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Resource Advisor's Guide for Wildland Fire

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Resource Advisor's Guide For Wildland Fire (READ)

NFES 1831

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PREFACE

The National Wildfire Coordinating Group (NWCG) Training Working Team developed the **Resource Advisor's Guide for Wildland Fire** in response to the widespread recognition that an interagency guide was needed that provided a clear definition of the position and suggested operational guidance. This guide is a revision of the November 1996 Resource Advisor's Guide for Wildland Fire.

The role of the Resource Advisor has historically been intertwined with the role of Agency Administrator Representative. This guide provides a distinction between those roles. In some instances, the roles can be combined at the Agency Administrator's discretion.

To properly function in the position and to serve the needs of the Agency Administrator and the Incident Management Team, the Resource Advisor may be required to enter the fire environment in the field while suppression actions are taking place. This environment is inherently hazardous. The Resource Advisor position historically had no fire qualifications or training requirements within the NWCG system. This guide sets forth standards and some minimum qualifications for the position of Resource Advisor. Resource Advisors should be identified within each unit and attend Resource Advisor training.

This guide will aid in improving Resource Advisor and Agency Administrator Representative capabilities and interactions within the fire organization. A Sample Resource Training Agenda (Appendix A) is included in this guide to aid in developing Resource Advisor refresher training as well as training for new Resource Advisor trainees.

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INTRODUCTION

The Resource Advisor (READ) is primarily responsible for identifying and evaluating potential impacts and benefits of fire operations (wildland or prescribed fire) on natural and cultural resources.

The Agency Administrator Representative is primarily responsible for representing the political, social, ecological, and economical issues of the Agency Administrator (e.g., Field/District Manager, Forest Supervisor, Park Superintendent, Refuge Manager, etc.).

The Resource Advisor and Agency Administrator Representative positions are generally personnel from the local unit. Each unit should develop criteria for establishing these positions and implementing this guide. These positions can be combined and performed by one individual. The Agency Administrator may assign multiple Resource Advisors and appoint a Lead Resource Advisor to establish a single point of contact for an incident.

The Resource Advisor anticipates impacts on resources as suppression or prescribed fire operations evolve; communicates requirements for resource protection to the Incident Commander (IC) or Incident Management Team (IMT); ensures that planned mitigation measures are carried out effectively; and provides input in the development of short- and long-term natural resource and cultural rehabilitation plans.

The responsibilities of the Resource Advisor as defined in this guide involve contact with the Agency Administrator, the IC, the Planning Section Chief, and operations personnel at all levels. The Resource Advisor is the Agency Administrator's representative and works directly for him/her. The Resource Advisor helps to implement the directions and standards that the Agency Administrator sets for the IC or IMT. However, the Resource Advisor position works within the incident command structure coordinating resource issues with the IC and IMT. While on the incident, operational direction comes from the IC or IMT. (See Figures 1, 2, and 3 on pages 10, 11, and 12.)

Appendices supplement the information within this guide pertinent to the positions of Resource Advisor and Agency Administrator Representative including supporting material to make this guide a more comprehensive document.

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FIRE MANAGEMENT PRINCIPLES AND STANDARDS

Wildland Fire and Prescribed Fire Classification

Wildland Fire – Any non-structure fire, other than prescribed fire, that occurs on the wildland. This term encompasses fires previously called both wildfires and prescribed natural fires.

Prescribed Fire – Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist; and National Environmental Policy Act (NEPA) requirements must be met prior to ignition. This term replaces management ignited prescribed fire.

Appropriate Management Response

Any wildland fire must have an appropriate management response taken. The appropriate management response will be based upon the pre-planning considerations (Fire Management Plan) commensurate with stated land management plan decisions and the threat to life, property, and resource values.

Appropriate Management Response – Specific actions taken in response to a wildland fire to implement protection and/or fire use objectives.

Fire Management Plan (FMP) – A strategic plan that defines a program to manage wildland and prescribed fires and documents the fire management program in the approved Land Use Plan.

Appropriate Management Response Strategies:

1. Wildland Fire Use – The response to naturally ignited wildland fires to accomplish specific pre-stated resource management objectives with NEPA requirements met in pre-defined geographic areas outlined in FMPs. Operational management is described in the Wildland Fire Implementation Plan (WFIP).

   Wildland Fire Implementation Plan (WFIP) – A progressively developed assessment and operational management plan that documents the analysis and selection of strategies and describes the appropriate management response for a wildland fire being managed for resource benefit.

2. Wildland Fire Suppression – An appropriate management response to wildland fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire. Operational Management is described in the Wildland Fire Situation Analysis (WFSA).

Wildland Fire Situation Analysis (WFSA) – An assessment and decision making process that evaluates alternative management strategies against selected safety, environmental, social, economic, political, and resource management objectives.

Further information on WFIP and WFSA can be found in Appendix H.

Cost Effective Fire Management and Resource Protection

Appropriate management response actions must be planned and executed to minimize costs and resource loss consistent with approved Land Use Plan management objectives. A WFIP or WFSA must be prepared for all wildland fires that escape initial attack. Agency Administrators will ensure that a complexity analysis, WFIP or WFSA, is prepared to determine the most appropriate organization and management strategies for a wildland fire.

AGENCY ADMINISTRATOR REPRESENTATIVE
DUTIES AND RESPONSIBILITIES

The Agency Administrator Representative (AAR) is primarily responsible to the Agency Administrator for the political, social, and economic issues of an incident. The Agency Administrator Representative serves primarily as a troubleshooter for the Agency Administrator for political and social issues that the incident generates within the community and/or region. In that role, communication is critical between the Agency Administrator, the Agency Administrator Representative, other Agency Administrator Representatives (if a multi-agency fire), and other outside contacts.

The Agency Administrator should establish criteria for utilizing this position and implementing this guide. The Resource Advisor and Agency Administrator Representative positions can be combined and performed by one individual. Increased complexity of issues may trigger the Agency Administrator to assign separate individuals to each position. If the duties are broken into two positions, communications between the Agency Administrator and the Resource Advisor generally flow through the Agency Administrator Representative unless situations are critical in nature. (See Figure 1 on page 10 for simple and complex scenarios.)

The following list represents some of the major elements of the Agency Administrator Representative position description:

- Public Concerns (air quality, road or trail closures, smoke management, threats)
- Public Safety (evacuations, access/use restrictions, temporary closures)
- Public Information (fire size, resources assigned, threats, concerns, appeals for help or assistance)
- Socioeconomic, Political, or Tribal Concerns
- Land and Property Ownership Concerns
- Interagency and Inter-governmental Issues
- Wildland-Urban Interface Impact (structures and improvements)
- Media Contacts
- Others, specific to local needs

These duties are generally accomplished by participating in transition, command and general staff, and other briefings as appropriate.

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RESOURCE ADVISOR
DUTIES AND RESPONSIBILITIES

The Resource Advisor provides daily input to the Incident Commander (IC) or his/her designee in the development of fire suppression strategies and tactics to minimize or mitigate the expected impacts of fire and fire suppression actions upon natural and cultural resources. The Resource Advisor follows agency standard operating procedures during mobilization, the fire assignment, and demobilization.

He/She also provides input required for the implementation of fire management direction written in the Land Use Plan, development of the Wildland Fire Implementation Plan (WFIP) and/or Wildland Fire Situation Analysis (WFSA) and rehabilitation plans.

The Resource Advisor is generally a person from the local unit. Each unit should establish criteria for utilizing this position and implementing this guide. The Agency Administrator may assign multiple Resource Advisors and appoint a Lead Resource Advisor to establish a single point of contact for an incident. In addition, an IC may request a Resource Advisor through the Agency Administrator to work with the Incident Management Team (IMT).

The following list represents major elements of the Resource Advisor position description:

Data Gathering and Reconnaissance

The principle responsibilities at the beginning stage of each incident include: identifying resource issues of concern, reviewing the Land Use Plans and Fire Management Plans (FMPs), communicating with resource specialists, developing resource protection priorities, gathering data from suppression and other personnel assigned to the fire, and confirming the contents of the Resource Advisor Kit (see Appendix B) to meet the needs of the specific assignment situation.

A Resource Advisor's Assignment Checklist has been placed in Appendix C to further help the Resource Advisor during his/her assignment.

The Resource Advisor is responsible for providing information, analysis, and advice to fire managers that includes, but is not limited to, the following areas of concern in fire suppression or prescribed fire actions:

- Land Ownership
- Hazardous Materials
- Fuelbreaks (locations and specifications)
- Water Sources and Ownership
- Critical Watersheds
- Critical Wildlife Habitat
- Noxious Weeds
- Special Status Species (threatened, endangered, proposed, sensitive)

- Fisheries
- Poisonous Plants, Insects, and Snakes
- Mineral Resources (oil, gas, mining activities)
- Prehistoric and Historic Archeological Sites, Historic Trails, and Paleontological Sites
- Historic Structures, Features, Cultural Landscapes, and Traditional Cultural Properties
- Riparian Areas
- Military Issues
- Utility Rights-of-way (power, communication sites)
- Permanent and Temporary Structures
- Native Allotments
- Grazing Allotments
- Herd Management Areas (wild horses, burros)
- Recreational Management Areas
- Special Management Areas (Wilderness Areas, Wilderness Study Areas, Recommended Wilderness, National Monuments, National Conservation Areas, National Historic Landmarks, Areas of Critical Environmental Concern, Research Natural Areas, and Wild and Scenic Rivers)

Analysis, Planning, & Strategy

Provides input during the development of the WFIP and the WFSA when appropriate.

Provides input during incident planning and participates in strategy meetings when appropriate.

Provides input during incident planning and participates in team transition meetings when appropriate.

Gathers and disseminates data for the development of the Incident Action Plan (e.g., fire maps and identification of areas of concern).

Provides input on environmental restrictions within the fire area and appropriate suppression actions (handlines, dozer lines, and retardant use) commensurate with resource protection and firefighter safety.

Provides recommendations and standards for fire suppression rehabilitation.

Asks questions and participates in discussions with the IMT in a proactive manner to obtain necessary information and attends appropriate meetings.

Daily Operations and Documentation

Provides input for the daily validation of the WFIP and/or WFSA.

Attends daily planning meetings for Type 1 or Type 2 incidents.

Attends daily operational period briefings and planning/strategy meetings.

Maintains communication with the Agency Administrator, IC, and IMT. Methods may include face-to-face, telephone conference calls, radios, and cell phones.

Serves as Agency Administrator Representative, when directed by the Agency Administrator, to the IMT, resource users and other agencies, local and state governments, and affected parties.

Presents information at operational period briefings on resources, priorities, and issues of concern.

Provides resource information/direction to local initial attack ICs, dispatchers, or other fire personnel.

Monitors the implementation of fire suppression rehabilitation efforts and ensures all recommendations are followed.

Assures the completion of all fire suppression rehabilitation efforts.

Gathers and documents damage to resources (e.g., range/forest improvements, cultural sites, and trails).

Recommends the need for a Rehabilitation Team or Burned Area Emergency Rehabilitation Team (BAER) to Agency Administrator(s).

Completes daily Unit Log, ICS-214, to capture important information and submits it to the planning section. (If possible, keep a copy for your records.)

Completes daily time records.

Further details on operating procedures for the Resource Advisor can be found in Appendix D.

Final Documentation

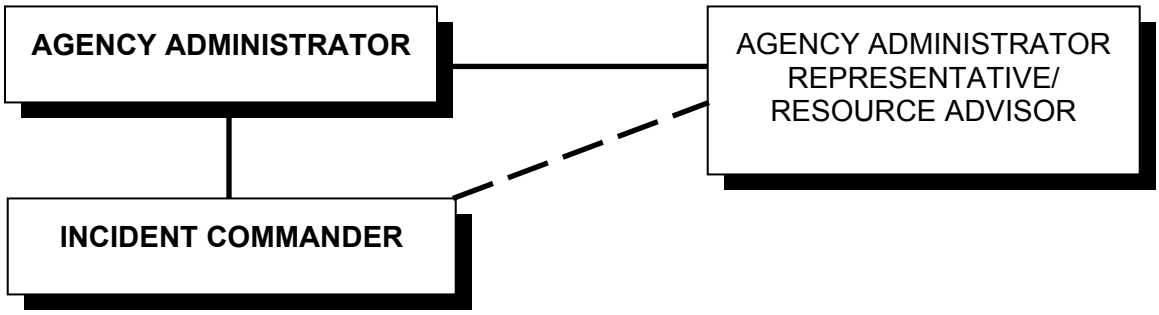
Completes local reporting documentation for incident fire package and Agency Representative (see Sample Final Report in Appendix E).

Figure 1. Communication and Responsibilities

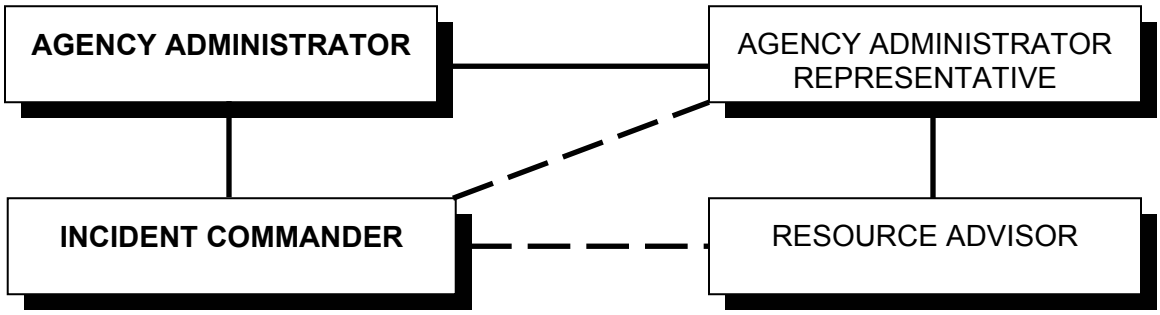
Direct lines of communication and responsibilities

Indirect lines of communication and responsibilities

SIMPLE SCENARIO

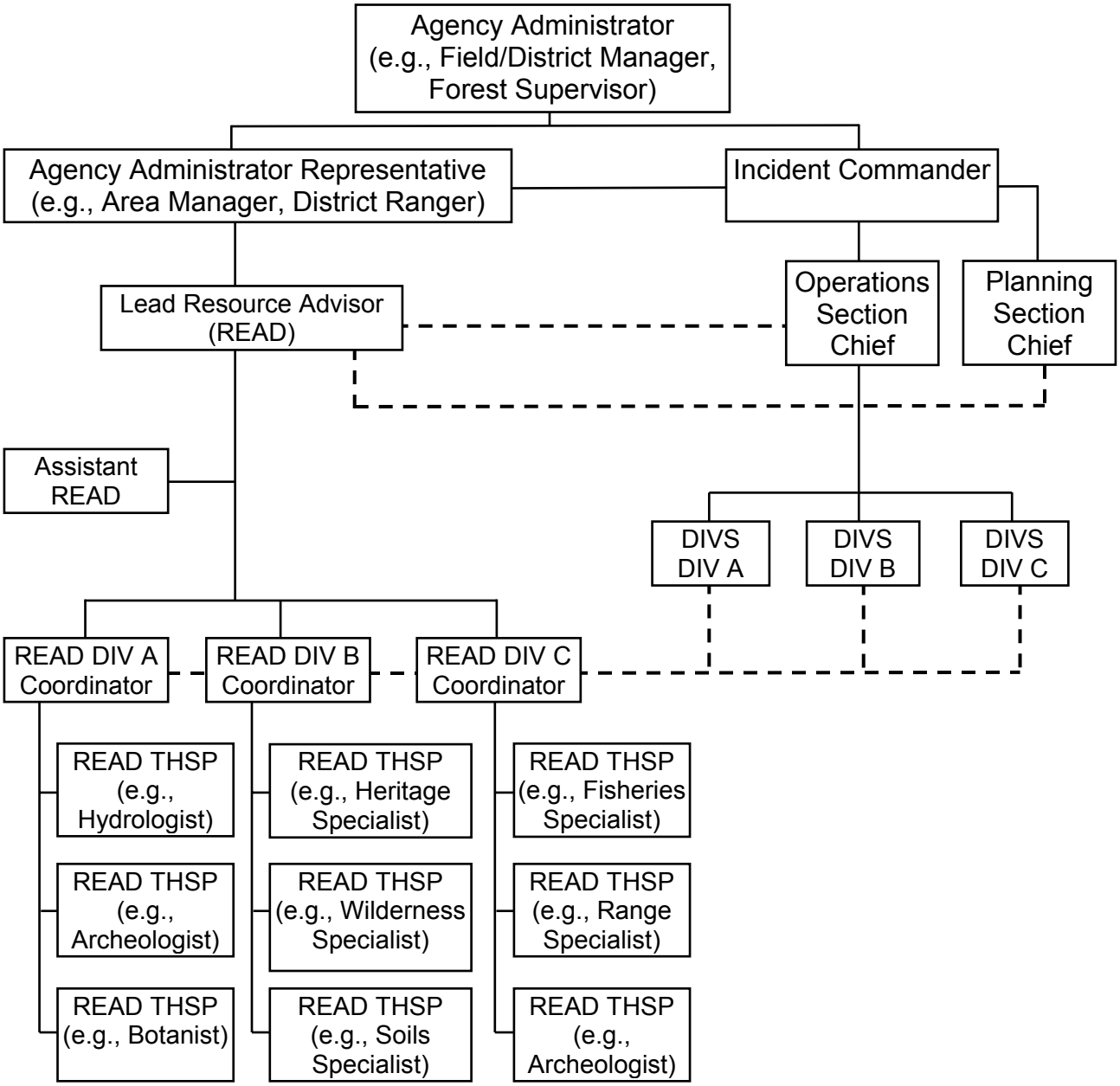


COMPLEX SCENARIO



These positions may have additional subordinate field personnel to accompany fire crews in sensitive areas or to gather information for planning and evaluation purposes.

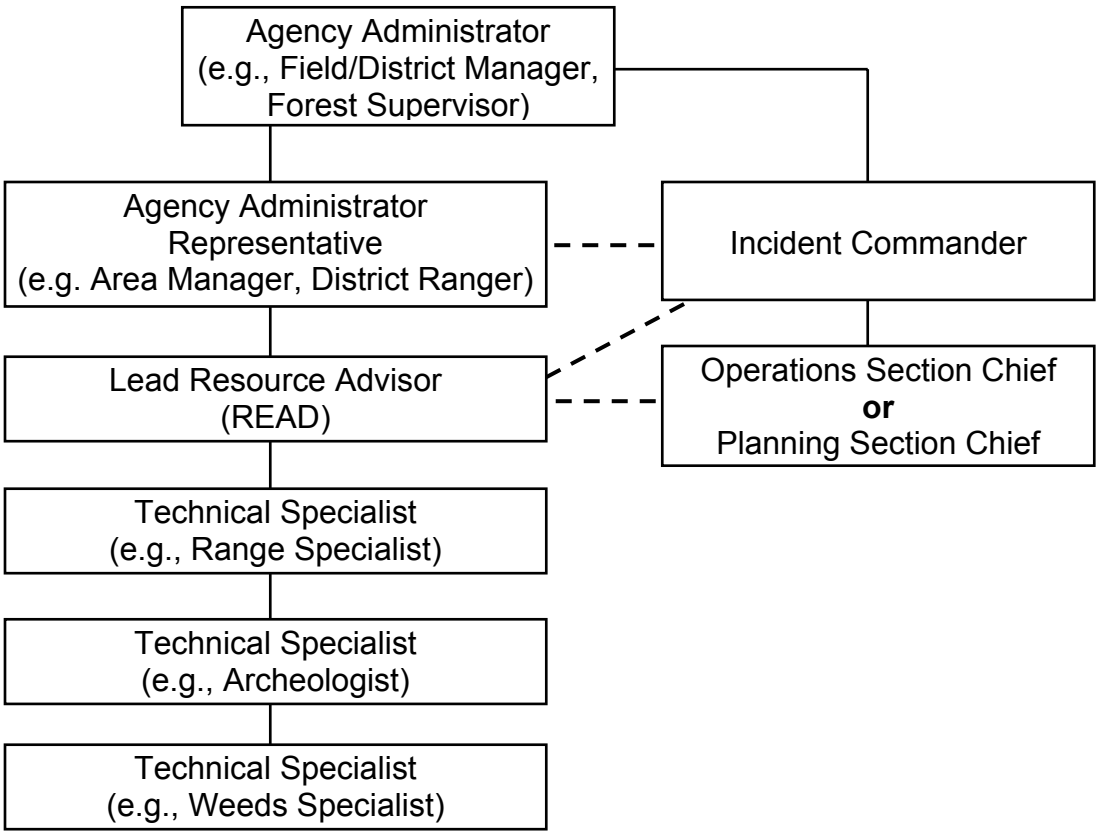
Figure 2. Incident Command Structure—Large Fire



* THSP is the four-letter designator in the Incident Command System for a Technical Specialist.

These positions may have additional subordinate field personnel to accompany fire crews in sensitive areas or to gather information for planning and evaluation purposes.

Figure 3. Incident Command Structure—Small Fire



These positions may have additional subordinate field personnel to accompany fire crews in sensitive areas or to gather information for planning and evaluation purposes.

JOB QUALIFICATIONS

The following list of qualifications, experience and knowledge, skills and abilities is the suggested minimum for the position of Resource Advisor and Agency Administrator Representative. Resource Advisors are required to obtain a Red Card under their agency process for certification in this position. Red Card certification is not required for the Agency Administrator Representative.

Resource Management Knowledge

Ability to acquire knowledge of local politics and Land Use Plans (e.g., local community, county, tribal, interagency, general management plans, Wilderness Plans, Natural/Cultural Resource Management Plans, and Fire Management Plans).

Ability to acquire knowledge on the affected area including, but not limited to, topographic features and vegetation types, critical areas, types of visitors and inhabitants, improvements, roads, hazards, etc.

Basic knowledge of fire and fire suppression impacts on natural and cultural resources.

Map reading and handheld Global Positioning System (GPS) navigation skills.

Ability to plan for and implement fire rehabilitation treatments.

Training

Successful completion of the following locally-taught training courses is required:

S-130, Firefighter Training
S-190, Introduction to Wildland Fire Behavior
I-100, Introduction to ICS (self study)
I-200, Basic ICS
Annual Wildland Fire Refresher Training
Annual Resource Advisor Training (see Appendix A for a Sample Resource Advisor Training Agenda)

Successful completion of the following training courses is suggested:

I-300, Incident Command System Course
S-215, Fire Operations in the Urban Interface
S-290, Intermediate Wildland Fire Behavior
S-260, Fire Business Management
RX-310, Introduction to Fire Effects

Other courses that may be helpful include:

S-244, Field Observer
Fire in Ecosystem Management (NARTC), or equivalent
S-580, Advanced Fire Use Application
NEPA Screening Process (online self study course: www.ntc.blm.gov)

Physical/Fitness Level

Light (This is the minimum standard; the administrative unit may at their discretion raise this standard to moderate or high depending on the situation at hand.)

General

Knowledge and experience in guidelines, policies, and implementation for natural and cultural resource management, including mitigation and protection measures. (Minimum Impact Suppression Tactics and Leave No Trace practices.)

Oral and written communication skills.

Qualifying experience is suggested to include a minimum of two satisfactory trainee assignments.

A Resource Advisor who meets the criteria for Entitlement to Hazard Pay Differential shall receive it. The criteria are listed in the Interagency Incident Business Management Handbook; NWCG Handbook 2: Section 12.9-2.

APPENDIX A

Sample Resource Advisor Training Agenda

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Appendix A

SAMPLE RESOURCE ADVISOR TRAINING AGENDA

Opening Remarks ..... 15 minutes

Agency Administrator (expectations, relationships,
delegation of authority) ..... 15 minutes

Roles and Responsibilities
Agency Administrator Representative ..... 10 minutes
Resource Advisor ..... 60 minutes

Land Use Plans/Fire Management Plans/Local Concerns ..... 30 minutes

WFIP and WFSA Overview ..... 60 minutes

Local Resource Issues (riparian, grazing, timber, cultural, recreation) ..... 30 minutes

Local Policies and Procedures (assignment, availability, timekeeping) ... 30 minutes

Minimum Impact Suppression Tactics (MIST) ..... 10 minutes

Field Kit Contents ..... 10 minutes

National Fire Issues (cultural, T&E, wilderness) ..... 15 minutes

Suppression Actions Rehabilitation/Burned Area Emergency
Rehabilitation ..... 20 minutes

Incident Management Team (expectations, team meetings,
transitioning) ..... 30 minutes

Interagency Concerns ..... 15 minutes

Agency Specific Topics (e.g., BLM Emergency Stabilization &
Rehabilitation (ESR) Program) ..... Open

Review and Wrap-up ..... 15 minutes

Estimated Total Time ..... 6 hours

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APPENDIX B

Resource Advisor's Kit

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Appendix B

RESOURCE ADVISOR'S KIT

Following are examples of supplies and equipment that may be needed before leaving for an incident. It may be necessary to order supplies that cannot be obtained from your home office environment. The bag should be packed and ready for mobilization.

- ☐ Local policy statements (e.g., Land Use Plan, Wilderness Plan, Fire Management Plan)
- ☐ Minimum Impact Suppression Tactics (MIST) Guidelines
- ☐ Resource Advisor's Guide for Wildland Fire
- ☐ Interagency Standards for Fire and Fire Aviation Operations (Red Book), current year
- ☐ Fireline Handbook, NFES #0065
- ☐ Incident Response Pocket Guide, NFES #1077
- ☐ Suppression Rehabilitation Guidelines and Sample Rehabilitation Plan (in electronic format if possible)
- ☐ ICS forms (ICS-214, Unit Log; ICS-213, General Message)
- ☐ Resource Advisor Final Report or like form
- ☐ Office/field supplies (e.g., pencils, pens, felt tip markers, ruler, map scale, dot grid, flagging, paper, calculator, clipboard, tape, scissors, etc.)
- ☐ Digital camera or camera with film
- ☐ Binoculars
- ☐ Altimeter and clinometer, if available
- ☐ Compass, handheld Global Positioning System (GPS unit), mapping equipment, etc.
- ☐ Maps (2 each)—topographic (1:24,000) and land status (1:100,000) that cover incident area and at least 6 miles around the perimeter
- ☐ Maps showing: wilderness areas, wilderness study areas, significant or known cultural sites, threatened or endangered species, critical habitat areas, National Conservation Area, National Monument boundaries, and other areas of concern
- ☐ Reference list of resource specialists and important contacts with phone numbers
- ☐ Handheld radio, mobile radio, cell phone
- ☐ Spare batteries for each electronic device
- ☐ Firefighter Crew Time Report, NFES #0891
- ☐ OF-288, Emergency Firefighter Time Report, NFES #0866
- ☐ Field identification guides (noxious weeds, trees, plants, birds, fish, animals), when applicable
- ☐ Copy of the Wilderness Act and/or enabling legislation, when applicable
- ☐ Laptop computer with necessary software and hardware, when applicable

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APPENDIX C

Resource Advisor's Assignment Checklist

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Appendix C

RESOURCE ADVISOR'S ASSIGNMENT CHECKLIST

Preparation

_____ Review safety training, practice, and remember "Safety First" attitude throughout assignment.

_____ Do you have your personal gear?

_____ Do you have personal protective equipment (PPE) and line gear?

_____ Do you have a Resource Advisor Kit?

_____ Do you need items not in the kit; e.g., other maps, radio, etc.?

_____ Receive initial briefing; e.g., fire behavior and weather forecasts, location, size, lined perimeter, fuel types, firefighting resources available, Incident Action Plan, etc.

_____ Receive initial evaluation of natural and cultural resources at risk.

_____ Receive initial advice or direction from Agency Administrator or Agency Administrator Representative.

_____ Participate in developing the Wildland Fire Implementation Plan (WFIP) and/or Wildland Fire Situation Analysis (WFSA).

_____ Obtain appropriate transportation; e.g., 4 X 4 vehicle, ATV, etc.

_____ Obtain local maps for fire personnel.

Upon Arrival

_____ Check in with Incident Commander (IC) or Incident Management Team (IMT).

_____ Evaluate situation, introduce yourself, provide information and ask questions.

Operations

_____ Tool up for line assignment (proper PPE to include tool for shelter deployment).

_____ Participate in revising the WFIP and/or WFSA as needed.

_____ Identify high priority concerns and convey to IC, IMT, or Agency Administrator.

_____ Contact other resource specialists as necessary.

_____ Gather data from suppression resources.

_____ Participate in developing the Incident Action Plan (IAP).

_____ Provide input on camps, water sources, and helispot locations.

_____ Provide input for choosing site locations and specifying containment requirements for remote fueling operations (both for ground vehicles and for aircraft).

_____ Monitor and provide input during fire suppression activities to protect resources.

_____ Monitor and document damages caused by the fire.

_____ Provide input for other facility site locations as needed (e.g., temporary repeater(s), wash station, etc.).

_____ Collect data and document damage to resources (e.g., vegetation, range improvements, cultural sites, etc.).

_____ Participate in developing a fire map and identify critical areas of concern.

_____ Communicate daily with the Agency Administrator and IC/IMT.

_____ Make recommendations for suppression rehabilitation.

_____ Maintain a Unit Log, ICS-214.

Post Incident

_____ Complete documentation on the Resource Advisor Final Report or like form.

_____ Provide Agency Administrator with final report on the fire (Resource Advisor Final Report or like form).

_____ Assure that rehabilitation efforts are complete or have been assigned to a rehabilitation team/effort.

APPENDIX D

Resource Advisor Operating Procedures

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Appendix D

RESOURCE ADVISOR OPERATING PROCEDURES

These procedures are intended to be an expansion of the Duties and Responsibilities for the Resource Advisor described in the text of the guide. Some of the initial pre-season duties would ideally be performed by a Lead Resource Advisor assigned by the Agency Administrator. When there is no designated Lead Resource Advisor for an office, the Agency Administrator may assign the duties of Lead Resource Advisor to one or more Resource Advisors.

OPERATING PROCEDURES

A. Pre-Season

Lead Resource Advisor:

- Review and recommend modifications in local policy, if needed, for the use and dispatch of Resource Advisors.
- Meet with Agency Administrator to agree on roles and responsibilities, content of delegation of authority, and local policy for the use and dispatch of Resource Advisors.
- Obtain updated inventories of special protection areas and resources from resource specialists. Review new planning decisions or amendments to existing plans.
- Identify changes in agency, unit, local, and/or regional policies, Fire Management Plan (FMP), and local political environments that may affect the fire management program.
- Obtain current Interagency Standards for Fire and Fire Aviation Operations (Red Book).
- Obtain current Fire Rehabilitation handbook.
- Update contact list and availability schedule for other unit Resource Advisors for use by Agency Administrator, dispatch, and fire management.
- Consolidate above information and prepare and/or update Resource Advisor Kit(s).

- Update names and telephone numbers for law enforcement, landowners, permittees, outfitters, etc.

- Establish Resource Advisor call-up procedures and protocol for fire assignments for use by Agency Administrator, dispatch, and fire management.

All Resource Advisors:

- Participate with fire management staff in appropriate pre-season operations/planning meetings. (Agency fire personnel's philosophy, standard operating procedures to include retardant, equipment use, wilderness considerations, etc.)

- Participate in required annual training sessions.

- Maintain physical fitness standards and proper conditioning.

B. Fire Season

- Keep fire dispatch and/or fire management staff aware of your general schedule and where you can be reached; e.g., telephone numbers, pager, etc.

- Arrange backup when not available.

- Maintain awareness of a worsening local/regional fire situation.

C. When Responding to an Incident (in order of priority):

- Always seek immediate briefing on the incident from fire management staff and communicate that information to the Agency Administrator. Obtain predicted fire behavior and weather forecasts as well as information pertaining to fire size, lined perimeter, assigned resources, Incident Command Post (ICP) location, etc.

- Obtain a Resource Advisor Kit; make sure it is complete and the equipment is operational.

- Perform your Resource Advisor assignment per *Duties and Responsibilities* stated in this guide.

D. Transition from Local Incident to Type I or Type II Incident

- Provide input into transition briefing materials regarding special resource/political considerations. (e.g., maps, delegation of authority,

preparation or validation of the Wildland Fire Implementation Plan [WFIP] and/or Wildland Fire Situation Analysis [WFSA], selection of proper camp location considering need for proximity to incident and transportation).

- Attend and participate in the Agency Administrator briefing (e.g., provide pertinent information to the IMT, meet the team and answer questions, ask the team questions, find out meeting or briefing times, exchange phone numbers, etc.)

- Find out when the actual transition will occur.

- Obtain information about the initial transition strategy:

  - What do you need to do to prepare for the transition?
  - How will the transition occur (e.g., operations section arriving early to become familiar with the fire before the actual transition)?
  - Review the existing situation. Will changes need to be made?
  - How many fires will the team administer?
  - How many camps (base, spike, etc.) may be needed?
  - Where will camps be located?
  - Will there be adequate room for parking incident vehicles (e.g., semi-trucks and heavy equipment, buses, engines, etc.)?
  - What provisions may be needed for the Ground Support Unit (e.g., ingress and egress)?
  - Do you need Assistant Resource Advisors?
  - How many people will there be on the incident?
  - Will the ICP need to be moved?
  - Communications (e.g., Will cell phones work? Are satellite phones or temporary repeaters needed?)

E. While on Incident

- Communicate the Agency Administrator's performance expectations in meetings and briefings.

- Actively participate in daily planning meetings and operational period briefings and make presentations on resource/rehabilitation issues to minimize impacts. Recommend and review strategy and tactics to reduce impact on resources.

- Attend the planning meetings and give advice to the Planning Section on incorporation of resource concerns into the Incident Action Plan (IAP). The IAP is prepared for each operational period and is as site specific as possible. This may include information on spike camp etiquette, fireline water bar standards, etc.

- Follow appropriate dispatch, mobilization, and safety procedures. Maintain communication with the Incident Commander/IMT and Agency Administrator when on the incident. Follow the local and/or IMT communication plan.

- Request additional Resource Advisors/Technical Specialists through the Agency Administrator/IC/IMT as needed.

- Complete daily Unit Log including major events, developing issues, and other information as deemed appropriate; submit to IC or Planning Section and retain a copy.

- Provide recommendations and input to Agency Administrator for the closeout briefing and the IC's performance evaluation. Recognize individuals and crews who demonstrate higher levels of environmental/resource management concerns.

F. Personal Welfare and Safety

- Know and respect your limitations. Manage time effectively and get regularly scheduled rest in accordance with Work/Rest Guidelines. The integrity of your observations, calculations and reports depends on proper rest. Because of the hazardous nature of the assignment, safety concerns shall be a priority.

- Understand and respect the command and control structure of the fire organization while clearly communicating the Agency Administrator's concerns and direction. A unique culture exists in the fire organization. This can be intimidating to those unaccustomed to it. You may need to be assertive in order to appropriately represent the Agency Administrator's concerns.

- Work with the IC/IMT to accomplish your duties of providing information and collecting data on resource damage and fire impacts. Depending on the nature of the incident, your fire experience, and the IC/IMT, you may be working with someone or alone.

- Stop and think about the situation and assess the safety risks when reporting to an incident and working on the incident. Consult with the IC/IMT as to the need and value of the resource information you are providing and collecting. Determine if there is any risk involved in the collection and what the risks are when gathering data and information. Ask yourself if it is imperative to collect the data now or can it wait.

- Consult and carry the 10 Standard Firefighting Orders and the 18 Watchout Situations.

- Obtain an IAP with fire map and communications plan. The Resource Advisor must read and be familiar with the contents of the IAP. The Resource Advisor should also be listed in this plan. Make sure your radio is programmed to the frequencies being used on the fire. Monitor the radio communications on the fire and never turn off your radio.

- Work with the IMT/IC on how you and your assistants will be deployed in the field. When on the fireline, contact the division supervisor prior to entering his/her area. Maintain communications while in the area and inform the Division Supervisor as you leave the area, fire, or cross into another division. When crossing into another division, repeat these communication procedures.

- Assure resource specialists under your supervision follow the guidelines outlined above. If the person filling the position is not experienced in fire, brief them well and assign someone to accompany them, or go with them yourself. Choosing a resource specialist who is familiar with suppression and fire effects will not only increase the safety of the individual but the quality of their input.

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APPENDIX E

SAMPLE RESOURCE ADVISOR FINAL REPORT

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Appendix E

SAMPLE RESOURCE ADVISOR
FINAL REPORT
_____DATE

MEMO TO: _____, Agency Administrator

FROM: _____, Resource Advisor

Incident Date(s):

Incident Name:

Incident Number:

Fire Location (Legal Description):

Incident Commander:

Additional Resource Advisors:

Date/Time Resource Advisor Arrived:

Date/Time Resource Advisor Released:

Date/Time of Containment:

Date/Time of Control:

Map(s) Used (Attach maps):

Point of Origin:

Fire Cause:

Size of Fire:

Land Status (Acreage):

RESOURCES THREATENED/DAMAGED/DESTROYED

- Structures
- Cultural Sites
- Wildlife Habitat
- Special Areas (wilderness, wild and scenic rivers)
- Range/Forest Improvements
- Vegetation and Soil Description (Give general description of vegetation present, slope, erosion potential, and soil texture; e.g., gravelly, sandy, etc.)
- Grazing Allotments
- Wild Horses
- Special Status Species
- Survey monuments (brass cap, stone, wood, etc.)
- Water Sources
- Meadows
- Other

REHABILITATION COMPLETED DURING FIRE SUPPRESSION EFFORTS

- Dozer Lines
- Handlines
- Pump sites
- Spike camps
- Helispots

ADDITIONAL REHABILITATION RECOMMENDATION(S) AND RATIONALE

The following are my recommendations and rationale for rehabilitation needs:

- Dozer Lines
- Revegetation
- Fences
- Roads
- Noxious Weed
- Water
- Other

OTHER INFORMATION

APPENDIX F

SPECIAL MANAGEMENT AREA GUIDANCE

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Appendix F

SPECIAL MANAGEMENT AREA GUIDANCE

There are a number of special designations (executive, congressional, and administrative) on agency-administered lands. These may include National Conservation Areas, National Monuments, Designated Wilderness, Wilderness Study Areas (WSAs) and special recreation management areas, etc. Each of these areas may have specific local guidance dealing with suppression strategy and tactics. The Resource Advisor needs to have a clear understanding of local policies prior to the fire season.

National Conservation Areas/National Monuments

General Interim Guidance for management of units within the BLM's National Landscape Conservation System (NLCS) is under BLM Instruction Memorandum No. 2002-008, 10/11/01, expires 9/30/03. All units within the NLCS will have specific management plans developed for the unit. These management plans will include direction on fire management and should be consulted by the Resource Advisor.

Designated Wilderness

The Wilderness Act

The following actions are prohibited within a Wilderness Area Boundary per the following section of the Wilderness Act:

4 (c) Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

Special Provisions of the Wilderness Act:

4 (d) The following special provisions are hereby made:
(1) Within wilderness areas designated by this Act, the use of aircraft or motorboats, where these uses have already become established, may be permitted to continue subject to such restrictions as the Secretary of Agriculture (or Interior) deems desirable. In addition, such measures may be taken as may be necessary in the control of fire, insects, and diseases, subject to such conditions as the Secretary deems desirable.

Subsequent Legislative Provisions of:

Endangered American Wilderness Act (P.L. 95-237: 1978) House Report 95-540

"*Fires, Insects and Disease*—Section 4(d)(1) of the Wilderness Act permits any measures necessary to control fire, insect outbreaks, and disease in wilderness areas. This includes the use of mechanized equipment, the building of fire roads, fire towers, fire breaks or fire pre-suppression facilities where necessary and other techniques for fire control. In short, anything necessary for the protection of public health or safety is clearly permissible."

However, given the broad legislative guidance, Resource Advisors must be guided by Minimum Impact Suppression Tactics (MIST). Resource Advisors must have a clear understanding of the Agency Administrator's latitude on fire suppression strategy and tactics. While the use of mechanized equipment may be authorized in suppression activities necessary to prevent wildfires from crossing wilderness boundaries and destroying property or resources on surrounding public or private lands, clearly the use of mechanized equipment will be scrutinized and must be defensible as necessary to suppress a wildfire with a clear threat to public health and safety, including firefighter safety.

Wilderness Study Areas

Wilderness Study Areas are managed according to the Interim Management Policy for Lands under Wilderness Review H-8550-1 (1995). Fire management guidance includes:

J. Fire Management
Paragraph 1. The BLM will conduct all prescribed fire and suppression activities in accordance with the fire management activity plans and subsequent operational plans (prescribed fire and pre-attack) for all WSAs, using caution to avoid unnecessary impairment of an area's suitability for preservation as wilderness. "Light-Hand-On-The-Land" fire suppression tactics will be used. Fire is a natural component of many wilderness ecosystems and fire plans need to give serious consideration to this fact before recommending one fire management technique over another. Resource area advisors will use the fire plans in making decisions during emergency fire situations and prescribed ignitions. All uses of earth moving equipment within a WSA require authorization. Priority for placement of large fire camps should be outside WSAs. Use of motorized vehicles and mechanical equipment during mop-up should be minimized.

Paragraph 2. The fire pre-attack plan covering the WSA will specify the fire management objectives and special considerations for each WSA, taking into account a number of factors including the existing wilderness characteristics of the area, the need to prevent impairing actions, historic fire occurrence, the natural role of fire, proposed degree of suppression, expected fire behavior,

acceptable suppression techniques, adequate buffer zones, smoke management, effect on private or other agency in-holdings and on adjacent land owners, the limits of acceptable fire weather, fire behavior, fire effects, and the access requirements of other agencies. In planning firebreaks, the use of natural firebreaks and existing roads is encouraged. Emergency fire rehabilitation measures will continue to be carried out according to guidelines in Handbook H-1742-1 and Manual Section 1742. Efforts should be made to rehabilitate any impacts created by fire suppression activities prior to releasing the fire crews and associated equipment following containment.

Paragraph 3. To hold the fire to the desired level within WSAs, fire plans and procedures will rely on: (1) the most effective methods of suppression that are least damaging to the wilderness values (i.e., "Light-Hand-On-The-Land" techniques), other resources, and the environment, while requiring the least expenditure of public funds including the rehabilitation of the area; (2) an aggressive fire prevention program; and (3) an integrated cooperative suppression program by agencies of the Department among themselves or with other qualified suppression organizations. Present day suppression methods may be used, including the use of power tools, aircraft, motorboats, and motorized firefighting equipment while applying "Light-Hand-On-The-Land" techniques. Existing fire lookout towers and helispots may be used and maintained; new ones may be approved as part of the fire management activity plan if they are the minimum necessary for fire suppression in the WSA.

Paragraph 4. Fire managers should inform suppression personnel during dispatch that the fire is in a WSA and special constraints apply. Memoranda of Understanding with other agencies should contain stipulations reflecting wilderness interim management guidance. Fire managers should notify Area Managers of any unsuccessful initial attack action on a fire in a WSA before developing the Wildland Fire Situation Analysis.

Wilderness Fire Objectives

Wilderness is different from other public lands, by law and agency policy. Fire management activities in wilderness must be conducted to meet wilderness management goals and objectives.

Fire management activities in wilderness are accomplished through preparation and implementation of unit fire management plans, understanding of wilderness management techniques, use of the minimum requirements and MIST concepts to determine appropriate management response and actions, and minimizing the need for restoration of suppression impacts.

Cost, convenience, and efficiency are not the key determining factors for fire management actions in wilderness. Firefighter and public safety and risk to adjacent lands are still key decision points for fire management in wilderness.

Wilderness Fire Guidelines

Role of Fire

- Recognize that, in fire dependent wilderness ecosystems, fire is necessary in order to preserve the natural conditions of wilderness as mandated by law and agency policy.

- To the extent possible, allow fire to play its natural role in the ecological processes of wilderness.

Fire Management Activities

- Minimize the unnatural effects of fire suppression activities in wilderness.

- Conduct all fire management activities within wilderness in a manner compatible with overall wilderness management objectives. Give preference to using methods and equipment that cause the least:

  - Alteration to the wilderness landscape
  - Disturbance of the land surface or degradation of habitat or water quality
  - Disturbance to visitor solitude
  - Need for subsequent restoration or mitigation

Fire Suppression Issues in All Special Areas

Potential Issues and Questions to be Answered in Pre-season Planning and During an Incident in or near all Special Areas:

- Incident Sensitivity (Pre-Season Planning)

  Fire in a designated special area can be politically sensitive and a high-profile media event.

  - How often does the Agency Administrator require updates?
  - Are there any specific agency reporting requirements?
  - Are there any public notification requirements? (e.g., interest groups)

- Camp location(s) (Both Pre-Season Planning and during the incident)

  - Are camp locations permitted within a special area boundary?
  - Can camps be located in existing or already developed sites?
  - What special requirements are needed for camps within the boundary?
  - What are waste disposal and sanitation requirements within the boundary?

- What kinds of access will be needed?
- What actions/activities require Agency Administrator approval prior to implementation?

➢ Motorized/mechanized vehicles and equipment (Both Pre-Season Planning and during the incident)

- Can motorized/mechanized vehicles and equipment be used within the boundary?
- What are the trigger points for use of motorized/mechanized vehicles and equipment?
- What approval procedures are needed?
  - Necessary documentation of decision and rationale
  - Communication and delivery of the decision to the IC/IMT
- Is off-route travel permitted? Under what circumstances?
- Are chainsaws allowed?
- Are portable pumps/tanks allowed?
- Location of indirect bladed line (heavy equipment)
- Designation or use of helispots

➢ Evacuations (Both Pre-Season Planning and during the incident)

- Designation or use of helispots
- Standard Operating Procedures for fire personnel and medical emergencies
- Members of the public (private inholders, permittees, and recreation users)

➢ Retardant Use (Pre-Season Planning)

- Is retardant allowed?
- If used, what are the criteria (type, color, etc.) for use?
- Will temporary retardant dip sites be allowed?

➢ Suppression Tactics (Both Pre-Season Planning and during the incident)

- Minimum Impact Suppression Tactics (MIST)
- Others

➢ Rehabilitation Expectations, Methods, and Guidelines (Both Pre-Season Planning and during the incident)

- Do you have a rehabilitation plan?
- Are motorized/mechanized vehicles and equipment allowed?
- What are the time frames?

- Is there specific local guidance available?
- What are the guidelines for suppression rehabilitation?

APPENDIX G

FIRE FOR RESOURCE BENEFIT GUIDANCE

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Appendix G

FIRE FOR RESOURCE BENEFIT GUIDANCE

Following decades of aggressive fire suppression activities, the 1995 Federal Wildland Fire Management Policy recognized, for the first time, the essential role of fire in maintaining natural systems. The review and update of the Federal Fire Policy in 2001 validated the policy. Management action on wildland fires is no longer driven by fire type designation. Fires should no longer be extinguished under a default response, but be suppressed for specific reasons. Fires that are managed for resource benefit will have specific rationale for such management identified in the Fire Management Plan (FMP) and be based on decisions in the unit's Land Use Plan. The Resource Advisor needs to have a clear understanding of local land use planning decisions and policies prior to fire season.

The 1995 Federal Fire Policy requires FMPs for all areas with burnable vegetation. FMPs that address all aspects of fire management activities, based on the unit's Land Use Plan, are the foundation for implementing the 2001 Federal Fire Policy. The role of wildland fire as an essential ecological process and natural change agent is to be incorporated into the agency's resource management planning process. FMPs, programs, and activities are to support Land and Resource Management Plans and their implementation.

The Wildland Fire Implementation Plan (WFIP) is a progressively developed assessment and operational management plan that documents the analysis and selection of strategies, and describes the appropriate management response for a wildland fire managed for resource benefit. A full WFIP consists of three stages. Different levels of completion may occur for differing management strategies (e.g., Fires managed for resource benefit will have two or three stages of the WFIP completed while some fires that receive a suppression response may only have a portion of Stage I completed.). A reference guide that helps in the completion of a WFIP is the "Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide."

Managing wildland fires for resource benefit requires significant documentation to chronicle the decision process of Agency Administrators and fire managers. When a fire occurs in an area that has been identified in the Land Use Plan and FMP that could be managed for resource benefit, the Resource Advisor will play a key role in assisting in the preparation of the WFIPs, and determining whether the unit's Land Use Plan and the associated National Environmental Policy Act (NEPA) analyses are adequate to manage the fire for other than suppression reasons.

Fire for Resource Benefit Issues

Potential Questions to be Answered in Pre-season Planning and During an Incident:

- Fire Management Plan: The Resource Advisor needs to have a copy and be familiar with the unit's FMP, particularly if there are resources that have been identified that could benefit from the use of wildland fire.

- Pre-season planning:
  - Has the FMP been updated to comply with the current Federal Fire Policy?
  - Has the FMP identified any areas in the administrative unit that have potential use of wildland fire for resource benefit?
- During an incident:
  - Are the guidelines being applied to a potential fire for resource benefit within the identified parameters?

➢ Land Use Plan: The Resource Advisor needs to have a copy and be familiar with the unit's Land Use Plan, particularly if there are fire management decisions regarding the use of fire for resource benefit.

- Pre-season planning:
  - Does the Land Use Plan reflect any recent changes in the Federal Fire Policy?
  - Is there a link between the Land Use Plan and the FMP that addresses the role of fire in the ecosystem?
- During an incident:
  - Are standards being applied to a potential fire for resource benefit within the identified constraints?

➢ NEPA documentation: The Resource Advisor needs to be familiar with the environmental analysis that was prepared for the Land Use Plan and/or FMP and the results of the decision.

- Pre-season planning:
  - Has the NEPA analysis for the Land Use Plan or FMP adequately addressed the potential effects of fire management, particularly the use of fire for resource benefit?
  - What are the criteria or thresholds that will create the need for more NEPA analysis?
  - If further NEPA analyses are warranted prior to allowing use of fire for resource benefit, what type of analysis (Environmental Impact Statement, Environmental Assessment, or Documentation of NEPA Adequacy) is or will be needed?
  - Will monitoring be required on the fire?
  - If monitoring is required, what type of monitoring is required?
  - What are the monitoring criteria?
  - What actions will be taken when the fire incident surpasses the criteria set forth in the NEPA analysis and decision allowing an incident to be classified as wildland fire for resource benefit?

- During an incident:
  - Is the fire burning within the parameters of the NEPA analysis; e.g., are the effects of the fire within the scope of the predicted effects?
  - Are the trigger points for use of wildland fire for resource benefit understood and being applied in the WFIP?
  - Are the approval procedures and necessary documentation of decision and rationale being prepared?
  - Have monitoring stations been established?
  - Has the incident escaped or surpassed the criteria set forth in the NEPA analysis and decision to allow for the incident to be classified as wildland fire for resource benefit?

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APPENDIX H

WILDLAND FIRE IMPLEMENTATION PLAN (WFIP)
AND
WILDLAND FIRE SITUATION ANALYSIS (WFSA)

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Appendix H

WILDLAND FIRE IMPLEMENTATION PLAN (WFIP) AND WILDLAND FIRE SITUATION ANALYSIS (WFSA)

A Wildland Fire Implementation Plan (WFIP) will be initiated to document the analysis and selection of strategies and appropriate management response for all wildland fires. If the unit has an approved Fire Management Plan (FMP) which is based on the unit's Land Management Plan and meets National Environmental Policy Act (NEPA) requirements, a wildland fire may be managed in a manner which achieves resource benefit. Strategies in the FMP, including the best options to safely, economically, and effectively accomplish stated objectives, are carried forward in the development of the WFIP.

If an approved FMP (based on the unit's Land Use Plan and meeting NEPA compliance) is not present for a particular unit, then the only available option is suppression of the wildland fire and appropriate action will be taken immediately. Common sense must be used in suppression actions considering values to be protected, least cost, resource damage caused by the suppression action, and the first priority at all times, firefighter and public safety.

Whether managed for resource benefit or immediate suppression, if the initial action is unsuccessful, a Wildland Fire Situation Analysis (WFSA) will be prepared to determine the next set of management responses.

Instruction, forms, and details for completing WFIPs and WFSAs are found in the "Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide."

> **Wildland Fire Implementation Plan (WFIP) –** A progressively developed assessment and operational management plan that documents the analysis and selection of strategies and describes the appropriate management response for a wildland fire. A full WFIP consists of three stages. Different levels of completion may occur for differing management strategies (e.g., Fires managed for resource benefit will have two to three stages of the WFIP completed while some fires that receive a suppression response may only have a portion of Stage I completed.)
>
> **Wildland Fire Situation Analysis (WFSA) –** A decision-making process that evaluates alternative management strategies against selected safety, environmental, social, economic, political, and resource management objectives. (This analysis replaces the previous process known as the Escaped Fire Situation Analysis.)

ROLE OF THE RESOURCE ADVISOR

The Resource Advisor needs to be involved in the development of the WFIP and/or WFSA. The role of the Resource Advisor is to provide inputs to the criteria put forth by the Agency Administrator and identify areas of concern. The Resource Advisor may provide costs for resources at risk, as well as costs of mitigation or rehabilitation of suppression efforts. It is the

role of the Agency Administrator to provide overall guidance to the WFIP and/or WFSA and to provide input to the Incident Management Team (IMT).

Resource damage costs and benefits are difficult to quantify and are where the Resource Advisor can provide valuable input. The value of water quality, fisheries, visual resources, and recreation visitor days are best quantified in advance by the pro-active Resource Advisor and interdisciplinary team.

It is recommended that Resource Advisors attend WFIP and WFSA training and participate in mock document preparations. All areas of special concern on a unit should be identified in advance of fire season. The pro-active Resource Advisor can help raise the awareness of the Agency Administrator and unit staff of the importance of advance fire planning.

WILDLAND FIRE IMPLEMENTATION PLAN

Though a Wildland Fire Implementation Plan (WFIP) is initiated for all wildland fires, only the most complex fires being managed for resource benefit require completion of all parts of a WFIP. The full WFIP consists of three distinct stages. For an estimated 90+ percent of all wildland fires, information needed for WFIP Stage I decision analysis is contained in the FMP.

Progressive development of the WFIP stages will occur for wildland fires managed for resource benefit or where initial attack is not the selected response. Objectives, fire location, cause, conditions of fuel continuity, current fire activity, fire location, predicted weather and fire behavior conditions, and risk assessment results will indicate when various WFIP stages must be completed. Most wildland fires will require completion of only Stage I and part of Stage II information during their management. As resource benefits become more important as strategic decision factors, additional planning and documentation requirements (additional WFIP stages) are involved.

A standard WFIP form has been developed. Since the WFIP will be prepared progressively (by stages), specific forms and formats will apply to each individual stage. As each stage is prepared, it will be attached to previous stages until completed or management of the fire accomplishes the objectives. When the complete WFIP has been developed, it will be a highly specific operational management plan and include all of the elements listed on the following pages.

If the Agency Administrator and Fire Management Officer determine that the fire cannot continue to be managed within its original approved boundary, a WFSA will be utilized to select a new strategic alternative and appropriate management response.

OUTLINE FOR WILDLAND FIRE IMPLEMENTATION PLAN (WFIP)

WFIP Stage I: Initial Fire Assessment

Fire name

Fire number

Jurisdiction(s)

Administrative unit(s)

Geographic area(s)

Management code(s)

Start date/time

Discovery date/time

Current size

Location

Cause

Fuel model(s)/conditions

Current weather

Forecasted weather

Current fire behavior

Forecasted fire behavior

Availability of resources

Decision criteria checklist

Recommended response action

WFIP Stage II: Short-Term Implementation Actions

Short-term fire behavior predictions for different scenarios

Risk assessment (may vary in detail and range from relative risk rating to quantitative analysis results)

Short-term implementation actions (this section includes the following information)

Objectives and desired effects

Safety considerations

External concerns

Environmental concerns

Threats

Short-term implementation actions (include description of action and expected duration)

Estimated costs

Complexity Rating Worksheet

Stage III Need Assessment Chart

WFIP Stage III: Long-Term Implementation Actions

Objectives and risk assessment considerations

Natural and cultural resource objectives and constraints/considerations

Maximum Manageable Area (MMA) definition and maps

Fire projections and map

Weather season/drought discussion and prognosis

Long-term risk assessment (describe techniques and outputs, include maps as appropriate)

Probability of success and consequences of failure

Threats

Threats to MMA

Threats to public use and firefighter safety

Smoke dispersion and effects

Other

Monitoring actions (types of actions, frequency, and duration)

Holding actions (describe holding actions, management action points that initiate these actions, and key to map if necessary)

Resources needed to manage the fire

Estimated costs of long-term implementation actions

Contingency actions (describe contingency actions, management action points that initiate them, and resources needed)

Information Plan

Post-burn evaluation

Signatures and date

Periodic Fire Assessment

Part 1: Revalidation

Part 2: Stage III Need Assessment Chart

Signature Page

WILDLAND FIRE SITUATION ANALYSIS (WFSA)

The WFSA is a decision-making process in which the Agency Administrator or representative describes the situation, establishes objectives and constraints for the management of the fire, compares multiple strategic wildland fire management alternatives, evaluates the expected effects of the alternatives, selects the preferred alternative, and documents the decision. The format and level of detail required is dependent on the specific fire and its complexity. The key is to document the decision.

Use of the WFSA is integral to successful management of both wildland and prescribed fires. It serves as a contingency to undesirable outcomes by providing a mechanism to quickly and thoroughly analyze new strategic alternatives for any type of fire management activity. If the alternative selected through the WFSA does not accomplish the objectives, the WFSA can be amended or a new WFSA can be completed to develop new alternatives.

The WFSA is vital when fire spread and behavior exceed suppression efforts, when management capability is inadequate to accomplish wildland fire use objectives, or when prescribed fires can no longer be implemented in accordance with the approved plan. The WFSA document can be used to compare alternatives reflecting the full range of appropriate management responses and can assess alternatives for realizing protection and/or resource benefit opportunities.

The document used for this purpose under the previous policy was the Escaped Fire Situation Analysis (EFSA) which differed in use from the WFSA in that it analyzed only suppression alternatives. The WFSA can, in selected situations, be used to analyze alternatives that will accomplish resource benefit in combination with protection objectives.

The WFSA contains sections which document the process and decision. Components of a WFSA are shown in the outline below.

OUTLINE FOR WILDLAND FIRE SITUATION ANALYSIS

WFSA Initiation (Specific fire information and date/time initiated)

WFSA Completion/Final Review (Includes information concerning when the selected alternative was achieved or when a new WFSA was prepared and Agency Administrator signature. Provides closure to this particular WFSA.)

Wildland Fire Situation Analysis (WFSA Information Page)

Objectives and Constraints

Alternatives

Evaluation of Alternatives

Analysis Summary

Decision

Daily Review

Guide for Assessing Fire Complexity (Evaluates fire conditions and provides recommendations concerning management level of fire; e.g., Type 1, Type 2, Type 3).

APPENDIX I

MINIMUM IMPACT SUPPRESSION TACTICS (MIST) GUIDELINES

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Appendix I

MINIMUM IMPACT SUPPRESSION TACTICS (MIST) GUIDELINES

IMPLEMENTATION

Keep this question in mind: What creates the greater impact, the fire suppression effort or the fire?

SAFETY

- Apply principles of LCES to all planned actions.
- Constantly review and apply the 18 Watchout Situations and 10 Standard Firefighting Orders.
- Be particularly cautious with:
    - Burning snags allowed to burn.
    - Burning or partially burned live and dead trees.
    - Unburned fuel between you and the fire.

Escape Routes and Safety Zones

- In any situation, the best escape routes and safety zones are those that already exist. Identifying natural openings, existing roads and trails and taking advantage of safe black will always be a preferred tactic compatible with MIST. If safety zones must be created, follow guidelines similar to those for helispot construction.
- Constructed escape routes and safety zones in heavier fuels will have a greater impact, be more time consuming, labor intensive, and ultimately less safe.

GENERAL CONSIDERATIONS

- Consider the potential for introduction of noxious weeds and mitigate by removing weed seed from vehicles, personal gear, cargo nets, etc. Equipment should be washed down prior to leaving the incident in order to prevent the spread of noxious weeds.
- Consider impacts to riparian areas when setting up water handling operations.
    - Use longer draft hoses to place pumps out of sensitive riparian areas.
    - Plan travel routes for filling bladder bags to avoid sensitive riparian areas.
- Ensure adequate spill containment at fuel transfer sites and pump locations. Stage spill containment kits at the incident.

LINE CONSTRUCTION PHASE

- Select tactics, tools, and equipment that least impact the environment.
- Give serious consideration to use of water or foam as a firelining tactic.
- Use alternative mechanized equipment such as motor patrols, disks, rubber-tired skidders, etc., when available and appropriate rather than dozers when constructing mechanical line.
- When constructed fireline is necessary, use only the width and depth to prevent the fires spread.
- Allow fire to burn to natural barriers and existing roads and trails.
- Monitor and patrol firelines to ensure continued effectiveness.

Ground Fuels

- Use cold-trail, wet line, or combination when appropriate. If constructed fireline is necessary, use minimum width and depth to stop fire spread.
- Consider the use of fireline explosives (FLE) for line construction and snag falling to create more natural appearing firelines and stumps.
- Burn out and use low impact tools like swatters and gunny sacks.
- Minimize bucking to establish fireline: preferably move or roll downed material out of the intended constructed fireline area. If moving or rolling out is not possible, or the downed log/bole is already on fire, build line around it and let the material be consumed.

Aerial Fuels–brush, trees, and snags

- Adjacent to fireline: limb only enough to prevent additional fire spread.
- Inside fireline: remove or limb only those fuels which would have potential to spread fire outside the fireline.
- Cut brush or small trees necessary for fireline construction flush to the ground.
- Trees, burned trees, and snags:
    - Minimize cutting of trees, burned trees, and snags.
    - Do not cut live trees unless it is determined they will cause fire spread across the fireline or seriously endanger workers. Cut stumps flush with the ground.
    - Scrape around tree bases near fireline if hot and likely to cause fire spread.
    - Identify hazard trees with flagging, glowsticks, or a lookout.
- When using indirect attack:
    - Do not fall snags on the intended unburned side of the constructed fireline unless they are an obvious safety hazard to crews.
    - Fall only those snags on the intended burn-out side of the line that would reach the fireline should they burn and fall over.

MOPUP PHASE

- Consider using “hot-spot” detection devices along perimeter (aerial or handheld).
- Use extensive cold-trailing to detect hot areas.

- Cold-trail charred logs near fireline: do minimal scraping or tool scarring. Restrict spading to hot areas near fireline.
- Minimize bucking of logs to check for hot spots or extinguish fire: preferably roll the logs and extinguish the fire.
- When ground is cool return logs to original position after checking.
- Refrain from piling: burned/partially burned fuels that were moved should be arranged in natural positions as much as possible.
- Consider allowing larger logs near the fireline to burn out instead of bucking into manageable lengths. Use a lever, etc., to move large logs.
- Use gravity socks in stream sources and/or combination of water blivets and fold-a-tanks to minimize impacts to streams.
- Personnel should avoid using rehabilitated firelines as travel corridors whenever possible because of potential soil compaction and possible detrimental impacts to rehabilitation work.
- Avoid use of non-native materials for sediment traps in streams.
- Aerial fuels (brush, small trees, and limbs): remove or limb only those fuels which if ignited have potential to spread fire outside the fireline.
- Burning trees and snags:
    - Be particularly cautious when working near snags. *(*Ensure adequate safety measures are communicated.)
    - The first consideration is to allow a burning tree/snag to burn itself out or down.
    - Identify hazard trees with flagging, glowsticks or a lookout.
    - If there is a serious threat of spreading firebrands, extinguish with water or dirt.
    - Consider felling by blasting, if available.

AVIATION MANAGEMENT

Minimize the impacts of air operations by incorporating MIST in conjunction with standard aviation risk assessment processes.

- Possible aviation-related impacts include:
    - Damage to soils and vegetation resulting from heavy vehicle traffic, noxious weed transport, and/or extensive modification of landing sites.
    - Impacts to soil, fish and wildlife habitat, and water quality from hazardous material spills.
    - Chemical contamination from use of retardant and foam agents.
    - Biological contamination to water sources; e.g., whirling disease.
    - Safety and noise issues associated with operations in proximity to populated areas, livestock interests, wildland-urban interface, and incident camps and staging areas.
- Helispot Planning
    - When planning for helispots, determine the primary function of each helispot; e.g., crew transport or logistical support.
    - Consider using long-line remote hook in lieu of constructing a helispot.

    - Consult Resource Advisors in the selection and construction of helispots during incident planning.
    - Estimate the amount and type of use a helispot will receive and adapt features as needed.
- Balance aircraft size and efficiency against the impacts of helispot construction.
- Use natural openings as much as possible. If tree felling is necessary, avoid high visitor-use locations unless the modifications can be rehabilitated. Fall, buck, and limb only what is necessary to achieve a safe and practical operating space.

Retardant, Foam, and Water Bucket Use

- Assess risks to sensitive watersheds from chemical retardants and foam. Communicate specific drop zones to air attack and pilots, including areas to be avoided.
- Fire managers should weigh use of retardant with the probability of success by unsupported ground force. Retardant may be considered for sensitive areas when benefits will exceed the overall impact. This decision must take into account values at risk and consequences of expanded fire response and impact on the land.
- Consider biological and/or chemical contamination impacts when transporting water.
- Limited water sources expended during aerial suppression efforts should be replaced. Consult Resource Advisors prior to extended water use beyond initial attack.

LOGISTICS, CAMP SITES, AND PERSONAL CONDUCT

- Consider impacts on present and future visitors.
- Provide portable toilets at areas where crews are staged.
- Good campsites are found, not made. If existing campsites are not available, select campsites not likely to be observed by visitors.
- Select impact-resistant sites such as rocky or sandy soil, or openings within heavy timber. Avoid camping in meadows and along streams or shores.
- When there is a small group, try to disperse use. In the case of larger camps, concentrate, mitigate, and rehabilitate.
- Coordinate the layout of the camp components carefully from the start. Help to define cooking, sleeping, latrine, and water supplies areas.
- Prepare bedding and campfire sites with minimal disturbance to vegetation and ground.
- Personal Sanitation:
    - Designate a common area for personnel to wash up. Provide fresh water and biodegradable soap.
    - Do not introduce soap, shampoo, or other chemicals into waterways.
    - Dispose of wastewater at least 200 feet from water sources.
    - Toilet sites should be located a minimum of 200 feet from water sources. Holes should be dug 6-8 inches deep.
    - If more than one crew is camped at a site, strongly consider portable toilets and remove waste.
- Store food so that it is not accessible to wildlife, away from camp and in animal resistant containers.
- Do not let garbage and food scraps accumulate in camp.

- Monitor travel routes for damage and mitigate by:
    - Dispersing on alternate routes or
    - Concentrating travel on one route and rehabilitate at end of use.
- If a campfire is built, leave no trace of it and avoid using rock rings. Use dead and down wood for the fire and scatter any unused firewood. Do not burn plastics or metal.
    - Consider using a fire pan or "mound fire" in sensitive areas.
- Use "scrim" (porous ground cloth) to protect high traffic areas from trampling.

RESTORATION AND REHABILITATION

- Firelines:
    - After fire spread has stopped and lines are secured, fill in deep and wide firelines and cup trenches and obliterate any berms. The berm material should be spread back into the fireline or recontoured to the fireline.
    - Be careful not to reignite or spread hot material hidden in berms across the fireline.
    - Restore drainages by removing fill or dams, reestablish crossings and return to natural configuration.
    - Use waterbars only when necessary to prevent erosion or use woody material to act as sediment dams. Waterbars should only be used on steep slopes and only when necessary. General guidelines for waterbar spacing are listed in the table below. However, it is important to note that improper construction and inappropriate placement of waterbars can create excessive erosion.

Maximum Waterbar Spacing General Guidelines	
Percent Grade	Maximum Spacing (Feet)
< 9	400
10 – 15	200
15 – 25	100
25 +	50

    - Ensure stumps are cut flush with ground.
    - Camouflage cut stumps by flush-cutting, chopping, covering, or using FLE to create more natural appearing stumps.
    - Any trees or large size brush cut during fireline construction should be scattered to appear natural.
    - Discourage the use of newly created firelines and trails by blocking with brush, limbs, poles, and logs in a naturally appearing arrangement.
- Camps:
    - Restore campsite to natural conditions.
    - Scatter fireplace rocks and charcoal from fire, cover fire ring with soil, and blend area with natural cover.
- Pack out all garbage and dispose of in an approved facility.

- General:
    - Remove all signs of human activity.
    - Remove all flagging.
    - Restore helicopter landing sites.
    - Fill in and cover latrine sites.
- Walk through adjacent undisturbed areas and take a look at your rehabilitation efforts to determine your success at returning the area to as natural a state as possible.

APPENDIX J

SAMPLE COMPLEX SUPPRESSION REHABILITATION GUIDELINES

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Sample Complex Suppression Rehabilitation Guidelines

File Code: 2520/5100 **Date:** August 31, 2002
Route To:

Subject: Guidelines for Rehabilitation of Fire Suppression Activities (Version 2)

To: Incident Commanders, Biscuit Fire Zones 1, 3, 4

This document contains guidelines for rehabilitation of fire suppression activities for the Biscuit Fire. Rehabilitation of fire suppression activities includes the following:

Firelines

1. After fire spread has stopped and lines are secured, fill in deep and wide tractor fire lines and cut trenches. This could include pulling berm and spreading material that has accumulated along the berm during construction.
2. Water bar, as necessary, to prevent erosion, or use wood material to act as sediment dams.
3. Ensure stumps from cut trees/large size brush are cut flush with ground in visual quality protection areas and wilderness only on the forest.
4. Camouflage cut stumps, if possible within the same area as item No. 3 above.
5. Special botanical areas may require the use of small tractors and excavators to pull in berm and cover firelines within these extremely sensitive areas.

Camps

1. Restore campsite to natural conditions as much as possible.
2. Pack out all garbage.

All areas needing fire suppression rehabilitation will be mapped in association with the Situation Unit and prescribed by Resource Advisor. Assure compliance with management direction and standards and guidelines from the forest plan covering fire suppression activities rehabilitation. In addition, the Resource Advisors and their staff will determine the types of equipment and operators used for rehabilitation. This is especially important when working within botanical areas that require small tractors to be operated in order to minimize damage to the sensitive vegetation. Recommended equipment will include excavators and D4- or small D5-sized dozers with articulated blade and grapple, as well as handtools.

The majority of rehabilitation work should focus on firelines and safety zones. However, rehab other areas such as drop points, camps, helicopter bases, water-drafting sites, and established roads that have been used as fuel breaks where heavy accumulation of material on the up-slope side may impede ditch lines and culverts.

Additional Requirements in Support of Rehabilitation of Fire Suppression Activities

1. All vehicles and equipment involved with rehabilitation shall be washed prior to entering the fire area to prevent the spread of Port Oxford cedar root disease and noxious weeds. Pay special attention to washing the undercarriage and wheel wells. Before work begins a Port Oxford cedar root disease strategy must be in place.
2. Report and protect any cultural resource discovered during rehabilitation activities.
3. Hazard Tree Reduction: Fell only those trees necessary to maintain a safe and productive working environment. Follow OSHA definition for hazard trees. Do not buck felled trees into log lengths unless directed to do so.
4. Avoid rehabilitation activities in areas circled by striped yellow/black flagging for special protection botanical sites.

Prescriptions for Handline and Dozer Worked Areas: Safety Zones, Dozer-line, Widened Roads, etc.

1. Larger pieces of wood (>12" diameter at large end and >16' long): In areas where larger pieces of wood impede rehab work, place these pieces out of the way. If an excavator or tractor is being used, consider decking the material.
2. After removing the berm, scatter branches, limbs, and small logs in a natural arrangement, if possible.
3. Recontour designated dozer lines, if possible.
4. Construct drainage structures (e.g., water bars) where prescribed. If dozer lines are no longer needed for patrol or are not drivable, the drainage structures should be constructed during rehabilitation. Vary water bar spacing to 1) fit site conditions, 2) promptly intercept water, and 3) facilitate drainage at natural dips and/or rocky ground, or where slash and vegetation can filter sediment. Reinstall water bars where they existed prior to the fire. The following are recommendations from Siskiyou National Forest Hydrologist, Chris Park (19 August 2002).

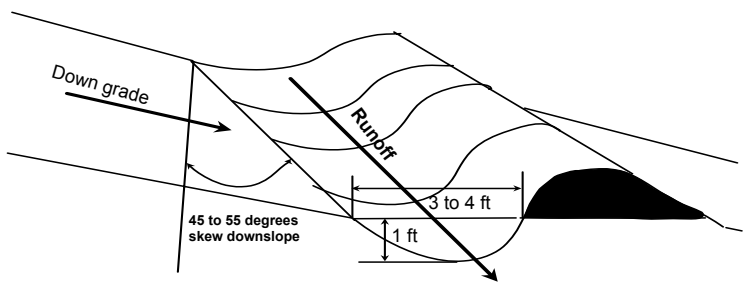
   > Constructed water bars is the preferred erosion control method for all firelines, especially when constructed by heavy equipment. Where possible, recontouring the disturbed area to drain combined with placement of organic matter on the surface is the most effective method to prevent erosion and speed recovery. When this is not possible and the fireline has a grade and/or uphill cut-slope, then water bars are to be installed. Alternative method for construction of water bars is through placement of logs followed by placement of logs with armoring of slash and rock. The later two methods must be negotiated with the incident management team.

   Water bar spacing should be site specifically prescribed based on grade and infiltration capability of the soils. **The following table is a guideline**. The following spacing guidelines are based on the infiltration rates of the soils found in the Biscuit complex.

Water Bar Spacing (Biscuit Complex)

GRADIENT	EROSIVE CONDITIONS: serpentine, granitics, high clay content, wet areas	OTHER CONDITIONS
1% – 9%	100	300
10% – 19 %	75	200
20% – 39%	50	100
>40%	25	50

Monitoring of water bars has shown constructing a skew of between 45 to 55 degrees will help prevent the bars from filling with sediment. Where possible, place organic debris on the outlet to dissipate the water.



Typical Water Bar

5. To meet visual quality standards in specified areas, flush cut stumps where designated. If possible, maximum stump height should be 6 inches or less.
6. Erosion Control Seeding: No seeding on serpentine soils; e.g., majority of Branches II and III. On other soils (majority of Branches I and IV), use only seed approved by the responsible agency—generally native species or sterile wheatgrass (known as Regreen). Seeding guidelines have been developed. Maintain accessibility of ATVs, until seeding is completed, to sections of dozer lines that are over ¼ mile from vehicle access.
7. Check any culverts or other drainage structures damaged by suppression activities and notify a member of Resource Advisor staff so rehab prescription can be developed. Clean and grade ditch lines. Hand-pile; scatter slash, or chip material so it does not move into the ditch lines and plug culverts. Blade any roads that has been impacted by suppression activity.
8. Remove impoundments created by suppression, and restore drainage when these sites are no longer needed.

9. Block vehicle access into constructed safety zones where practicable as part of rehabilitation activities of firelines.
10. Along roads, which should be closed, or dozer lines readily accessible to off-road vehicles, block at least the first 50 feet with logs or other materials. Roads that were open before the fire will remain open, and roads closed before the fire will be reclosed.

Prescriptions for Drop Point Rehabilitation

1. Rake out all tracks.
2. Flush cut stumps where designated to meet visual quality objectives.
3. Pull back into the site all berms (including sod), vegetation, and rock.
4. Remove all trash, flagging, and equipment from the area.

Other Areas

Incident Command Post, Spike Camps, Remote Camps, and Helibases: Repair and clean-up camps at Lake Selmac, Sam Brown Spike Camp, Kerby Helibase, IV Airport, Merlin Airport and helibase, and any areas used for helicopter support. (Standards will be developed).

Special Emphasis Areas

Site-specific prescriptions have been prepared for the following areas, and the appropriate specialists should be present during fire suppression rehabilitation work.

- **Botanical Areas**: Oregon Mountain, Rough and Ready, Woodcock Bog, Days Gulch, Eight Dollar Mountain, Chrome Ridge, North Fork Silver Creek, Bear Camp, Snow Camp, and Sour Game.
- **Meadows**: Dasher Meadow, Indigo Prairie, Wildhorse, Fairview, Miller, Mislatnah, High Prairie, Long Ridge, The Pines, and Pebble Hill
- **Wild and Scenic River**: Chetco, Illinois, and North Fork of the Smith.
- **Research Natural Areas**: Lemmingsworth Gulch LTEP
- **Wilderness**: Kalmiopsis

This direction is to be used by all incident management teams involved in rehabilitation of fire suppression activities on the Rogue River/Siskiyou National Forest.

/s/ Darrel L. Kenops
Darrel L. Kenops
Acting Forest Supervisor for Fire Suppression Activities
Rogue River / Siskiyou NF

APPENDIX K

SAMPLE SIMPLE SUPPRESSION REHBILITATION GUIDELINES

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Sample Simple Suppression Rehabilitation Guidelines

Purpose: To return the area to a clean natural state comparable to or better than the layout of the land prior to the fire; to enhance natural vegetation regeneration; to reduce water and wind erosion to fire exposed soils; to identify damaged property for future repair; to identify and map previously unknown special areas such as riparian habitats, vegetation islands for natural seeding, and archaeological sites exposed by the burn or fire suppression activities.

1. Remove and dispose of trash or litter from all firelines, helispots, helibases camps, parking and staging areas. Remove line and trail flagging.

2. Close gates that were opened. Advise if there are livestock in the area.

3. Provide information to Resource Advisor about fire damage to fences, gates, troughs, cattle guards, signs, roads; and any discoveries of archaeological features or artifacts.

4. Prior to releasing heavy equipment (dozers, etc.) from fireline, rehabilitate dozer lines:

    A. Recontour the lines to the existing slope of the hill. Blend bermed materials (soils, rocks, brush piles) back onto the dozer line in a natural appearance. Brush or cut trees shall be spread back onto the dozer line, where practical. **Be careful not to reignite or spread fire across dozer lines.**
    B. Spread material from bull/cat piles. Spread this material back onto the dozer line only if there is no chance of fire reignition. If there is reignition potential, break up and spread cat piles to the out side of the fireline.
    C. Rubble the dozer lines with rock and debris to disguise the dozer line from road appearance. The entrance to the dozer line shall be blocked from vehicle travel, if possible, by placing slash, boulders, or erosion control devices in such way as to discourage motorized vehicle driving.
    D. Waterbar only where necessary on slopes needing water control. Water bars should be constructed so as to drain outside the burn. If possible, the water bar should curve slightly to follow the natural topography and be tailed out into unburned vegetation: to slow water runoff and enhance water dispersal over a wider area.

5. Seed or recommend that seeding occur on dozer lines, handlines, base camp disturbance, water fill sites and engine parking areas.

6. Where practical, trenched or constructed hand line should be pulled back to the natural contour of the slope to reduce channeling water erosion and to discourage motorcycle play in or near burned areas. **Be careful not to reignite or spread fire across handlines.** If there is any risk of reignition, leave the lines as they are.

7. Identify and use appropriate rehabilitation on access roads. A road grader may be required instead of the dozer.