Banner's operations were taking place. When she first saw the smoke, it was a thin blue column extending around 1,000 feet into the air. It remained this way for about 10 minutes and then broadened quickly. It seemed to spread very fast after that. It burned up the mountain toward the lookout that afternoon and at 6:30 p.m., from her log, the station was evacuated because it was threatened by fire. She went in again the next morning. The fire did not do any damage, though it burned to the edge of the clearing around the station.

The station is located about 1,000 feet above where the fire was first observed. The weather records of the station taken and recorded by Mrs. Nodel show a period of low humidity, high afternoon temperatures, and late afternoon easterly winds for the week prior to the fire. A copy of these records is attached to this report. The originals of these records are located at the Grants Pass Unit headquarters and will be retained until further word is received on this matter.

Mrs. Nodel checked her log and fire sightings, and verified that she first observed and reported the fire at 2:10 p.m. on June 23, 1997. A copy of the Lookout's Smoke Report and radio log is attached showing her entry of this sighting.

8. On June 27, 1997,¹⁸ I located A. L. Harper at his home at 710-1/2 Clover Lane, Mono, at about 1:30 p.m. I was accompanied by Bob Land, Forest Officer. Mrs. Harper was also present during the interview.¹⁹

Harper stated he had been operating the loader on the morning of the fire. He remembered they had closed down the operation because of low humidity. He couldn't remember the time. He couldn't remember whether it was before or after lunch. He said he had just turned off the loader when he heard someone yell, "Fire!" He turned around and saw a fire about 50 feet up the hill in back of the loader. It was about 10 or 15 yards square, and was burning pretty fast and hot. He and the others at the landing immediately went up to where the fire was burning and started putting a line around it. He doesn't remember how long they worked on it, but it seemed a long while. It looked as though they had pretty well gotten it out when a gust of wind came up and started a couple of spots up the hill. By the time they reached these spots, the fire was all over the hill. It spread up and over the ridge, and there was nothing they could do.

He said he did not notice what the others were doing and he did not know where Franks was during this time, though he imagined he was working with the others.

I asked him when the small fire earlier in the day had occurred. He was surprised I knew about this fire. He said it was a small fire in some grass up on the hill. I asked how high it was and he became evasive - he couldn't remember. I asked him whether it had been put out. He said he had put the fire out himself and had Franks come over and take a look to make sure it was out. He said he didn't want to take any chances with a fire happening near his loader. I asked him what he meant, but he said he thought he had said enough.

When asked who was working on that morning, he said:²⁰

Franks, foreman.

Bill Isle, faller, address unknown.

9. On June 28, 1997, I contacted Bill Isle, Banner's faller, at a bar in Mono called the Fallen Angel. Land was also present. Isle's address is 17 Brush Street, Mono.

When I asked Isle about the fire, he asked me not to ask him any questions about it. I asked him why. He said he knew I was investigating the fire and if he said anything that might hurt Banner, it could hurt him (Isle). He had to live too, he said. I asked Isle whether he thought that anything he said would hurt Banner. He said Banner was a fine fellow, and he didn't want any tricks. That was all we could get from him.²¹

10. At about 2:45 p.m. that afternoon I contacted Jake Jones at his home at 3120 Flower Street in Mono. Land was present.

Jones said he didn't know anything about the fire earlier in the morning, but he remembers the big fire. He said everyone knew the fire had been caused by that old loader, but if he were asked that question in court he would deny he ever said it. He said they were loading a bunch of logs on a truck that came up after they had all knocked off for lunch. He thought they had closed down because of humidity, but when this truck came Franks decided to load

it. They were right in the middle of loading when someone yelled, "Fire!"²² Jones said his back was to the fire and when he turned around, he saw a small fire burning about halfway up the slope. He couldn't estimate the distance, nor does he remember its position in relation to the loader, but it was not any 200 feet up the slope.²³

He stated he went up with the others to try to put it out. He said they worked on it for a while, but a wind came up and spread it up the hill. There wasn't anything that could be done after that.²⁴

I asked him how he knew the fire had been started from the loader. He answered that the loader didn't have any muffler on it, and every time it was revved up it sprayed sparks " like a Roman candle."²⁵ He said he would testify to the sparks he saw come from the loader, but that he wouldn't say the fire started from the loader.

I noted that he spoke bitterly about Banner, and I asked him whether he and Banner got along all right. He said they got along fine, except Banner owed him wages from a previous job, hadn't paid him for it, and claimed he didn't owe him.

He then went into a long story as to why Banner owed him the money.²⁶

I asked him who else was at the landing at the time of the fire. He said:

Franks, foreman.

Harper, operated the loader.

Bill Isle, a faller.

Clark Mann, a faller.

Jones said he knew Mann, and right after the fire Mann went to Alaska. He didn't know how he could be contacted.

11. I located "Loop" Klappett, Box 30, Mono, at the timber operations of Hardey Logging Company near Plowtown, Oregon, on July 16, 1997. Land was also present. Klappett said he had not been working for Banner on the day the fire started. He had worked for him the preceding week, but after drawing his time on Friday, had gone to Portland and hadn't returned until the day before yesterday.²⁷

12. In order to further check out the names and addresses of everyone at the landing and to check about the maintenance of the loader, I telephoned Banner at his home on the night of July 16, 1997. I asked him the above questions and he said his attorney had told him not to talk to any Forestry Department people about the fire. He said he couldn't give any more information on this matter under the circumstances.²⁸

13. On August 2, 1997, I contacted Mr. Syd O'Neal, adjoining landowner, at his home at 72 Maiden Lane, Mono.

Mr. O'Neal stated he and his insurance company estimated that 750 acres of his land, including his barn and \$2,000 worth of hay, had been burned in the fire. He stated he owns about 2,500 acres of land in all. On the boundary between his land and that on which

Banner was cutting, there is a fence which follows the section line for about a mile and a half. He said that last year Banner had come to him and asked him about this fence since he understood he was to cut to the creek, which lies about 100 feet inside O'Neal's property from this fence. O'Neal talked with Ansil Adams, the owner of the land. Adams must have told Banner to cut to the fence line because he never heard anything more about it.

O'Neal had checked the cutting during the previous year, and Banner had stopped at the fence line.²⁹ In any event, O'Neal said, the fire burned past this fence line and the creek and into his property about a mile before it was stopped.

He was satisfied with the manner in which the department had fought the fire on his property, but said he heard there was dissatisfaction about the way the fire had been fought to the east of his property. He didn't know any details and did not want to mention any names.³⁰ He would not say any more.

14. I talked with Fred Pratt, State fire boss on the fire, on August 12, 1997. I told him what Mr. O'Neal had said and asked him if he knew what O'Neal meant, and whether there had been any difficulty in fighting the fire in general.

Pratt said the complaint probably came from T. V. Quick, the owner just east of O'Neal. Quick had lost his home and felt the Department had not given enough protection to it. The house was constructed in a clearing near the property line between his and Adams' timber and about a mile from the origin area. Grass was growing right up to the house and the timber came up to 30 feet all around the house. Late on the afternoon of June 23, 1997, the fire caught in some heavy slash to the north of the house and took off. A heavy wind came up and spread the fire toward the house. It was an impossible place to put in protection lines. If anyone tried to stay in there and protect the house, they would have been killed.

Right after the State crews arrived, Mr. Quick was evacuated from his house. He put up a fuss when we told him that he and his family should clear out as soon as possible. Afterwards he came up to me and said he had five men who had told him the fire crews had panicked and could have saved the house if they had remained. This is untrue.

The fire was generally difficult to control because it burned mostly in dried slash from the year before. Late afternoon winds on the first day caused the fire to spread almost 2 miles before it died down during the night. It was fortunate there were enough men to take advantage of the break that night and the next morning and keep it from going farther.³¹

15. Attached is the District Fire Cost Report, showing fire suppression costs incurred on this fire were \$14,350.³²

16. Attached is the District Fire Report, showing action taken by the Forestry Department on this fire.³³

17. Attached are the Notice of Violation and Notice to Appear issued to Banner for violation of ORS 477.645.³⁴

18. Attached are signed statements taken during investigation and a list of individuals interviewed and to what they can attest.

19. Attached are copies of all Record of Fire Conditions and Request for Assistance issued during fire action.

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Report Endnotes:

¹*This is the body of the report. It should consist of a chronological description of what the investigator did in their investigation, whom they talked to and when, what they said, and what they observed. It is an account of the important matters.*

²*The first person or crew on a fire should always be contacted early in the investigation. Their observations will give critical information about the location, size, etc., of the fire before it was too large to form a conclusion as to where and how it started, etc. Also note that it is frequently desirable to commence an investigation by questioning persons with the Refuge or others who would be expected to testify to essential facts. In this case, the location of the fire at its first observation by persons not motivated by bias to claim it was elsewhere is vital.*

³*Be sure to ascertain any other persons present when witnesses observe important facts. Question these persons as to corroborating facts. (See footnote 4.)*

⁴*These are valuable observations. Such evidence often can be decisive to dispute claims of a potential defendant stating the fire started far from any operations he was conducting. The fire may burn over the area later and completely destroy evidence of where the origin was or how it was burning.*

⁵*See footnote 3. Cook could be an independent witness of the essential facts. It is explained why Day cannot testify to these facts: It is because he did not go up - not because he did not appear, as able and Cook say they did.*

⁶*Able's description to Rones, the Fire Investigator, and the narrative of the report cannot convey the details necessary to continue effectively. Hence, Rones wants to see exactly where the fire was when Able saw it and clear up any questions he may have as soon as possible. This use of a photo is invaluable. It shows the marks on it are Able's, not Rones trying to reconstruct what Able said - which may be wrong.*

⁷*Try to imagine you are describing the area to someone who has never seen it. A series of photos could be used for this purpose, but there is no substitute for a clear, verbal, narrative description of what is there. A sketch showing important references which will be used throughout the report to refer to places other witnesses are likely to (or do) refer to avoids confusion and will assist in setting these facts on paper.*

⁸*The most effective use of photos is to show exactly what is on the ground. They are not substitutes for clear explanation, but add to clear verbal description. A jury seeing an important fact in a photo, just the way you testify, cannot help but be impressed.*

⁹*No investigation is complete unless the person upon whom responsibility is finally indicated is talked to, particularly in circumstantial cases. His explanation of what occurred may well include the investigation. His excuse or view of the facts may well be the one presented at any trial of the matter; this should be known. His statements may be inaccurate or colored with bias, but they should be*

included in the report. Even if these statements indicate an absolute defense to what happened and there is no indication they are false, they should always be included. When this party is interviewed will depend upon the judgment of the Fire Investigator. It is best to interview him, however, after as many definite facts as possible are established for the obvious reason that your questions can then be as precise as possible. Otherwise, the questioning tends to wander and the party can effectively evade or avoid areas which you may not have reason to pursue. When you come back to check these out, he may not even talk to you. (See footnote 28.)

¹⁰*Note that the addresses of any persons referred to should be included. This is necessary for directing demands and serving summons and complaints or subpoenas, if necessary. It is also necessary for the attorney to know, should he wish to take the person's deposition.*

¹¹*Remember that - concerning important matters - what a person says he does not know, particularly one upon whom suspicion rests, is as important as what he does know. He will have trouble testifying at trial to what he previously said he did not know in this respect.*

¹²*Note that if an employer or principal is to be held liable for the torts of his employee or agent, evidence of the agency or employment and the scope of his authority to act on the employer's behalf must be introduced. This evidence may be in the form of facts showing the employment independently. A statement by the employer to this effect, however, coupled with evidence of what duties that agent actually performed, is effective for this purpose. An investigator should not rely solely on the statement of the employee as to who his employer is as this evidence is given very little weight and is often inadmissible to prove the employment.*

¹³*See footnote 10. A box number as an address is of no help in giving directions to a sheriff in serving a subpoena or summons and complaint.*

¹⁴*Note that this sketch is attached to the report as an exhibit. It should be included as an actual copy of the sketch made by the witness. Franks' statement is in conflict with what Able and Day said. To be sure you have not misunderstood Franks and to inform what Banner's probable defense of hunters will be based upon, this information should be included. This is the first major inconsistency in your theory, and suggests you should quickly talk with others at the landing to ascertain whether they will also testify that the fire started so far up the hill. This is also the point where the investigator may well wish to consider getting written statements from others at the landing because of the possibility that Banner may talk to them and convince them that the fire was high, or suggest this fact if they don't actually remember.*

¹⁵*The inconsistency as to the time the fire started may or may not prove to be important. Franks says the fire escaped immediately at 1 p.m. This may be based upon inaccurate estimation of the time it started or what he means by "immediately." It may be a feeble attempt to suggest that the fire had nothing to do with his operations since he may suspect that you know exactly when it first got away.*

¹⁶*These are, of course, essential persons to talk to as soon as possible. They are possible witnesses as to exactly where the fire occurred and what caused it. It will take a great deal of opinion testimony and hypothetical testimony to overcome the statements of five or six persons who actually say they saw the fire start at a place and in a manner totally inconsistent from your theories. They must be reached as quickly as possible for their memories may be bad, or someone else could suggest other possibilities which might cause them to doubt what they actually saw. Note the fact that Banner and Franks do not give the addresses may be an attempt to slow down the investigation.*

¹⁷The interview with the lookout can often be very useful in developing what occurred during the initial spread of the fire. Her log will verify Able's recollection of the time of the report of the fire, and will give a jury visible evidence of the entry of the sighting of the fire should this time become important. If the lookout is close enough, her recorded weather observations will help to establish the weather picture. Often, the lookout's description of a fire and its spread is very dramatic and helps to paint the picture of the spread of the fire to a jury who may only hear about it from seasoned firemen, who tend to take such matters in stride.

¹⁸It may often be very difficult to locate a person who has been referred to you. It is not necessary to describe your efforts in your report unless germane to some issue in the matter.

¹⁹Note that Ronas has decided to take an assistant with him in interviewing those at the landing. This, in lieu of written statements, is for the judgment of the investigator. Note also who else was in attendance at the interview. Should it be necessary to prove what a person has said - either by way of proving his admission or to impeach the person if he testifies differently on the stand - the investigator should have a record as to when, where, and who was present when the statement was made. The form of this report is in part designed to establish and record the information as a routine matter.

²⁰Asking each person at the landing who else was there will not only be a check against the recollection of the others, but may reveal the names of persons whom Franks feels would not help him and, hence, whom he "doesn't recall" at the time.

²¹This is typical of negative information which, far from hurting the case, may be of invaluable help should Isle decide to testify on Banner's behalf at the trial. It shows not only that he refused to say anything to the investigator, which might throw light on the incident, but that he is probably prejudiced in favor of Banner and his testimony would have to be tempered accordingly.

²²Franks had said they had just stopped loading and Harper had said he had just turned off the engine when they first saw the fire. These could be mistaken estimates or consciousness on their part that operation of the loader was connected with the fire, particularly after they had been told to stop because of low humidity. Jones' statement, however, strongly suggests such a connection.

²³One may be reluctant to be tied down on exact location, so the reverse approach may be helpful to have the witness indicate it was not as far up the hill as Franks says it was.

²⁴This helps explain the time difference when Franks said the fire escaped and when it was first reported. They apparently fought the fire for a while before it went off "immediately." It may be that Franks either has an aversion for the truth or he may deeply feel that not enough was done to control the fire while it could have been stopped, and was attempting to steer the investigator away from inquiring into the point.

²⁵An investigator would be lucky to get this kind of evidence. The description, however graphic, is undoubtedly exaggerated. This witness appears friendly now, and it might be advisable to get his written statement in case Banner decides to pay him his back wages.

²⁶This witness has corroborated many facts of your case. It would be a mistake, however, to stop your investigation at this point. You want to get as many statements as possible from those at the landing at the time. Remember that this fellow might be as prejudiced against Banner as some others

are for him. He might even see this as a possible means of blackmailing Banner into giving him wages to which he is actually not entitled.

²⁷This is further negative information which should be included. See footnote 11.

²⁸Usually an investigation cannot be conducted from a desk, and the best way to find out what people know is to talk with them face to face. Therefore, a telephone contact of this sort is not recommended, except perhaps to make an appointment. Should a person indicate that he has been advised by his attorney not to talk with you, you should not attempt to contact him. Sometimes an attorney will call you direct and advise you not to get in touch with his client. You should not attempt to do so. This is particularly important if a criminal or civil case is pending in the matter against the attorney's client. It is highly improper in such a case for opposing counsel or his investigator to contact the client directly. At the trial you may testify to the fact that you attempted to obtain further information, but were unable to do so because you were told that the party would not talk to you on advice of counsel.

²⁹An often neglected part of investigations is to ascertain what proof is available as to the fact that the fire escaped to the property of another. It may be in this particular case that the fact the fire burned to the land of Adams, the party with whom Banner had contracted, is sufficient for this purpose. This information from O'Neal, however, avoids the necessity of relying upon Adams - who, depending upon the nature of his contract with Banner, may himself be liable under the Landowner/Operator Liability Law. O'Neal's information suggests there are no boundary line disputes which would have to be settled in the present case to enforce the State's claim.

³⁰Whenever it is suggested that the Department did not properly control the fire, be sure to check into the matter. The claim of improper or incompetent fire fighting may be of no substance. If it appears that the person responsible for the fire will make such a contention, the matter should be brought out in the report so that a proper evaluation may be made of the case.

³¹See footnote 30. Note also that a preliminary inquiry of the fire boss or line boss as to the difficulty in fighting the fire may well be made during the investigation. Testimony from these persons will generally be necessary to establish that costs were in fact incurred and that they were incurred in fighting this fire. If a particularly large amount is spent, a jury may question its reasonableness unless such persons can testify there were difficulties in fighting the fire which required certain men or equipment. This preliminary inquiry may bring out important considerations, such as the fact that great efforts had to be made to protect a Boy Scout camp with 100 children campers. Other than its impact, no one will question the expenditure of funds to afford such protection.

³²No further explanation than this is usually required. Note, however, if it is determined the matter will be pursued by a court action, all of the underlying records of this fire cost report should be assembled and kept.

³³Always include the District Fire Report. The investigator should always verify the accuracy of this report against any other information he has obtained from others, such as first report of the fire, first person to respond, time of response, weather observations, etc. If inconsistencies are noted, an appropriate memorandum to the file should be made by the person responsible for the report. This is a public record. It can readily be seen how an attorney could cast doubt upon the testimony of Able, for example, when the report shows that someone else was first on the fire (20 minutes, for instance) after he actually arrived.

³⁴*Where a strong case is indicated, it is not necessary to await the outcome of any pending criminal action before submitting the report. If the matter is actually taken to trial and a conviction is obtained, this fact cannot be used in evidence in the civil case for fire suppression costs. If the criminal trial does not convict, this does not bar the civil action. If the defendant pleads guilty, this fact may be used in evidence as an admission. If the trial turns up something unexpected, or the defendant attempts to justify his conduct in any way, or any other matter which in the judgment of the investigator will affect future handling of the matter, he should prepare a supplemental report and point these things out.*

³⁵*Every report should be signed by the person making it.*

Exhibit 2-1: Firefighting Cost Report

Firefighting Cost Report

Refuge Florida Panther Date May 25, 2006

Fire Name No Name Fire No. 2221 Date May 5, 2006

Prepared By Steve Jones Phone 239-353-9999 Approved By Bob Smith

Personnel	\$ 400.00	
Sub Total Personnel:		\$ 400.00
Equipment		
200 gal. engine	\$ 121.00	
800 gal. engine		
Heavy Equipment		
Sub Total Equipment:		\$ 121.00
Aviation Costs:		
Helicopter Rental		
Support Vehicle		
Sub Total Aviation:		
Repair Costs:		

Sub Total Repair:			
Meals:			
Sub Total Meals:			
Administrative Services	18%		
Sub Total Admin:			\$ 111.78
Rehabilitation Costs		\$ 100.00	
Sub Total Rehab:			\$ 100.00
Mutual Aids Costs	RFD #5	Forest Service	
Personnel	\$ 700.00	\$ 500.00	
Equipment	\$ 500.00		
Equipment Rental			
Retardant		\$ 150.00	
Other		\$ 2000.00	
Travel			
Sub Total Mutual Aid:			\$ 1200.00
			\$ 2650.00
			\$ 3850.00
TOTAL:			\$ 4582.78

Exhibit 3-1: Billing Cover Letter

Billing Cover Letter
(Fish and Wildlife Service Letterhead)

FILE CODE

DATE

CERTIFIED MAIL No.

RETURN RECEIPT REQUESTED

John Doe
Main Street
USA
RE: Oakbrook Fire No. 445

Dear Mr. Doe:

On July 9, 1997, a fire known as the Oakbrook Fire on the lower Deschutes River was reported to Fish and Wildlife Service Dispatch in Prineville. The fire occurred in Wasco and Sherman Counties in the Gordon area.

An investigation of the fire indicated you were responsible for the ignition. We have enclosed a bill for our suppression costs of \$_____. Also included are itemized accounts of the costs. Your check should be made payable to

U.S. Fish and Wildlife Service
P.O. Box 840114
Dallas, Texas 75284-0114

If you have any questions regarding this matter, please contact Roy Hogue at 447-4115.

Sincerely,

James L. Hancock
Refuge Manager

Enclosure

Exhibit 3-2: Bill for Collection

DL 1040 Revised Aug. 1973	BILL FOR COLLECTION	Bill No. <u>51520-2-C001 (1)</u>		
Make Remittance Payable to: <u>U.S. Fish and Wildlife Service Finance Center</u> Date: _____ (Bureau or Office)				
Mail Payment To: <u>(2) P.O. Box 272080, Denver, CO 80227</u> (Address)				
PAYER: (BILLEE)		Please detach top portion of this bill and return with remittance. Amount of Payment \$		
Date	DESCRIPTION	Quantity	Unit Price	Amount
	Fire Suppression Costs for Fire #XXXX			\$ 521.00
	Rehabilitation Costs			\$ 100.00
	Administrative Costs			\$ 111.78
	Mutual Aid Costs			\$ 3,850.00
NOTE: Full payment is due within 30 days after the above billing date. Prompt remittance is required to avoid the interest, administrative, and penalty charges on delinquent debts. The interest rate applicable to this bill is _____% in addition to the \$ _____ administrative charge per each delinquent notice. In order for your account to be properly credited, please include a copy of this bill with your payment.				
IF YOU HAVE ANY QUESTIONS REGARDING THIS BILL, PLEASE CONTACT _____				
AMOUNT DUE THIS BILL				<u>\$4,582.78</u>

NOTE: A receipt will be issued for all cash remittances and for all other remittances when required by applicable procedures. Failure to receive a receipt for cash payment should be promptly reported to the bureau of office shown above.

Chapter 11

Incident Management

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 11 in addition to the following FWS specific clarifications:

Final Wildland Fire Record (1202 report)

The final wildland fire project record may include the following:

- Fire Management Information System (FMIS) data entry
- Narrative
- Wildland Fire Situation Analysis(s)
- Incident Action Plan(s)
- Daily weather forecasts and spot weather forecasts
- Cumulative fire map showing acreage increase by day
- Total cost summary
- Monitoring data (Wildland Fire Observation Records)
- Critique of fire projections on Incident Action Plan

Air Quality and Smoke Management

Clean air is a primary natural resource value in all Fish and Wildlife Service units. Fire management activities which result in the discharge of air pollutants (e.g., particulates, carbon monoxide, and other pollutants from fires) are subject to, and must comply with, all applicable Federal, state, interstate, and local air pollution control requirements, as specified by Section 118 of the Clean Air Act, as amended (42 USO 7418). These requirements are the same substantive, procedural, and administrative requirements (See [561 FW 2](#)) that apply to a private person or other non-governmental entity. The protection of these resources must be given full consideration in fire management planning and operations.

Coordination with a state or states air regulatory office is required during the development of resource and fire management plans in order to determine procedures for compliance with state air quality regulations. The FWS Air Quality Branch (AQB) should be contacted on the proper procedures for obtaining coordination with the state or states in which the refuge is located, or when notified by the state that an air pollution violation has occurred.

At the time the draft Fire Management Plan is sent to the regional office for review, the regional office will determine if the smoke management portions of the plan will be sent to the AQB for review and comment. A copy of the comments from the AQB will be returned to the region and will be forwarded to the refuge with the regional comments. When the draft Fire Management Plan is in the region for review, the Regional Fire Management Coordinator will ensure that the air quality coordinator reviews the smoke management portion of the plan and the comments from AQB before they are returned to the refuge. A copy of the air quality section(s) of the approved Fire Management Plan will be sent to the AQB.

The [Smoke Management Guide for Prescribed and Wildland Fire 2001 Edition](#) (NFES 1279, www.nwcg.gov/pms/pubs/SMG/SMG-72.pdf) is the FWS primary technical reference and

should be referenced when developing and implementing wildland fire management plans. Other useful geographical and activity specific publications are:

- Southern Forestry Smoke Management Guidebook, Mobley et.al., USDA Forest Service GTR SE-10, December, 1976. A very detailed and comprehensive book but written specifically for the Southern States. It is an excellent reference for principles of smoke management. The abbreviated principles listed below are from this publication.
- Principles of Smoke Dispersion from Prescribed Fires in Northern Rocky Mountain Forests, W.R. Beaufait and O.P. Cramer, USDA Forest Service, Division of Fire Control, Northern Region, Missoula, Montana, August 5, 1969 (revised January 15, 1972). This publication covers the subject well but is confined to the Northern Rocky Mountains.
- Slash Smoke Management Guidelines, Office of the State Forester, Salem, Oregon, September 11, 1969. An excellent publication, though limited to slash burning and to the State of Oregon.

Post Wildfire Activities

Service policy augments Department of the Interior emergency stabilization and burned area rehabilitation policy found in [Departmental Manual 620 DM 3](#).

Roles, Responsibilities and Accountability - Plan preparation, review, approval, and implementation require immediate action and span multiple program responsibilities and disciplines as summarized below:

- Plan preparation - Refuge Manager
- Plan review
 - Compatibility and compliance review - Refuge Manager
 - Fiscal and policy review – Regional Fire Management Coordinator / National Burned Area Emergency Rehabilitation Coordinator
- Plan approval
 - < \$500,000 - Regional Director
 - \$500,000 - Chief, Branch of Fire Management
- Plan implementation - Refuge Manager
 - Plan implementation oversight - Refuge Supervisor
- Program budget tracking and accountability- Chief, Branch of Fire Management

Planning - Emergency stabilization and rehabilitation treatments will be described in separate plans. The Burned Area Emergency Response (emergency stabilization) Plan will specify only emergency activities and treatments carried out within one year of wildfire containment. Plans must be completed within 7 calendar days after total wildfire containment and approved within 6 business days of receipt by the approving office (extensions can be granted by the approving office). The Burned Area Rehabilitation Plan will specify non-emergency activities and treatments which are compatible with approved unit management plans and can be accomplished within 3 years of wildfire containment. A plan amendment, approved by the original plan approval authority unless the total cost of the plan exceeds that authority, is required to document and support any additional funding requests and can be made at any time. Burned Area Emergency Response (emergency stabilization) and Burned Area Rehabilitation Plan templates are provided.

- [Burned Area Emergency Response \(emergency stabilization\) Plan template and examples](#)
- [Burned Area Rehabilitation Plan template and examples](#)

Plan Review and Approval - Project leaders submit electronic copies of completed plans to the Regional Fire Management Coordinator (RFMC) and National Burned Area Emergency Response Coordinator (NBAERC) for concurrent and coordinated technical, fiscal and policy review. The RFMC presents the plan and RFMC/NBAERC approval recommendations to the Regional Director for approval. Following Regional Director approval, the NBAERC presents plans with estimated costs > \$500,000 to the Chief, Fire Management Branch for final approval.

Funding - Emergency Stabilization (subactivity 9142) and Burned Area Rehabilitation (subactivity 9262) funding guidance should be referenced when developing and implementing a Burned Area Emergency Response (emergency stabilization) and/or Burned Area Rehabilitation Plan. The FireCode fire number will be used to establish the cost structure for all 9142 and 9262 projects. The appropriate cost structure will be activated only after plan approval. Planned data entries into the [NFPORS Rehabilitation and Restoration module](#) are the responsibility of the National Burned Area Emergency Response Coordinator while accomplishment data entries are the responsibility of the field unit or Regional office. Consideration of additional Emergency Stabilization or Burned Area Rehabilitation funding beyond the first year requires monitoring documentation and an Annual Accomplishment Report (see Reporting Requirements below).

- **Subactivity 9142** - Emergency Stabilization funding is provided for no more than one year following total containment of the wildfire. However, emergency stabilization funding can be used for up to three years following total containment of the wildfire for treatment effectiveness monitoring and to repair or replace emergency stabilization structures or treatments where failure to do so would imperil watershed functionality or result in serious loss of downstream values. However, emergency stabilization funding cannot be used to continue seeding, plantings, and invasive plant treatments beyond one year. Continued treatment funding beyond the first year requires an approved plan amendment including monitoring documentation justifying the additional funding request and data entry into the NFPORS R&R module. Emergency stabilization plans and expenditures will conform to [Interagency Burned Area Emergency Response Guidebook](http://fire.r9.fws.gov/ifcc/esr/Policy/es%20handbook%202-7-06.pdf) (<http://fire.r9.fws.gov/ifcc/esr/Policy/es%20handbook%202-7-06.pdf>) standards and guidelines.
- **Subactivity 9262** – Funding for burned area rehabilitation treatments is provided in one-year increments for no more than three years following containment of a wildland fire. Obligating funds in one fiscal year for use in another should only be done when there is not sufficient time to initiate and complete the contracting necessary to begin treatment work identified in an approved plan. All burned area rehabilitation projects or treatments are funded on a [priority basis](#) as established by the NBAER Coordinators in consultation with the Office of Wildland Fire Coordination. If necessary, the priority selection for treatments on prior-year fires will occur shortly after the start of each fiscal year. Funding will be distributed upon passage of the Interior Appropriation bill. Burned area rehabilitation plans will conform to [Interagency Burned Area Emergency Response Guidebook](#)

(<http://fire.r9.fws.gov/ifcc/esr/Policy/es%20handbook%202-7-06.pdf>) standards and guidelines.

Budget Allocation - The Branch of Fire Management will budget and allocate available Emergency Stabilization (subactivity 9142) or Burned Area Rehabilitation (subactivity 9262) funds based on information in the approved plan by:

- Establishing a FireCode compatible cost structure for the approved plan (either 9142 or 9262).
- Initiating the budget allocation process based on fiscal year funding needs identified in the approved plan.
- Notifying (via e-mail) the organization and regional fire management and budget offices of the established cost structure and funding allocated.

Reporting Requirements - A Burned Area Emergency Response (emergency stabilization) and/or Burned Area Rehabilitation Plan Annual Accomplishment Report is required to receive continued funding in years two and three, and will document treatment and activity accomplishments, actual implementation costs, and treatment effectiveness.

Accomplishment reports may require more detailed information for local management and less detailed information for national office or Departmental use. Summarized accomplishment information will be collected and archived at the appropriate field, regional and national office levels for use in program planning, review, and oversight as necessary. Detailed Annual Accomplishment Reports are completed by the end of each fiscal year and will document actual accomplishments, costs and monitoring results and kept in field unit project files. For national office use, annual accomplishments are summarized and reported on the NFPORS treatment/activity form in the following NFPORS fields:

- Enter the actual accomplishments and actual initiation and completion dates in to the appropriate NFPORS fields. If nothing was done enter 9/30/yyyy in both the Actual Initiation and Completion Date and 0 in the Actual FY Accomplishments (treatments only).

Actual Initiation Date (m/d/yyyy)	<input type="text"/>	
Actual Completion Date (m/d/yyyy)	<input type="text"/>	
Actual FY 20xx Accomplishment	<input type="text"/>	

- In the Notes field enter the actual treatment/activity implementation cost. If nothing was done and no funds were expended, note that. If unaccomplished work needs to continue into the next fiscal year that needs to be stated and indicate how much funding needs to be reprogrammed. In addition summarize the results of the treatment effectiveness monitoring. The NFPORS Notes field has a maximum capacity of 1500 characters (approximately 200 words).

Notes	<input type="text"/>
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The Burned Area Emergency Response (emergency stabilization) and/or Rehabilitation Plan Final Accomplishment Report will report plan activities in sufficient detail to document all accomplishments, implementation costs and monitoring results. The Final Accomplishment Report is completed no later than 3 years and 60 days following wildfire containment. An electronic copy of all Final Accomplishment Reports is provided to the Branch of Fire Management in Boise, Idaho, and is posted on the Service's [Emergency Stabilization and Burned Area Rehabilitation web site](#).

Chapter 12

Suppression Chemicals and Delivery System

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 12 in addition to the following FWS specific clarifications:

No addition clarifications at this time.

Chapter 13

Training and Qualifications

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 13 in addition to the following FWS specific clarifications:

Policy

Refuge personnel will meet NWCG PMS 310-1, Wildland Fire Qualification Guide training, experience, and fitness levels for prescribed fire and suppression positions unless otherwise specified in this handbook. All personnel funded with fire funds who are hired under a position description containing firefighting duties will meet PMS 310-1 requirements for the appropriate fire position. Individuals will not be assigned to duties for which they lack training and qualification. All personnel hired as primary firefighters must meet the arduous fitness standard to maintain full fire funding and if the position is career status, arduous is required to meet special retirement considerations for fire.

U.S. Fish and Wildlife Service Exceptions – Refuges (Region 6 only) which do not have dedicated fire personnel, normally have a light wildland fire workload (minimal occurrence and acreage), do not perform initial actions using direct attack with hand tools, and have no cooperators/contractors to perform timely initial actions on refuge wildland fires can request an exception to NWCG fitness requirements for personnel classified as Firefighter Type 2, Firefighter Type 1, or Incident Commander Type 5. The request is to be made to the Regional Office and will involve review by the Regional Fire Management Coordinator and approval at the Regional Office level. Exception approvals are to be documented in the Refuge Fire Management Plan.

Factors that must be addressed within the request include but are not limited to: fuels, terrain, and tactics employed. Exceptions may be granted where wildland fires occur in light fuels over gentle terrain and initial actions using equipment such as dozers, tractor plows, and engines, as opposed to direct attack with hand tools, are performed. Refuges that demonstrate that an arduous physical fitness rating is not necessary to safely perform initial actions on a wildland fire may use **nonfire personnel** who qualify at the Moderate fitness level to perform initial actions.

Exceptions will apply only to initial actions. Should a wildland fire become an extended attack incident (Type III) where personnel are requested through the mobilization system, NWCG wildland fire qualified personnel will be used. No exceptions from arduous fitness levels are allowed for personnel hired as primary firefighters.

If a Refuge Manager or Project Leader feels the arduous fitness requirement is not appropriate in their local prescribed fire operations they may request an exception using the Prescribed Fire Crewmember Exception Request found at the end of this chapter to use the Prescribed Fire Crewmember (RXCM) qualification at a moderate fitness level in lieu of Firefighter Type 2 (FFT2). This qualification can not be used for suppression operations and prescribed fire burn plans must address contingency resources accordingly. A prescribed fire crew member can be used to hold an original prescribed fire perimeter while initial attack is being conducted on an escape by fully qualified suppression personnel. If suppression operations move into extended attack the entire fire must be staffed with

resources qualified for suppression operations. Exception approval must be documented in the applicable Refuge Fire Management Plan and shall be used on approved Service lands only. Local cooperators have the authority to determine appropriate qualifications for prescribed fires of low complexity. For more information see the PMS 310-1, Wildland Fire Qualification Guide, 2006. The Prescribed Fire Crewmember position (RXCM) is available in IQCS for use in tracking individual experience at a Moderate fitness level.

Fire Management Curriculum - The curriculum supporting fire management qualifications and position certification is explained in detail in the Wildland and Prescribed Fire Qualification System Guide, PMS 310-1 (<http://www.nwcg.gov/pms/docs/docs.htm>). Details relating to course descriptions and trainee/instructor qualifications are provided in the NWCG Field Manager's Course Guide, PMS 901-1 (NFES 2194) (http://www.fire.blm.gov/training/twt/sect_fieldmanagers_courseguides.htm). Training needs analyses are developed each year at refuge, regional and national levels. A refuge or region is responsible for sponsoring 100 and 200 level courses. The Regional Fire Management Coordinator (RFMC) determines intermediate level (300 and 400) training needs. Nominations for intermediate level courses should be routed to Regional Fire Management Coordinators for prioritization. Each course lead instructor provides successful trainees with certificates of completion upon conclusion of the course. All NWCG-approved training packages and course materials are readily available through the Publications Management System at the National Interagency Fire Center. NWCG National Fire Equipment System Catalog Part 2: Publications, PMS 449-2 (NFES 3362), identifies all materials and ordering procedures and is updated each spring.

National level (500 and 600) training needs are determined by the Fire Management Branch. A call for nominations to 500 level courses, except S-520/S-620, will be issued from the Fire Management Branch annually. Regional Fire Management Coordinators will prioritize these nominations within the region and forward a priority list and the nominations to the Fire Management Branch for national prioritization. Regional nominations should be consistent with regional or geographic board direction. Regions shall follow established Geographic Area and National Advanced Fire and Resource Institute protocol when nominating employees to S-520 or S-620.

Fire Management Instructors - Each Region is responsible for the selection, training, and certification of an adequate number of Fish and Wildlife Service instructors for fire management training. The funding for fire training instructors for local and geographic area level courses is a local or Regional fire management responsibility. The funding for fire training instructors for national level courses is a responsibility of the Fire Management Branch.

NWCG Course Equivalency – An equivalent course is determined by agency identified “evaluators” to be equal to a NWCG approved course. Awarding course equivalency is an agency specific responsibility. Only agencies have the authority to certify their employees meet NWCG training requirements when alternative course offerings are used. Courses being reviewed for equivalency must have:

- A reason the alternative course was used or developed;
- A benefit gained through awarding course equivalency such as:
 - cost savings

- broadened target audience
- enhanced learning experience for students

The Region seeking a course equivalency should conduct a detailed analysis and document their findings on the USFWS Course Equivalency template. The analysis will then be forwarded to the National Office for final approval. A new analysis must be completed when the equivalent NWCG course is revised to ensure course equivalency continues. All course equivalency determinations will be posted on the Fire Management Intranet (<https://intranet.fws.gov/>) found under Region 9 of the intranet site.

Incident Qualifications and Certification System - The Refuge Fire Management Officer is responsible for input and maintenance of all pertinent refuge employee data and for ensuring that employees are trained, qualified, and certified at levels which meet preplanned needs for appropriate management response, initial attack and prescribed fire, and for ensuring the accuracy of annual Incident Qualification Cards. The Certifying Official (i.e. Refuge Manager or Project Leader) confirms through the issuance of an incident qualification card that an individual is qualified to perform in a specified position. The Incident Qualification Card has a currency of 12 months.

The Incident Qualifications and Certification System (IQCS) allows individuals to track experience gained on severity assignments where wildland fires do not occur. Individuals should use the event code PP (Preparedness/Preposition/Mobilization) in IQCS to track experience gained on severity assignments. All wildland fire experience gained while on a severity assignment will be coded to the appropriate incident identifier in IQCS.

Trainees may complete appropriate tasks in a position task book while on a severity assignment. Consult the PMS 310-1, Wildland Fire Qualification Guide, for event code definitions. A severity assignment does not constitute a wildfire, wildland fire use, or prescribed fire assignment until such time as an actual fire occurs.

Firefighting Personnel

U.S. Fish and Wildlife Service Specific Position Standards and Criteria

As of the release date of this document the standards established in this edition of the Fire Management Handbook are to be met by Service employees. Individuals who have begun the process of qualifying for a position listed below under the December 2005 edition can continue to use those standards as long as they complete the process prior to December 31, 2008.

Any individual who has begun the evaluation process need not take any newly required course(s) for that position. Additionally, personnel who are qualified in a position prior to the implementation of this revision may retain certification at the discretion of their Certifying Official. To qualify in any other position, the individual must meet the standards identified herein.

Engine Operator (ENOP)

REQUIRED TRAINING

Intermediate Fire Behavior (S-290)
Followership to Leadership (L-280)
Local or Geographic Area Engine Academy
Annual Refresher Training (RT-130)

REQUIRED EXPERIENCE

Firefighter (FFT1), Experience on engine crew
+
Successful completion of the [BLM Engine Operator taskbook](#)

PHYSICAL FITNESS LEVEL

Arduous

OTHER POSITION ASSIGNMENTS THAT WILL MAINTAIN CURRENCY:

None

ADDITIONAL TRAINING WHICH SUPPORTS DEVELOPMENT OF KNOWLEDGE AND SKILLS:

Portable Pumps and Water Use (S-211)
Driving for the Fire Service (S-216)
Fire Operation in the Urban Interface (S-215)

Prescribed Fire Burn Boss Type 3 (RXB3)

REQUIRED TRAINING

Intermediate Fire Behavior(S-290)
Basic Wildland Fire Behavior Calculations (S-390)

*Prescribed Fire Planning and Implementation (PFPI) or Prescribed Fire Burn Boss (RX-300)

Annual Refresher Training (RT-130)

REQUIRED EXPERIENCE

Incident Commander, Type 5

Or

Advanced Firefighter/Squad Boss

+

Successful Completion of the [RXB3 taskbook](#)

PHYSICAL FITNESS LEVEL

Moderate

OTHER POSITION ASSIGNMENTS THAT WILL MAINTAIN CURRENCY:

Prescribed Fire Burn Boss Type 2

Prescribed Fire Burn Boss Type 1

Fire Use Manager Type 1

Fire Use Manager Type 2

Prescribed Fire Manager Type 1

Prescribed Fire Manager Type 2

ADDITIONAL TRAINING WHICH SUPPORTS DEVELOPMENT OF KNOWLEDGE AND SKILLS:

Field Observer (S-244)

Initial Attack Incident Commander (S-200)

Ignition Operations (S-234)

Limitations:

The RXB3 position use guidelines can be found in the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide found at

http://www.nifc.gov/fire_policy/rx/rxfireguide.pdf.

*The Rx-300, Prescribed Fire Burn Boss, course is currently being revised and will become two courses, Rx-341, Prescribed Fire Plan Preparation, and Rx-301, Prescribed Fire Implementation. When this conversion occurs Prescribed Fire Planning and Implementation will no longer be equivalent to the two new courses. The required training for the RXB3 will therefore drop Rx-300 or PFPI and add Rx-341 and Rx-301.

Incident Commander Type 5 (ICT5)**REQUIRED TRAINING**

Firefighter Type 1 (S-131)

Look Up, Look Down, Look Around (S-133)

Intermediate Fire Behavior (S-290)

Fire Operations in the Urban Interface (S-215) (required if wildland urban interface situations exist adjacent to or on the refuge).

Annual Refresher Training (RT-130)

REQUIRED EXPERIENCE

Advanced Firefighter/Squad Boss (FFT1)

+

Successful Completion of the [NWCG FFT1/ ICT5 taskbook](#)

PHYSICAL FITNESS LEVEL

Arduous

OTHER POSITION ASSIGNMENTS THAT WILL MAINTAIN CURRENCY:

Incident Commander Type 4 (ICT4)

Fire Fighter Type 1 (FFT1)

ADDITIONAL TRAINING WHICH SUPPORTS DEVELOPMENT OF KNOWLEDGE AND SKILLS:

Wildland Fire Chain Saws (S-212)

Portable Pumps and Water use (S-211)

Note: the Firefighter Type 1 (FFT1) and Incident Commander Type 5 (ICT5) Position Task Books have been combined. However, *the positions have not been combined*. The FFT1 tasks are completed only once; additional tasks must be completed to meet the ICT5 level. The FFT1 and ICT5 tasks can be completed simultaneously.

Faller Class A/B/C**REQUIRED TRAINING**

Wildland Fire Chain Saws (S-212)

Annual Chainsaw Refresher Training

REQUIRED EXPERIENCE

Successful Completion of the [BLM Faller A/B/C taskbook](#)

PHYSICAL FITNESS LEVEL

Arduous

OTHER POSITION ASSIGNMENTS THAT WILL MAINTAIN CURRENCY:

None

ADDITIONAL TRAINING WHICH SUPPORTS DEVELOPMENT OF KNOWLEDGE AND SKILLS:

None

Additional Information:

- All FWS saw operators on wildland and prescribed fire incidents must complete the NWCG S-212 course, including the position Task Book appropriate to the “A” class operations

- "A" positions can fell trees up to 8 inches DBH, "B" positions can fell trees up to 24 inches DBH, and "C" positions have no limit on tree size

Prescribed Fire Crew Member (RXCM)**REQUIRED TRAINING**

Firefighter Training (S-130)
Introduction to Fire Behavior (S-190)
Introduction to ICS (I-100)
Human Factors on the Fireline (L-180)*
Annual Refresher Training (RT-130)

REQUIRED EXPERIENCE

None

PHYSICAL FITNESS LEVEL

Moderate

OTHER POSITION ASSIGNMENTS THAT WILL MAINTAIN CURRENCY:

None

ADDITIONAL TRAINING WHICH SUPPORTS DEVELOPMENT OF KNOWLEDGE AND SKILLS:

Wildland Fire Chain Saws (S-212)
Portable Pumps and Water Use (S-211)

Additional Information:

- L-180, Human Factors on the Fireline has been incorporated into the 2003 revision of S-130, Firefighter Training.
- Upon the release of this version of the Fire Management Handbook the RXCM position may be used by personnel on approved Service lands in lieu of Firefighter Type 2 (FFT2) if proper authorization has been granted by the appropriate regional line officer. Approval procedures are outlined earlier in this chapter of the Fire Management Handbook, 2008.

Refuge Name: _____

Provide a situational assessment of the refuge's prescribed fire program:

1. How many prescribed fires do you anticipate will require the use of the Prescribed Fire Crew Member (RXCM) qualification per year? _____
2. Describe the refuge's previous experience using the moderate fitness rating on prescribed fire projects. _____

Provide a hazard assessment:

1. Discuss the range of fuels to be burned using the RXCM qualification and the associated fire behavior. _____

2. Describe refuge topography and walking conditions. _____

Describe the hazard controls the refuge will put in place to minimize risk to employees with the RXCM qualification:

1. Can smoke exposure be limited during operations? _____

2. What resources are available for suppression operations requiring arduous fitness in the event of an escape requiring immediate initial action and can contingency plans properly cover this situation? _____

3. Describe the tactics and equipment used by the RXCM position. _____

Provide an evaluation plan in which an exception decision will be monitored and reviewed:

Prepared by/Date

Refuge Manager/Project Leader/Date

Regional Fire Mgmt. Coordinator/Date
Approval/Date

Regional Line Officer

Chapter 14

Firefighting Equipment

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 14 in addition to the following FWS specific clarifications:

No additional guidance at this time.

Chapter 15 Equipment

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 15 in addition to the following FWS specific clarifications:

No additional guidance at this time.

Chapter 16

Aviation Operations/Resources

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 16 in addition to the following FWS specific clarifications:

No additional guidance at this time.

Chapter 17

Prescribed Fire

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 18 in addition to the following FWS specific clarifications:

Prescribed Fire Management -- All FWS prescribed fires and hazardous fuels projects will be planned, implemented, and managed in accordance with all applicable policy, guidance, and standards (see http://www.nifc.gov/fire_policy/index.htm) including:

- *Review and Update of the 1995 Federal Wildland Fire Management Policy January 2001*
- *Federal Wildland Fire Management Policy and Program Review, Final Report, December 18, 1995.*
- *National Interagency Mobilization Guide (NFES 2092).*
- *Prescribed Fire Complexity Rating System Guide (NWCG, NFES 2474, PMS 424).*
- *Prescribed Fire Smoke Management Guide (NWCG, NFES 1279, PMS 420-1).*
- *Interagency Strategy for the Implementation of Federal Wildland Fire Management Policy (June 20, 2003).*
- *NWCG PMS 310-1 Wildland Fire and Prescribed Fire Qualifications System Guide (2000).*
- *Interagency Wildland Fire Use Implementation Procedures Reference Guide.*
- *Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (2006).*

In addition, all prescribed fires will be managed in adherence to the following FWS standards:

- Management
 - Prescribed fires will be funded in accordance with guidance in the *FWS Fire Business Reference Guide* (see Chapter 6.)
 - Any MOU's, agreements, cost shares or contracts must be in place prior to any on the ground implementation.
 - The Division of Fish and Wildlife Management and Habitat Restoration has issued clarification regarding the management of prescribed fire within private lands programs (see attachment 1).
- Planning
 - All hazardous fuels planning and implementation must be addressed in the applicable Fire Management Plan, and have the appropriate National Environmental Policy Act (NEPA) National Historic Preservation Act (NHPA), and Endangered Species Act (ESA) analysis or justification (see Chapter 9 and 550 FW 3).
 - Fuels treatments should properly be planned on an interdisciplinary basis and be integrated as much as practicable with other resource management activities, and serve to implement the appropriate Comprehensive Conservation Plan.

- All prescribed fire plans will be prepared and reviewed per Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (Guide) requirements except that:
 - Qualified Prescribed Fire Burn Boss Type III (RXB3) may prepare and review low complexity (prescribed fire where all 42 complexity elements are rated low) prescribed fire plans until 1/1/08. After 1/1/08, a low complexity prescribed fire plan prepared by an RXB3 must be technically reviewed by two RXB2s; following the specifications in the Guide.
 - Prescribed fire plans will identify the organization (including qualifications and skill levels) that are required to safely implement the plan based upon the final prescribed fire complexity analysis and a risk management assessment. Plans should identify organizations for various phases of implementation (blacklining, ground ignition, aerial ignition, holding, patrol) and various ranges of the prescription and resulting fire behavior.
 - See the Guide for policy guidance for different stages of implementation that may result in multiple Complexity Analysis and ratings.
 - The final complexity rating is used as a basis for determining prescribed fire organization, Prescribed Fire Burn Boss level, and mitigation measures.
 - The Service interprets the phrase “where the possibility of spread or spotting outside the project area is negligible to nonexistent” on page nine of the Prescribe Fire Guide to mean that the potential for escape of a prescribed burn is low, as defined in the Prescribed Fire Complexity Rating System Guide.
 - Prescribed fire plans will identify contingency resources (and required qualifications and fitness levels) and minimum response times for use if the fire exceeds prescription parameters and the capability of planned on-site holding forces.
 - Units will maintain a project file for each hazardous fuels project
 - Project files will include:
 - Original copy of the implementation plan (mechanical or other) or prescribed fire plan
 - NEPA, ESA, and Archeological compliance documentation
 - Special documentation of planning requirements such as Wyden Act, MOU’s or Interagency Agreement references, landowner agreements, and other private lands, requirements
 - List of persons contacted during the development of the burn plan including Fish and Wildlife Service personnel, other agency personnel, concessionaires, in-holders, special interest groups, refuge neighbors, concerned publics etc. The date of contact and comments should be recorded as appropriate. Contact your local records management contact for any additional regional or local requirements.
 - Prescribed fire plans will assess and mitigate potential smoke impacts, and be coordinated with appropriate air quality specialists and Federal, State, Tribal, air pollution control district or county regulatory authorities to ensure compliance with their regulations. (see Chapter 11)
- Project Review and Approval

- All prescribed fire plans must be reviewed and approved following the process identified in the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide before they can be implemented.
- All non-fire hazardous fuels treatment plans must have an agency administrator approval.
- Project Leaders are responsible for ensuring that all hazardous fuels and prescribed fire plans receive adequate review and are approved by a qualified Agency Administrators.
- The Project Leader can delegate approval to Refuge Managers or Acting Project/Refuge Managers after considering the complexity of the project and the training, qualifications, experience, and demonstrated ability of the individual.
- The Project Leader is responsible for ensuring that all hazardous fuels treatments are in compliance with the CCP, FMP, and Regional Guidance.
- The Project Leader is responsible for the Pre-Ignition Approval Checklist for any prescribed fire projects with in their power of authority.
- Prescribed Fire Implementation
 - All prescribed fires plans implemented after 1/1/08 must meet all *Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide* requirements. Until that time, all implemented prescribed fire plans must meet one of the following conditions:
 - Is prepared using the Prescribed Fire Plan Template found in Appendix B of the Guide; or
 - Is prepared using a previously approved agency format, and has a completed Agency Administrator Go/No Go pre-ignition approval checklist (Appendix B, element 2 in Guide) that specifically states the plan has been reviewed and meets the minimum implementation guide elements found in the Guide.
 - Assure assigned staffing meet qualification requirements and is adequate to safely implement the approved prescribed fire plan.
 - If moderate fitness rated employees are being utilized on the fire, ensure that all personnel are briefed regarding the limits of their use particularly as it relates to spot fires and potential escaped fires. (See Chapter 13)
- After Action Reviews and Reporting
 - All hazardous fuels projects and prescribed fires will receive an appropriate After Action Review (AAR)
 - All prescribed fires and hazardous fuels non-fire treatments must be documented including:
 - DI-1202 fire report entered into FMIS within 10 days
 - Accomplishment report entered into NFPORS within 10 days (hazard fuel projects only)
 - Short narrative of the prescribed fire or treatment plan, including a critique of effectiveness, future recommendation, and possible lessons learned by the burn boss or FMO is filed in the project file
 - All implementation documents such as implementation organization charts, logs, Incident Action Plans, weather forecasts, weather observations, and fire behavior observations should be filed in the project file.

See Chapter 19 for actions required by agency personnel in the event of an escaped prescribed fire or other significant event that may have occurred on a hazardous fuels project.

Fuels Management Effectiveness Monitoring - It is appropriate to use Hazard Fuel Reduction Operations and Wildland/Urban Interface (subactivity 9263 and 9264) funding to facilitate adaptive management when evaluating fuels management program and project effectiveness, and to ensure that refuge resource management goals and objectives are not compromised by the hazardous fuels management projects. The use of 9263 or 9264 funds is limited to monitoring the first and second order effects of fuel management projects (prescribed fires, mechanical or chemical fuel treatments, etc.) on fuel and wildlife habitat composition and structure, as recognized and well-described as measurable objectives in the approved refuge Fire Management Plan and/or an approved refuge habitat management plan.

Monitoring of specific resource protection objectives for values may be paid for by subactivities 9263 or 9264 only until best management process and techniques can be established and proven successful. It is suggested to limit this type of monitoring to those values that are most important.

Although funding wildlife population inventories or fire effects research or management studies on wildlife is not an appropriate use of 9263 or 9264 funds, evaluating fuel management treatment effects on wildlife habitat composition and structure is intended to complement these inventories, management studies and research projects.

Fuels management effectiveness monitoring requires the preparation and approval of a monitoring plan. This plan can be a separate Fuels Treatment Monitoring Plan or part of a holistic adaptive management program that integrates all refuge resource monitoring activities. Whether separate or integrated the plan should contain:

- a. A full description of the fuel and wildlife habitat monitoring attributes, monitoring objectives, approved monitoring protocol description in sufficient detail that a successor can continue the monitoring, and the approved refuge Fire Management Plan and/or habitat management plan reference identifying the monitoring need.
- b. Description of management actions to be taken when monitored habitat attributes reach established threshold levels.
- c. The refuge's commitment to implementing and completing the monitoring and management actions.

Regional Fire Management Coordinators will assure that before any fuel treatment monitoring (beyond the first order fire effects monitoring in the Prescribed Fire Plan) is approved for funding:

- a. The fuel and wildlife habitat monitoring activities are adequately described in the approved refuge Fire Management Plan and/or an approved refuge Comprehensive Conservation Plan or Habitat Management Plan.

- b. The monitoring protocols conform to regionally established fuel and wildlife habitat monitoring protocols established under Fulfilling the Promise WH-10(1) action item or the Service's Fuel and Fire Effects Monitoring Guide.
- c. The regional fire ecologist and/or wildlife biologist to determine if the proposed protocols are the most cost effective and statistically defensible means of addressing monitoring objectives independently review the plan.
- d. All stakeholders are aware of management changes that may result from the monitoring results.

Attachment 1: Addendum to Chapter 18 of the Service Fire Management Handbook, guidance from the Division of Fish and Wildlife Management and Habitat Restoration,

Prescribed Burning Off-Service Lands: Standards for alternative mechanisms of implementing prescribed burning activities through the Service's private lands programs.

Use of Service personnel. Service personnel planning or implementing habitat restoration projects on off-Service lands, using prescribed burning, must be certified, and in compliance with all applicable departmental, Service, and regional fire management policies. The project must have an agreement signed by the landowner authorizing the use of prescribed fire on private land, and clearly stating the benefit to Federal Trust resources.

The project officer or the person in charge of fire operations specifically must meet the Burn Boss certification requirements appropriate for the complexity level of the burn as derived from the National Wildfire Coordinating Group (NWCG) Prescribed Fire Complexity Rating System Guide. Based upon the outcome of the Complexity Analysis, the project officer qualifications (RXB1, RXB2, or RXB3) will be assigned to oversee the implementation of the project. The project must meet National Environmental Policy Act requirements prior to ignition (621FW 2, 4A(2)), and have all the necessary permits and approvals. All Service personnel participating in prescribed fires must meet the appropriate Service training and experience qualification requirements as detailed in the Fire Management Handbook. For all fire activities where the Service is involved a written prescribed fire plan must be prepared, reviewed, and approved according to Service and regional policies.

Non-certified Service personnel may provide technical assistance regarding the ecological benefits of conducting a prescribed fire on a project. They must clearly state that their recommendation for the use of fire is only to describe or project ecological improvements and they are not certified to provide any recommendations regarding the actual design and implementation of the prescribed fire, nor will they participate in the operational aspects of the prescribed fire.

Use of certified agencies. Local, State, Tribal and other Federal agencies could be the partner actually planning and/or implementing the prescribed fire on private lands. If these fires are determined to be of moderate or higher complexity (see NWCG Prescribed Fire Complexity Rating System Guide) the cooperator should adopt the NWCG standards contained within the Wildland and Prescribed Fire Qualification Subsystem Guide, PMS 310-1. This guide identifies minimum qualification standards for interagency prescribed fire operations. Departmental policy requires all Service personnel engaged in interagency operations to meet these standards.

PMS 310-1 contains specific guidance concerning interagency wildland and prescribed fire qualifications. For prescribed fires evaluated to have low complexity (see NWCG Prescribed Fire Complexity Rating System Guide), the Service and its local cooperators will

jointly agree on qualifications required. A written prescribed fire plan must be prepared, reviewed, and approved according to Local, Service, and regional policies.

In some limited cases, the Service could provide funds to non-certified agencies for the restoration and enhancement of Federal trust species habitats on private lands where prescribed burning may or may not be used as a management tool. In these cases, the Service will not have “substantial involvement” as defined in 31 U.S.C. 6301-6308. The only mechanism to transfer funds to non-certified agencies where prescribed fire may be used is a Grant Agreement. Grant Agreements with a non-certified state agency are for the purpose of general habitat restoration activities. The Service cannot identify or stipulate the techniques to be used for these habitat restoration projects. The task of identifying these techniques is a responsibility of the state agency. Other funding mechanisms such as Cooperative Agreements and Procurement Contracts require “substantial involvement” of Service personnel and should not be used with non-certified agencies.

Use of private cooperators. Private cooperators conducting a burn that is funded by Service must be in compliance with NWCG, Service and regional policies regarding prescribed burning. PMS 310-1 allows the establishment of standards to meet Service-specific needs for operations that involve only Service personnel or, in some cases, local cooperators. A written prescribed fire plan must be prepared, reviewed, and approved according to Service and regional policies.

Hire private contractors certified by the Service. Private contractors who specialize in providing fire management services must meet the NWCG standards contained within the Wildland and Prescribed Fire Qualification Subsystem Guide, PMS 310-1, and meet any other Service standards for qualifications and personal protective equipment (PPE). The contract should specify these requirements as well as other regional and local standards or work accomplishments they are to meet. There are vendors that are certified as meeting the NWCG standards; however, the Service must still approve the burn plan. A written prescribed fire plan must be prepared, reviewed, and approved according to local, Service and regional policies.

Support only non-fire components. In the event one of the options above is not available, the Service maintains the ability to only provide funding and/or technical assistance on the non-fire components of the project. For example, the landowner is willing to implement a project using prescribed burning without financial or technical assistance from the Service, and the Service provides financial/technical assistance only to plant trees or conduct seeding after the burn is complete. Service personnel may acknowledge the potential ecological benefits of conducting a prescribed fire on a project, and that prescribed fire may be used to complement activities funded by the Service, but the planning documents and agreements must clearly state the limits of the Service’s involvement, that the Service is not responsible for the implementation of prescribed fire, that the decision to use prescribed fire is the responsibility of the landowner, and that the Service is not certified to provide any technical recommendations regarding the actual design or execution of a prescribed fire.

2007 Amendment**Prescribed Burning off Service Lands: Standards for prescribed burning activities under Service-administered grant agreements.**

When conducting prescribed burning off Service lands under a Service-administered grant agreement, State fish and wildlife agencies: (a) must comply with existing State protocols that include compliance with pertinent Federal, State, and local laws; and (b) do not have to comply with any requirements of the Fish and Wildlife Service Fire Management Handbook provided that the Service does not have "substantial involvement" in the project, as defined in 31 USC 6301-6308. Therefore, if these requirements are met, State grantees under a Service -administered grant agreement do not have to submit documentation under the grant agreement to reflect compliance with requirements of the Fish and Wildlife Service Fire Management Handbook.

Chapter 18

Reviews, Investigations & Analyses

The FWS Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations Handbook](#) (Redbook, NFES #2724) Chapter 18 in addition to the following FWS specific clarifications:

No additional guidance at this time.