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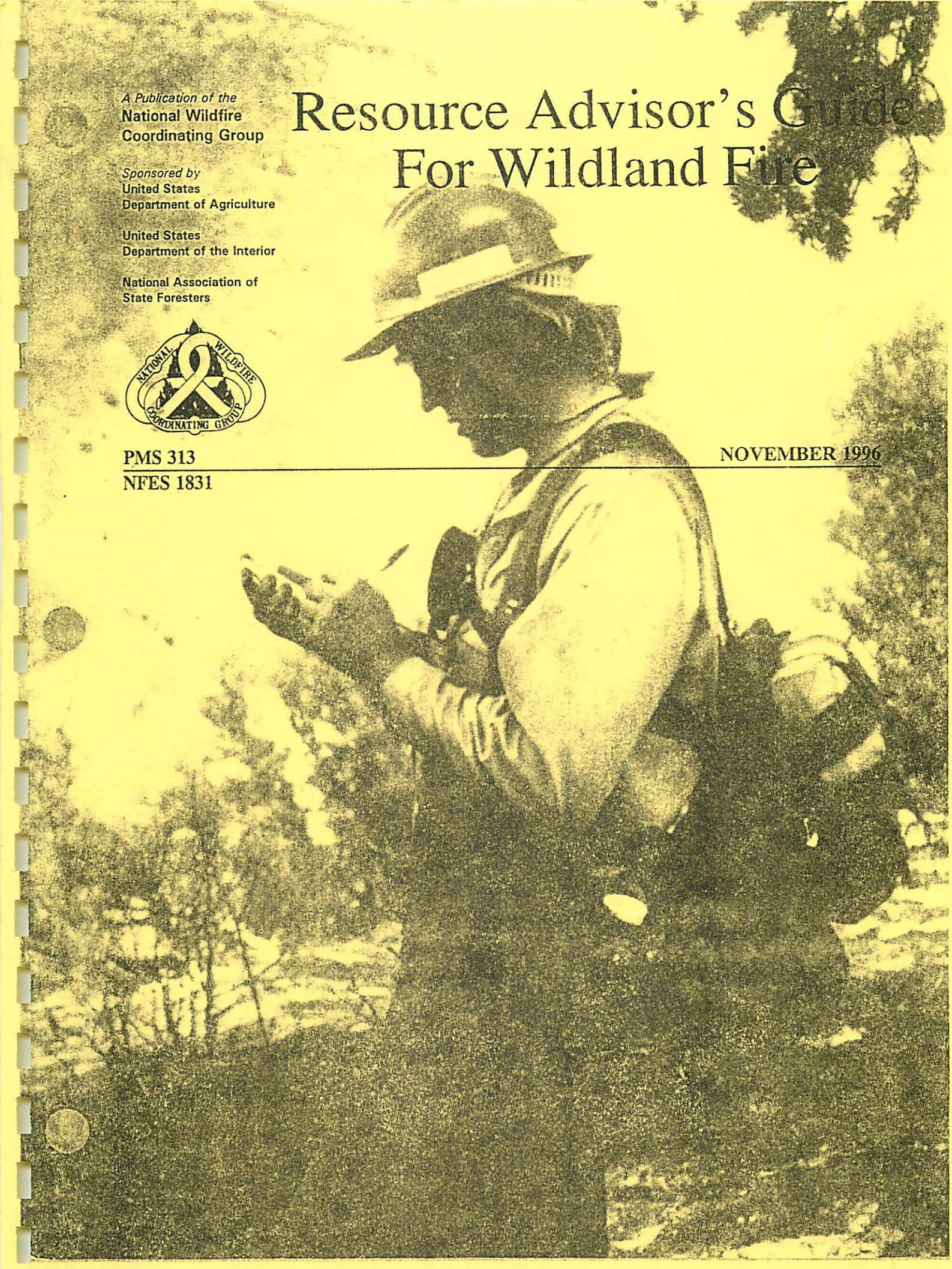
Resource Advisor's Guide For Wildland Fire



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PREFACE

The 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 which provided suggested "how to do the job" direction to Resource Advisors, both on wildfires and prescribed fires. This guide is a compilation of the NPS Wildland Fire Resource Advisor's Task Book (1994) and the BLM Resource Advisor's Guide for Wildfire Incidents (1990), Kevin Slagle, Mt. Hood National Forest, and Arthur Carhart National Wilderness Training Center inputs, and includes a listing of tasks which should be accomplished to successfully perform the job.

As a technical specialist position, the Resource Advisor currently has no qualification requirements within the NWCG system, nor is there a standardized training course for the position. However, the Training Working Team suggests that Resource Advisor candidates be identified within each geographic area, assembled to participate in a workshop, and provided with this guide. A suggested workshop minimal outline is printed below.

This guide and workshop outline will aid in improving Resource Advisor capabilities and interactions between this important position and Incident Management Teams

WILDLAND FIRE RESOURCE ADVISOR WORKSHOP AGENDA

Opening remarks	1/4 hour
Resource Advisor's job/guide	1 hour
Wilderness/Park considerations	½ hour
Wildlife considerations	½ hour
Prescribed fire considerations	1/4 hour
Wildlife rehabilitation/burned area emergency rehabilitation	½ hour
Agency Administrator expectations (of Resource Advisor and IMT relationship)	1/4 hour
Incident Management Team expectations	½ hour
Suppression tactics overview	½ hour
Financial considerations	½ hour
Case study (EIS)	1 to 2 hours
Interagency agency administrators panel (experiences, expectations, pitfalls, etc.)	1 to 2 hours
Overview and wrap-up	1/4 hour

Additional copies of this publication may be ordered from:
National Interagency Fire Center
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3833 S. Development Avenue
Boise, Idaho 83705

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National Interagency Fire Center
BLM National Fire & Aviation Training Support Group
3833 South Development Avenue
Boise, Idaho 83705

Wildland Fire Resource Advisor's Guide
Contents

INTRODUCTION

The Wildland Fire (Incident Management) Resource Advisor position is important due to the impacts of fire on natural and cultural resources and the increased awareness of fire impacts by the general public, local landowners, public officials, and the media. Fire managers are emphasizing the input of the Wildland Fire Resource Advisor in the fire presuppression and prescribed fire planning effort, development of suppression tactics and the identification of emergency fire rehabilitation needs.

The Resource Advisor's position is likely to be filled by a person from within the fire or resource management organization. Each agency should establish criteria for establishing this position and implementing this guide book.

The Resource Advisor is primarily responsible for identifying and evaluating potential impacts of fire operations on natural and cultural resources, promoting excellence in the integration of resource concerns, promoting better understanding and definition of the role of resource advisors among Agency Administrators, Fire Staff, and Incident Command Teams, and identifying political concerns. The intent of this function is to: anticipate impact on resources as the suppression or prescribed fire operation evolves; communicate legal requirements for resource protection to the incident management team; ensure that planned mitigation measures are carried out effectively; and to guide the development of short and long term natural resource and cultural rehabilitation documents.

The responsibilities as defined in this guide involve contact with the agency administrator, the incident commander, the planning section chief, and operations personnel at all levels. The most appropriate location for the Resource Advisor on smaller, less complex fires is at the agency administrator/incident commander level; on larger, more organized fires, this function is located within the planning section as a technical specialist position.

At the end of this document are appendices which supplement the information within this Guide that is pertinent to the Wildland Fire Resource Advisor position plus other supporting material to make this Guide a more comprehensive document.

FIRE MANAGEMENT PRINCIPLES AND STANDARDS

Wildfire and Prescribed Fire Classification:

All wildland fires are to be classified as either a wildfire or prescribed fire. Prescribed fires may be used when they are authorized by an approved fire management plan and contribute to resource management objectives. Wildfires are unplanned events.

Fire Suppression Plans and Strategies:

A wildfire must have appropriate response taken to suppress it. Appropriate response will be based upon the preplanning considerations commensurate with stated land management objectives and the threat to life, property, and resource values. Appropriate suppression response strategies include:

1. Confine: To restrict the wildfire within determined boundaries, established either prior to, or during the fire. These identified boundaries will confine the fire, with no physical action required or taken to put the fire out.

2. Contain: To restrict a wildfire to a defined area, using a combination of natural and constructed barriers that will stop the spread of the fire under the prevailing and forecasted weather conditions, until out.

3. Control: To aggressively fight a wildfire through the skillful use of personnel, equipment, and aircraft to establish firelines around a fire to halt the spread and to extinguish all hot spots.

Cost Effective Fire Management and Resource Protection:

Fire suppression actions must be planned and executed to minimize suppression costs and resource loss, consistent with management objectives. An Escaped Fire Situation Analysis (EFSA) must be prepared for all wildfires that escape initial attack. NWCG procedures should be followed. The agency administrators will ensure that the EFSA is prepared and that the wildland fire Resource Advisor is involved in that preparation.

DUTIES AND RESPONSIBILITIES

The Resource Advisor is a technical specialist appointed by the Agency Administrator and reports to the Incident Commander (IC) or his/her designee and provides guidance for natural and cultural resource protection from suppression operations. The Resource Advisor provides daily input to the IC or 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. He/She also provides input required for the development of rehabilitation plans. The following list represents major elements of the Resource Advisor position description:

Reconnaissance and Analysis:

Depending on the fire complexity and the extent to which natural and cultural resources are threatened or damaged, the Resource Advisor may need assistance from other technical specialists appropriate for the duties stated above (see Figure 1 for examples). The Resource Advisor is responsible for providing analysis, information and advice to fire managers if the following are of concern in fire suppression or prescribed fire actions:

Areas of Critical Environmental Concern
Native Allotments
Critical Wildlife Habitat
Critical Watersheds
Wilderness Study Areas and Wilderness Areas and Suppression Policies
Threatened or Endangered Species
Prehistoric and Historic Archeological Sites
Historic Structures, Features, Documented Cultural Landscapes and Cultural Sites of Native People
Riparian Areas
Water Sources
Fuelbreaks - locations and specifications
Socioeconomic or Political Concerns
Urban Interface Impact (Structures and Improvements)
Hazardous Materials
Fisheries
Special Uses (i.e., oil, gas, or mining activities)
Air Quality/Smoke Management
Grazing Allotments
Others, Specific to Local Needs

Identifies resource issues of concern.

Gathers data from suppression and other personnel assigned to the fire.

Assists the planning function in developing fire maps and identifying areas of concern (safety or otherwise).

Planning and Strategies:

Determines environmental restrictions within the fire area and provides input as to appropriate suppression actions and placement of dozer lines, wet lines, hand lines, retardant use, and other environmental guidelines commensurate with resource protection.

Participates in fire planning and strategy meetings and the development of the Incident Action Plan, as needed.

Provides recommendations to fire management personnel and agency administrators for fire suppression rehabilitation needs.

Reports and Documentation:

Provides input for the initial completion and/or the daily revision and/or re-validation of the Escaped Fire Situation Analysis (EFSA) and the Resource Impact Analysis Summary (Appendix A). The EFSA is applicable for both suppression and prescribed fire situations.

Documents potential and actual suppression/fire-related resource impacts (Resource Impact Analysis Summary) and the rationale for protection of priority areas.

Prepares or assists the Rehabilitation Team in the preparation of the Rehabilitation Plan. Rehabilitation is usually a local/fire incident responsibility. Involvement on the regional level will be kept to a minimum except on particularly complex or large fire/extended rehabilitation projects requiring outside assistance.

Operations and Management:

May serve as liaison to agency administrator, resource users and other affected parties.

Presents information at operational period briefings on resources of concern described on Resource Impact Analysis Summary, if needed.

Provides resource information to local initial attack incident commanders, dispatchers, or other fire personnel during pre-season training and planning meetings.

Briefs local agency administrators, staff and Information Officer as necessary during the incident.

Follows interagency Incident Command System standard operating procedures during mobilization, the fire assignment and demobilization as a Resource Advisor.

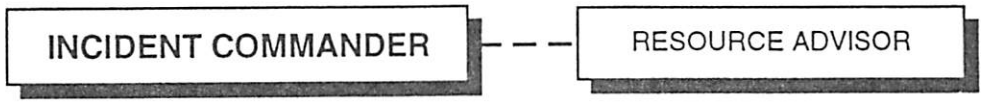
Identifies to agency administrators the need for a Rehabilitation Team and becomes a participant or may be the team leader on the team if one is organized.

Establishes a procedure for long term oversight, documentation and evaluation of rehabilitation efforts, documents long-term successes and failures as assigned by the employing agency administrator.

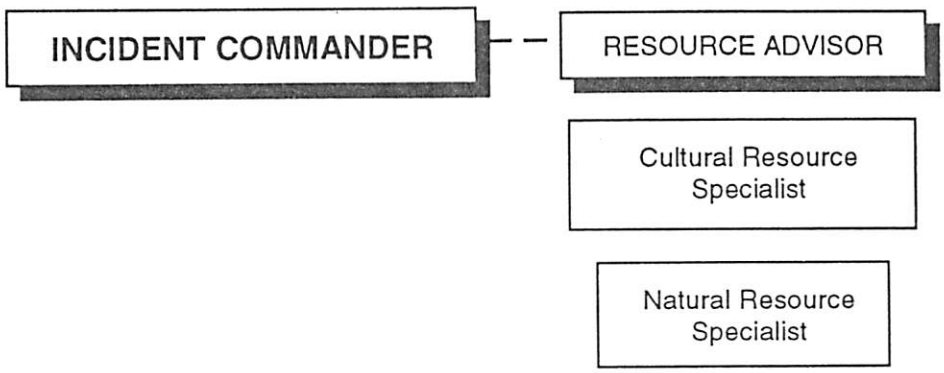
Ensures that appropriate staff and methods are available to execute actions to meet requirements of historic preservation, cultural resource protection, and conservation of certain natural resources described in federal and state regulations and other authorities.

Figure 1. Examples of Possible Assignments

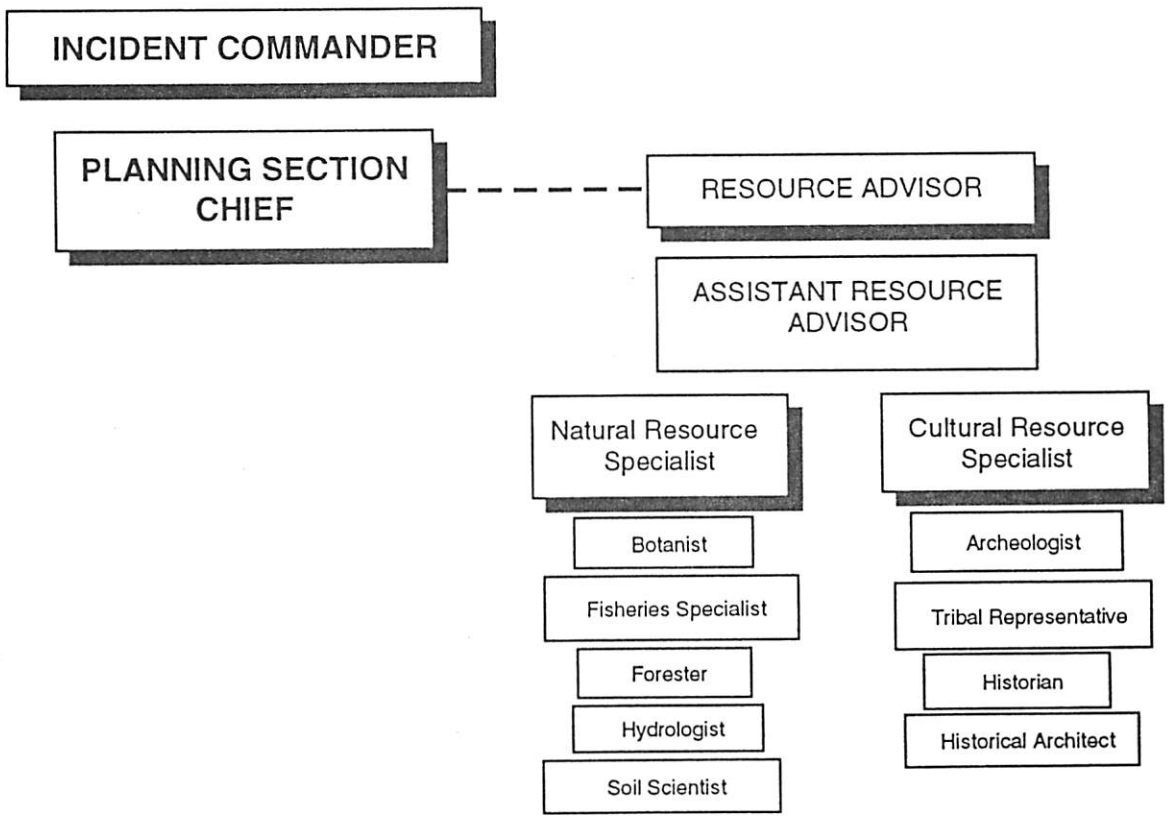
SIMPLE SCENARIO



MODERATELY COMPLEX SCENARIO



HIGHLY 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.

JOB QUALIFICATIONS

The following list of qualifications, experience and knowledge, skills and abilities is the suggested minimum for the position of wildland fire Resource Advisor. Resource Advisors are encouraged to obtain Red Card certification as a firefighter to be fully effective. The list is a guide to help select and train Resource Advisors.

Resource Management Knowledge:

Ability to acquire knowledge of local politics and land use plans (e.g., general management plans, natural/cultural resource management plans, and fire management plans; local community; county; interagency).

Ability to acquire knowledge of the area (topographic features, vegetation types), critical areas, types of visitors and inhabitants, improvements, roads, etc.

Basic understanding of potential effects of wildland fires upon significant natural and cultural resources.

Basic map reading skills.

On wilderness fires a basic knowledge of special considerations for that area is necessary.

Fire Management:

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

Successful completion of the following training courses is highly suggested. These courses are taught on a local level:

S-130, Firefighter Training
S-190, Introduction to Wildland Fire Behavior
I-100, 200, Incident Command System Courses
Standards for Survival

Successful completion of these other training courses is also suggested :

I-300, Incident Command System Course
S-205, Fire Operations in the Urban Interface
S-290, Intermediate Wildland Fire Behavior

Other courses that may be helpful are listed below:

S-244, Field Observer
RX-340, Introduction to Fire Effects
Fire in Ecosystem Management (NARTC), or equivalent
National Park and Wilderness Fire Management (NARTC)

Physical: Meet local minimum physical fitness requirements.

General: Knowledge and experience in guidelines, policies and implementation for natural and cultural resource management, including mitigating and protection measures.

Oral and written communication skills.

Qualifying experience is suggested to include one satisfactory trainee assignment.

RESOURCE ADVISOR'S OPERATING PROCEDURES AND JOB PERFORMANCE CONSIDERATIONS

Operational Procedures:

A. Pre-Season

1. Participate with fire management staff in appropriate spring operations/planning meetings. (District fire personnel's philosophy, standard operating procedures to include retardant, motorized equipment on wilderness fires, wilderness considerations, etc.)

2. Participate in required training sessions.

3. Review and recommend modifications, if needed, in local policy for the use and dispatch of Resource Advisors.

4. Review and/or revise contents of local land management plans; update inventories of special protection areas and resources; assist fire management in reviews of fire management plans.

5. Maintain updated inventories of special protection areas and resources to include a current map file on all natural and cultural resources of concern during wildfire incidents. These maps should be in a field-ready format so that they can be taken to camps and incident command posts for immediate planning use.

6. Become familiar with local and/or regional changes in land use policy, politics, and external threats.

7. Maintain understanding of applicable rehabilitation methods for local area and site specific methods.

8. Prepare and/or update personal Resource Advisor's Kit (Appendix B) and personal gear bag in the event of an interagency dispatch.

9. Maintain physical fitness standards and proper conditioning.

10. Meet with Agency Administrator to agree on roles and responsibilities, content of delegation of authority, and under what conditions resource specialists and assistant resource advisors will be used and how they will be funded.

B. **Fire Season**

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

2. Arrange backup when not available.

3. Maintain awareness of a worsening local fire environment and/or regional situation.

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

1. Always check in with the Incident Commander first and then the Time Unit and Planning Section Leaders. Depending on the size and complexity of the fire, you may be reassigned to the planning section chief. Receive initial briefing.

2. Obtain predicted fire behavior and weather forecasts as well as information pertaining to fire size, perimeter, assigned resources, etc.

3. Review Resource Advisor's Assignment Checklist (Appendix C).

4. Perform your Resource Advisor assignment:

   a. Attend all appropriate daily briefings and make presentations on the resources/rehabilitation issues to minimize the daily impact, as needed.

   b. Complete necessary field reports and forms, including appropriate sections of the EFSA, if requested to do so; Resource Impact Analysis Summary (Appendix A); fire time and travel forms.

   c. Keep a Unit Log, Form ICS-214.

   d. Keep your line supervisor informed of your schedule and activities.

   e. Obtain appropriate planning documents for local area.

   f. Attend incident planning meetings held at approximately 0900 and 2100, if requested.

5. Follow all appropriate ICS dispatch and mobilization procedures.

6. Review Checklist for Developing Policy and Cost Conscious Emergency Fire Rehabilitation Actions, Appendix D.

D. <u>While on Incident:</u>

1. Complete a Resource Impact Analysis Summary for each burning period and have available for Incident Commander at morning briefing.

2. Seek opportunities as Resource Advisor to provide input to overhead during incident:

   a. during initial briefing between agency supervisor, or designate, and team;

   b. in creation of Delegation of Authority;

   c. during daily planning or operational period briefings;

   d. during preparation of the Escaped Fire Situation Analysis.

3. Manage your time effectively. Develop a work schedule to allow for prompt reporting and free time. Keep the Incident Commander aware of your schedule.

4. Assist in the selection of a proper camp location to ensure camps are not located in sensitive areas. Also consider weather factors, location of fire planning information, terrain, smoke, etc. Selection of camp location should be guided by minimum impact considerations on sensitive resources such as wetlands, archeological sites, etc.

5. Make sure you get regular and <u>scheduled</u> rest. The integrity of your observations, calculations and reports depends on proper rest.

6. Stay neat and organized. Your ability to do so will be reflected in your reports.

7. Provide logistical support or other resource expertise. If you need additional personnel to assist you, request them through dispatch using the appropriate requisition process. Before going to a fire, establish a good rapport with dispatch.

8. Know and respect your limitations.

9. Maintain a positive and professional attitude. This is especially important in establishing a line of communication with incident management personnel.

10. Recommend and review strategy and tactics for the control of the fire and to reduce impact on resources.

11. Resource Advisors Kit - Keep your equipment in proper working condition. The equipment that a Resource Advisor can take to a fire is limited. If you drive to the fire, more can be taken. You are limited to 55 pounds of personal gear and your Resource Advisor's Kit when dispatched by air.

The Resource Advisors Kit should contain equipment that can be carried in a 16" x 14" leather briefcase, available from GSA. Each Resource Advisor develops individual preferences for kit contents. Kit contents suggested in Appendix B of this text provide your basic needs.

12. Maintain proper working understanding of basic ICS forms, especially ICS 214 (Unit Log).

13. Communicate effectively with all fire personnel, especially when using radio. Make sure you understand call signs, appropriate channel and net use. Stay off of inappropriate channels or frequencies and keep messages short. Utilize clear text.

14. Recognize individuals and crews who demonstrate higher levels of environmental/resource concerns.

15. Identify opportunities where blasting would be an appropriate procedure.

16. Due to long hours, rough terrain and the people working for you, safety concerns must be a priority.

APPENDIX A

Resource Impact Analysis Summary

Appendix A
RESOURCE IMPACT ANALYSIS
SUMMARY

Date:_____
Fire:_____
Name:_____
Time:_____

Fire Impacts

Detrimental = -
Neutral = 0
Beneficial = +

Susceptibility to Damage from Suppression Activities

Low = A
Medium = B
High = C

*Note that there is no means of adding or subtracting points to determine the overall effect of the fire and suppression. The Resource Advisor should present an analysis of information below. Use attached Resource Impact Matrix.

LOCATION	SOCIO-	RECREATION	CULTURAL	AIR QUALITY	VISUAL

Remarks:_____
_____

Appendix A(con't)
RESOURCE IMPACT ANALYSIS
SUMMARY

Date:_____
Fire:_____
Name:_____
Time:_____

Fire Impacts

Detrimental = -
Neutral = 0
Beneficial = +

Susceptibility to Damage from Suppression Activites

Low = A
Medium = B
High = C

*Note that there is not means of adding or subtracting points to determine the overall effect of the fire and suppression. The Resource Advisor should present an analysis of information below. Use attached Resource Impact Matrix.

LOCATION	VEGETATION	ENDANGERED	WATERSHED	WILDLIFE	FISHERIES

Remarks:_____

Resource Impact Matrix

(use with Resource Impact Summary)

RESOURCE SUSCEPTIBILITY TO DAMAGE FROM SUPPRESSION ACTIVITY

A - Low	B - Moderate		C - High
Suppression desirable to protect individual resource.	Fire to resource, suppression also to that	detrimental individual but activity damaging resource	Fire and suppression activity detrimental to individual resource.
Fire has no effect on individual resource	Moderate susceptibility to damage from suppression activity. Individual resource not affected by fire.		High susceptibility to damage from suppression activity. Individual resource not affected by fire.
Fire beneficial to resource. Individual resource has low potential for damage from suppression activity.	Fire to individual Suppression damaging to resource.	beneficial resource. activity that	Suppression activity more detrimental to individual resource than fire.

1. Suppression desirable or acceptable. ☒
2. Suppression acceptable but risk to resources involved. ☐
3. Suppression activity undesirable from single resource point of view. ☐

APPENDIX B

Resource Advisor's Kit

Appendix B

RESOURCE ADVISOR'S KIT

The following are examples of supplies and equipment that may be needed before leaving for an incident. It may be necessary to resource order supplies that cannot be obtained from your home office environment.

* Minimum Impact Suppression Tactics (MIST) Guidelines
* MIST video to show at Incident Base
* Resource Advisor's Guide Book
* Fireline Handbook or Field Operations Guide
* Extra applicable ICS forms
* Rehabilitation documents and forms
* Field identification guides, i.e., birds, mammals, plants, etc.
* Endangered and threatened plant and animal documents
* Pencils, pens, felt tip markers, ruler, scale, dot grid, flagging, paper, graph paper, envelopes, calculator, clipboard, etc.
* Acetate overlay material
* 35mm camera with print film
* Binoculars
* Belt weather kit (optional)
* When applicable, fuel and soil moisture sampling equipment
* When applicable, altimeter and/or global positioning equipment, etc.
* Compass, clinometer, mapping equipment, etc.
* When applicable, forest mensuration equipment and tally sheets
* Maps (2 of each), 7 ½ or 15 minute topographic maps. Maps should cover incident area and at least 6 miles around the perimeter.
* SCS soil surveys
* Maps showing: wilderness areas, wilderness study areas, significant or known cultural sites, threatened or endangered species, critical habitat areas, and other areas of concern.
* Aerial photographs and LANDSAT imagery if available.
* Reference list of area resource specialists with phone numbers.
* Resource Advisor nametag for hardhat and Resource Advisor sign for office.
* Radio
* Sample Rehab Plan
* Fire pack with the following items: Nomex, 8" boots with lug soles, hard hat, Nomex gloves, leather gloves, goggles, fire shelter, and any other equipment the situation dictates including communications.

FOR WILDERNESS FIRES

* Copy of Wilderness Act
* Information packet with Wilderness quotes, line drawings, wilderness logos, and wilderness theme IAP covers.

APPENDIX C

Resource Advisor's Assignment Checklist

Appendix C

RESOURCE ADVISOR'S ASSIGNMENT CHECKLIST

_____ Do you have your kit?

_____ Do you have personal gear?

_____ Have you obtained your incident order number and resource order number?

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

_____ Contact other specialists as necessary. Call receiving incident base to determine availability of pertinent plans and other planning data.

_____ Acquire appropriate transportation, e.g., helicopter, 4 X 4, etc.

_____ Check in with check-in recorder.

_____ Receive initial briefing - i.e., fire behavior and weather forecasts, location, size, perimeter, fuel types, resources available, Incident Action Plan, etc.

_____ Set up work area, assess work area needs.

_____ Immediate high priority concerns (convey to supervisor).

_____ Size up situation.

_____ Gather data from other firefighting forces.

_____ Complete worksheets.

_____ Set resource area priorities.

_____ Participate in developing the Incident Action Plan.

_____ Participate in developing/revising the EFSA.

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

_____ Document resource impact analysis and rationale for priority areas.

_____ Participate in the development of the rehabilitation plan (for fire suppression damage).

_____ Maintain a Unit Log, Form ICS 214.

_____ Get timesheet signed by proper authority/supervisor.

_____ Complete post-fire management reports, documents, etc.

_____ Post MIST and Wilderness Messages on bulletin boards at incident base.

_____ Get several cell phones. Give them to the assistant resource advisors, and resource specialists so the resource advisor can talk without jamming up the radio. (They still need to carry a radio for safety and communication.)

_____ Participate in decision on location and development of spike camps and/or coyote tactics. (Remember bear concerns when determining locations.)

_____ Participate in location and development of additional helispots.

APPENDIX D

Checklist for Developing Policy and Cost Conscious Emergency Fire Rehabilitation Actions

Appendix D

CHECKLIST FOR DEVELOPING POLICY AND COST CONSCIOUS EMERGENCY FIRE REHABILITATION ACTIONS

Question, challenge the justification, adjust or disapprove a rehabilitation proposal when:

Total cost of reseeding exceeds $50/acre. Any individual seed component exceeds $15/pound.

Aerial seeding application rate exceeds 60 pure live seeds per square foot. Fencing costs exceed $10,500/mile (domestic livestock).

Short term rehabilitation actions take more than 90 calendar days from date of approval to implement.

Short term rehabilitation failure requires supplemental treatment actions.

Rehabilitation proposals include measures or activities that are unprecedented, experimental or are expected to have a limited effectiveness.

Any rehabilitation treatment is prescribed in designated wilderness areas, especially following the suppression of wildfire ignited by lightning.

Proposals call for correction of pre-existing or widespread soil and water resource problems.

Proposals call for upgrading and the long term programmatic maintenance of roads, trails, mobilization sites, etc., which were created under emergency circumstances and would ordinarily be removed.

APPENDIX E

WILDLAND FIRE RESOURCE ADVISOR SUPPORT
THE PRO-ACTIVE RESOURCE ADVISOR MATERIALS
FROM KEVIN SLAGLE

Appendix E

WILDLAND FIRE RESOURCE ADVISOR SUPPORT THE PRO-ACTIVE RESOURCE ADVISOR MATERIALS FROM KEVIN SLAGLE

(Can be used to supplement workshop material)

The resource advisor's principle tools are the knowledge of the local resources, land management direction, permittees, partners, and politics and the ability to communicate that knowledge. Knowledge and experience in fire behavior, suppression, and management will make the resource advisor more effective by increasing the quality of the advice.

Being able to communicate this advice means having an ample supply of plans, maps, policy direction, construction details, etc., to supply to the people who will need them (both in planning meetings, and on the ground for implementation). The time to prepare for this is BEFORE an incident starts.

Some of the most opportune times for the resource advisor to contribute to the knowledge of an incident management team are during the transition briefings, and agency administrators briefing. A well prepared presentation can save hours of individual explanation.

Some examples of the types of information resource advisors will need access to and knowledge of are:

Administrative unit land and resource management plans, area special plans, analysis files, EFSA drafts and scenarios prepared by the interdisciplinary (ID) team, unit maps, quad maps of fire area, aerial photos, Desired Future Condition for watershed or planning area, wilderness plans, prescribed natural fire plans.

I. Other information the pro-active resource advisor would have:

A. Policy on deployment of crews on wilderness fires. This should specify the minimum qualifications of crews the management unit will deploy on a wilderness fire, as well as a WRITTEN policy on chain saw, and other motorized/mechanical equipment deployment and use.

B. Briefing that the resource advisor will give to crews as they are deployed. Meet with crew or squad bosses prior to them reaching the fire to discuss the area policy on fireline construction, behavior in spike camps, etc.

II. Some things the pro-active resource advisor can do to be more effective:

A. Be familiar with local Mobilization Plan and particularly the services available from local contractors and vendors.

B. Become familiar with the Fireline Handbook, especially page 115, the planning cycle guide.

C. Advance planning is the key to success for appropriate suppression. Get the unit interdisciplinary team together and go through an exercise:

1. The scenario can be a large and a small fire for a given area. Select a wilderness, or late successional old growth reserve, or any area on the district. Has any preplanning been done? What resources are there to be protected? What specialists would need to be involved in developing an EFSA? Are specialists available on the district or forest? Who is a back-up when they are gone? Play out the scenario and suppose several sets of circumstances for the fire; human caused, lightning, early/late season, severe/mild weather. What guidance could the ID team provide the agency administrator and incident team in dealing with the incident? If the resource advisor can document these discussions for all areas of the unit, and keep them updated, dealing with an incident will be much easier.

2. On a remote or wilderness fire, consider remaining at the incident command base so you are available to the agency administrator and the team for the first shift or so. On a large or complex fire, the resource advisor may be of most use in camp, using aerial reconnaissance. Things can change fast and the resource advisor needs to be available to the IC Team and the agency administrator.

3. The resource advisor may have a chance to talk to a reporter. When talking with the press, concentrate on your area of expertise and the role you are serving on the fire. Avoid discussing strategies and tactics in order to focus on resource concerns and how they have been addressed in plans.

D. Recommend that the local fire cache have the following items available:

1. Have several "wilderness packs" made up and available for immediate use with good food, water filters, lightweight tents, sharp bow saws, etc.

2. Have lightweight pumps on pack frames ready to deploy to back country fires.

3. Take plastic sheeting in to remote fires to construct a tank for water containment.

4. Have small hoses and blivets in the unit fire cache ready to go.

5. Include log carriers and peavies in the cache for rehab and line construction.

6. Have fire pans available for spike camps in areas where open fires may cause serious resource damage.

7. Have small waterbug type pumps to reduce the amount of disturbance created by line construction and mop-up activities.

8. Use bear proof food storage containers for spike camps.

9. Have back country toilets for spike camps.

E. MIST items that should be considered:

1. Don't walk blasted fireline as a trail or it will not rehab quickly.

2. Blast tops vs. cutting down snags.

3. Use indoor/outdoor carpet, astro-turf, or Scrim for spike camps to reduce impact on vegetation.

4. Use fugitive retardant on high elevation snow fields, glaciers, and on rock, at all elevations.

5. Make sure plastic or cloth sheets are placed under all pumps to prevent fuel spills from soaking into the ground.

6. Closely monitor any work that is done adjacent to a trail or other recreation site, i.e., fireline construction or snag removal.

WHO WORKS FOR THE RESOURCE ADVISOR

Depending on the size and complexity of an incident, the resource advisor may be a sole resource or may need the assistance of resource specialists and assistant resource advisors. There is no prescribed policy, so it is important that advance agreement be made with the agency administrator and incident command team as to whom additional resource people will work for and how they will be funded.

Resource Specialists

The home unit will customarily supply the resource specialists who will examine the fire area to determine existing and potential impacts from fire and suppression activity. Generally the home unit interdisciplinary (ID) team, or that of a neighboring district will be those called out. The resource advisor should work closely with the agency administrator and the incident commander to obtain a written agreement of who will work the fire and how they will be funded.

The resource specialists usually work for the resource advisor, representing the resource advisor and the home unit on the ground. It is important that they be advised of protocol while operating in the fire area, and they be supplied the necessary resources to do their job. The resource advisor is responsible for coordinating access and someone to guide them, if needed. Their activity should not interfere with suppression, nor should they be denied access unnecessarily.

When identifying a specialist consider their experience with and understanding of the effects of fire. To provide meaningful advice concerning effects on resources, the resource advisor needs to have accurate and realistic assessments by the specialists. In other words, whenever possible select people who have fire experience. Develop a call list with the agency administrator ahead of time. Names may vary depending on the size and complexity of the fire.

Assistant Resource Advisors

Assistant resource advisors can be assigned to accompany specific resources deployed in the field, or can be assigned to a spike camp or a division, as needed. Assistant resource advisors may be wilderness rangers, sale administrators, or trainee resource advisors.

Assistant resource advisors monitor operations in the field and report back to the resource advisor upon their return, or via written communication, or cell phone. They document areas in need of rehabilitation for inclusion in the suppression rehab plan. They also can advise on trails, camp spots, water sources, escape routes, and helispot locations.

The Resource Advisor should ensure the assistants have a contact at their destination who understands their responsibility, authority, line of supervision, and experience. A letter spelling this out to a spike camp manager or division supervisor will make their job more successful.

Also, ensure they are included in the meal count and they have sufficient bedding and transportation.

SAFETY

Safety is the primary concern for all people engaged on an incident. Since there are no minimum qualifications established for resource advisors, assistants, and resource specialists, each individual brings a different level of experience.

The minimum required training for anyone to visit the active fire area is S-130, Basic Firefighting; S-190, Basic Fire Behavior; eight hours of Standards for Survival, and a red card. This applies to resource advisors, assistants, and resource specialists. All appropriate personal protective equipment is required, including nomex, 8" leather boots with lug soles, hardhat, gloves, fire shelter, and any other equipment the situation dictates, including communications.

Consult and carry the 10 standard firefighting orders and the 18 situations that shout watch out.

Stop and think about where you are going and assess safety risks. Consult with the team as to the need and value of resource information if there is any risk involved in the collection.

Work with the incident command team on how you and your assistants will be deployed in the field. Be sure you are listed on the shift plan and contact the division supervisor prior to entering an area. Maintain communications and inform the division supervisor as you leave the fire or cross into another division.

Resource Advisor Safety

Work with the incident command team when you go to the fire. Depending on the nature of the incident, your experience, and the team, you may go with someone, or alone. It is imperative that you contact the division supervisor in the area and keep them appraised of your whereabouts. It is also imperative that you check out as you leave a division.

An Incident Action Plan with map and communications plan is a must. The resource advisor should be listed on the plan. A syntectic programmable radio is the most useful communication device, to scan several channels at once.

A pack containing map, compass, altimeter, water, food, and clothing to last for a few days is advisable, in addition to the required safety gear listed above. A pair of nomex gloves, headlamp, spare flashlight, a line building tool, and a fusee are all items a pro-active resource advisor would pack on the line.

If you can come to the fire with a four wheel drive vehicle it will greatly increase effectiveness and mobility.

Resource Specialist Safety

Ensuring the safety of resource specialists is the responsibility of the resource advisor. Assure they 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.

Remember that basic firefighter training is a prerequisite for anyone entering the active fire area. Resource specialists without minimum training can visit inactive areas of the fire to assess effects, if approved by the team.

Assistant Resource Advisor Safety

The safety of assistant resource advisors is also the resource advisor's responsibility. Have them follow the guidelines above if assigned to a crew or spike camp.

Again, it is imperative that they contact the division supervisor before entering the division, maintain contact, and advise when leaving.

WILDFIRE, ESCAPED FIRE SITUATION ANALYSIS (EFSA'S), AND INCIDENT ACTION PLANS (IAP'S)

Fire management programs are planned and executed to minimize the sum of the fire program costs plus the cost of damages due to fire to the value of planned resource outputs. The objective of fire suppression is to extinguish the fire at the minimum total cost, which consists of expected costs plus losses.

There are two levels of planning the EFSA and the IAP.

The EFSA is prepared for the duration of the fire with adequate specificity to compare alternatives. It is updated anytime the situation changes sufficiently to modify the strategy. If the EFSA is no longer valid due to a changed situation, it is the responsibility of the agency administrator to change it. The incident command team will keep the agency administrator appraised of current or projected situations that would warrant revision of the EFSA. It is approved by the agency administrator.

An EFSA is the plan from which the plan of action to suppress a fire is developed. The analysis requires development of alternative suppression strategies, and identifies the probable costs, potential resource effects, and political considerations associated with each. It allows for a systematic approach to decision making. The EFSA is not absolute and allows for relative comparison of alternative strategies only.

An EFSA is a legal document, required on all federal lands.

Resource damage costs are the most difficult to quantify in the EFSA and are where the resource advisor can be most helpful. 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.

The resource advisor needs to be involved in the development of the EFSA. 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 change the EFSA and to provide input to the incident management team.

It is recommended that resource advisors attend EFSA training, and participate in mock document preparations. All areas of special concern on a unit should have EFSA's drafted 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.

The IAP is prepared for each operational period and is as site specific as possible. The IAP is usually prepared by the planning section and approved by the Incident Commander. The resource advisor should attend the planning meetings and give advice to the plans section on incorporation of resource concerns into the IAP. This may include information on spike camp etiquette, fireline water bar standards, etc.

TRANSITIONS AND DEBRIEFING

Transitions

Transitions between incident management teams or between the incident command team and the local unit are critical times. The resource advisor needs to be active in briefing both teams about resource concerns and issues. The transition meeting is the best opportunity to communicate local issues and concerns to a new team. Close out, when a home unit assumes responsibility for the fire, is another critical time. It is important that the close out cover the rehabilitation plan work left to accomplish, agreements for expenditure of Emergency Firefighters (EFF) funds, and local obligations. The resource advisor should be present to ensure that local resource concerns are covered.

Debriefings

Following a fire management effort, get together with the agency administrator and incident command team to evaluate the resource advisor role as well as to give them impressions of the incident.

Reasonable and measurable goals for suppression tactics, resource impacts, and performance should be set up during the fire. Transition and debriefing are good times to discuss how well the team and their resource advisor achieved those objectives. What should the home unit do to prepare for the next incident? Are current policies on minimum crew qualifications and briefing sufficient?

Were the agency administrator's directions to the Incident Management Team complete enough? How can they be improved?

At a debriefing or closeout, be sure that the role of the home unit is understood in the rehabilitation of suppression efforts. Any work identified to be completed with suppression dollars should be outlined and scheduled in the rehabilitation plan.

SMALL FIRES

Small fires are usually handled by local personnel. A good job of promoting the role of the resource advisor among the local troops will be the key to success. The best of all possible alternatives is for the resource advisor or a trainee to report to the fire along with the initial attack force.

This is also a good opportunity for a resource advisor to "walk the talk" and gain personal experience in minimum impact suppression tactics as well as fire effects and behavior.

A crew sent to a small fire should have specific goals, objectives, and instructions. Avoid the temptation to treat all ignitions the same. If need be, the resource advisor can follow the crew to prevent the delay of initial attack.

On wilderness fires, consider sending in crews without a chain saw. As mentioned in the fire cache section, having several wilderness response packs and a few sharp bow and crosscut saws ready to go will make the task less painful. Include a good water filter and a map of good water sources in the wilderness areas, as well as some good quality freeze dried food.

DESIRED EXPERIENCES AND TRAINING

Since the resource advisor position is not part of the ICS system there are minimal qualifications or training requirements. These are suggestions of knowledge, skills, and abilities, training, and experiences for qualified resource advisors.

In a perfect world all resource advisors would be seasoned firefighters who are comfortable working with an incident command team and have a thorough knowledge of the local resources, as well as fire behavior and effects.

The reality is there are not enough people experienced in fire to meet demands. It takes years to become qualified as a division supervisor, field observer, or even a crew boss. Qualified resource advisors are needed on every fire and they do not need to be an expert in every field to be effective.

An individual should create a training plan with their local fire management officer and an experienced resource advisor. Many paths in a fire career can compliment the resource advisor role. Some of the positions which would be most beneficial are division supervisor, field observer, situation unit leader, and agency administrator's representative. Any position on an ICS team would enhance the understanding of the team function and put the resource advisor role in perspective.

Knowledge, Skills and Abilities

Knowledge of role of Resource Advisor:

A resource advisor should be familiar with the role. The guidebook is a start. Another means to improve knowledge is to serve as a resource advisor or as a trainee with an experienced person. It is important that the resource advisor have sufficient knowledge of the role to be able to communicate it to others. The exact nature of the role will vary with individuals and between incidents but should be spelled out in the delegation of authority letter by the agency administrator.

It is critical that the resource advisor have a perspective on the role. The resource advisor is part of a team that manages an incident, not an individual crusader for the cause of the environment.

Wildfire Experience:

Exposure to fire behavior and effects can be gained from activity fuels management and prescribed fire, as well as wildfire. Activity fuels management offers an opportunity to observe fire in the local environment as well as to monitor the area in succeeding years. Wildfires may be few and far between.

Basic and intermediate fire behavior as well as fire effects for resource specialists are good training. Training is available at National Advanced Resource Technology Center (NARTC) in park and wilderness fire. Arthur Carhart National Wilderness Training Center has a guidebook on wilderness fire planning.

Communicate effectively, orally and in writing:

Effective communication with the ICS team and the agency administrator is a fundemental responsibility of the resource advisor. Skill in giving presentations and preparing graphics would help a resource advisor to be more effective in briefings, planning meetings, and transitions.

Ability to be assertive:

A resource advisor needs to accurately represent the Agency Administrator and be an advocate for the resource. The ability to be assertive within the scope of authority is desired. It is important that the resource advisor not assume the role of agency administrator unless delegated the role as acting.

Knowledge of local resource concerns, laws, policy, plans:

This knowledge is essential. This is perhaps the most important area of expertise for the resource advisor. A person who is an effective communicator, with no fire experience, could succeed in the role if they have knowledge of the local resources. A resource advisor cannot know everything about the local area but should know whom to contact and where to look to find the information any hour of the day or night.