



# **Fire Management Handbook 2021**



**United States Department of the  
Interior**

**U.S. FISH AND WILDLIFE SERVICE  
Fire Management Branch  
National Interagency Fire Center  
3833 South Development Avenue**



Refer to: BFM2021006

**January 1, 2021**

Memorandum

To: Regional Fire Management Coordinators  
From: Chief, Branch of Fire Management  
Subject: 2021 FWS Fire Management Handbook Release

The FWS (Service) Fire Management Handbook (FMH) has been updated for 2021. This version replaces the 2020 FMH. Printed copies of the 2021 FMH will not be distributed but may be downloaded from: <https://www.fws.gov/fire/handbook/>

The FMH supplements Federal, Departmental and Service policies, and is intended to serve as a program reference guide. The FMH documents the standards for operational procedures and practices for fire management activities within the Service to ensure safe, efficient and effective wildland fire operations.

The FMH is formatted similarly to the [Interagency Standard for Fire and Fire Aviation Operations](#), commonly known as the Redbook. To minimize duplication, the FMH contains supplemental guidance tiered from the Redbook and other common sources. All policy references are linked in the FMH.

Significant changes to the 2021 FMH include:

**All Chapters:**

- Matched formatting to Redbook and added line numbers.
- Replaced Fishnet links with [Fire Management SharePoint](#) site links.

**Chapter 9 – Planning:**

- Removed dated information and clarified to bring the chapter in line with the Redbook.
- Added a paragraph about Wildfire Response Plan.

**Chapter 11 – Incident Management:**

- Updated ES & BAR policy language.

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**Chapter 13 – Training and Qualifications:**

- Added Do What's Right training requirements.

**Chapter 17 – Fuels Management:**

- Updated PL 4 & 5 guidance.

The FMH will be updated annually in January to coincide with the annual updates to the Redbook. Please contact your regional representative to the FWS National Fire Operations and Safety Team (NFOST) if you have suggestions for improving the FMH.

cc:

Regional Chiefs, National Wildlife Refuge System  
Chief, Division of Natural Resources  
Chief, National Wildlife Refuge System  
Staff, Branch of Fire Management



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1 **Chapter 1**  
 2 **Federal Wildland Fire Management Policy and Doctrine**  
 3 **Overview**

4 **Scope**

5 The U.S Fish and Wildlife Service (Service or FWS) Fire Management  
 6 Handbook (FMH) incorporates, by reference, all guidance in the [Interagency](#)  
 7 [Standards for Fire and Fire Aviation Operations](#) (aka Redbook; National Fire  
 8 Equipment System (NFES) #2724) Chapter 1 in addition to the following  
 9 Service specific clarifications:

10 The FMH is a program reference guide that defines the implementation  
 11 standards, requirements and procedures of the wildland fire management  
 12 program for the U.S. Fish and Wildlife Service. To minimize duplication, the  
 13 FMH references, instead of restating, interagency standards, requirements and  
 14 procedures for wildland fire management in the Redbook and other policy and  
 15 guidance reference documents. The Fire Management Handbook and Redbook  
 16 provide guidance for implementing safe and effective fire and fire aviation  
 17 operations.

18 The 2021 Fire Management Handbook replaces the 2020 version of this  
 19 handbook.

20 **Policy and Guidance Affecting Service Fire Management Operations**

21 **Federal** – Department of Interior (DOI) and the Service adhere to Federal  
 22 Wildland Fire Management Policy and Guidance. Most documents can be found  
 23 at the [National Wildfire Coordinating Group \(NWCG\) Website](#) including:

- 24     ▪ *Guidance for Implementation of Federal Wildland Fire Management*  
 25         *Policy (2009).*
- 26     ▪ *Review and Update of the 1995 Federal Wildland Fire Management*  
 27         *Policy January 2001*
- 28     ▪ *Federal Wildland Fire Management Policy and Program Review, Final*  
 29         *Report, December 18, 1995.*
- 30     ▪ *National Interagency Mobilization Guide (NFES 2092).*
- 31     ▪ *National Incident Management System (NIMS) Wildland Fire*  
 32         *Qualification System Guide (NWCG Publication Management System*  
 33         *(PMS) 310-1)*
- 34     ▪ *Prescribed Fire Complexity Rating System Guide (NWCG PMS 424,*  
 35         *NFES 2474).*
- 36     ▪ *Smoke Management Guide for Prescribed and Wildland Fire (NWCG*  
 37         *PMS 420-2, NFES 1279).*

- 1       ▪ *Interagency Prescribed Fire Planning and Implementation Procedures*  
2       *Guide (NWCG PMS 484).*
- 3       **Departmental** – The Service adheres to Departmental policy documented in  
4       the [Departmental Manual](#) and guidance transmitted through memo or email.  
5       Most interagency policy is incorporated directly or by reference into the  
6       Departmental Manual.
- 7       **Service** – The [Fish and Wildlife Service Directives System](#) contains the current  
8       policy and management directives that affect the daily activities of the Service  
9       and its employees. The Directives system consists of the Service Manual,  
10      Director's Orders, and National Policy Issuances. The [Fish and Wildlife Service](#)  
11      [Manual](#) describes the structure and functions of the Service's organizational  
12      units, documents re- delegations of the Director's authority, and prescribes the  
13      policies and procedures for administrative activities and program operations.  
14      We use it to communicate instructions and provide guidance in administrative  
15      and program operations. The Service Manual is the primary source of  
16      information on organizational structure, authority to function, policy, and  
17      general procedures. Director's Orders are limited to temporary policy,  
18      procedures, delegations of authority, emergency regulations, special  
19      assignments of functions, and initial functional statements on the establishment  
20      of new organizational units. These policies are necessarily broad and generally  
21      require management discretion or judgment in their implementation. They  
22      represent the Director's expectations of how the Service and its employees will  
23      act in carrying out their official responsibilities. These policies are often  
24      supplemented with guidance distributed by memo or email.
- 25      **Service Fire Management Handbook** – The Fire Management Handbook is  
26      incorporated by reference into the Service Manual (621 FW 1) and is designed  
27      to meet the intent stated above.
- 28      **Service Fire Business Guide** – The Fire Business Guide provides Service  
29      standardized fire business guidance for the Fire Management Program, and  
30      contains specific business rules, definitions, and standard operating procedures  
31      to ensure consistent accounting and reporting requirements set forth by the  
32      Service, DOI, and Congress.

1 **Chapter 4**  
2 **U.S. Fish and Wildlife Service Program Organization and**  
3 **Responsibilities**

4 The Service Fire Management Handbook incorporates, by reference, all  
5 guidance in the [Interagency Standards for Fire and Fire Aviation Operations](#)  
6 (Redbook, NFES #2724) Chapter 04 in addition to the following Service specific  
7 clarifications:

8 **No additional guidance at this time.**

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## Chapter 7 Safety and Risk Management

The Service Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations](#) (Redbook, NFES #2724) Chapter 07 in addition to the following Service specific clarifications:

**No additional guidance at this time.**

1 **Chapter 8**  
2 **Interagency Coordination and Cooperation**

3  
4 The Service Fire Management Handbook incorporates, by reference, all  
5 guidance in the [Interagency Standards for Fire and Fire Aviation Operations](#)  
6 (Redbook, NFES #2724) Chapter 08 in addition to the following Service specific  
7 clarifications:

8 Regional Fire Management Coordinators (RFMC), with the assistance of the  
9 Zone Fire Management Officer (ZFMO), are responsible for ensuring that  
10 Refuges within their Regions have appropriate initial attack response  
11 alternatives identified, coordinated and documented appropriately in the  
12 associated planning documents.

13 Refuge Managers/Project Leaders are responsible for arranging for appropriate  
14 initial attack response capability for all FWS units with a fire occurrence history  
15 within their zone of responsibility. This can be accomplished through any of the  
16 following means:

- 17 • FWS employees and equipment (fire funded and/or collateral duty) that  
18 meet the minimum NWCG PMS 310-1 qualification requirements for  
19 suppression response, and provide adequate capability to safely and  
20 effectively initial attack fires.
- 21 • State and local cooperating agencies with an agreement or a legal  
22 responsibility to provide fire suppression to the unit.
- 23 • Business organizations providing suppression services for a fee  
24 requiring upfront annual payment.

25 **Considerations for Utilization of State or Local Fire Departments**

- 26 • Many fire departments or wildland fire agencies are required by law to  
27 respond to all fires in their protection area. If protection is required by  
28 law, FWS lands cannot be excluded and the FWS will not provide  
29 reimbursement for any services provided.
- 30 • Some FWS lands may lie in areas where fire protection is not required  
31 by law or where fire protection is funded through service charges.  
32 These units may establish fire protection agreements with nearby fire  
33 agencies. These agreements must be reviewed by the RFMC and  
34 warranted contracting officer as appropriate prior to approval.
- 35 • Mutual Aid Agreements were common in the past, but require that all  
36 participants contribute on a basis comparable with other participants.  
37 These agreements may no longer be appropriate where the Service  
38 lacks the capability to provide comparable assistance.

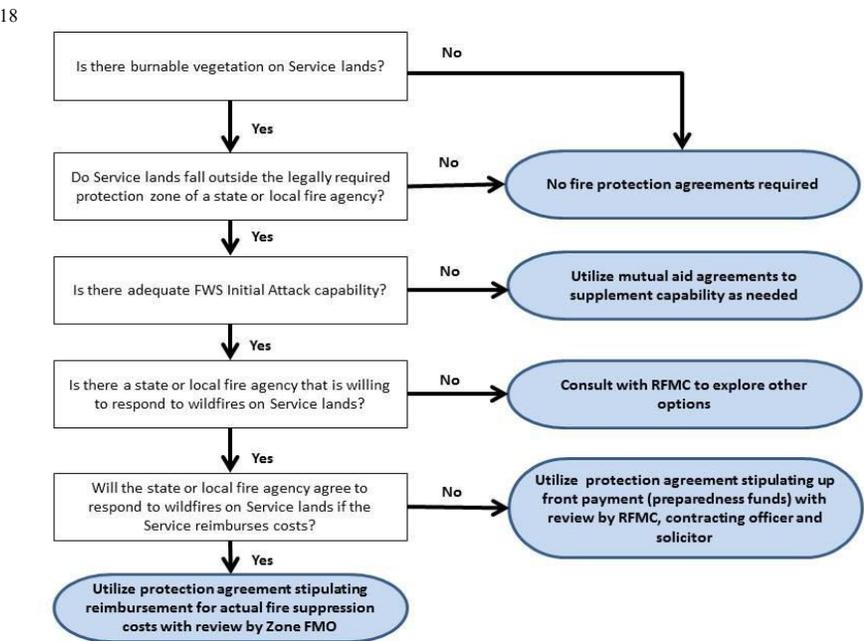
39

**1 Considerations for Payments of Suppression Service**

- 2 • Payments can only be made if there is an appropriate agreement or
- 3 contract, and the flowchart below illustrates how to select when an
- 4 agreement is needed and what type of agreement is needed.
- 5 • Protection agreements stipulating reimbursement for actual fire
- 6 suppression costs should be utilized rather than protection agreements
- 7 stipulating upfront payment whenever possible.
- 8 • Payments are not appropriate if the refuge lies within the jurisdiction of
- 9 a local fire department that is required by law to respond to all fires
- 10 within their jurisdiction.
- 11 • These agreements must be reviewed by the RFMC, warranted
- 12 contracting officer and Regional Solicitor as appropriate prior to
- 13 approval.

14 Management response to wildland fire must be outlined in the unit’s Fire  
 15 Management Plan, agreements, Annual Operating Plans, and local  
 16 Memorandum of Understanding (MOUs).

**17 Suppression Alternatives Flow Chart**



## Chapter 9

### Fire Management Planning

The Service Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations](#) (Redbook, NFES #2724) Chapter 9 in addition to the following Service specific clarifications:

Wildland fire management planning within the Service is a complex activity due to the need for coordination at local, regional and national levels as well as incorporating the missions of the Service, the National Wildlife Refuge System (NWRS) and the National Fish Hatchery System. The fire management planning process is more efficient and effective if the requisite land/resource management plans, such as Comprehensive Conservation Plans (CCP) and habitat management plans for refuges and fish hatcheries, have been completed and approved.

This chapter is intended to enhance the capability of Agency Administrators, Zone Fire Management Officers (ZFMO), and other fire and Service personnel to develop, review, and update Fire Management Plans (FMP) that provide for safe, efficient and effective actions for wildland fire, non-fire fuels reduction, and other related operations. A synopsis of fire management planning, purpose, policy, concepts and definitions is included in Chapter 9 of the [Interagency Standards for Fire and Fire Aviation Operations](#) (Redbook, NFES #2724).

#### Authorities for Wildland Fire Management

There is a list of acts and mandates that provide the authority for managing wildland fires on Service lands, on lands where wildfire is threatening Service lands, and on adjacent lands. This information can be found in the Authorities for Wildfire Response on the Service's [Fire Planning SharePoint](#).

#### Planning Responsibilities

##### Local Fire Management Planning Responsibilities

The primary accountability for the development and content of an FMP, and the compliance needed for its implementation, rests with the unit Agency Administrator. During the development of an FMP, the Administrator depends on the local expertise of the fire staff, wildlife biologist(s), cultural resource specialist(s), and other local staff to ensure complete and appropriate content as well as compliance with federal, state, and local laws, requirements, and regulations. The annual FMP update policy is implemented and approved at the local level by the unit Agency Administrator in conjunction with the Zone FMO. Implementation plans described in the FMP, such as prescribed fire plans, are developed at the local level.

## 1 **Regional Fire Management Planning Responsibilities**

2 Regional Office fire management personnel are responsible for coordinating unit  
3 and geographic area fire management planning efforts within their Region. In  
4 addition, they are required to establish a formal FMP review and approval  
5 process with regional subject matter experts if the FMP is in need of revision  
6 along with the CCP. This will include identifying staff to provide biological,  
7 technical, fiscal and policy reviews of the FMP. The reviewing staff should be  
8 provided with parameters of the review upfront to help expedite the process. The  
9 Regional Fire Management Coordinator (RFMC), the Regional Refuge Chief,  
10 and their staff are consulted as needed. The Regional Director, or their designee,  
11 must approve all FMPs.

12 RFMCs will determine if preparedness plans are needed at the refuge/unit level  
13 or if those plans developed by respective Geographic Area Coordination Centers  
14 (GACC) provide adequate guidance.

## 15 **National Fire Management Planning Responsibilities**

16 The Service Director and the Chief of the NWRS are responsible for related  
17 policy and for ensuring that FMPs are current. Development of policy and  
18 oversight of wildland fire planning is delegated to the NWRS Branch of Fire  
19 Management in the Division of Natural Resources and Planning. The Branch  
20 Chief and staff are co-located with other federal Fire Directors at the National  
21 Interagency Fire Center (NIFC) in Boise, Idaho.

22 Service Branch of Fire Management (BFM) Staff develop and update Service  
23 guidance for use with the 2014 DOI Fire Management Plan Framework.

24 NIFC fire staff review and propose updates to the Service Manual and the  
25 Service Fire Management Handbook. They participate as members of  
26 interagency committees and work groups under the umbrella of the NWCG  
27 which sponsors development and publication of standard training courses,  
28 Position Task- books, interagency handbooks and guides such as the Wildland  
29 Fire Incident Management Field Guide (PMS 210) and other similar products.

30 The NIFC fire staff plays a key Service role in development and execution of  
31 budgets for the Wildland Fire Management Programs. The Wildland Fire  
32 Management budget is managed as a set of discrete funds within the Department  
33 of Interior and has separate Congressional appropriations from other Service  
34 functions. The NIFC fire staff relies on wildfire occurrence data reports and  
35 prescribed fire and hazardous fuels project implementation planning to develop  
36 and allocate budgets. This process is accomplished with the oversight and  
37 involvement of the National Fire Leadership Team (NFLT), which is a formal  
38 working group chartered by the Regional Refuge Chiefs. Executive membership  
39 of the team includes RFMCs from Regions 1-12 and the Branch of Fire  
40 Management's (BFM) Chief and Deputy Chief.

## 1 **Wildland Fire Terminology used in Fire Management Plans**

2 The source of the terms and definitions in this chapter is the NWCG [Glossary of](#)  
3 [Wildland Fire Terminology](#), which represents federal, state, and local  
4 firefighting agencies and departments nationwide. These definitions can change  
5 as wildland fire management policies change. For clarification of terms in this  
6 chapter and for the latest terms and definitions which may have changed since  
7 the update of this chapter, access the NWCG web site.

## 8 **Fire Management Plan (FMP) Requirements**

9 Every unit managed by the Service which has burnable vegetation must have an  
10 approved and current FMP. Units meeting the exemption criteria defined in  
11 Table 9.1 are not required to develop or maintain a FMP. Units which do not  
12 meet the exemption criteria must maintain a FMP unless exempted in writing by  
13 the Regional Director. The reason(s) for exemption must be well documented.

14 Depending on management strategies addressed in the FMP, an approved FMP  
15 allows a manager to consider a wide range of management responses to  
16 wildfires and to conduct prescribed fires. FMPs must be coordinated and  
17 approved by the responsible Agency Administrator to ensure consistency with  
18 approved CCPs and other management plans (e.g., habitat management plans).

19 The 2014 DOI Fire Management Plan Framework was used to develop a more  
20 efficient and effective FWS FMP Framework ([Fire Planning SharePoint](#)) which  
21 must be used for all new and revised fire management plans. It was developed to  
22 be more efficient and effective and scalable in nature. It allows FMOs  
23 responsible for fire management on refuges and hatcheries to develop a FMP  
24 that is more in line with the complexity and scope of the unit. It also allows units  
25 to represent their FMP in a more spatially represented manner. In 2019, the  
26 NFLT voted to allow developing FMPs in Arc GIS- Story Map. However, due  
27 to the ability to be creative within Story Map, two formats have been selected  
28 for use in developing a FWS FMP (consult your Regional planner). When  
29 producing the FMP in this format include the annual FMP reviews in a tab  
30 within the Story Map FMP.

## 31 **Wildfire Response Plan**

32 The Wildfire Response Plan is available for use as the FMP for units that have  
33 minimal fire occurrence and no fire use, and may have cooperators or other  
34 agencies assisting with wildfire management. The Wildfire Response Plan  
35 should be discussed with responders before fire season to ensure they are  
36 properly educated on what they need to know when responding on the unit.

37 The parameters for using the *Wildfire Response Plan*, outlined in Table 9-1 on  
38 page 4 below are:

- 39 1. Management strategy for wildfires is ‘Full Suppression’ or  
40 ‘Suppression Only’;

- 1 2. Suppression occurs via an MOU or other Agreement; and
- 2 3. Fuels management is not planned or conducted. The *Wildfire Response*
- 3 *Plan* can be found on the [Fire Planning SharePoint](#).

4 **Table 9-1 FMP Requirements for the Service**

Criteria			Requirements		
Vegetative Description	Wildfire Management Strategy	Fuels Management Strategy	FMP	National Environmental Policy Act (NEPA)	Reviews and Revision
No burnable vegetation	Not Applicable	Not Applicable	Exempt	Exempt	Exempt
Burnable vegetation	Full Suppression	None	Wildfire Response Plan or Scalable FMP	None	Annual Review Required. FMP Revision tied to revision of CCP(s), other significant changes, or as deemed appropriate at Regional and/or Field Level Annual Review Required.
	Full Suppression	Utilize Prescribed fire and/or Non-fire treatments	Scalable FMP	EA or EIS	FMP Revision tied to revision of CCP(s), other significant changes, or as deemed appropriate at Regional and/or Field Level

	Full Range of Wildfire Management Response	None	Scalable FMP	EA or EIS	Annual Review Required. FMP Revision tied to revision of CCP(s), other significant changes, or as deemed appropriate at Regional and/or Field Level
	Full Range of Wildfire Management Response	Utilize Prescribed fire and/or Non-fire treatments	Scalable FMP	EA or EIS	Annual Review Required. FMP Revision tied to revision of CCP(s), other significant changes, or as deemed appropriate at Regional and/or Field Level

1  
 2 Table 9.1 has been established to assist FMOs in determining what type of FMP  
 3 to develop to best meet the fire management complexity of the refuge or fish  
 4 hatchery. It also will help if a revision is in order due to your program being  
 5 more or less complex since your last fire management plan. The Service FMP  
 6 development options including the *Service FMP Framework* and the *Wildfire*  
 7 *Response Plan* can be found on the Service’s [Fire Planning SharePoint](#).

8 **Annual Updates:** FMPs are intended to be dynamic and reflect current  
 9 situations and policies; therefore, to maintain currency, FMPs must be reviewed  
 10 each year using the nationally established annual review process. Minor plan  
 11 revisions may be accomplished through an amendment added to the plan and  
 12 signed by the line officer and servicing fire management officer. A copy of a  
 13 signed amendment, along with changes to the FMP and appendices will be sent  
 14 to the Regional Office for documentation and updating of their copy of the FMP.  
 15 Without a current FMP, prescribed fires cannot be conducted and response to  
 16 unplanned ignitions can only be a full suppression strategy. Preparedness and  
 17 prevention activities can continue in the interim period as outlined in the expired  
 18 plan.

19 **Revisions:** FMPs can be revised at any time; however, if the refuge or fish  
 20 hatchery CCP is going through a revision process, the FMP must also be looked  
 21 at for revisions during that same planning effort and timeframe and should be  
 22 updated as per CCP changes that may influence fire management on the unit.

23 Depending on what is being revised for the CCP, a revision to the CCP may or  
 24 may not trigger a revision to the FMP.

1 A new dated signature page will be initiated for the CCP and fire management  
2 should be included on that page to show fires involvement and that the FMP was  
3 also reviewed and/or updated in that effort. Include the CCP signature page with  
4 your FMP to validate the CCP and FMP review.

5 If the FMP is found to need only minor changes during the CCP process that  
6 does not change the intent of the FMP, then the changes can be addressed using  
7 the Annual FMP Update Process.

8 Note: to date, there are refuges and fish hatcheries that have not completed their  
9 initial CCP. If this is the case for your unit, ensure that someone from fire  
10 attends the CCP meetings to discuss and validate fire management information  
11 selected for inclusion in the CCP. For those units without a CCP, ensure that fire  
12 staff attends the CCP meetings to discuss and validate fire management  
13 information selected for inclusion in the CCP.

14 All new FMPs and those needing revisions due to significant change in land use  
15 or other circumstances will use the most recent FWS Fire Management Plan  
16 Framework (see the [Fire Planning SharePoint](#)). Refuges and hatcheries that are  
17 revising FMPs may consider producing a spatially represented product in lieu of  
18 the standard text product. Contact the Regional or National Planner for  
19 additional information on these types of products.

20 **General Fire and Planning Information:** Information required within the FMP  
21 depends on the wildland fire management activities the refuge or hatchery plans  
22 on implementing. As described above, if a refuge or hatchery is not planning on  
23 completing fuel treatments or using multiple objective wildfire, a FMP that  
24 addresses wildfire response and post wildfire rehabilitation is sufficient. If the  
25 unit plans on using fuels treatments and/or multiple objective wildfire, then  
26 these strategies must also be addressed within the FMP and associated NEPA  
27 documents.

28 All wildfire will receive a management response. The response to wildfire  
29 includes all of the response actions necessary to manage a wildfire for the  
30 duration of the event. Therefore, the FMP must address a full range of wildfire  
31 management strategies for suppression and/or multiple objective wildfire  
32 incident management. It is also necessary to fully describe limitations or  
33 constraints that may apply to tactical operations.

34 As practicable, development of FMPs should take place on an interagency basis  
35 with involvement of local partners, especially those with adjoining boundaries  
36 or who provide fire management services through agreements or other approved  
37 instruments.

38 FMPs should describe the approval process and approving official for prescribed  
39 fire plans and any other related operational plans as needed. Required elements  
40 and components of prescribed fire plans are listed and described in the current

1 version of the [Interagency Prescribed Fire Planning and Implementation](#)  
2 [Procedures Guide](#).

### 3 **National Environmental Policy Act Compliance**

4 NEPA requirements for activities on Service lands are described in 621 FW1  
5 and the 505 FW and 550 FW manual chapters. Additional Departmental NEPA  
6 procedures may be referenced in 516 DM 1-6; or consult with the Regional  
7 NEPA Specialist for details on the NEPA process. There is new direction from  
8 the Department of Interior Secretary to make both Environmental Assessments  
9 (EA) and Environmental Impact Statements (EIS) more efficient. Time  
10 restrictions and page limits have been imposed on both of these products.  
11 Information on the new regulations for EAs/EISs can be found on the [Fire](#)  
12 [Planning SharePoint](#).

13 Fuels management Categorical Exclusions (CE) developed by the Department of  
14 Interior and the Service are available for use if appropriate. Current  
15 Departmental CEs are listed in The Code of Federal Regulations (CFR) at 43  
16 CFR 46.210(k). Service-specific CEs are listed in DOI Departmental Manual  
17 516 DM 8, 8.5 B (4-5). A form for documenting the use of these CEs is  
18 available on the [Fire Planning SharePoint](#).

19 CEs (Departmental or Service) cannot be used if exceptions to the CE apply.  
20 These exceptions are listed under 43 CFR 46.215 and must be thoroughly  
21 evaluated before a CE can be utilized.

### 22 **National Historic Preservation Act Compliance**

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

### 26 **Other Regulatory Compliance**

27 Other compliance requirements include Section 7 of the Endangered Species Act  
28 (ESA), (as amended in 1973), Section 810 of the 1980 Alaska National Interest  
29 Land Conservation Act, and Section 118 of the Clean Air Act (as amended in  
30 1990). Additional federal, state and local compliance requirements may also  
31 exist.

## Chapter 10 Preparedness

### 3 Preparedness Overview

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

### 8 Preparedness Plan

9 Refer to the [Interagency Standards for Fire and Fire Aviation Operations](#)  
10 (Redbook, NFES #2724) Chapter 10 for general Preparedness Plan definitions  
11 and information.

### 12 Preparedness Level/Step-Up Plans

13 Refer to the [Interagency Standards for Fire and Fire Aviation Operations](#)  
14 (Redbook, NFES #2724) Chapter 10 for general Preparedness Level/Step-up  
15 definitions and information.

16 The Step-Up Plan (example in Exhibits 10-1 and 10-2) will be reviewed and  
17 updated annually based on more current weather information as well as lessons  
18 learned from previous year(s). The Step-Up Plan:

- 19 • Will include an introduction explaining the purpose of Step-Up Plan,  
20 how breakpoints were derived, weather station(s) utilized, potential  
21 issues with weather data, etc.
- 22 • Will contain accurate breakpoints between preparedness (staffing)  
23 levels.
- 24 • Will be based on National Fire Danger Rating System (NFDRS) or  
25 Canadian Fire Danger Rating System (CFDRS) derived indices.  
26 NFDRS indices include Burning Index (BI), Ignition Component (IC),  
27 Energy Release Component (ERC), and Spread Component (SC). The  
28 Step-Up Plan may also include other locally used indices such as  
29 Drought monitor, Live Fuel Moisture (LFM), Keetch-Byram Drought  
30 Index (KBDI), etc.
- 31 • Will include a description of actions taken at each preparedness  
32 (staffing) levels.

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1 Exhibit 10-1

XYZ WEATHER STATION (WIMS #)							
Data 1994 through 2004							
Analysis Period 04/01 – 10/31							
Description		Model T		Model G		Model L	
Danger Rating Adjective Class	Preparedness Level	ERC Range	BI Range	ERC Range	BI Range	ERC Range	BI Range
Low	I			0 - 18	0 - 20	0 - 10	0 - 9
Moderate	II			19 - 36	21 - 40	11 - 19	10 - 17
High	III			37 - 71	41 - 80	20 - 39	18 - 34
Very High	IV			72 - 90	81 - 98	40 - 50	35 - 42
Extreme	V			> 90	> 98	> 50	> 42

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3 Exhibit 10-2

STAFFING & ADJECTIVE CLASS DETERMINATION GUIDE	DESCRIPTION	ACTIONS TO BE TAKEN
<p><b>Staffing Class I</b></p> <p>Adjective Class:</p> <p>Low</p> <p>Determination Guide:</p> <p>Four of the five criteria within description column fall within identified ranges for this severity level.</p>	<p>Numbers below for BI, ERC, and KBDI represent 90<sup>th</sup> percentile value divided by 4.</p> <p><b>Fuel Model G:</b></p> <ul style="list-style-type: none"> <li>• <b>BI:</b> Range 0 – 20</li> <li>• <b>ERC:</b> Range 0 – 18</li> <li>• <b>1000 hr fuels:</b> Greater than 20%</li> <li>• <b>LFM:</b> Greater than 250%</li> </ul> <p><b>For Fuel Model L:</b></p> <ul style="list-style-type: none"> <li>• <b>BI:</b> Range 0 – 9</li> <li>• <b>ERC:</b> Range 0 – 10</li> </ul> <p><b>KBDI:</b> 1 – 98</p> <p><b>Yearly Precipitation:</b> Normal or Above</p>	<ul style="list-style-type: none"> <li>• Normal tours of duty;</li> <li>• Fire danger rating signs activated at start of the fire season;</li> <li>• Carry PPE while on duty;</li> <li>• Notify Pueblo Dispatch Center (PBC) of staffing class at intervals requested by PBC;</li> <li>• Minimum ICT5 + FFT2 respond to reported fire;</li> <li>• In early season, complete pre- season risk analysis;</li> </ul>

	<b>Drought Monitor:</b> None	
<p><b>Staffing Class II</b></p> <p>Adjective Class:</p> <p>Moderate or Normal</p> <p>Determination Guide:</p> <p>Four of the five criteria within description column fall within identified ranges for this severity level.</p>	<p><b>Numbers below for BI, ERC, and KBDI represent 90<sup>th</sup> percentile value divided by 2.</b></p> <p><b>For Fuel Model G:</b></p> <ul style="list-style-type: none"> <li>● <b>BI:</b> Range 21 – 40</li> <li>● <b>ERC:</b> Range 19 – 36</li> <li>● <b>1000 hr fuels:</b> 16 – 20%</li> <li>● <b>LFM:</b> 225 - 250%</li> </ul> <p><b>For Fuel Model L:</b></p> <ul style="list-style-type: none"> <li>● <b>BI:</b> Range 10 – 17</li> <li>● <b>ERC:</b> Range 11 – 19</li> </ul> <p><b>KBDI:</b> 99 – 196</p> <p><b>Yearly Precipitation:</b> 1 – 10% Below Normal</p> <p><b>Drought Monitor:</b> D0 – D1 (Abnormally Dry to Moderate Drought)</p>	<p><b>All Level I Activities plus:</b></p> <ul style="list-style-type: none"> <li>● All initial attack equipment ready in cache at all times;</li> <li>● Engines, Pumps and Saws checked weekly</li> </ul>
<p><b>Staffing Class III</b></p> <p>Adjective Class:</p> <p>High</p> <p>Determination Guide:</p> <p>Four of the five criteria within description column fall within identified ranges for this severity level.</p>	<p><b>For Fuel Model G:</b></p> <ul style="list-style-type: none"> <li>● <b>BI:</b> Range 41– 80</li> <li>● <b>ERC:</b> Range 37 – 71</li> <li>● <b>1000 hr fuels:</b> 13 – 16%</li> <li>● <b>LFM:</b> 150 - 224%</li> </ul> <p><b>For Fuel Model L:</b></p> <ul style="list-style-type: none"> <li>● <b>BI:</b> Range 18 – 34</li> <li>● <b>ERC:</b> Range 20 – 39</li> </ul> <p><b>KBDI:</b> 197 – 390</p> <p><b>Yearly Precipitation:</b> 11 – 25% Below Normal</p> <p><b>Drought Monitor:</b> D1 – D2 (Moderate to Severe Drought)</p>	<p><b>All Level II Activities plus:</b></p> <ul style="list-style-type: none"> <li>● Minimum ICT5/ENGB + FFT2 with engine respond to reported;</li> <li>● Engines, Pumps, and Saws checked daily</li> <li>● Detection patrol following lightning activities and around high public use areas;</li> <li>● Post fire danger signs at entrances and high public use areas;</li> <li>● Stage 1 or Stage 2 Fire Restrictions may be</li> </ul>

		<p>implemented;</p> <ul style="list-style-type: none"> <li>• Begin coordination of potential closures with adjacent agencies;</li> <li>• Monitor availability of local fire suppression resources;</li> <li>• Begin preparing request for Short Term Severity and / or Severity Funding;</li> </ul>
<p><b>Staffing Class IV</b></p> <p>Adjective Class:</p> <p>Very High</p> <p>Determination Guide:</p> <p>Four of the five criteria within description column fall within identified ranges for this severity level.</p>	<p><b>Numbers for BI, ERC, and KBDI below represent 90<sup>th</sup> thru 96<sup>th</sup> percentile.</b></p> <p><b>For Fuel Model G:</b></p> <ul style="list-style-type: none"> <li>• <b>BI:</b> Range 81 – 98</li> <li>• <b>ERC:</b> Range 72 – 90</li> <li>• <b>1000 hr fuels:</b> 8 – 12%</li> <li>• <b>LFM:</b> 85 - 149%</li> </ul> <p><b>For Fuel Model L:</b></p> <ul style="list-style-type: none"> <li>• <b>BI:</b> Range 35 – 42</li> <li>• <b>ERC:</b> Range 40 – 50</li> </ul> <p><b>Yearly Precipitation:</b> 26 – 45% Below Normal</p> <p><b>KBDI:</b> 391 – 460</p>	<p><b>All Level III Activities plus:</b></p> <ul style="list-style-type: none"> <li>• Minimum ICT5 + ENGB (or trainee) + FFT2 with engine respond to reported fire;</li> <li>• No fire equipment will be utilized for project work;</li> <li>• ICT4 available to respond;</li> <li>• 7-day effective coverage, including extended hours as determined by Fire Duty Officer (FDO);</li> <li>• Request activation of Short – term Severity and / or Severity Funding;</li> <li>• Detection Patrol Conditional;</li> <li>• Ensure that dispatch coverage maintains the capability to handle fire prevention, detection, and incident management activities;</li> <li>• Consider Information Officer working in</li> </ul>

		<p>conjunction with PFB distribute press releases regarding fire danger;</p> <ul style="list-style-type: none"> <li>• Coordinate Stage 1 or Stage 2 fire restrictions with adjacent agencies;</li> <li>• Coordinate potential closures with adjacent agencies;</li> <li>• FDO will monitor availability of PIDC Type III team and aviation resources.</li> </ul>
<p><b>Staffing Class V</b></p> <p>Adjective Class:</p> <p>Extreme</p> <p>Determination Guide:</p> <p>Four of the five criteria within description column fall within identified ranges for this severity level.</p>	<p><b>Numbers for BI, ERC, and KBDI below represent 97<sup>th</sup> and above percentile.</b></p> <p><b>For Fuel Model G:</b></p> <ul style="list-style-type: none"> <li>• <b>BI:</b> Greater than 98</li> <li>• <b>ERC:</b> Greater than 90</li> <li>• <b>1000 hr fuels:</b> Below 8%</li> <li>• <b>LFM:</b> Below 85%</li> </ul> <p><b>For Fuel Model L:</b></p> <ul style="list-style-type: none"> <li>• <b>BI:</b> Greater than 42</li> <li>• <b>ERC:</b> Greater than 50</li> </ul> <p><b>Yearly Precipitation:</b> Greater than 45% Below Normal</p> <p><b>KBDI:</b> Greater than 460</p> <p><b>Drought Monitor:</b> D4 (Exceptional Drought</p>	<p><b>All Level IV Activities plus:</b></p> <ul style="list-style-type: none"> <li>• Minimum ICT3 + 2 engines each staffed with minimum ENGB and 2 FFT2s to respond to wildfire</li> <li>• Consider closure of public lands</li> <li>• Consider aerial detection flights</li> </ul>

1

1 Other Considerations to above table:

- 2 ● When STAFFING LEVEL 3 or 4 is accompanied by a Lightning Activity  
3 Level of 4, 5, or 6 for the current day or within the previous 5 days, the  
4 STAFFING LEVEL may be adjusted to the next higher level respectively.
- 5 ● Drought Monitor Index of D2 (Severe Drought) or higher (D3, D4, etc.)  
6 may be used to justify adjustment of STAFFING LEVEL 3 to 4, and 4 to 5  
7 respectively.
- 8 ● Periods of elevated probability of human-caused fire occurrence, such as  
9 holiday weekends with increased visitation, may also be used to adjust the  
10 STAFFING LEVEL to the next highest level.
- 11 ● STAFFING LEVELS 3 and 4 may be adjusted to 4 and 5 respectively if the  
12 Rocky Mountain Area preparedness level is Level 4 or Level 5.
- 13 ● The FDO will monitor the availability of other staff. Once initial attack  
14 resources are committed to an incident, the FDO will determine the need(s)  
15 for ensuring that adequate staffing is maintained for any additional response  
16 that may simultaneously occur.

### 17 18 **Remote Automated Weather Stations (RAWS)**

19 The NWCG Fire Weather Subcommittee provides national leadership in  
20 wildland fire weather and climatology in support of effective fire management  
21 decision-making. As part of their role, the Fire Weather Subcommittee  
22 developed and maintains the [Interagency Wildland Fire Weather Station](#)  
23 [Standards and Guidelines](#) (NWCG PMS 426-3). The Service has adopted and  
24 follows the standards in this publication.

### 25 **RAWS Maintenance**

26  
27 Maintenance and repair of RAWS stations is critical to fire behavior indices as  
28 well as for use by other agencies. RAWS owned by the Service will meet  
29 maintenance and repair standards identified in the current version of the  
30 [Interagency Wildland Fire Weather Station Standards and Guidelines](#). RAWS  
31 maintenance and repair is the responsibility of the Zone Fire Management  
32 Officer and station owner.

33  
34 Individuals responsible for the maintenance of RAWS are required to have an  
35 individual access to the Wildland Fire Management Information (WFMI)  
36 Weather Module. WFMI Weather allows users in the field the ability to order  
37 sensors, update station narratives, notes, and routes. Information on obtaining a  
38 WFMI Weather account can be found at [WFMI Homepage](#).

39  
40 The WFMI Weather module provides access to the weather data that is  
41 transmitted from the more than 2500 RAWS located throughout the U.S.

1 Locations of RAWS can be searched online at [Western Regional Climate Center](#)  
2 (WRCC). Additionally, the WRCC website allows users to graph sensor outputs  
3 making it easier to locate potential problems.

4

5 **Annual Maintenance** – The Zone FMO and station owner are responsible for  
6 ensuring:

- 7 1. Annual maintenance is completed per standards in NWCG PMS 426-3;  
8 and
- 9 2. Maintenance and all other significant station activity is documented in  
10 the WFMI Weather Module.

11

12 RAWS that are over one month past due for annual maintenance can be set to  
13 not send information to the Weather Information Management System (WIMS)  
14 to prevent these stations from being used to inform critical fire management  
15 decisions. The decision to turn off a station is the responsibility of the Regional  
16 RAWS Coordinator in coordination with the Service National RAWS  
17 Coordinator and Regional Fire Management Coordinator. Once annual  
18 maintenance has been completed, the station can be re-set to send information to  
19 WIMS.

20

21 **Unscheduled Maintenance/Emergency RAWS Repairs** - Repairs to RAWS  
22 are to be completed per standards identified in NWCG PMS 426-3. During the  
23 unit's fire season, the ZFMO has 3 days to initiate repairs (such as contacting  
24 RAWS depot and ordering parts, etc.). If repairs are not completed within 7  
25 days, NFDRS indices will become inaccurate and corrections to station data may  
26 need to be completed in WIMS. Regardless if WIMS data corrected or not, the  
27 station will need to be recalculated in WIMS to correct NFDRS indices. All  
28 activities will be documented in the WFMI Weather Module. More information  
29 on RAWS is located on the RAWS website.

30

31 **Weather Information Management System (WIMS)** - Maintaining the  
32 RAWS information in WIMS is the responsibility of the Zone FMO. State of  
33 Weather and observed weather observations will be completed daily. Dates for  
34 vegetative stages (such as green-up, frozen, etc.) will also be completed annually  
35 by the Zone FMO following guidance identified in the WIMS user guide.

36

**1 Fire Severity Funding**

2 Fire Severity Funds are suppression operations funds intended to support  
3 extraordinary preparedness activities and its use is consistent with approved  
4 preparedness plans. Fire severity funding is not intended to raise preparedness  
5 funding levels to cover differences that may exist between funds actually  
6 appropriated and those identified in the fire planning process.

7 Units may request fire severity funding when wildfire response resources are  
8 insufficient to meet the predicted fire workload on Service lands. Units/Regions  
9 may request 2 types of severity funding depending upon the anticipated duration  
10 of need (see table).

**11 Short-term Fire Severity Funding**

12 Short-term Fire Severity Funding can be requested to implement preplanned  
13 actions from an approved preparedness or step-up plan when the unit anticipates  
14 being at Preparedness Level 4 or 5 (or equivalent) for less than seven  
15 consecutive days, or when the need is only for extending the days/hours of  
16 existing staff. In rare instances, local interagency resources may be utilized to  
17 cover Service short-term severity events. If local interagency resources are  
18 required to support Service severity activities for a period longer than 4 days, the  
19 long-term severity process must be utilized. RFMCs are authorized to approve  
20 the expenditure of short-term fire severity funds up to the annual \$300,000  
21 Regional cap. Units must request, through their RFMC, authority to expend  
22 Short-Term Severity funds detailing the conditions necessitating the increase in  
23 preparedness activities. Short-term Fire Severity Funding approvals are valid for  
24 the short-term event detailed in the request and do not constitute a blanket  
25 annual approval to expend short-term severity funds. Upon conclusion of short-  
26 term preparedness actions, FMOs are required to submit a report to the RFMC  
27 detailing the funds expended and activities conducted during emergency  
28 preparedness.

**29 Long-term Fire Severity Funding**

30 Long-term Fire Severity Funding can be requested when additional outside  
31 resources are needed for an extended period of time. The need for additional  
32 resources must be based upon existing approved preparedness plans or  
33 documentation of extraordinary conditions that were not anticipated in the  
34 existing preparedness plans. Long-term Fire Severity Funding requests must be  
35 approved by the Chief, Branch of Fire Management and must follow the FWS  
36 Severity Request Format. Severity funding templates, job aids and checklists  
37 have been created for field units and Regional Offices and are located on the  
38 Severity page of the Service's [Fire Management SharePoint](#) site.

1 **Severity Cost Accounting**

- 2 Fire severity work breakdown structures are initiated by the National Office  
 3 in the Fire Management Information System. Refer to the Fire Business  
 4 Guide and FWS [Fire Management SharePoint](#) site for additional  
 5 information.  
 6 Refer to the Fire Business Guide, the Redbook, and the Service SharePoint site  
 7 for additional severity guidance and templates for use:

<b>Fire Severity Funding Levels</b>	<b>Fire Severity Authorization</b>	<b>Additional Resources (as specified in preparedness plans)</b>
Regional Level  Short-Term Events (severity conditions and expected PL4 or 5 for less than one week)	Work Breakdown Structures are provided by the National Office to each Region on an annual basis	Approved by Regional Office  Complete short term severity expense reports
National Level  Long-Term Events (severity conditions and predicted PL4 or 5 for more than one week)	Maximum of 30 days per request; however, regardless of the length of the authorization, use of severity funding must be terminated when abnormal conditions no longer exist.  Work Breakdown Structures are provided by the National Office for each approved request.	Approved by National Office  Complete long term severity expense reports

8  
 9 **Reporting Requirements**

- 10 Units will email a final report to the RFMC and the BFM within 30 days of  
 11 ending long-term severity. The final severity report must include the following:
- 12 ● Total amount authorized
  - 13 ● Total amount expended
  - 14 ● Short narrative of fire activity

15

1 The requesting unit must keep all fiscal documents pertaining to the severity  
2 expenditures separate from other fiscal documents for audit purposes. This  
3 includes timesheets, both for permanent and any AD hires, travel vouchers,  
4 purchase documents, etc. Given potential changes in conditions, identify  
5 anticipated duration for continued use of the authorization.

#### 6 **Normal Unit Strength (NUS)**

7 Refuges that have a Fire Management Plan and provide suppression  
8 responsibilities should also have a cache of firefighting tools and personal  
9 protective equipment (PPE) adequate to support all refuge initial attack staff.  
10 The numbers, types, and distribution of materials in caches will be dictated by  
11 the staffing, suppression strategy, fuels and fire history of the refuge. Cache  
12 equipment, other than capitalized property, is considered to be the station's NUS.  
13 It is the responsibility of the refuge, in coordination with local and regional fire  
14 management staff to establish specific refuge and complex initial attack NUS  
15 levels. Requirements beyond the initial attack level will be supported through  
16 the regional and national fire cache system. Maintenance of NUS is the  
17 responsibility of the refuge. NUS is a maximum level of all items for initial  
18 attack fire suppression efforts, not for support of fires exceeding initial attack or  
19 prescribed fire activities. NUS will include personal protective equipment and  
20 safety items required by personnel for prescribed fire assignments. Personnel  
21 ordered for extended attack activities are not to be equipped from the refuge's  
22 NUS, but will either come equipped or equipped by a ground support facility.  
23 All refuges will develop a NUS list and have it approved by the RFMC. The list  
24 will become an attachment to the refuge's Fire Management Plan. Only those  
25 approved items may be replaced. The initial stocking of the cache with NUS  
26 items is a one-time expenditure of preparedness funds. If additional items are  
27 needed, they must be approved through the RFMC. All NUS items are to be  
28 maintained in such a way that they are not used for routine refuge operations.  
29 This may be accomplished by storing equipment in designated areas protected  
30 by a seal or in an individual locked enclosure. The inventory and location of  
31 these items should be included in the pre-attack plan. Excess and unneeded  
32 supplies and equipment should be transferred to other refuges or interagency  
33 caches.

34 Once a NUS level of equipment and PPE is established, routine replacement of  
35 lost, broken or worn out equipment should be through the normal Defense  
36 Logistics Agency fire program. Items can be ordered by using the National  
37 Stock Number found in the NWCG National Fire Equipment System Catalog,  
38 Part 1: Fire Supplies and Equipment, or through the Defense Logistics Agency  
39 (DLA) Wildland Fire supply program Website. DLA should be considered the  
40 first source of supply, but other sources can also be used.

41 Supporting Ongoing Fires - Ordering - During wildland and prescribed fire  
42 operations, support in the form of NUS supplies, other fire suppression

- 1 equipment, crews and overhead can be ordered through the local interagency
- 2 zone dispatch/coordination center.

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

3

#### 4 Information Systems

- 5 There are a number of computer applications, which provide analysis and
- 6 decision support for fire manager/resource manager. Numerous other computer

1 applications exist which have merit and can be used by refuges, but are not  
2 supported by the national office. Supported applications include:

3 • **Weather Information Management System (WIMS)**

4 A comprehensive system that helps you manage weather information.  
5 WIMS is the host for the NFDRS. WIMS accesses the National Interagency  
6 Fire Management Integrated Database (NIFMID). NIFMID is a relational  
7 database that contains historic fire weather and historic fire record  
8 information. Requirements for WIMS data are identified in Chapter 14.  
9 WIMS allows you to retrieve weather information by providing timely  
10 access to many weather information sources, efficient tools for managing  
11 data, data manipulation and display functions, and interactive  
12 communications environment. System access is through National  
13 Applications Portal (NAP) at (<https://nap.nwcg.gov/NAP/#>) and requires a  
14 user identification and password. A WIMS user guide is located at  
15 [http://fam.nwcg.gov/fam-web/pocketcards/wims\\_ug\\_final/wims\\_ug.html](http://fam.nwcg.gov/fam-web/pocketcards/wims_ug_final/wims_ug.html)  
16 Questions concerning WIMS access should be directed to the WIMS help  
17 desk at NIFC (866) 244-7677.

18 • **The Fire Effects Information System (FEIS)**

19 FEIS is a computerized encyclopedia of scientific information describing  
20 the fire ecology of more than 1,000 plants and animal species and plant  
21 communities. Access to FEIS is available through the Internet at  
22 <http://www.feis-crs.org/beta/>.

23 • **Wildland Fire Assessment System (WFAS-MAPS)**

24 The broad area component of the Wildland Fire Assessment System  
25 (WFAS-MAPS) is generating National Maps of selected fire weather and  
26 fire danger components of the NFDRS. NFDRS computations are based on  
27 once-daily, mid-afternoon observations (2 p.m. Local Standard Time) from  
28 the Fire Weather Network that is comprised of some 1,500 weather stations  
29 throughout the Conterminous United States and Alaska.

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

39 • **Lightning Detection System (LDS)**

1 Near real time lightning data can be acquired and exported without a  
2 username or password at <https://wfmi.nifc.gov/cgi/WfmiHome.cgi> by  
3 clicking on Lightning Viewer Webpage.

4 Another source of lightning data is the National Interagency Fire Enterprise  
5 Geospatial Portal (EGP) at <https://egp.nwcg.gov/egp/default.aspx>. A  
6 username and password are required to log into the Situation Analysis (SA)  
7 page. Once logged in, user can select and view near real time lightning  
8 data.

## 9 **Wildfire Prevention/Mitigation**

10 Information on risk assessments and planning can be found at the [NWCG](#)  
11 [Communication, Education, and Prevention Committee](#) website.

### 12 • **Prevention Goals**

- 13 ○ Reduce the likelihood of both human-caused and unwanted  
14 naturally-ignited wildfire spread that could result in  
15 unacceptable loss.
- 16 ○ Decrease the frequency of human-caused fires.
- 17 ○ Reduce emergency suppression costs.
- 18 ○ Reduce fire size and intensity by developing programs such as  
19 fuels reduction/modification.
- 20 ○ Establish cost-effective prevention programs at the national,  
21 regional, and refuge levels.
- 22 ○ Integrate and coordinate prevention programs with State  
23 foresters, nearby land management agencies, and wildfire  
24 protection organizations.
- 25 ○ Promote the creation of incentives for building and  
26 maintaining fire-safe structures and fire-safe communities to  
27 reduce the unwanted consequences of fire.
- 28 ○ Minimize damage from unwanted wildfire occurrence.
- 29 ○ Incorporate prevention programs into our fire management  
30 outreach programs.

### 32 • **Prevention Priorities**

- 33 ○ Our highest priority in the prevention program is to prevent  
34 catastrophic fires and human- caused wildfires. All levels from  
35 the field through the Washington Office Directorate will  
36 exhibit action committing to an effective prevention program
- 37 ○ Our prevention program is designed to minimize losses from  
38 wildfire while considering resource management objectives.
- 39 ○ Our prevention program encourages a cooperative interagency  
40 approach among all Federal, State, county, and municipal  
41 agencies/entities and is consistent with our objectives and  
42 National Outreach Strategy guidance.

- 1                   ○ The Project Leader is responsible for ensuring the  
2 investigation of every wildfire to determine cause. Where  
3 evidence indicates the fire was caused by arson or negligence  
4 (trespass), the Project Leader must protect evidence and  
5 initiate a fire investigation. This investigation may range from  
6 getting the responding fire crew to document the cause to  
7 requesting a qualified arson investigator to perform a criminal  
8 investigation.
- 9                   ○ The Project Leader must notify the Regional Fire Management  
10 Coordinator of suspected arson.
- 11
- 12     ● **Prevention Analysis**
- 13                   ○ Each field office is responsible for performing a prevention  
14 analysis. Your completed prevention analysis determines the  
15 scope, contents and need of the fire prevention plan. Complete  
16 your prevention analysis for the same planning period used in  
17 developing the Fire Management Plan. If this is not possible  
18 the data base should be for the most recent 5 years. The  
19 analysis serves as a justification for increasing, decreasing,  
20 and modifying existing prevention activities.
- 21
- 22     ● **Prevention Plan**
- 23                   ○ Your prevention analysis helps you determine if a prevention  
24 plan is required. The problems you identify in the prevention  
25 analysis are addressed and treatments are identified in the  
26 prevention plan.
- 27                   ▪ **Plan Submission.** If you identify a prevention  
28 problem when you complete your prevention  
29 analysis, you must complete a prevention plan unless  
30 your Regional Director issues an exemption.
- 31
- 32     ● **Plan Amendment**
- 33                   ○ You must periodically review your prevention analysis to  
34 determine changes in human- caused fire incidence, cause,  
35 class of people, location, changes in fuel loading or public use  
36 patterns. A significant change or problem may require  
37 redirecting the current program giving more emphasis to this  
38 area.
- 39                   ○ A prevention plan amendment is necessary when your review  
40 justifies a change in the prevention program. The amendment  
41 is submitted in the same way as the prevention plan.
- 42
- 43     ● **Prevention Plan Implementation.**

- 1 ○ **Visitor Use Regulation.** Practice prevention enforcement at  
2 the level necessary to gain compliance with fire laws and  
3 regulations.
- 4 ○ **Public Use Restrictions.** Project Leaders have the authority to  
5 impose public use and access restrictions in times of high fire  
6 danger. These public use restrictions include:
  - 7 ■ Restricted fire use in back-country; e.g., no cooking  
8 or warming fires outside developed sites, etc.
  - 9 ■ Restricting public use activities; e.g., off-road  
10 vehicles, back-country access, etc.
  - 11 ■ Restricting refuge operations or contract activities;  
12 e.g., construction, blasting, chain saw use, etc.
  - 13 ■ Total or partial closure of the refuge.
- 14 ○ **Coordination of Closures.** You should coordinate all closures  
15 with the State and adjacent Federal land management  
16 agencies. Joint agency closures can be very effective and they  
17 are easier to manage and better understood by the public when  
18 lands of similar hazard, regardless of ownership, are treated  
19 the same. Notify and coordinate a closure or restriction with  
20 all Federal, State, and local organizations responsible for  
21 wildfire control whenever possible.
- 22
- 23 ● **Interagency Cooperation**
  - 24 ○ Interagency cooperation is critical at all levels. Coordinating  
25 and sharing resources among agencies can make prevention  
26 programs much more effective. Carefully coordinate programs  
27 so they are complementary and reinforce each other.  
28 Cooperative prevention programs should include interagency  
29 committees, developing interagency public outreach programs,  
30 and development and coordinated release of news stories to  
31 the media. Cooperative interagency efforts in prevention  
32 activities with other local fire authorities provide an excellent  
33 avenue for establishing cordial relationships which pay  
34 dividends at the time of an emergency.
- 35
- 36 ● **Prevention Training**
  - 37 ○ All personnel are responsible for wildfire prevention.  
38 Appropriate employees should complete Fire Prevention  
39 Education 1 (PMS P101) to ensure a basic understanding of  
40 wildfire prevention. This basic course is available for purchase  
41 through the Publication Management System.
  - 42 ○ Our field offices should work with their local cooperators to  
43 develop effective prevention training programs for the mutual  
44 benefit of both.

## 1 **Wildfire Cause Determination and Fire Trespass**

2 To start things in motion, make a thorough investigation of the facts surrounding  
3 the fire and provide documentation in a trespass report. The report is completed  
4 by the Service employee who discovered the wildfire trespass or is assigned to  
5 the investigation. The trespass report is submitted to the Project Leader.

6 Management shall at this point request assistance from Law Enforcement  
7 Officer (LEO) if there is any question on civil versus criminal penalties. The  
8 Project Leader should ensure investigation of each fire to determine whether  
9 natural or human causes started the fire. Where evidence indicates the fire was  
10 human caused, protect the evidence and initiate an investigation using qualified  
11 fire investigators. Initiate trespass actions to recover suppression costs and  
12 resource losses. Notify the Regional Fire Management Coordinator.

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

19 Upon fire trespass legal ruling and settlement determination (collection amount),  
20 the Service is responsible for the billing, collection and dispersal of collected  
21 funds. The collecting office will prepare a Bill for Collection DI-1040 indicating  
22 the **incident cost center FF.F46000 original fire incident project code** and  
23 forward the Bill for Collection to the cost accounting section (per Regional  
24 direction) along with supporting documentation. The cost accounting section  
25 will enter the Bill for Collection into FBMS, as well as prepare and send a  
26 “formal” bill to the plaintiff.

27 **NOTE: It is CRITICAL that fire trespass collections and resultant**  
28 **spending transactions cite the original fire incident project code or the**  
29 **funds will lose their identity. A copy of the Bill for Collection must be**  
30 **forwarded to the Service Branch of Fire Management, Budget and**  
31 **Planning for National oversight.**

32 Funds (check or money order) are to be deposited via Collection Transmittal 1  
33 (fire trespass). Once fire trespass funds are deposited, they will be held by the  
34 collecting Region until the NFLT meets to discuss/negotiate current needs;  
35 funds will then be allocated based on NFLT decisions throughout the year.  
36 These funds may only be used for non-recurring contracts, interagency  
37 activities, temporary labor, and one-time purchases not requiring continued  
38 monetary commitment. These funds are not base funds; they are considered one-  
39 time funds and cannot be used to augment the preparedness budget. Funds may  
40 be used for fire activities in the wildfire prevention planning process, examples  
41 include: fire awareness, educational activities, law enforcement activities, and  
42 prevention and trespass training. Funds can also be used for restoration that is

1 needed as a result of fire where, due to limitations on the use of rehabilitation  
2 funds, restoration of developments damaged by a fire could not be  
3 accomplished.

4 Please refer to the *Fire Business Guide* for additional administrative instructions  
5 and guidance.

6 Depending upon a number of actions and reactions, there are situations where  
7 managers must seek advice from appropriate Service specialists and Field or  
8 Regional Solicitors (Solicitor) through established channels. The question of  
9 civil versus criminal recourse requires outside input from technical experts. The  
10 nuances of investigation under civil versus criminal cases differ, and require  
11 expert advice.

12 This Chapter should not be relied upon as the final authority in pursuing wildfire  
13 trespass cost recovery. The references cited in the Departmental Manual, Part  
14 620, 50 CFR, Part 28.32, and the Service Manual should be reviewed by those  
15 involved in wildfire trespass. Managers need to know or be advised on what  
16 their roles, limitations, and capabilities are in trespass cases (Service Manual  
17 621 FW 1.5 and 1.14).

18 The agency must pursue cost recovery, or document why cost recovery is not  
19 required for all human- caused fires on public lands. If the ability to pay does  
20 not exist, a court decision could be handed down that might provide for payment  
21 in kind.

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

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

## 32 **Fire Investigation**

### 33 **Introduction**

34 All fires must be thoroughly investigated to determine the cause and if  
35 negligence and/or criminal intent were factors. Whether the fire was started from  
36 a careless act or was willfully set must be determined in order to develop a  
37 successful fire investigation. Fire investigation must be concurrent with fire  
38 suppression. Fire Investigation Methodology and Techniques can be found in  
39 the [Guide to Wildland Fire Origin and Cause Determination](#) (NWCG PMS 412,  
40 NFES 1874).

1

## 2 **Wildland Fire Investigation Case Reports**

3 At this point, an Initial Report of Unauthorized Use (Exhibit 10-3), Wildland  
4 Fire Investigation Illustration and Sample Case Report has been completed and  
5 submitted to the Project Leader. After a decision to proceed with further  
6 investigation has been reached, the next decision point is whether to pursue a  
7 civil or criminal action. Law Enforcement personnel will be consulted to  
8 determine which course of action to pursue. The Initial Report of Unauthorized  
9 Use will become part of the investigative report.

10 A trespass case number will be assigned from the Document Control Register or  
11 Law Enforcement Management Information System (LEMIS) which is a  
12 reporting system used by Service law enforcement to document all case work.  
13 The investigation will then proceed. At this point, the trespass is still in the  
14 administrative process. The Service could issue a billing and make full recovery  
15 of costs. We have not gone to the judicial system yet.

16

## 17 **Civil Case Report**

18 ● **Format.** The case report should be divided into five parts: Title Page,  
19 Synopsis, Persons Named in the Report, Fire Investigation, and Appendix.

### 20 ○ **Title Page.**

- 21 ▪ Fire name and number
- 22 ▪ Refuge
- 23 ▪ Fire date
- 24 ▪ Report prepared by
- 25 ▪ Position title
- 26 ▪ Period of investigation
- 27 ▪ Date of report

28 ● **Synopsis.** The Synopsis should be as brief as the writer deems necessary to  
29 explain the case and to tie evidence into a narrative description. Discuss  
30 specific elements of the violation (e.g., willfully and without Authority, sets  
31 fire on National Wildlife Refuge). The writer should present facts that show  
32 negligence and discuss any problems of conflicting evidence. It is not a  
33 substitute for the investigation portion of the report. It should be factual,  
34 rather than conclusive. It should be based upon the evidence developed  
35 during the investigation.

36 ● **Persons named in the report.** Attach a list of all persons mentioned in the  
37 report by full name, address, phone number, and occupation.

38 ● **Investigation.** This is the body of the report. It should consist of a  
39 chronological description of what the Fire Investigator did in the  
40 investigation, whom he/she spoke with and when, what was said, and what

1 was observed. It is an account of all matters developed in the investigation.  
2 Even seemingly minor notations or observations can prove extremely  
3 important at a later date. Include the names of property owners who are  
4 involved in the case and any other individuals who might be connected with  
5 the case, either as defendants or in any other direct manner.

6 ● **Appendix.** Attach maps, sketches, and photographs to aid in  
7 comprehending locations, conditions, and circumstances described in the  
8 report. Attach any statements taken from witnesses and a list of who was  
9 interviewed without written statements, and to what they can attest. Include  
10 all relevant forms to the case such as burning permits, Notice of Violation,  
11 record of fire conditions, operating permits (i.e. Special Use Permit),  
12 weather records, dispatch logs, and radio logs.

13 ● **Processing.** Once evidence has been processed and suppression costs  
14 determined, the case report should be finalized. The case report should be  
15 submitted for review to the FMO and Project Leader.

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

19

## 20 **Criminal Case Report**

### 21 **Investigative Reports – Criminal**

- 22 ● The incident report is given a number and opens the case. It includes:
- 23 ○ Subject - address and physical description.
  - 24 ○ Reporting person - either a confidential informant (CI) or informant.  
25 Include address and phone number for informant, but not for the CI.
  - 26 ○ Details clearly stating the violation and the "who, what, where, when,  
27 why, and how" in a brief paragraph or two.
  - 28 ○ Action and recommendation - describe what actions are to be initiated  
29 and recommendations to consider.
- 30 ● The investigative report consists of:
- 31 ○ Cover page with primary information as to suspect, witnesses,  
32 violation, and a short synopsis.
  - 33 ○ Investigative results report which includes all actions taken by the Fire  
34 Investigator concerning evidence collected, persons interviewed,  
35 sketches, photographs, chain of custody receipts, and disposition form  
36 used when the case has been adjudicated.
  - 37 ○ Format example of the chronological order of a criminal report;

- 1 • Criminal complaint
- 2 • Investigative report
- 3 • Investigative results
- 4 • Statement(s) of witness(es)
- 5 • Statement(s) of suspect(s)
- 6 • Photographs
- 7 • Sketches
- 8 • Evidence exhibits

## 9

### 10 **Cost Determination**

#### 11 **Introduction**

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

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

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

#### 26

#### 27 **Resource Damages**

28 Each burned area will be examined and the damages evaluated. The appropriate  
29 Resource Specialist should make the appraisal. Generally, damages will be the  
30 cost of emergency stabilization, burned area rehabilitation, and the value of  
31 resources burned minus any salvage value.

#### 32

#### 33 **Emergency Stabilization Costs**

34 These are charged to emergency stabilization funds and must be tied to a  
35 specific fire number (i.e., 10 digit cost center-FF.F2200000-fire number  
36 followed by a 0). Emergency stabilization is planned actions taken during and  
37 after a wildfire to stabilize and prevent unacceptable resource degradation or to  
38 minimize threats to life or property resulting from the fire. It includes such costs  
39 as reseeding to prevent immediate wind or water erosion and to prevent  
40 establishment of undesirable vegetative species, fencing of areas to prevent

1 animals or humans from entering sensitive areas, and felling damaged trees  
2 posing threats to human safety.

3

#### 4 **Burned Area Rehabilitation Costs**

5 This is the non-emergency replacement of facilities and resources damaged by  
6 wildfire or the re- establishment of ecosystem structure and functions.  
7 Rehabilitation is tied to a specific fire number (i.e. cost center FF.F3200000 fire  
8 code followed by a 0).

9

#### 10 **Suppression Related Rehabilitation Costs**

11 These are charged to suppression operations (FF.F20000) for rehabilitating on-  
12 site and off-site damage to resources caused by firefighting actions, and are part  
13 of the fire bill.

14

#### 15 **Physical Improvement Damage**

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

20

#### 21 **Off-Site Values**

22 These values are usually related to water sources which have dried up or  
23 structures damaged as a result of fire. Damage should be assessed using  
24 replacement cost. The damage of off-site values caused by the fire and/or fire  
25 suppression acts should be examined by qualified specialists and the cost of  
26 rehabilitation and/or values lost and repair or replacement determined through  
27 bid estimates, appraisal, or contracting. Service Suppression Operations Costs

28 All direct costs incurred for the benefit of a specific fire are properly included as  
29 true fire costs for that case. They will include charges by the Service through  
30 Refuge(s), Regional Office(s), Office of Aircraft Services (OAS), NIFC, Alaska  
31 Fire Service, agency fire caches, and agency coordination and dispatch centers.  
32 Other direct costs, such as the cost of fire investigation and preparing and  
33 processing a report, should be charged to suppression operations (FF.F20000).

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

1

**2 Indirect (Administrative) Costs**

3 An indirect cost rate may be added to the Service's direct amount being billed.  
4 This rate is commonly negotiated at the Regional or Unit level.  
5 Administrative/indirect costs include centralized data management, general  
6 administration, and other support functions performed jointly for which the  
7 amounts pertaining to specific fires cannot be determined accurately. These  
8 costs also are incurred for the benefit of more than one subactivity or fire, and in  
9 amounts too small to be reported on time and attendance reports or other  
10 financial documents that obligate monies.

11

**12 Cost Database**

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

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

25

**26 Other Related Direct Costs**

27 Costs incurred by third parties such as State organizations, rural fire districts,  
28 protection associations, and other Federal or State organizations must be  
29 compiled accurately for billings and recovery from the party or parties  
30 responsible for the fire. These costs will not appear on the Suppression Cost  
31 Report, and must be added.

32

**33 Civil Case Procedures and Billing****34 Fire Trespass and Case File**

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

40

**41 Trespass Register**

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

3

#### 4 **Case Preparation**

5 Back-up or supporting documentation may provide crucial evidence for cases  
6 that may be litigated. Originals of everything are required, such as Time and  
7 Attendance records and invoices. Once the fire investigation case report is  
8 complete several options should be considered to recover costs associated with a  
9 trespass fire:

- 10     ▪ If it is apparent that collection of the costs will be uncontested, the  
11       refuge should generate a *Bill for Collection* form, DI-1040 (Exhibit 10-  
12       4). This action does not eliminate the use of the judicial systems.  
13       However, it is important that the criminal case is resolved before  
14       pursuing civil remedies. It always strengthens the civil case if any kind  
15       of criminal judgment is passed against the responsible party. This can  
16       be a grand jury indictment up to and including an arson conviction.  
17       Each case should be treated as if it will go into litigation.
- 18     ▪ In most cases the Service is under proprietary jurisdiction, and the  
19       option exists to either use the State court system or the Federal judicial  
20       system to pursue collection of fire costs. The option to pursue a State  
21       court remedy is not available in those cases where the Service holds  
22       exclusive jurisdiction.

23 Each case should be reviewed to see which system will be most effective. Often,  
24 State laws are more appropriate when dealing with negligent type offenses, such  
25 as reckless burning. These factors, along with applicable State and Federal laws,  
26 should be considered when deciding what avenue to pursue. If the facts and  
27 evidence of the investigation are insufficient to show probable cause or the  
28 starting of the fire was clearly accidental and without intent or negligence, then  
29 cases should be collected through a billing or demand letter process. If this  
30 administrative procedure fails to obtain a full settlement, then it may be  
31 necessary to file a civil suit against the person in U.S. District Court. This is  
32 normally done through the Solicitor with the advice and consent of the U.S.  
33 Attorney.

34

#### 35 **Trespass Notification**

36 Personal contact should be made, if possible, with the responsible party before a  
37 *Bill for Collection* is sent. A cover letter should accompany each bill. The cover  
38 letter should contain information such as the fire date, location, and cause of  
39 fire. It should list why the individual is the responsible party and is receiving a  
40 bill. It should also outline procedures and due dates for payment.

41

#### 42 **Trespass Billing**

- 1 All *Bills for Collection* must be combined with the cover letter and a  
 2 supplemental sheet that itemizes a breakdown of costs (retardant, etc.). Once a  
 3 bill has been issued (Exhibit 10-4), all *Bills for Collection* must be sent by  
 4 certified mail, return receipt requested.
- 5 The *Bill for Collection* form, DI-1040, is used by all field stations to notify  
 6 individuals or companies of outstanding debts owed the Service. One copy of  
 7 the completed form is to be submitted in a blue envelope to the Service Finance  
 8 Center, Cost Accounting Section, promptly upon issuance by field stations.
- 9 The Service Finance Center will be responsible for any subsequent notices to the  
 10 customer. A copy of all ensuing notices will be furnished to the appropriate  
 11 organization. Instructions for preparing a *Bill for Collection* are as follows:
- 12 ● The "Bill Number" will consist of 10 numbers, with the first 5 digits being  
 13 the organization code, the sixth digit being the fiscal year, the seventh digit  
 14 being a "C," and the last 3 digits corresponding to your sequential document  
 15 numbering system. Numbers can be obtained either from the regular  
 16 Document Control Register log or a Collection Control Register log  
 17 maintained at the Regional/field office. Example: Bill Number 61520-4-  
 18 C001.
  - 19 ● The "Remit To" portion will mailed to the current lockbox address:
 

20 <u>Mailed Correspondence:</u> 21 U.S. Fish and Wildlife Service 22 Accounting Section 23 P.O. Box 272065 24 Denver, CO 80227-9060 25 26	<u>FedEx Delivery:</u> U.S. Fish and Wildlife Service Cost Cost Accounting Section 7333 W. Jefferson Avenue, Suite 300 Lakewood, CO 82035 Phone (303) 984-6800
--	--
  - 27 ● The "Date" is the billing date. With the "Description," a due date will be  
 28 placed which is 30 days from the billing date. NOTE: The first overdue  
 29 notice will be sent out 32 days from the date the Finance Center loads the  
 30 bill into FBMS. The bill will be loaded within 1 work day of receipt. The  
 31 32-day period allows for interest and administrative charges to be assessed  
 32 prior to the overdue notice being generated.
  - 33 ● "Payer" is the name and address of the individual or company billed.
  - 34 ● In the "Description," furnish a detailed explanation of the materials/services  
 35 performed for the payer. In addition, the statement which follows must  
 36 appear on all DI-1040s: NOTE: Full payment is due within 30 days after the  
 37 above billing date. Prompt remittance is required to avoid the interest,  
 38 administrative, and penalty charges on delinquent debts. The interest rate  
 39 applicable to this bill is \_\_\_\_\_%, in addition to the \$\_\_\_\_administrative  
 40 charge per each delinquent notice. In order for your account to be properly  
 41 credited, please include a copy of this bill with your payment. If you have

- 1 any questions regarding this bill, please contact\_\_. Accounts more than 120  
2 days overdue will be assessed a 6 % penalty.
- 3 ● The interest rate applicable for inclusion into the above statement is  
4 determined by the Department of Treasury. As this percent changes,  
5 notification will be provided through subsequent FFS Bulletins. Penalties  
6 are charged in accordance with the Debt Collection Act of 1982.
  - 7 ● In addition, provide the payer with the name of a contact who is  
8 knowledgeable about the specific nature of the issued bill.
  - 9 ● Fill in the "Amount Due This Bill."
  - 10 ● Provide all pertinent information necessary to properly classify the  
11 funds. This includes cost center, subactivity, project, and fiscal year  
12 to which the billing is applied. Upon remittance, the Service Finance  
13 Center will apply the collection to the billing document number. The  
14 originating organization will be responsible for sending any  
15 confirmation of receipt of payment to the payer. The Finance Center  
16 must be notified any time the amount of the bill is going to be  
17 modified (upward or downward), and also "cc" the Finance Center  
18 with any correspondence regarding the billing. This documentation  
19 is required in the files if the bill has to be referred elsewhere.

### 21 **Less Than Full Payment**

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

### 31 **Litigation**

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

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

### 42 **Case Follow-up and Closeout**

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

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

#### 9 **Criminal Case Procedures**

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

#### 15 **Misdemeanors**

16 Misdemeanors of a less serious nature may be handled administratively by oral  
17 and/or written warnings. This is normally done when there is a technical  
18 violation of the law (misdemeanor), but under the circumstances, the violation  
19 appears to have occurred inadvertently or through ignorance of the law.

20 Remember that the law requires us to prove willful neglect under Section 303 of  
21 the Federal Land Policy and Management Act. Either a Service resource or law  
22 enforcement personnel can issue a warning.

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

35 Examples of fire investigation processes and documents are located  
36 on the Service Fire Management SharePoint site.

#### 38 **Felonies**

39 In most cases, a felony committed in the presence of a Law Enforcement Officer  
40 should be dealt with by making an arrest. Some circumstances might merit

- 1 serving an arrest warrant when more assistance is available, e.g., other refuge  
2 officers, special agents, local law enforcement, etc.
- 3 • Where an actual physical arrest was not made, a criminal complaint  
4 becomes the necessary document to bring the violator into custody.
  - 5 • An affidavit clearly spelling out the crime and the probable cause to  
6 arrest is then reviewed by a judge.
  - 7 • When an arrest is made with or without an arrest warrant, a thorough  
8 search of the suspect is to be performed to ensure the safety of the  
9 officer, the suspect, and other persons.
  - 10 • Only delegated Law Enforcement Officers are authorized to make  
11 arrests.

### 13 **Channel for Prosecution**

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

- 17 • A clear policy and understanding should be obtained from the U.S.  
18 Attorney's office and individual District Attorneys to ensure  
19 appropriate procedures.
- 20 • Law Enforcement Officers will coordinate criminal cases with  
21 appropriate prosecutors.
- 22 • The Service policy regarding news releases relative to criminal  
23 investigations or charges should be coordinated between Service Public  
24 Affairs personnel and the Office of the U.S. Attorney with regard to  
25 Federal cases, and the local prosecutor for State law violations.  
26 Normally, a press release is proper only after charges have been filed  
27 with the court and/or the defendant has made an initial appearance  
28 before the court system. These guidelines can vary, and should be  
29 formulated according to local rules.

### 31 **Trespass Glossary of Terms**

#### 32 **Civil case**

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

#### 37 **Civil offense**

38 Any negligent act that causes damage to resources or properties of the United  
39 States.

40

**1 Chain of Custody**

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

**7 Criminal case**

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

**12 Criminal complaint**

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

**19 Criminal offense**

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

**23 Evidence**

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

**29 Federal prosecution**

30 After a citation, criminal complaint, or arrest is made by an officer, the case is  
31 written up as an official criminal report for review by an Assistant U.S. Attorney.  
32 When the case warrants court action, the Assistant U.S. Attorney introduces the  
33 complaint to the court. The defendant is then brought before the court for his  
34 initial appearance. At that time, the judge will set a court date involving a court  
35 trial or trial by jury, or set sentencing if the defendant pleads guilty.

**37 Felony**

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

1

**2 Fire investigation**

3 The process of determining origin, cause, ignition sequence, and responsible  
4 party for wildland fire.

5

**6 Fire origin**

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

12

**13 Fire trespass**

14 The occurrence of unauthorized fire upon agency-protected lands where the  
15 source of ignition is tied to some type of human activity.

16

**17 Fire suppression**

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

20

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

22 The IC is responsible for overall management of the incident which includes,  
23 providing reports to the Agency Administrator with incident jurisdiction. These  
24 positions may have one or more deputies.

25

**26 Initial Attack Forces**

27 The first people assigned to a wildfire incident.

28

**29 Initial Attack Incident Commander (IAIC)**

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

32

**33 Law Enforcement Officer**

34 The Service has two types of Law Enforcement Officers:

- 35 • **Special Agent** - A criminal investigator of the Service who is qualified,  
36 trained, and delegated authority by the Director to enforce applicable  
37 laws and regulations by conducting criminal investigations.
- 38 • **Zone/Refuge Officers** - An employee of the Service, who is qualified,  
39 trained, uniformed, and who is delegated authority by the Director to  
40 enforce applicable laws and regulations for the protection of resources.

1

**2 Litigation**

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

5

**6 Misdemeanor**

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

11

**12 Negligent act**

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

15

**16 State prosecution**

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

19

**20 Witness**

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

24

**25 Trespass References**

26 [\*Guide to Wildland Fire Origin and Cause Determination\*](#) (NWCG PMS 412,  
27 NFES 1874).

**Exhibit 10-3: Initial Report of Unauthorized Use**

<b>INITIAL REPORT OF UNAUTHORIZED USE</b>		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	Subdivision
Meridian	County	State	
6. How was the unauthorized use discovered?			
7. What does unauthorized use appear to be? (Check One)		<input type="radio"/> Criminal	<input type="radio"/> Civil in nature
8. What is the recommendation? (Check one)		<input type="radio"/> Report immediately to FWS Special Agent	<input type="radio"/> 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			

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## Chapter 11 Incident Management and Response

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

### **Wildland Fire Management Standards**

Every wildland fire on or threatening our lands will receive a management response.

### **Wilderness Wildfires**

Wildfires in the wilderness or other special reserve areas will be managed as identified in the approved Fire Management Plan and applicable land management plans (i.e. Wilderness Plan, CCP etc.) Line officers may authorize the use of all suppression methods, tools, and equipment, including motorized equipment, in wilderness areas or proposed wilderness areas. Minimum Requirements Analysis (MRA) will be used to determine wilderness values and objectives. The MRA will be completed prior to a wildfire occurring in order to determine what, if any, types of motorized equipment, retardant, etc. will be permitted within the wilderness. This analysis will be attached as an appendix to the Fire Management Plan.

### **Contracts and Cooperative Agreements**

Develop contracts and cooperative agreements to provide the primary backup suppression capacity on our lands whenever possible. Exercise care to ensure that such agreements and contracts are cost effective and provide adequate protection to our resources. The Division of Contracting and General Services and/or the Solicitor's Office will review them for legal sufficiency. An explanation of contracts and other types of agreements is in the Fire Management Handbook.

### **Non-Fire Funded Suppression**

For field stations that do not have fire-funded personnel, it is expected that each field office with wildfire will maintain a minimal initial attack capability using field office staff that meet training and physical fitness requirements for wildland fire suppression or have current agreements in place for suppression responsibility by another agency. It does not include field offices in the following categories:

- Field offices that have fires posing little or no threat of resource loss;
- Alaska refuges, the Alaska Fire Service and its cooperator, the State of Alaska, provide wildland fire suppression services.

## 1 **Air Quality and Smoke Management**

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

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

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

28 The [NWCG Smoke Management Guide for Prescribed Fire, PMS 420-3](#), is the  
29 Service's primary technical reference and should be referenced when developing  
30 and implementing wildland fire management plans. Other useful geographical  
31 and activity specific publications are:

- 32 • [Southern Forestry Smoke Management Guidebook](#). Mobley et.al.,  
33 USDA Forest Service GTR SE- 10, December, 1976. A very detailed  
34 and comprehensive book but written specifically for the Southern  
35 States. It is an excellent reference for principles of smoke management.  
36 The abbreviated principles listed below are from this publication.
- 37 • [Principles of Smoke Dispersion from Prescribed Fires in Northern](#)  
38 [Rocky Mountain Forests](#). W.R. Beaufait and O.P. Cramer, USDA  
39 Forest Service, Division of Fire Control, Northern Region, Missoula,  
40 Montana, August 5, 1969 (revised January 15, 1972). This publication  
41 covers the subject well but is confined to the Northern Rocky  
42 Mountains.

- 1 • [Slash Smoke Management Guidelines](#). Office of the State Forester,  
2 Salem, Oregon, September 11, 1969. An excellent publication, though  
3 limited to slash burning and to the State of Oregon.
- 4 • [Smoke and Roadway Safety Guide, PMS 477](#). This guide provides  
5 tools and methods to effectively plan and forecast smoke impacts and  
6 to monitor, respond to, and mitigate smoke on roadways.
- 7 • Other useful publications can be found at the NIFC Smoke  
8 management website:  
9 [http://www.nifc.gov/smoke/smoke\\_publications.html](http://www.nifc.gov/smoke/smoke_publications.html).

10

## 11 **Post Wildfire Activities**

12 Service policy augments Department of the Interior emergency stabilization and  
13 burned area rehabilitation policy and program guidance found in [Departmental](#)  
14 [Manual 620 DM 7](#), and the [Interagency Burned Area Emergency Response](#) and  
15 [Burned Area Rehabilitation](#) Guidebook.

## 16 **Roles, Responsibilities and Accountability**

17 Plan preparation, review, approval, and implementation require immediate  
18 action and span multiple program responsibilities and disciplines as summarized  
19 below:

- 20 • Plan preparation - Refuge Manager
- 21 • Plan review
- 22 • Compatibility and compliance review - Refuge Manager
- 23 • Fiscal and policy review – Regional Fire Management Coordinator /  
24 National Burned Area Emergency Rehabilitation Coordinator
- 25 • Plan approval
- 26 • < \$500,000 - Regional Director
- 27 • ≥\$500,000 - Chief, Branch of Fire Management
- 28 • Plan implementation - Refuge Manager
- 29 • Plan implementation oversight - Refuge Supervisor
- 30 • Program budget tracking and accountability - Chief, Branch of Fire  
31 Management
- 32 • National Fire Plan Operations and Reporting System (NFPORS)  
33 planning and initial project entry – National Burned Area Emergency  
34 Response Coordinator

## 35 **Planning**

36 Emergency stabilization and rehabilitation treatments may be described in a  
37 single plan. The Emergency Stabilization Plan will specify only emergency  
38 activities and treatments carried out within one year plus 21 days after the fire's  
39 ignition date. Plans must be completed within 21 days after the fire's ignition  
40 date. If additional time is needed, extensions may be negotiated with the Chief,  
41 Branch of Fire Management. If ES treatments cannot be completed within the

1 initial 1 year plus 21 days after the ignition date, the Director, US Fish and  
2 Wildlife Service may grant an extension of the time period to December 31 of  
3 the second year following the ignition date. The extension will only be  
4 considered if climatic conditions in the 1st year precluded completion of the  
5 planned work. The Burned Area Rehabilitation Plan will specify non-  
6 emergency activities and treatments which are compatible with approved unit  
7 management plans and can be accomplished within 5 years plus 21 days after  
8 the fire's ignition date. The expectation is that BAR activities and treatments be  
9 completed within 3 years plus 21 days after the fire's ignition date. A unit may  
10 complete a full 5-year plan, but years 4 and 5 will be a lower priority for funding  
11 compared to other plans that are within years 1-3 plus 21 days after the fire's  
12 ignition date. Data entry into the NFPORS Restoration and Rehabilitation  
13 module is also required. Burned Area Emergency Response (emergency  
14 stabilization) and Burned Area Rehabilitation Plan templates are provided.

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

### 18 **Plan Review and Approval**

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

### 26 **Funding**

27 Emergency Stabilization and Burned Area Rehabilitation funding guidance  
28 should be referenced when developing and implementing an Emergency  
29 Stabilization and/or Burned Area Rehabilitation Plan. The FireCode will be used  
30 to establish the Work Breakdown Structure (WBS) for all post fire recovery  
31 projects. The appropriate WBS will be activated only after plan and funding  
32 have been approved.

33 Consideration of additional Emergency Stabilization or Burned Area  
34 Rehabilitation funding beyond the first year requires monitoring results  
35 documented in the Annual Accomplishment Report (see Reporting  
36 Requirements below).

- 37 • Emergency Stabilization funding is provided for no more than 3 years  
38 plus 21 days after the fire's ignition date. Treatments must be  
39 completed within 1 year plus 21 days after the fire's ignition date  
40 unless an extension has been approved. Treatments intended to improve  
41 watershed functionality completed in the first year plus 21 days that  
42 failed may be repaired or replaced within 3 years plus 21 days after the

- 1 fire's ignition date. Emergency Stabilization funding cannot be used to  
2 continue seeding, plantings and invasive plant treatments beyond 1 year  
3 plus 21 days after the fire's ignition date. Continued treatment funding  
4 beyond 1 years plus 21 days after the fire's ignition date requires an  
5 approved plan amendment including monitoring documentation  
6 justifying the additional funding request. Data entry into the NFPORS  
7 Restoration and Rehabilitation module is also required.
- 8 • Emergency stabilization plans and expenditures will conform to  
9 standards in the [Interagency Burned Area Emergency Response](#)  
10 [Guidebook](#).
  - 11 • Burned Area Rehabilitation funding is provided in one-year increments  
12 for no more than five years following 21 days after the fire's ignition  
13 date. Obligating funds in one fiscal year for use in another should only  
14 be done when there is not sufficient time to initiate and complete the  
15 contracting necessary to begin treatment work identified in an approved  
16 plan. All burned area rehabilitation projects or treatments are funded on  
17 a priority basis as established by the Service. If necessary, the selection  
18 of activities and treatments on prior-year fires will occur shortly after  
19 the start of each fiscal year. Funding will be distributed when the  
20 Interior Appropriation bill or other appropriate budget legislation is  
21 signed into law and the Department transfers funding to the Service.  
22 Burned area rehabilitation plans will conform to standards in the  
23 Interagency Burned Area Rehabilitation Guidebook.
    - 24 ○ BAR plan development is contributed by the local unit. BAR  
25 funds will not be used to develop a BAR plan.
    - 26 ○ Permanent staff will not be reimbursed for their time from  
27 BAR funds. These items should be entered into the BAR plan  
28 as contributed costs.
    - 29 ○ Refuge vehicle use will not be reimbursed for BAR work.  
30 These items should be entered into BAR plans as contributed  
31 costs.
    - 32 ○ Vegetative BAR treatments are always a higher priority for  
33 funding than the replacement for minor assets.
    - 34 ○ Treatments and activities in plans will no longer be mixed.  
35 They must have their own specification form but show  
36 linkages between treatment specifications and monitoring  
37 specifications.
    - 38 ○ Year 3 and 4 approved requests will generally be lower  
39 priority than Year 1-3 requests.
  - 40 • Minor asset requests are not considered in years 4 and 5.

#### 41 **Budget Allocation**

42 The Branch of Fire Management will budget and allocate available Emergency  
43 Stabilization or Burned Area Rehabilitation funds based on information in the  
44 approved plan by:

- 1 • The original FireCode assigned during suppression efforts will be  
2 utilized within the cost structure for the approved plan.
- 3 • Establishing a FireCode compatible cost structure for the approved  
4 plan.
- 5 • Initiating the budget allocation process based on fiscal year funding  
6 needs identified in the approved plan.
- 7 • Notifying (via e-mail) the regional fire management and budget offices  
8 of the funding allocated.
- 9 • The region or host unit will establish the appropriate cost structure  
10 using the host unit Cost Center.

#### 11 Reporting Requirements

12 A Burned Area Emergency Response (emergency stabilization) and/or Burned  
13 Area Rehabilitation Plan Annual Accomplishment Report is required to receive  
14 continued funding in succeeding years. The reports are archived in the field  
15 unit's project files and electronic copies are sent to the RFMC and the Branch of  
16 Fire Management in Boise, Idaho, no later than September 15<sup>th</sup> each fiscal year.

- 17 • The Annual Accomplishment Report is in two parts. The first part is a  
18 written narrative which will contain a project summary and document  
19 the actual initiation and completion date, actual accomplishments,  
20 implementation actions and costs, and treatment effectiveness  
21 monitoring results for each approved treatment and activity identified  
22 in the Burned Area Emergency Response (emergency stabilization)  
23 and/or Burned Area Rehabilitation Plan. The second part of the report  
24 will be entering treatment and activity completion information into  
25 NFPORS.
- 26 • Final Accomplishment Report-The Burned Area Emergency Response  
27 (emergency stabilization) and/or Burned Area Rehabilitation Plan Final  
28 Accomplishment Report will report overall actions taken in sufficient  
29 detail to document all accomplishments, implementation costs and  
30 monitoring results. The report(s) are archived in the field unit's project  
31 files and electronic copies are sent to the RFMC and the Branch of Fire  
32 Management in Boise, Idaho, no later than 60 days following the  
33 completion of the project. The reports will be posted to the FWS Post  
34 Wildfire Recovery (PWR) Team Site.

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## Chapter 12

### Suppression Chemicals and Delivery Systems

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

**No additional guidance at this time.**

## Chapter 13

### Firefighter Training and Qualifications

#### Introduction

The Service Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations](#) (Redbook, NFES #2724) Chapter 13 in addition to Service specific clarifications contained in this chapter. All personnel funded with fire funds who are hired under a position description containing firefighting duties will meet 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.

#### Qualification Standards

The Incident and Position Standards Committee ([IPSC](#)) provides strategic management of operational and qualification standards for NWCG agency members in compliance with the National Incident Management System (NIMS). Input on current qualification standards or requests for changes to current standards should be channeled through Service [representatives](#) to the IPSC.

#### Wildland Fire Qualification System Guide (NWCG PMS 310-1)

The National Incident Management System Wildland Fire Qualification System Guide ([NWCG PMS 310-1](#)) establishes minimum requirements for training, experience, fitness, and currency for interagency wildland fire positions.

Refuge personnel will meet PMS 310-1 standards for wildland fire qualifications unless otherwise specified in this handbook. State, local cooperators and contractors working on federal agency prescribed fires must meet the PMS 310-1 standards unless local agreements and/or contracts specify otherwise.

#### Federal Wildland Fire Qualifications Supplement

Minimum requirements for agency specific wildland fire positions not included in the PMS 310-1 can be found in the [Federal Wildland Fire Qualifications Supplement](#). FWS personnel may not use supplemental positions that are not endorsed by the FWS.

#### DOI Incident Positions Qualification Guide (IPQG)

The Department of Interior Incident Positions Qualification Guide ([IPQG](#)) establishes minimum qualification standards for incident personnel mobilizing beyond their home unit to respond to non-wildland fire incidents. [The DOI Incident Management Implementation Guide](#) provides direction for implementation of the IPQG. USFWS specific guidance for implementation of

1 the DOI IPQG and the DOI Implementation Guide can be found by referencing  
2 the [USFWS Incident Response Implementation Guide](#).

### 3 **Training Program and Process**

4 The IPSC provides vision and strategic direction for the development and  
5 delivery of NWCG training products and interagency wildland fire workforce  
6 development initiatives. Input on current interagency training and workforce  
7 development products or requests for changes should be channeled through the  
8 Service representative to the [IPSC](#).

### 9 **Fire Management Instructors**

10 Each Region is responsible for the selection, training, and certification of an  
11 adequate number of Service instructors for fire management training. Funding  
12 for course instructors and subject matter participation is a local or Regional fire  
13 management responsibility.

### 14 **Fire Management Curriculum**

15 Curriculum supporting fire management qualifications and position certification  
16 is explained in the Wildland Fire Qualification System Guide (NWCG [PMS](#)  
17 [310-1](#)). Details relating to course descriptions and trainee/instructor  
18 qualifications are provided in the NWCG Field Manager's Course Guide  
19 (NWCG [PMS 901-1](#)).

### 20 **Needs Analysis and Delivery**

21 Training needs analyses are developed each year at local, regional/geographic  
22 and national levels. Complexity and organizational level descriptors for entry,  
23 mid- level, and advanced course delivery can be found in the PMS 901-1.  
24 NWCG approved training packages and course materials are available through  
25 the Publications Management System at the National Interagency Fire Center.  
26 NWCG National Fire Equipment System Catalog Part 2: Publications (NWCG  
27 PMS 449-2, NFES 3362), identifies materials and ordering procedures.

28 Attendance at national level (500 and 600) courses and attendee prioritization  
29 will follow local geographic area processes. Regional Fire Management  
30 Coordinators will forward priority candidates for these courses through their  
31 geographic area training representatives. Nominations should be consistent with  
32 regional or geographic board direction. Regions shall follow established  
33 Geographic Area and National Advanced Fire and Resource Institute ([NAFRI](#))  
34 protocol when nominating employees for any NAFRI courses.

### 35 **NWCG Course Equivalency**

36 An equivalent course is determined by agency identified "evaluators" to be  
37 equal to a NWCG approved course. Awarding course equivalency is an agency  
38 specific responsibility. Only agencies have the authority to certify their

- 1 employees meet NWCG training requirements when alternative course offerings  
 2 are used. Guidelines for course equivalency can be found in the [PMS 901-1](#).  
 3 Regions seeking course equivalency should contact the Branch of Fire  
 4 Management for process and approval information.

#### 5 **FWS Course Equivalencies**

FWS Course Name	Course Name	Equivalent to
FW402 FWS Fire Instructor I	Fire Instructor I (National Fire Protection Association (NFPA) 1041 standard)	M-410, when both FW 402 and FW 403 completed
FW 403 FWS Fire Instructor II	Fire Instructor II (NFPA 1041 standard)	M-410, when both FW 403 and FW 402 completed

6

#### 7 **Incident Qualifications and Certification System (IQCS)**

- 8 New user accounts, user account changes, and proposed system changes must be  
 9 approved by the respective regional IQCS representative and the agency IQCS  
 10 representative. User account related forms and requirements can be found on the  
 11 [IQCS website](#).

#### 12 **Oversight**

- 13 The Zone Fire Management Officer (ZFMO) is responsible for oversight, input  
 14 and maintenance of pertinent fire employee data and for ensuring that  
 15 employees are trained, qualified, and certified at levels which meet preplanned  
 16 needs for incident management response, initial attack and prescribed fire, and  
 17 for ensuring the accuracy of annual Incident qualification cards. The Certifying  
 18 Official confirms through the issuance of an Incident Qualification Card that an  
 19 individual is qualified to perform in a specified position. Certifying officials  
 20 should delegate the authority to complete certifications of agency employee  
 21 qualifications in IQCS to Account Managers and/or ZFMO who have the  
 22 responsibility to maintain IQCS records. Authority can be incorporated into an  
 23 annual operational delegation of authority (DOA) or granted separately (see  
 24 [IQCS sample DOA](#)).

#### 25 **Position Recertification**

- 26 Responders who lose currency in a position, will automatically be converted to  
 27 trainee status. A responder can regain qualified status by demonstrating  
 28 proficiency in the position at the discretion of the certifying official. Proficiency  
 29 for recertification is typically gained by successful completion of one or more  
 30 evaluation assignments as a trainee supported by an adequate performance  
 31 evaluation(s). Certifying officials may also require responders to attend new or  
 32 additional training as deemed necessary.

#### 33 **IQCS Training**

- 1 Authorized users must receive IQCS user training, appropriate to their  
2 anticipated system role, prior to accessing the system. Training can be obtained  
3 on-line through the IQCS website.
- 4 The IQCS allows individuals to track experience gained on severity  
5 assignments where wildfires do not occur. Individuals will use the event  
6 code PP (Preparedness/Preposition/Mobilization) in IQCS to track  
7 experience gained on severity assignments. All wildfire experience  
8 gained while on a severity assignment will be coded to the appropriate  
9 incident identifier in IQCS.
- 10 Trainees may complete appropriate tasks in a position task book while on a  
11 severity assignment. Consult the PMS 310-1, *Wildland Fire Qualification*  
12 *Guide*, for event code definitions. A severity assignment is not a wildfire  
13 assignment until an actual fire occurs.
- 14 Service employees may only use positions listed in the following sources:
- 15 • Wildland Fire Qualification System Guide, PMS 310-1.
  - 16 • Federal Wildland Fire Qualifications Supplement.
  - 17 • DOI Incident Positions Qualification Guide (IPQG).
- 18 Approved agency positions are identified in IQCS under the FWS SetID.  
19 Service employees should not utilize agency specific positions available under  
20 other agency specific SetID's. Employees that are no longer employed by the  
21 Service should be placed in INAC upon termination of duty.

22

### 23 **Interagency Fire Program Management (IFPM) Requirements**

24 Service personnel in IFPM covered positions must meet the NWCG  
25 qualification and additional training requirements identified for their positions.  
26 Information regarding specific position requirements is available at  
27 <http://www.ifpm.nifc.gov/>.

28

### 29 **Employee Development**

30 The [Service Fire Management Employee Development Program](#) is based on the  
31 following core mission principles:

- 32 • Develop leaders to meet Service Fire Management needs.
- 33 • Build and maintain an operationally and technically proficient  
34 workforce.
- 35 • Promote innovation.
- 36 • Enhance communications of best management practices.
- 37 • Promote workforce development opportunities that support the Service  
38 mission.

1 The Employee Development Program supports local and regional needs by  
2 providing supplemental funding for certain training and development  
3 opportunities. The program seeks to support Service mission objectives by  
4 providing funding for development activities that fall under three broad strategic  
5 focus areas including:

- 6 • Improving operational leadership and effectiveness
- 7 • Developing effective management skills
- 8 • Building foundational and advanced technical skills.

9 Interested employees can find additional details on the program site:  
10 (<https://sites.google.com/a/fws.gov/fws-fire-employee-development/>).

11

## 12 **U.S. Fish and Wildlife Service Specific Position Standards and Criteria**

13 Position taskbooks can be initiated prior to the completion of the required  
14 training, however supervisors and trainees should carefully consider trainee  
15 experience history and training needs before allowing them to start work on a  
16 position task book. All position training requirements must be completed prior  
17 to position certification.

18 Experience and/or training requirements that exceed minimum standards  
19 identified in the *Wildland Fire Qualification Guide* (PMS 310-1) for certain  
20 incident qualifications are identified below. Service personnel must adhere to  
21 these additional requirements for these qualifications. Certifying officials at  
22 zone and regional levels have the authority to enforce standards that exceed  
23 minimum requirements, however the requirement(s) should be documented to  
24 ensure program consistency

25

### 26 **Prescribed Fire Burn Boss Type 2 (RXB2)**

27

#### 28 **REQUIRED TRAINING**

- 29 Annual Fireline Safety Refresher (RT-130)
- 30 Prescribed Fire Implementation (RX-301)
- 31 Prescribed Fire Burn Plan Preparation (RX-341)
- 32 Smoke Management Techniques (RX-410) \*
- 33 Introduction to Wildland Fire Behavior Calculations (S-390)

34

#### 35 **REQUIRED EXPERIENCE**

- 36 Satisfactory performance as a Firing Boss, Single Resource (FIRB)
- 37 +
- 38 Satisfactory performance as an Incident Commander Type 4 (ICT4)
- 39 +
- 40 Completion and Certification of PTB as a Prescribed Fire Burn Boss Type 2  
41 (RXB2) on a prescribed fire incident.

42

#### 43 **PHYSICAL FITNESS LEVEL**

- 1 Moderate  
2  
3 **THESE POSITIONS MAINTAIN CURRENCY FOR RXB2**  
4 Prescribed Fire Burn Boss Type 1 (RXB1) Prescribed Fire Manager Type 1  
5 (RXM1) Prescribed Fire Manager Type 2 (RXM2) Strategic Operational  
6 Planner (SOPL)  
7  
8 **RXB2 MAINTAINS CURRENCY FOR THESE POSITIONS**  
9 Firefighter Type 1 (FFT1)  
10 Firefighter Type 2 (FFT2)  
11 Incident Commander Type 4 (ICT4)  
12 Prescribed Fire Burn Boss Type 1 (RXB1)  
13 Prescribed Fire Manager Type 2 (RXM2)  
14 Any Single Resource Boss (ENGB, FELB, FIRB, HEQB, CRWB)  
15 Strategic Operational Planner (SOPL)  
16 Strike Team Leader Crew (STCR)  
17 Strike Team Leader Engine (STEN)  
18 Strike Team Leader Heavy Equipment (STEQ)  
19 Task Force Leader (TFLD)  
20  
21 **OTHER TRAINING WHICH SUPPORTS DEVELOPMENT OF**  
22 **KNOWLEDGE ANDSKILLS**  
23 Fireline Leadership (L-380)  
24 Introduction to Fire Effects (RX-310)  
25 **Additional Information:**  
26 The RXB2 position is available in IQCS under the FWS SetID. Service  
27 employees should not utilize positions available under other agency specific  
28 SetID's when agency requirements exceed interagency standards.  
29 \* As of January 1, 2016, all new RXB2's (trainees with active PTBs) are  
30 required to successfully complete RX-410 Smoke Management training. All  
31 other qualified RXB2's will remain qualified based on previous training  
32 requirements.  
33  
34 **Prescribed Fire Burn Boss Type 1 (RXB1)**  
35  
36 **REQUIRED TRAINING**  
37 Annual Fireline Safety Refresher (RT-130)  
38 Advanced Wildland Fire Behavior Calculations (S-490)  
39 Smoke Management Techniques (RX-410) \*\*  
40  
41 **REQUIRED EXPERIENCE**  
42 Satisfactory performance as a Prescribed Fire Burn Boss (RXB2)  
43 +

- 1 Completion and Certification of PTB as a Prescribed Fire Burn Boss Type 1  
2 (RXB1) on a prescribed fire incident

3

4 **PHYSICAL FITNESS LEVEL**

5 Light

6

7 **THESE POSITIONS MAINTAIN CURRENCY FOR RXB1**

8 Prescribed Fire Burn Boss Type 2 (RXB2)

9 Prescribed Fire Manager Type 1 (RXM1)

10 Strategic Operational Planner (SOPL)

11

12 **RXB1 MAINTAINS CURRENCY FOR THESE POSITIONS**

13 Firefighter Type 1 (FFT1)

14 Firefighter Type 2 (FFT2)

15 Incident Commander Type 3 (ICT3)

16 Prescribed Fire Burn Boss Type 2 (RXB2)

17 Any Single Resource Boss (ENGB, FELB, FIRB, HEQB, CRWB)

18 Strategic Operational Planner (SOPL)

19 Any Strike Team Leader (STCR, STEQ, STEN)

20 Task Force Leader (TFLD)

21

22 **OTHER TRAINING WHICH SUPPORTS DEVELOPMENT OF  
23 KNOWLEDGE AND SKILLS**

24 Advanced Fire Effects (RX-510) Fire Program Management (M-581)

25

26 **Additional Information:**

27 The RXB1 position is available in IQCS under the FWS SetID. Service  
28 employees should not utilize positions available under other agency specific  
29 SetID's when agency requirements exceed interagency standards.

30

31 **\*\* Smoke Management Techniques (RX-410) is now required for all RXB1's.**  
32 Individuals who have achieved this qualification but lack the training, have until  
33 January 1, 2021 to successfully complete the course. Trainees must complete  
34 RX-410 prior to position certification.

35

36 **Non-Wildland Fire Incident Positions**

37 The Department of the Interior Incident Positions and Qualifications Guide  
38 establishes the minimum standards for incident personnel responding to or  
39 managing non-wildland fire incidents. Updated copies of the guide can be found  
40 at the DOI Office of Emergency Management website;  
41 <https://www.doi.gov/emergency/ipqg>.

42 **Other Required Training**

43 **Annual Chain Saw Refresher Training:**

1 All authorized chain saw operators, including fire personnel, must complete RT-  
2 212 Annual Chain Saw Refresher Training, as described in 241 FW 12.7 B,  
3 [Exhibit 1](#). Project Leaders/Supervisors/Facility Managers must keep refresher  
4 training documentation in the employee's training records.

5

6 **Annual Do What's Right Training:**

7 The "Do What's Right" training is required annual training but is not a  
8 prerequisite for issuance of an Incident Qualifications Card. Attendance will be  
9 documented in the employee's training records.

## Chapter 14 Firefighting Equipment

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

### Fire Vehicle Color and Striping National Standards

The Service adopted National standards for fire vehicle color and striping for wildland fire vehicles. New wildland fire engine acquisitions must conform to the color and striping standards. Compliance with the following standards are optional for all non-engine vehicles but are identified should the station desire to apply the standard to the fire fleet beyond the fire engine requirements.

**Engines** (*Light Class Trucks and other Wildland Fire Passenger Vehicles optional*)

Color

- Chassis shall be painted by the original equipment manufacturer with an automotive acrylic urethane or polyurethane paint and Oxford White in Color.
- Metal parts that are painted shall be gloss black acrylic automotive grade enamel.
- Items that are powder coated shall have a minimum 1-2 mm flat black powder coated finish.
- Blue lettering shall be Oralite 050 Blue or equivalent.
- Safety-yellow/green striping shall be (Red 204, Green 255, Blue 51 printed on white reflective and laminated), or equivalent in color.

Striping and Vehicle Identification

- All stripes shall meet NFPA 1906 (current edition) standards and American Society for Testing and Materials (ASTM) D 4965 Standard Specifications for Retro-reflective sheeting for Traffic Control. Finish of the striping, numbering and emblems shall be void of air pockets or blemishes, and edges shall be smooth.
- All lettering and numbering shall be reflective in nature and conform to the minimum requirements of ASTM D 4956, Standard Specification for reflective Sheeting for Traffic Control, Type I, Class 1 or Class 3.
- All applicable signs, plates and labels listed in NFPA 1906 Standard for Wildland Fire Apparatus current edition are required. They shall be permanent in nature and securely attached and shall meet the

- 1 requirements of NFPA 1906 current edition and UL 969, Standard for  
2 Marking and Labeling System. Additionally they shall have resistance  
3 to damage from temperatures between -30°F and 176°F and exposure  
4 to oil, fuel, water, hydraulic fluids or other fluids used in wildland  
5 firefighting.
- 6 ● Service vehicles shall be equipped with bold block italicized blue  
7 lettering ranging in size from 3.5- 12 inches with a variety of numbers  
8 and identifiers located on the doors (15ea, 3.5 inch character),  
9 apparatus body sides (8 ea., 4inch characters), front (8 ea., 4 inch  
10 characters), rear (4 ea., 4 inch characters), and Top-non italicized (4  
11 ea., 12 inch characters). Additionally, FIRE in 4 inch bold block  
12 italicized blue letters; one (1) on each side (integrated within in the 4  
13 inch safety yellow reflective stripe, located at the rear of the apparatus  
14 body, driver side and passenger side.), one (1) on the front, and one  
15 (1) on the upper rear-facing driver side of the package. Numbers shall  
16 not be placed in an area that reduces visibility; across door seams or  
17 reflectors and lights (16 total characters).
  - 18 ● A 4 inch white stripe shall be positioned at the front of the apparatus  
19 on the wings of the bumper. Within the 4 inch white reflective stripe,  
20 3.5 inch blue Block Bold italicized reflective numbers placed on each  
21 end of the front bumper. Numbers shall be centered horizontally and  
22 read left to right.
  - 23 ● Service units shall have a 4 inch safety-yellow/green stripe positioned  
24 on the sides of the body and cab.
  - 25 ● Each vehicle shall have 4 inch blue Block Bold italicized reflective  
26 numbers placed within, (or above) the striping above the front fenders  
27 (example 2425). Numbers shall not be placed in an area that reduces  
28 visibility, across door seams or reflectors and lights.
  - 29 ● The Service shield will be 12 inches in height and shall be placed on  
30 each front door, centered left to right, integrated with any striping.  
31 Centered at the bottom of the shield shall be the State and Unit  
32 identifier in 3.5 inch blue Block Bold italicized reflective lettering  
33 (example AZ-BAR). The lettering “U.S. Fish & Wildlife Service”  
34 shall be centered above emblem in approximately 1.5 inch (sized to be  
35 equal to the width of the lower door) blue italicized reflective  
36 lettering.
- 37 (Engines and Crew Vehicles Only)
- 38 ● Red and fluorescent yellow reflective chevron striping (6" color  
39 swatch width) shall be installed. The striping shall be placed on the  
40 vertical rear facing surfaces of the rear bumper in a chevron pattern  
41 sloping downward and away from the centerline of the vehicle at an  
42 angle of 45 degrees to form a combined width of 4 inches.

- 1 • Installation of red/white reflector DOT stripe inside all vertical doors, chassis and apparatus body shall be installed.
- 2
- 3 • If applicable body style, each compartment shall have 1.5 inch vinyl label located on the lower rear corner of the compartment door. The compartment labeling scheme for the driver side compartments shall be, D1 through D3 starting from the front of the apparatus body working toward the rear, top to bottom. The compartment lettering scheme shall be, for the passenger side compartments shall be P1 through P3 starting from the front of the apparatus body working toward the rear, top to bottom.
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**Engine Inventories**

13 An inventory of supplies and equipment carried on each vehicle is required to maintain accountability and to obtain replacement items lost or damaged on incidents. The standard inventory for FWS engines is found in Table 14-1 Normal Unit Strength (NUS) Engines below.

17 The following Table shows the NUS minimum stocking levels required for FWS engines.

**Table 14-1- Normal Unit Strength (NUS) Engines**

Category	Item Description	NFES #	Type	Type
			3,4,5	6
Fire Tools <sup>1</sup> and Equipment	McLeod	0296	1	
	Combination Tool	1180	1	1
	Shovel	0171	3	2
	Pulaski	0146	3	2
	Backpack Pump	1149	3	2
	Fusees (case)	0105	1	½
	Foam, concentrate, Class A (5-gallon)	1145	1	1
	Chainsaw (and chaps)		1	1
	Chainsaw Tool Kit	0342	1	1
	Drip Torch	0241	2	1
Portable Pump		*	*	
Medical	First Aid Kit, 20-25 person	1143	1	1
	Burn Kit		1	1
	Body Fluids Barrier Kit	0640	1	1
General Supplies	Flashlight, general service	0069	1	1
	Chock Blocks		1	1
	Tow Chain or Cable	1856	1	1

Category	Item Description	NFES #	Type	Type
			3,4,5	6
	Jack, hydraulic (comply w/GVW)		1	1
	Lug Wrench		1	1
	Pliers, fence		1	1
	Food (48-hour supply)	1842	1	1
	Rags	3309	*	*
	Rope/Cord (feet)		50	50
	Sheeting, plastic, 10' x 20'	1287	1	1
	Tape, duct	0071	1	1
	Tape, filament (roll)	0222	2	2
	Water (gallon/person) minimum		2	2
	Bolt Cutters		1	1
	Toilet Paper (roll)	0142	*	*
	Cooler or Ice Chest	0557	*	*
	Hand Primer, Mark III	0145	*	*
	Hose Clamp	0046	2	1
	Gaskets (set)		1	1
	Pail, collapsible	0141	1	1
	Hose Reel Crank		*	*
Safety	Fire Extinguisher (5 lb)	2143	1	1
	Flagging, Pink (roll)	0566	*	*
	Flagging, Yellow w/Black Stripes (roll)	0267	*	*
	Fuel Safety Can (Type 2 OSHA, metal, 5-gallon)	1291	*	*
	Reflector Set		*	*
	Class 2 or 3 High Visibility Apparel (1 per seat belt)	1242	**	**
Vehicle and Pump Support	General Tool Kit (5180-00-177-7033/GSA)		1	1
	Oil, automotive, quart		4	2
	Oil, penetrating, can		1	1
	Oil, automatic transmission, quart		1	1
	Brake Fluid, pint		1	1
	Filter, gas		1	1
	Fan Belts		1	1

Category	Item Description	NFES #	Type	Type
			3,4,5	6
	Spark Plugs		1	1
	Hose, air compressor w/adapters		1	0
	Fuses (set)		1	1
	Tire Pressure Gauge		1	1
	Jumper Cables		1	1
	Battery Terminal Cleaner		*	*
	Tape, electrical, plastic	0619	1	1
	Tape, Teflon		1	1
Personal Gear (Extra Supply)	File, mill, bastard	0060	*	*
	Head Lamp	0713	1	1
	Hard Hat	0109	1	1
	Goggles	1024	2	2
	Gloves		*	*
	First Aid Kit, individual	0067	1	1
	Fire Shirt		*	*
	Fire Shelter w/case and liner	0169	2	1
	Packsack	0744	2	1
	Batteries, headlamp (pkg)	0030	6	4
	Ear Plugs (pair)	1027	3	3
Radio	Portable		1	1
	Mobile		1	1
	Batteries (for portable radio)		2	2
Hose	Booster (feet/reel)	1220	100	100
	Suction (length, 8' or 10')		2	2
	1" NPSH (feet)	0966	300	300
	1½" NH (feet)	0967	300	300
	¾" NH, garden (feet)	1016	300	300
	1½" NH, engine protection (feet)		20	20
	1½" NH, refill (feet)		15	15
Nozzle	Forester, 1" NPSH	0024	3	2
	Adjustable, 1" NPSH	0138	4	2
	Adjustable, 1½" NH	0137	5	3
	Adjustable, ¾" NH	0136	4	2

Category	Item Description	NFES #	Type	Type
			3,4,5	6
	Foam, ¼” NH	0627	1	1
	Foam 1½” NH	0628	1	1
	Mopup Wand	0720	2	1
	Tip, Mopup Wand	0735	4	2
	Tip, Forester, Nozzle, fog	0903	*	*
	Tip, Forester Nozzle, straight stream	0638	*	*
Wye	1” NPSH, Two-Way, Gated	0259	2	1
	1½” NH, Two-Way, Gated	0231	4	2
	¾” NH w/Ball Valve, Gated	0739	6	4
Adapter	1” NPSH-F to 1” HN-M	0003	*	*
	1” NH-F to 1” NPSH-M	0004	1	1
	1½” NPSH-F to 1 ½” NH-M	0007	1	1
	1½” NH-F to 1 ½” NPSH-M	0006	*	*
Increaser	¾” NH-F to 1” NPSH-M	2235	1	1
	1” NPSH-F to 1 ½” NH-M	0416	2	1
Coupling	1” NPSH, Double Female	0710	1	1
	1” NPSH, Double Male	0916	1	1
	1½” NH, Double Female	0857	2	2
	1½” NH, Double Male	0856	1	1
Reducer/ Adapter	1” NPSH-F to ¾” NH-M	0733	3	3
	1½” NH-F to 1 NPSH-M	0010	6	4
	2” NPSH-F to 1 ½” NH-M	0417	*	*
	2½” NPSH-F to 1 ½” NH-M	2229	*	*
Reducer	1½” NH-F to 1” NH-M	0009	1	1
	2½” NH-F to 1 ½” NH-M	2230	1	1
Tee	1” NPSH-F x 1” NPSH-M x 1” NPSH-M, w/cap	2240	2	2
	1½” NH-F x 1 ½” NH-M x 1” NPSH-M w/cap	0731	2	2
	1½” NH-F x 1 ½” NH-M x 1” NPSH-M w/valve	0230	2	2
Valve	1½” NH-F, Automatic Check and Bleeder	0228	1	1
	¾” NH, Shut Off	0738	5	5
	1” Shut Off	1201	1	1

Category	Item Description	NFES #	Type	Type
			3,4,5	6
	1½" Shut Off	1207	1	1
	Foot, w/strainer		1	1
Injector	1" NPSH x 1/12" NH, Jet Refill	7429	*	*
Wrench	Hydrant, adjustable, 8"	0688	1	1
	Spanner, 5", 1" to 1½" hose size	0234	4	1
	Spanner, 11", 1½" to 2 ½" hose size	0235	2	2
	Pipe, 14"	0934	1	1
	Pipe, 20"		1	1
Engine	<i>Wildland Fire Incident Management Field Guide (PMS 210)</i>	2943	1	1
	GPS Unit		1	1
	Belt Weather Kit	1050	1	1
	Binoculars		1	1
	Map Case w/maps		1	1
	Inventory list		1	1
	<i>Current interagency Standards for Fire and Fire Aviation Operations</i>		1	1

\*No minimums – carried by engines as an option, within weight limitations

\*\* One per seat belt

<sup>1</sup> A minimum of eight tools for type 3, 4, 5 engines and a minimum of five tools for type 6 engines is required. The listed numbers of tools in each box are required to be on the engine. Beyond that, the tools listed as optional or additional required tools can make up the rest of the minimum number required for engines.

## Chapter 15 Communications

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

### **Service Fire Tactical Frequencies**

The Fish and Wildlife Service has been authorized and assigned Fire Tactical Frequencies for use within fire management Zones. Service Fire Tactical Frequencies are not authorized for use beyond the geographic boundaries identified with the Radio Frequency Agreements (RFAs) filed with the National Telecommunications and Information Administration. The fire tactical frequencies approved in 2014 have been delegated to the respective Regional Fire Management Coordinators for oversight and accountability of use. Specific frequency information may be requested from the RFMC.

The approved Service fire tactical frequencies registered in 2014 do not replace or restrict other frequencies which may already be approved and in use.

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## Chapter 16 Aviation Operations and Resources

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

**No additional guidance at this time.**

## Chapter 17 Fuels Management

The Service Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations](#) (Redbook, NFES #2724) Chapter 17 in addition to the following Service specific clarifications:

### Prescribed Fire and Fuels Management Projects

All FWS prescribed fires and fuels management projects will be planned, implemented, and managed in accordance with all applicable policy, guidance, and standards (see [Interagency Fuels Committee](#) and [Interagency Fire Planning Committee](#)) including:

- *National Cohesive Wildland Fire Management Strategy*
- *Guidance for Implementation of Federal Wildland Fire Policy (February 13, 2009).*
- *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).*
- *National Incident Management System Wildland Fire Qualifications System Guide. (NWCG PMS 310-1).*
- *Prescribed Fire Complexity Rating System Guide (NWCG PMS 424, NFES 2474).*
- *Smoke Management Guide for Prescribed and Wildland Fire (NWCG PMS 420-2, NFES 1279).*
- *Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (the Rx Guide)(NWCG PMS 484)*

All prescribed fires and fuels management projects will be managed in adherence to the standards described in the [Interagency Standards for Fire and Fire Aviation Operations](#) and the guidance set forth in this Chapter.

### Management

#### Prescribed Fire

Prescribed fires and fuels management will be funded in accordance with guidance in the most recent versions of the [FWS Fire Business Guide](#) and the [FWS Budget Allocation Handbook](#).

Additional management direction and business rules can be found in the most recent versions of the [Fuels Management Allocation and Accountability System \(FAAS\)](#) and [Fire Management Information System \(FMIS\)](#) user guides.

Memorandums of Understanding (MOU), agreements, cost shares or contracts must be in place prior to any on-the-ground implementation.

1

**2 Planning****3 Prescribed Fire and Fuels Management Projects**

4 All fuels management projects need a plan that addresses management treatment  
5 objectives. Plans should describe in clear, concise statements with specific  
6 measurable resource and fuels/fire objectives for treatment implementation.

7 Objectives will be measurable and quantifiable so elements can be developed to  
8 meet those objectives and aid in determination of project success following  
9 implementation.

10 Fuels management treatments must be addressed in the applicable Fire  
11 Management Plan. In addition, fuels projects must go through the appropriate  
12 NEPA process and meet other applicable requirements (such as the NHPA,  
13 ESA, etc.) (see FMH Chapter 9 and 555FW3) analysis or justification (see  
14 Chapter 9 and 550 FW 3).

15 Fuels projects should 1) be planned on an interdisciplinary basis; 2) be  
16 integrated as much as possible with other resource management activities; and  
17 3) serve to implement the appropriate Comprehensive Conservation Plan or  
18 other Land/Resource Management Plan.

**19 Project File**

20 Units will maintain a project file for each prescribed fire and fuels management  
21 project. Project files will include:

- 22 ● Original copy of the implementation plan along with any amendments,  
23 prescribed fire Go-No-Go checklists, and agency administrator ignition  
24 authorization.
- 25 ● Environmental compliance documentation such as NEPA, ESA, and  
26 cultural clearances, etc.;
- 27 ● Special documentation of planning requirements such as Wyden  
28 Amendment, MOU's, or Interagency Agreement references, landowner  
29 agreements, other private lands requirements, and any risk assessments  
30 and mitigation plans.
- 31 ● List of persons contacted during the development and implementation  
32 of the plan including Fish and Wildlife Service personnel, other agency  
33 personnel, concessionaires, in-holders, special interest groups, refuge  
34 neighbors, concerned publics, etc. The date of contact and comments  
35 will be recorded as appropriate. Contact your local records  
36 management contact for any additional regional or local requirements.
- 37 ● A short narrative of the results, including a critique of effectiveness,  
38 future recommendation(s), and lessons learned.
- 39 ● All implementation documentation such as implementation  
40 organization charts, logs, Incident Action Plans, weather forecasts,  
41 weather observations, and fire behavior, and smoke dispersal  
42 observations.

- 1       • Final perimeter and/or treatment map

2 **Prescribed Fire**

3 Planned ignitions, including debris burning and “administrative units,” (around  
4 Service buildings and infrastructure, on fish hatcheries, etc.) must have an  
5 approved prescribed fire plan.

6 At a minimum, prescribed fire plans shall be prepared and reviewed per  
7 requirements in the most recent version of the Rx Guide. FWS has additional  
8 requirements/guidance to the Rx Guide that include:

- 9       • Prescribed fire plans will identify the organization(s) (including  
10 qualifications and skill levels) that are required to safely implement the  
11 plan based upon the final prescribed fire complexity analysis and a risk  
12 management assessment. Plans should identify minimum organizations  
13 for the various phases of implementation (blacklining, ground ignition,  
14 aerial ignition, holding, patrol).
- 15       • Prescribed fire plans may have multiple complexity analyses to address  
16 different stages of implementation (Burn Boss qualifications and/or  
17 organization’s). Refer to the Rx Guide for specific guidance.
- 18       • Programmatic Prescribed Fire Plans
- 19           ▪ Low Complexity
- 20               ○ Limited to where potential for escape is negligible  
21 to nonexistent.
- 22               ○ Limited to single complexity analysis.
- 23           ▪ Moderate/High Complexity
- 24               ○ All ignition units site specific information must be  
25 included in the programmatic plan and go through  
26 technical review
- 27           ▪ Programmatic Prescribed Fire Plans
- 28       • The final complexity rating is used as a basis for determining  
29 prescribed fire organization, Prescribed Fire Burn Boss level,  
30 and mitigation measures.

31 The Service interprets low complexity prescribed fire plans to be limited to  
32 those with the possibility of spread or spotting outside the project area is  
33 negligible to nonexistent and that the potential for escape of a prescribed burn is  
34 low, as defined in the Prescribed Fire Complexity Rating System Guide ([NWCG](#)  
35 [PMS 424](#), NFES 2474).

36 Prescribed fire plans will identify contingency resources (and required  
37 qualifications and fitness levels) and minimum response times for use if the fire  
38 exceeds prescription parameters and the capability of planned on-site holding  
39 forces. Please see the Rx Guide for further information on contingency planning.

40 In addition to the Rx Guide and bureau requirements, regions and/or local units  
41 may have additional requirements for prescribed fire plans.

1  
2 During prescribed fire planning and operations, all federal agencies will accept  
3 each other's standards for qualifications. The minimum qualifications standard  
4 is National Incident Management Wildland Fire Qualifications System Guide  
5 ([NWCG PMS 310-1](#)) and/or the Federal Wildland Fire Qualifications  
6 Supplement – unless local agreements specify otherwise.

7 State, local cooperators and contractors working on federal agency prescribed  
8 fires must meet the minimum qualification requirements in the National Incident  
9 Management System Wildland Fire Qualifications Guide ([NWCG PMS 310-1](#))  
10 unless local agreements and/or contracts specify otherwise.

11 Prescribed fire plans will assess and mitigate potential smoke impacts, and be  
12 coordinated with appropriate air quality specialists and Federal, State, Tribal, air  
13 pollution control district or county regulatory authorities to ensure compliance  
14 with their regulations (see Chapter 11).

15 An agreement will be required when any non-Service lands are being considered  
16 for use as contingency.

17

### 18 **Project Review and Approval**

#### 19 **Prescribed Fire and Fuels Management Projects**

20 Fuels management plans must have an agency administrator approval.

21 Agency Administrators are responsible for ensuring fuels and prescribed fire  
22 plans receive adequate review and are approved according to Service direction.

23 Agency Administrators may delegate authorities to an acting Agency  
24 Administrator after considering the complexity of the project and the training,  
25 qualifications, experience, and demonstrated ability of the individual.

26 The Agency Administrator is responsible for ensuring fuels projects are in  
27 compliance with the CCP, FMP, and Regional Guidance

#### 28 **Prescribed Fire**

29 Prescribed fire plans must be technically reviewed and approved following the  
30 process identified in the Rx Guide before they can be implemented.

31 The Agency Administrator is responsible for signing the Agency Administrators  
32 Ignition Authorization for any prescribed fire projects under their authority.

### 33 **Prescribed Fire Implementation**

34 Prescribed fires must meet the Rx Guide requirements. Assigned staffing must  
35 meet qualification requirements and will be adequate to safely implement the  
36 approved prescribed fire plan.

1 **Prescribed Fire during Geographic Area or National Preparedness Levels 4**  
2 **and 5**

3  
4 Geographic Area Preparedness Levels 4 & 5 and National Preparedness Level 4:

- 5 • Written concurrence from Regional Fire Management must be obtained  
6 prior to implementing a prescribed fire.
- 7 • Optional Geographic Area Preparedness Level 4 and 5 and National  
8 Preparedness Level 4 concurrence forms are located on the [USFWS](#)  
9 [Fuels SharePoint site](#).

10  
11 National Preparedness Level 5:

12 In addition to information found in the Redbook Chapter 17, the following  
13 applies to FWS when at National Preparedness Level 5:

- 14 • Agency Administrators are responsible for submitting a written,  
15 approved concurrence request for a new prescribed fire to Regional  
16 Fire Management.
- 17 • Regions are responsible for submitting a written concurrence request  
18 for new prescribed fires to the Branch of Fire Management.
- 19 • The Branch of Fire Management will provide written concurrence/non-  
20 concurrence to the Region for documentation.
- 21 • The applicable FWS Preparedness Level 5 Prescribed Fire Concurrence  
22 Form is located on the [USFWS Fuels SharePoint site](#).

23  
24 **Supporting Prescribed Fire Operations during National Preparedness**  
25 **Level 5**

26  
27 Service personnel may participate in non-Service prescribed fire operations  
28 National PL5 without RFMC or National approval when:

- 29 • Participation is approved by their local unit, and
- 30 • Participation does not negatively impact local unit operations.
- 31 • Participation does not negatively impact resource availability for  
32 national priorities.

33 **After Action Reviews and Reporting**

34 An After Action Review (AAR) will be conducted upon completion of fuels  
35 projects and prescribed fires. Prescribed fires and fuels management treatments  
36 must be documented including:

- 37 • Treatment completion should be entered into Fire Management  
38 Information System (FMIS) within 15 days of declared out or  
39 completion.
- 40 • Accomplishment report entered into NFPORS within 15 days (fire-  
41 funded fuels projects only) of declared out date (prescribed fire) or  
42 project completion (fuels management treatments).
- 43 • Non-NFP accomplishment (Non-Fuels or Fire funded) activities such  
44 as habitat objective prescribed fires, mechanical treatments, forestry

1 activities, etc., must be entered in FMIS by the annual memorandum  
2 reporting date

3

#### 4 **Wildfire Declaration**

5 The 2017 Rx Guide states: *A prescribed fire, or a portion or segment of a*  
6 *prescribed fire, must be declared a wildfire by those identified in the plan with*  
7 *the authority to do so, when either or both of the following criteria are met:*

- 8 • *Prescription parameters are exceeded and holding and contingency*  
9 *actions cannot secure the fire by the end of the next burning period, or,*
- 10 • *The fire has spread outside the project area or is likely to do so, and*  
11 *the associated contingency actions have failed or are likely to fail and*  
12 *the fire cannot be contained by the end of the next burning period.*

13 A prescribed fire can be declared a wildfire for reasons other than those  
14 identified above, if events cannot be mitigated as determined by the burn boss  
15 and agency administrator.

16 The Service identifies a wildland fire as either a prescribed fire or wildfire. A  
17 single fire cannot be both. Service interprets a prescribed fire to be singular and  
18 personnel can declare a portion or segment of the prescribed fire as a wildfire  
19 resulting in two separate fires. Once a prescribed fire is declared a wildfire, it  
20 cannot be converted back to prescribed fire status.

21 The prescribed fire plan acres accomplished and meeting the objectives, as  
22 identified in the prescribed fire plan, during the prescribed fire are reported as  
23 prescribed fire acres. The area that is declared a wildfire, even if still in the  
24 prescribed fire plan area, cannot be identified as a prescribed fire  
25 accomplishment. The wildfire area is identified and reported as wildfire acres.  
26 Acres cannot be double counted in reporting databases.

27 Prescribed fires burning off Federal lands onto non-Federal lands without an  
28 existing agreement with the landowner(s) must be declared a wildfire  
29 immediately.

30 All declared fires will be suppressed and will not be managed for resource  
31 benefits with the understanding that confine and contain are suppression  
32 strategies.

33

#### 34 **Declared Wildfire Reviews**

35 If a prescribed fire is declared a wildfire, the procedures described in the  
36 prescribed fire plan Agency Administrator Ignition Authorization, [Declared](#)  
37 [Wildfire Review Facilitation Guide, and Template](#) will be followed.

38

- 1 Zone FMO will notify the RFMC and Agency Administrator will initiate a  
2 Declared Wildfire Review. Refer to the Rx Guide for further guidance regarding  
3 Declared Wildfire Reviews.
- 4 • The appropriate level of review will be determined by the appropriate  
5 agency administrator in coordination with the RFMC or designee.
  - 6 • A copy of all Declared Wildfire Reviews in the approved format will  
7 be sent to the Headquarters, Branch of Fire Management within 45  
8 days of the fire being declared out.
  - 9 • The National Fuels Specialist will submit the final report to the  
10 Wildland Fire Lessons Learned Center once approved by the Chief,  
11 Branch of Fire Management.
- 12
- 13 If a significant event occurs other than a Declared Wildfire (deployment,  
14 entrapment, fatality, near miss, etc.) refer to [240 FW 7](#) for reporting and  
15 investigative requirements.
- 16

### 17 Fuels Management Monitoring

- 18 It is appropriate to use Fuels Management (FM) funding to facilitate adaptive  
19 management when evaluating fuels management program and project  
20 effectiveness, and to ensure that refuge resource management goals and  
21 objectives are not compromised by the fuels management projects. The use of  
22 FM funds is limited to monitoring the first order effects of fuel management  
23 projects/treatments (prescribed fires and non-fire) on fuel and wildlife habitat  
24 composition and structure, as recognized and well-described as measurable  
25 objectives in the approved refuge Fire Management Plan and/or an approved  
26 Habitat Management Plan.
- 27 Monitoring of specific resource protection objectives for values may be paid for  
28 by FM funding only until best management process and techniques can be  
29 established and proven successful. It is suggested to limit this type of monitoring  
30 to those values that are most important.
- 31 Although funding wildlife population inventories or fire effects research or  
32 management studies on wildlife is not an appropriate use of FM funds,  
33 evaluating fuel management projects/treatment effects on wildlife habitat  
34 composition and structure is intended to complement these inventories,  
35 management studies and research projects.
- 36 Fuels management effectiveness monitoring requires an approved monitoring  
37 plan. This plan can be a separate Fuels Treatment Monitoring Plan or part of a  
38 holistic adaptive management program that integrates all refuge resource  
39 monitoring activities. Whether separate or integrated the plan should contain:
- 40 • A full description of the fuel and wildlife habitat monitoring attributes,  
41 monitoring objectives, approved monitoring protocol description in  
42 sufficient detail that a successor can continue the monitoring, and the

- 1 approved refuge Fire Management Plan and/or Habitat Management  
2 Plan reference identifying the monitoring need.
- 3 ● Description of management actions to be taken when monitored habitat  
4 attributes reach established threshold levels.
  - 5 ● The refuge's commitment to implementing and completing the  
6 monitoring and management actions.
- 7 Regional Fire Management Coordinators will assure that before any fuel  
8 project/treatment monitoring (beyond the first order fire effects monitoring in  
9 the Prescribed Fire Plan) is approved for funding:
- 10 ● The fuel and wildlife habitat monitoring activities are adequately  
11 described in the approved Fire Management Plan and/or an approved  
12 Comprehensive Conservation Plan or Habitat Management Plan.
  - 13 ● The monitoring protocols conform to regionally established fuel and  
14 wildlife habitat monitoring protocols established under *Fulfilling the*  
15 *Promise* WH-10(1) action item or the Service's *Fuel and Fire Effects*  
16 *Monitoring Guide*.
  - 17 ● The regional fire ecologist and/or wildlife biologist will determine if  
18 the proposed protocols are the most cost effective and statistically  
19 defensible means of addressing monitoring objectives and will  
20 independently review the plan.
  - 21 ● All stakeholders are aware of management changes that may result  
22 from the monitoring results.

### 23 **Prescribed Fire Implementation on Non-Service Lands**

24 Use of Service Personnel under a Cooperative Agreement. Service personnel  
25 planning or implementing prescribed fire projects on non-service lands under a  
26 cooperative agreement must be in compliance with all applicable departmental,  
27 Service, and regional fire management policies. Service personnel are not  
28 involved with prescribed fire planning and/or implementation on projects funded  
29 through a grant agreement.

30 The Service person in charge of fire operations must meet the Burn Boss  
31 certification requirements appropriate for the complexity level of the burn as  
32 derived from the NWCG *Prescribed Fire Complexity Rating System Guide*.  
33 Based upon the outcome of the Complexity Analysis, the project officer  
34 qualifications (RXB1, RXB2, or RXB3) will be assigned to oversee the  
35 implementation of the project. The project must meet NEPA requirements prior  
36 to ignition (621 FW 2, 4A(2)), and have all the necessary permits and approvals.  
37 All Service personnel participating in prescribed fires must meet the appropriate  
38 Service training and experience qualification requirements as detailed in the Fire  
39 Management Handbook. Non-service lands prescribed fire projects planned  
40 and/or implemented by the Service must have a written prescribed fire plan that  
41 is prepared, reviewed, and approved according to Service and regional policies.

42 As identified in Service Manual Chapter 645 FW1, personnel who are not  
43 qualified as a NWCG Burn Boss may provide technical assistance regarding the

1 ecological benefits of conducting prescribed fire on non-Service lands.  
2 Participation by Service personnel in the operational aspects of the prescribed  
3 fire are limited to their current Red Card qualifications and will only work under  
4 a NWCG Burn Boss. When the Service manages prescribed fire projects on non-  
5 Service lands under a cooperative agreement, an “Agency Administrator” must  
6 approve implementation. The Regional Director (RD) has this approval  
7 authority. The RD may delegate the authority to the Regional or State  
8 Coordinator for the Partners for Fish and Wildlife Program or Regional Coastal  
9 Program Coordinator, or to a Refuge Manager/Refuge Complex Manager or  
10 Ecological Services Project Leader, but not to the lead employee in the field.  
11 The RD must meet the required elements in the “Management Performance  
12 Requirements for Fire Operations” in Chapter 4 of the Redbook and ensure  
13 anyone to whom he/she delegates this approval authority completes the required  
14 training and is capable of approving the fire plan and completing the Agency  
15 Administrator Ignition Authorization Approval Checklist.

#### 16 **Cooperator and Contractor Involvement**

17 Under a cooperative agreement, when Service fire management personnel are  
18 not writing the prescribed fire plan or implementing it, cooperators planning and  
19 conducting the prescribed fire must employ qualified non-Service fire  
20 practitioners. These practitioners must comply with existing tribal and state laws  
21 that, in turn, require compliance with Federal, state, and local laws. The  
22 practitioners do not have to comply with NWCG Federal qualification  
23 requirements unless those requirements are in applicable state or local laws.

24 A cooperator or its contractor who plans and implements a prescribed fire on  
25 non-Service lands must meet state qualification standards, obtain necessary  
26 permits and authorizations, notify nearby residents and emergency response  
27 agencies about the coming burn, and adhere to smoke management guidelines as  
28 identified in the notice of award or private land owner agreement, when  
29 applicable.

#### 30 **Cooperative Agreement Support**

31 Local, State, Tribal and other Federal agencies and non-governmental agencies  
32 could be the partner planning and/or implementing the prescribed fire on non-  
33 Service lands. The NWCG recognizes the ability of cooperating agencies at the  
34 local level to jointly define and accept each other’s qualifications for prescribed  
35 fire. It is necessary to have this agreement approved by the Service’s Regional  
36 Fire Management Coordinator prior to implementing support. Recognizing fire  
37 management qualifications among cooperators also allows for Service  
38 employees to participate in prescribed fire projects where the Service is in a  
39 supporting role. NWCG PMS 310-1 identifies the minimum qualification  
40 standards for interagency prescribed fire operations, unless otherwise specified  
41 in a local agreement. Departmental policy requires all Service personnel  
42 engaged in interagency operations to meet these standards.

#### 43 **Grant Agreements**

Release Date: January 2021

- 1 The Service must use a grant agreement to provide funds to cover allowable  
2 grantee costs when there is no substantial Service involvement in award  
3 projects. The Service is not responsible or liable for any damage to property or  
4 any injury to people that may arise from, or be incident to, performance or  
5 compliance with the grant agreement. Prescribed fire projects conducted by a  
6 recipient, or their sub-recipient or contractor, on non-Service lands typically fall  
7 under the jurisdiction of tribal, state, or local agencies/entities with fire  
8 management authority and responsibility.
- 9 • The entity carrying out the prescribed fire planning and implementation  
10 on non-Service lands under a grant award:
    - 11 ○ Must comply with existing Federal, tribal, state, and local  
12 laws; and
    - 13 ○ Does not have to comply with NWCG Federal qualifications if  
14 the NWCG requirements are not in the affected tribal, state, or  
15 local laws.
  - 16 • A recipient who plans and implements a prescribed fire project must  
17 meet state, tribal, and local qualification standards; obtain all necessary  
18 permits and authorizations; notify nearby residents and emergency  
19 response agencies about the coming burn; and adhere to smoke  
20 management guidelines for prescribed burns as identified in the notice  
21 of award or private land owner agreement, when applicable.

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## Chapter 18 Reviews and Investigations

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

**No additional guidance at this time.**

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## Chapter 19 Dispatch and Coordination System

The Service Fire Management Handbook incorporates, by reference, all guidance in the [Interagency Standards for Fire and Fire Aviation Operations](#) (Redbook, NFES #2724) Chapter 19 in addition to the following Service specific clarifications:

**No additional guidance at this time.**

**Appendix A**  
FWS List of Acronyms

310-1	National Incident Management System Wildland Fire Qualifications System Guide
AAR	After Action Review
AD	Administratively Determined
AQB	Air Quality Branch
ASTM	American Society for Testing and Materials
BAR	Burned Area Rehabilitation
BI	Burning Index
BLM	Bureau of Land Management
CCP	Comprehensive Conservation Plan
CE	Categorical Exclusion
CFDRS	Canadian Fire Danger Rating System
CFR	Code of Federal Regulations
DOI	Department of Interior
ERC	Energy Release Component
ES	Emergency Stabilization
ESA	Endangered Species Act
FDO	Fire Duty Officer
FEIS	Fire Effects Information System
BFM	Branch of Fire Management
FMH	Fire Management Handbook
FMIS	Fire Management Information System
FM	Fuels Management
FMO	Fire Management Officer
FMP	Fire Management Plan
GMAC	Geographic Area Multi-agency Coordinating Group
GPS	Global Positioning System
ICS	Incident Command System
IDP	Individual Development Plan
IFPM	Interagency Fire Program Management Qualifications Standard and Guide
IQCS	Incident Qualification and Certification System
IPFPIG	Interagency Prescribed Fire Planning and Implementation Procedures Guide
IPQG	Incident Positions Qualification Guide
JHA	Job Hazard Analysis
KBDI	Keetch-Byram Drought Index
LDS	Lightning Detection System
LEMIS	Law Enforcement Management Information System
LFML	Local Fire Management Leadership
MAC	Multi-agency Coordinating Group

Release Date: January 2021

APPENDIX A-1

MOU	Memorandum of Understanding
NAFRI	National Advanced Fire and Resource Institute
NAP	National Applications Portal
NBAERC	National Burned Area Emergency Response Coordinator
NEPA	National Environmental Policy Act
NFDRS	National Fire Danger Rating System
NFES	National Fire Equipment System
NFLT	National Fire Leadership Team
NFML	Fire Management Leadership Course
NFPA	National Fire Protection Association
NFPORS	National Fire Plan Operations and Reporting System
NHPA	National Historical Preservation Act
NIFC	National Interagency Fire Center
NIMS	National Incident Management System
NMAC	National Multi-agency Coordinating Group
NUS	Normal Unit Strength
NWCG	National Wildfire Coordinating Group
NWRF	National Wildlife Refuge System
OAS	Office of Aircraft Services
OTC	Operations and Training Committee
OWF	Office of Wildland Fire
PFTC	National Interagency Prescribed Fire Training Center
PL	Preparedness Level
PPE	Personal Protective Equipment
PMS	Publication Management System
RAWS	Remote Automated Weather Station
Redbook	Interagency Standards for Fire and Fire Aviation Operations
RFA	Radio Frequency Agreement
RFMC	Regional Fire Management Coordinator
Service or FWS	U.S. Fish and Wildlife Service
SMIS	Safety Management Information System
UAS	Unmanned Aircraft Systems
USC	United States Code
WBS	Work Breakdown Structure
WFDSS	Wildland Fire Decision Support System
WFMI	Wildland Fire Management Information
WIMS	Weather Information Management System
WUI	Wildland Urban Interface
ZFMO	Zone Fire Management Officer

**Appendix B**  
FWS Website Links

**Fish and Wildlife Service (FWS) Webpages:**

[Fire Management Handbook](#)  
[Fire Business Guide](#)  
[Service Manual Chapters](#)  
[FWS Homepage](#)  
[Centralized Library of FWS Policies](#)

**National Interagency Fire Center (NIFC) Webpages:**

[NIFC Homepage](#)  
[Interagency Standards for Fire and Fire Aviation Operations \(Redbook\)](#)  
[NIFC Fire Severity Funding Requests](#)  
[Interagency Helicopter Operations Guide \(IHOG\) \(PMS 510\)](#)  
[National Interagency Coordination Center \(NICC\) Homepage](#)  
[National Interagency Mobilization Guide](#)

**Geographic Area Coordination Center Homepages:**

[Alaska Interagency Coordination Center \(AICC\)](#)  
[Eastern Area Coordination Center \(EACC\)](#)  
[Great Basin Coordination Center \(GBCC\)](#)  
[Northern California Coordination Center \(ONCC\)](#)  
[Northern Rockies Coordination Center \(NRCC\)](#)  
[Northwest Coordination Center \(NWCC\)](#)  
[Rocky Mountain Coordination Center \(RMCC\)](#)  
[Southern Area Coordination Center \(SACC\)](#)  
[Southern California Coordination Center \(OSCC\)](#)  
[Southwest Coordination Center \(SWCC\)](#)

**Other Webpages:**

[Department of Interior \(DOI\) Homepage](#)  
[DOI Office of Aircraft Services \(OAS\) Homepage](#)  
[National Weather Service \(NWS\) Fire Weather Homepage](#)  
[NWS Fire Weather Outlooks](#)  
[GSA Per Diem Rates](#)  
[National Wildfire Coordinating Group \(NWCG\) Homepage](#)  
[NWCG Publications](#)  
[NWCG Position Task Books](#)  
[NWCG Agency Specific Position Task Books](#)  
[NWCG FEMA Task Books](#)  
[InciWeb](#)  
[Interagency Aviation Training](#)  
[Interagency Incident Business Management Handbook](#)  
[NWCG Communication, Education, and Prevention Committee](#)  
[Guide to Wildland Fire Origin and Cause Determination](#)