

APPENDIX E-1

Region 6 Debris Disposal Burning Policy

What types of burning qualify as a debris disposal burn?

Fire may be used to dispose of wildland fuels generated from maintenance activities (such as grass or brush mowing or clippings), hazard tree removal, or during construction activities. These materials must be deemed infeasible or impractical to mechanically remove and must be in a non-wildland fuel environment (parking lot, bone yard, gravel pit, etc.) Where permitted specifically by local regulations, discarded building and administrative materials can also be burned. All such activities and all new debris burning projects will be reviewed by the District Fire Management Officer.

If, after consultation with the Fire Management Officer, it is determined that a debris disposal burn will meet all of the following conditions then it may be conducted within debris disposal guidelines:

1. Has virtually no chance to exceed the perimeter of the non-wildland environment.
2. Will not damage surrounding natural or cultural resources.
3. Does not present a safety threat to crew members.
4. Will not require curtailment during the burning operation.
5. Will not require a prescribed fire burn boss or fire-qualified personnel to implement.
6. Requires no follow-up monitoring to evaluate environmental impacts. Otherwise, it will constitute a prescribed fire and must comply with all requirements for that type of activity.

All debris disposal projects must be evaluated in terms of alternative treatments. Alternative treatments to burning may be possible, and desirable in terms of smoke management and visibility concerns. No burn plan will be required for these burns although other types of plans may be required as listed below.

What procedures should be followed for debris disposal burns?

For debris burns, the crew should include someone who has previously conducted a similar burn at the site or a similar site. All personnel will wear appropriate personal protective equipment. Other hazards such as nails and wire in debris or lifting heavy materials often become more important than typical fireline safety concerns.

The supervisor of the burn will be responsible for:

- Adhering to FWS policy regarding the disposal of hazardous materials
- Obtaining all needed permits and clearances
- Notifying appropriate agencies (air quality, local fire departments, etc.) and neighbors
- Developing appropriate Job Hazard Analyses and briefings
- Developing appropriate safety and evacuation plan in case of injuries or other emergencies.

How should disposal of debris generated as part of contracted projects be treated?

Contracts involving the generation or disposal of such fuels should be developed and conducted in coordination and consultation with the District Fire Management Officer. All construction contracts/projects producing vegetative debris should specify when and how the material would be disposed. If fire is a potential disposal method, the District Fire Management Officer should review and approve contract stipulations related to debris burning. Costs associated with the debris burning should be included in the contract/project budget.

Are there circumstances in which debris disposal burns will still need a written burn plan?

If a debris disposal burn does not meet the conditions listed above, then the standard prescribed burn format will be used. This format will lead the planner through the steps (e.g., did you get a weather forecast to know the wind would come up in three days? Did you clear out an area around the pile as part of your prep work? Did you make provisions for mopping up the pile or checking it daily until it is declared out, and so forth)? Many of the parts of the prescribed burn plan format will not be needed or will not apply and can simply be completed as "N/A". Mitigating factors, such as "The burn will not be conducted unless there is an inch of snow on the ground", should make this a pretty simple process. Standard fuel models will probably not apply and do not need to be included. Instead, simple descriptions of the materials to be burned and how the burn will be conducted are all that is needed. If non-wildland fuel debris disposal activities will take place on a regular basis it is recommended that an appendix to the station's fire management plan be developed so the burn planning doesn't have to be addressed every time. This appendix could include the activity, conditions that must be met whenever you conduct burns in this manner, and any necessary mitigations. For example, some refuges might have a burn pit or bone yard area that is regularly used to dispose of debris during the winter when there is snow on the ground.

Is a burn plan needed to dispose of empty Service-owned houses?

The District Fire Management Officer should be consulted whenever burning is being considered as a means of disposing of a structure. Cultural clearances, proper property disposal notifications, and the potential for hazardous materials are special concerns in these situations. The manager of the station where the house is being disposed of is responsible for ensuring that all Fish and Wildlife regulations are followed.

The situation and proposed mitigations should be carefully weighed to determine whether they will prevent virtually any possibility of the fire spreading to wildland vegetation. The standard FWS burn plan format is recommended to make sure that all planning aspects have been considered but is not required. A burn boss is not required as long as the conditions listed above are met. If there is a possibility that the fire may spread to the adjacent wildland vegetation, then a written burn plan and appropriate burn boss are required.

A written agreement must be made with local fire departments to dispose of old structures. A special use permit is suggested as the simplest instrument but a MOU could also be used. The document should stipulate that the fire department has the responsibility for planning/executing the burn and ensuring that the fire does not spread to anything nearby. A prescribed fire burn plan is not required by the Fish and Wildlife Service, but other planning documents may be advisable depending on the complexity of the situation. It is important that both the Service and the department clearly understand who is responsible for which activity, especially for things like final mop-up of the remains.

Is any reporting necessary for debris disposal burns?

In an effort to clarify what is reportable as a prescribed fire in the Fire Management Information System (FMIS) or as a type 48, prescribed fire, on the old DI-1202, the following guidance is offered:

1. If burning of debris does NOT require preparation of a prescribed fire plan that meets guidance given in this document, the burn should NOT be reported as a prescribed fire.

2. Maintenance clears a roadside of brush. The resulting debris is hauled to a "bone yard" where it is burned in compliance with state air quality regulations. No resource objectives are met and no prescribed fire plan is done. No fire report is required.
3. A series of ditch banks which could spread to other wildland fuels are burned. The burn is conducted according to a prescribed fire plan. Complete a fire report.
4. Debris resulting from a construction project is burned according to a contract. The burning of construction debris is prohibited under many state air quality regulations. No fire report is required, unless a prescribed fire plan is prepared stating resource objectives.
5. A number of piles are burned according to a prescribed fire plan. Complete a fire report. In this instance the total area cut and piled is the treated area, and not just the area occupied by the piles. For example, if a 10 acre hazard fuel area is treated (thinning and/or clearing) and resultant two (2) acres of piled debris is burned, the reportable treated acres would be 10 acres.
6. An empty house is burned by Service personnel according to a prescribed fire plan. Complete a fire report.
7. An empty house is burned by a local volunteer fire department as a training exercise. No resource objectives are met and no prescribed fire plan is done. No fire report is required.

APPENDIX E-2

Prescribed Fire BURN PLAN PREPARATION/REVIEW Process USFWS Region 6 (Mountain-Prairie Region) August 2011

Region 6 policy regarding Prescribed Fire Burn Plan Preparation/Review processes have existed for many years. Interagency policy covering many of the same processes is presented in the “Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide” (IPFPG), which was updated in July 2008. **Region 6 policy incorporates the IPFPG plus R6 modifiers as listed below.**

I. Prescribed Fire Plan Preparation

A. Prescribed Fire Plan Preparer

-- The Prescribed Fire Plan Preparer is defined as the individual responsible for the preparation of the Prescribed Fire Plan. Several people may be involved in the preparation of the Prescribed Fire Plan, but the Prescribed Fire Plan Preparer is responsible for the final plan content. The primary preparer of the Prescribed Fire Plan will sign the signature page. (IPFPG p.12)

1. Qualifications

- The Technical Reviewer and Prescribed Fire Plan Preparer must be qualified or have been previously qualified as a Prescribed Fire Burn Boss at an experience level equal to or higher than the complexity being reviewed. (IPFPG p. 11)
- Either the Prescribed Fire Plan Preparer or Technical Reviewer must be currently qualified, less physical fitness requirement. (IPFPG p. 11)
- A person not qualified as an RXB1/2, such as an RXB3, may assist in the preparation of a Prescribed Fire Plan but cannot be the primary Prescribed Fire Plan Preparer (Region 6 policy).

2. Responsibilities

- The preparer is responsible to (IPFPG p.12):
 1. Prepare the Prescribed Fire Plan in accordance with this guide’s policy and direction.
 2. Coordinate with the resource management and/or technical specialists to ensure that the plan meets management and operational objectives.
 3. Interact with the Technical Reviewer to ensure that all plan elements are adequately addressed. (R6 comment – interact to ensure suggested changes are incorporated in the plan)
 4. Complete and sign the Complexity Analysis.

B. Prescribed Fire Plan form

- All Prescribed Fire Plans will use current interagency format (see Burn Plan Template, IPFPG Appendix B). A copy of the current blank Prescribed Fire Plan template and a copy of a recent example of a good Prescribed Fire Plan is posted on the Region 6 Sharepoint website. (Region 6 policy)
- All Prescribed Fire Plans in Region 6 will use the Region 6 cover page (Attachment 1) and, as the cover page describes, all Prescribed Fire Plans written in Region 6 will be valid for a maximum of four years (ending on 12/31) (Region 6 policy).

II. Prescribed Fire Plan Review

A. Prescribed Fire Plan Review Requirements

- Interagency Prescribed Fire Plans require approval from all appropriate Agency Administrators and a technical review. (IPFPG p. 11)
- Every Prescribed Fire Plan must receive a technical review. (IPFPG p. 11)
- An off-unit technical review is encouraged to provide an additional independent perspective. (IPFPG p. 12)
- It is recommended that at least once every year, each unit should send a moderate or high complexity Prescribed Fire Plan off-unit for technical review. (IPFPG p. 12)
- All technical reviews must be done by an off-fire district or other agency reviewer. (Region 6 policy)
- Agency or individual unit policy may dictate additional reviews. (IPFPG p. 11)

B. Technical Reviewer

- The Technical Reviewer is defined as the individual responsible for the written review of the Prescribed Fire Plan. The Reviewer must be certified as competent for reviewing each level of Prescribed Fire Plan (low, moderate, high) by their FMO and approved by the RFMC. The Technical Reviewer of the Prescribed Fire Plan will sign the signature page (Region 6 policy).
- It is acceptable for other specialists to review certain portions of the plan however; a primary Technical Reviewer must be designated as technical review signatory. For example, a fire behavior analyst may review the fire behavior calculations; the aviation manager may review the air operations plan; and/or a resource specialist may review impacts to their resource(s) of interest. (IPFPG p. 12)
- An RXB3 is not allowed to function as a Technical Reviewer. (Region 6 policy).
- Technical Reviewers from other agencies/FWS regions must meet the qualifications of their own agency/region. (Region 6 policy)

1. Qualifications

- The Technical Reviewer and Prescribed Fire Plan Preparer must be qualified or have been previously qualified as a Prescribed Fire Burn Boss at an experience level equal to or higher than the complexity being reviewed. (IPFPG p. 11)
- Either the Prescribed Fire Plan Preparer or Technical Reviewer must be currently qualified, less physical fitness requirement. (IPFPG p. 11)
- The Technical Reviewer must be someone other than the primary preparer of the plan. (IPFPG p. 12)
- The Technical Reviewer should have local knowledge of the area, experience burning in similar fuel types, and/or conduct an on-site review. (IPFPG p. 12)
- Only an RXB1 can review plans at high complexity. (IPFPG p. 11)
- An RXB2 can review plans of moderate to low complexity. (IPFPG p. 11)

2. Responsibilities

- The Technical Reviewer is responsible for reviewing each Prescribed Fire Plan element for content as well as evaluating the risk and Complexity Analysis to ensure that the stated goals and objectives can be safely and successfully achieved when properly implemented. (IPFPG p. 12)

- The Technical Reviewer is responsible to (IPFPG p.12):

1. Ensure that Prescribed Fire Plans meet agency policy and direction.
2. Ensure that the Complexity Analysis accurately represents the project, so the Agency Administrator understands the identified risks and the mitigating measures enacted. This may require onsite review in Wildland Urban Interface (WUI) or high complexity situations by the Technical Reviewer.
3. Check the prescription parameters against the fuel types to ensure that the project as planned has a reasonable chance of meeting the resource management objectives.
4. Ensure that the fire behavior calculations and/or prescription parameters are appropriate and within the acceptable range.
5. Ensure that the ignition, holding and contingency plans are consistent with the predicted fire behavior.
6. Complete and sign the Technical Review Checklist (See Burn Plan Template, Appendix B) and the Prescribed Fire Plan signature page.

3. Certification

- Prospective Technical Reviewers will be mentored through the development of several Technical Reviews by a competent and currently certified Technical Reviewer before they are certified to perform Technical Reviews independently. This process will be followed for each complexity level, starting with the lowest level. The Regional Office will certify the Reviewer as competent through written documentation to the Region 6 RFMC. The RFMC will approve the certification (Region 6 policy).
- A Technical Reviewer should have at least one of his/her reviews reviewed by another Technical Reviewer once each year (Region 6 policy)
- A list of currently approved reviewers will be prepared annually and attached to this document in Attachment 2 and posted on the R6 fire Sharepoint website. (Region 6 policy)

C. Technical Reviewer Checklist form

- The attached "Technical Reviewer Checklist" spreadsheet (Attachment 3) should be used to guide the review process. It contains the same elements as Burn Plan Template, IPFPG Appendix B, but with added tickler bullets. (Region 6 policy)

III. Agency Administrator Review and Approval

- The Agency Administrator is defined as the Line Officer (or designee) of the agency or jurisdiction that has responsibility for the prescribed fire. These usually include the: NPS Park Superintendent, BIA Agency Superintendent, USFS Forest Supervisor, BLM District/Field Office Manager, **FWS Project Leader**, State Forest Officer, and/or Fire Chief (IPFPG p. 11).
- The Agency Administrator is responsible to (IPFPG p. 11&12):
 1. Approve Prescribed Fire Plans. When approving a plan, understand the risks associated with it. Ensure that the plan has been reviewed and recommended for approval by the Technical Reviewer who was not the primary preparer of the plan.
 2. Ensure that only trained and qualified personnel participate in the implementation portion of the prescribed fire.
 3. Ensure that projects are monitored, evaluated, and documented in the project file.
 4. Sign, date, and provide an expiration date for the approval to burn on the Agency Administrator Pre-Ignition Approval Checklist (Reference Burn Plan Template, Appendix B).
 5. Understand and approve the Complexity Analysis (PMS 424 January 2004).
 6. Ensure that all prescribed fires are conducted in accordance with the approved implementation plan and established standards and guidelines.
 7. Ensure that periodic reviews and inspections of the Prescribed Fire Program are completed.
 8. Determine if and when the Agency Administrator is to be notified that contingency actions are being taken.
 9. Report all wildfires resulting from prescribed fires through the chain of command.
 10. Declare a prescribed fire a wildfire (if necessary and if responsibility is assigned in the plan).
 11. Ensure that prescribed fires declared as wildfires are reviewed according to established guidelines.
 12. Ensure that prescribed fires which receive a National Ambient Air Quality Standards (NAAQS) Notice of Violation (NOV) are reviewed according to established guidelines.
- The Agency Administrator is responsible for reviewing and signing the Complexity Analysis, preferably before the plan is written to facilitate involvement with the project from start to finish (Region 6 policy).
- The Agency Administrator is responsible for ensuring that NEPA requirements are met for the project. This includes completion and signing the attached (Attachment 4) "NEPA Compliance Checklist" (FWS form 3-2185) and the "Environmental Action Statement for Categorical Exclusion" (Region 6 policy).
- The Agency Administrator is responsible for approving the prescribed fire plan by signing and dating the document after review by a Technical Reviewer (Region 6 policy).
- The Agency Administrator is also responsible for signing the GO/NO Go Checklist on or before the burn day and annual recertification of plans as necessary until completed or renewed (Region 6 policy).

APPENDIX E-3



United States Department of the Interior
FISH AND WILDLIFE SERVICE
Fire Management Branch
National Interagency Fire Center
3833 South Development Avenue
Boise, Idaho 83705



July 29, 2008

To: Regional Fire Management Coordinators (RFMC's), Regions 1-8

From: Chief, Fire Management Branch

Subject: Approval of Prescribed Fires in National Preparedness Level 5

NMAC recently became aware of a conflict between the guidance on PL 5 prescribed fire approvals in the National Mobilization Guide (pg. 79) and the NMAC Preparedness Strategy 2008, Section A-2. NMAC has determined that the guidance contained in the National Mobilization Guide is correct and should be used as the process for authorizing the implementation of prescribed fires during PL 5. Effective immediately, all units should utilize the National Mobilization Guide (Section 26.3.5, E, pg. 79) to determine the level of review and approval needed for conducting prescribed burning operations at planning level 5.

The result of this clarification is that RFMC's, in consultation with the Geographic Area Coordinating group, are responsible for reviewing and approving the implementation of prescribed fires at PL5, unless the prescribed fire requires resource support from outside the local area, or requires an Incident Management team (IMT) or Fire Use Management Team (FUMT). If resources outside the local area are to be used, or if an IMT or FUMT is required, the proposed action must be presented to NMAC for review prior to proceeding.

When conducting prescribed burns in PL 5 under conditions that do not require NMAC concurrence, the Fire Management Branch requests that Regions continue to notify the Branch of all burns prior to implementation. This notification will allow the Branch the opportunity to provide important national level situational information to the Region concerning factors that may have potential implications to the Service and should be considered when making decisions on authorizations to burn. Please use the attached form to describe planned burns when in PL-5 and submit to Erik Christiansen, Fuels Program Coordinator (erik_christiansen@fws.gov).

Please contact Erik Christiansen at 208.387.5596 if you have questions.

Attachment: PL-5 Burn Notification Form



APPENDIX E-3b



United States Department of the Interior— U.S. Fish and Wildlife Service Preparedness Level 5 Prescribed Fire Notification and Concurrence Form

Regional Directors, or if designated, RFMC's or Regional fuels specialists are responsible for notifying the Fire Management Branch for new prescribed fires when in National Preparedness Level 5. Prior to forwarding the request for to NIFC, it is expected that Fire Management Staff will review proposed burns to ensure they are at an acceptable risk and high priority. Regional staff should evaluate the potential need of resources from outside the local unit for each proposed burn. It is advisable that Regional Fire Management Staff consult with their Geographic Area Partners prior to forwarding the notification/concurrence request.

Region		Submitted By		
Date		Phone Number	Office	cell

Describe Proposed Burns:

Station Name	Project Name	Lat/Long	Complexity	Acres	Primary Fuel type	Start/End Date	Prescribed Fire Resources	Contingency Resources

Note: List each prescribed fire by name, Start/end date identifies date of ignition and date anticipated to declare prescribed fire out. Enter engines, aviation resources, personnel, and crews required to implement the burn plan.

- Contingency resource availability has been confirmed with FMO: yes X no
- Contingency resources: on site off site X both
-

Describe Current Conditions:

Note: Include summary of potential risk of escape given current fuel conditions (ERC, BI, etc.), forecasted weather, and local or zone and GACC preparedness level and status.

Rationale for needing to conduct prescribed fire or wildland fire use fire operations under current National Preparedness Level IV or V:

Line Officer Concurrence: (Signature, Title, Date):	
Regional Office Approval (Signature, Title, Date):	National Office Concurrence (as needed) (Signature, Title, Date):



Example



United States Department of the Interior— U.S. Fish and Wildlife Service
Preparedness Level 5 Prescribed Fire Notification and Concurrence Form

Regional Directors, or if designated, RFMC's or Regional fuels specialists are responsible for notifying the Fire Management Branch for new prescribed fires when in National Preparedness Level 5. Prior to forwarding the request for to NIFC, it is expected that Fire Management Staff will review proposed burns to ensure they are at an acceptable risk and high priority. Regional staff should evaluate the potential need of resources from outside the local unit for each proposed burn. It is advisable that Regional Fire Management Staff consult with their Geographic Area Partners prior to forwarding the notification/concurrence request.

Table with 4 columns: Region (R1), Submitted By (John Segar), Date (August 15, 2006), and Phone Number (Office 208-387-5976, Cell 208-859-1807)

Describe Proposed Burns:

Table with 9 columns: Station Name, Project Name, Lat/Long, Complexity, Acres, Primary Fuel type, Start/End Date, Prescribed Fire Resources, Contingency Resources. Includes example burn data for Smokey NWR.

Note: List each prescribed fire by name, Start/end date identifies date of ignition and date anticipated to declare prescribed fire out. Enter engines, aviation resources, personnel, and crews required to implement the burn plan.

- Contingency resource availability has been confirmed with FMO: yes [] no []
Contingency resources: on site [] off site [] X both []

Describe Current Conditions:

Table containing text: Risk of escape is minimal because: Fire Danger is low with all NFDRS indices below the 50th percentile, GACC at PL 1; Fuels are green, and the burn is surrounded by disced agricultural fields on all sides; Significant rain forecasted within the next 5 days

Note: Include summary of potential risk of escape given current fuel conditions (ERC, BI, etc.), forecasted weather, and local or zone and GACC preparedness level and status.

Rationale for needing to conduct prescribed fire or wildland fire use fire operations under current National Preparedness Level IV or V:

Table containing text: The burn is a high priority fuels project which is difficult to accomplish at other times of the year. Burn resources are local and not available for national dispatch. Risk of escape is minimal, and contingency resources are available

Table with 2 columns: Line Officer Concurrence (Signature, Title, Date): /S/Woodsy Owl, 8-15-06; Regional Office Approval (Signature, Title, Date): /S/Smokey Bear, RFMC, 8-15-06; National Office Concurrence (as needed) (Signature, Title, Date): /S/Brian McManus, Chief, FMB., 8-15-06

APPENDIX E-4

Recommended Minimum Prescribed Burning Monitoring Checklist

Planning and Preparation

Environmental Conditions Prior to the Burn

- ___ Fuel
 - ___ Model(s)
 - ___ Loading (By Size Class)
 - ___ % Cover (Type/Model)
 - ___ Continuity
 - ___ Crown ratio
 - ___ Depth of Fuel Bed
 - ___ Other
- ___ Air Temperature (Maximum - Minimum to develop trends)
- ___ Relative Humidity (Maximum - Minimum to develop trends)
- ___ Wind Speed and Direction (Eye-level/20 Foot)
- ___ Fuel Moisture
 - ___ Dead Fuel Moisture (Use of Fuel Sticks and/or Drying Ovens highly recommended)
 - ___ Live Fuel Moisture (Fuel Models 2,4,5,7,10)
- ___ Soil Moisture (Dry, Moist, Wet)
- ___ Drought Indicator (Track One or More)

Execution

Environmental Conditions during the Burn

- ___ Date/Time
- ___ Air Temperature (Every 30 minutes)
- ___ Relative Humidity (Every 30 minutes)
- ___ Wind Speed and Direction (Eye Level) (Every 30 minutes)
- ___ Cloud Cover
- ___ Fuel Moisture (Indicate How Determined: Calculated, Actual)
 - ___ Dead Fuel Moisture (Using above values, calculate every 30 minutes utilizing Tables and Worksheets, Nomograms, BEHAVE, etc.)
 - ___ Live Fuel Moisture (Fuel Models 2, 4, 5, 7, 10 - Collect immediately prior to the burn and evaluate later)

Fire Behavior

- ___ Flame length (Head, Flank, Backing)

- ___ Rate of Spread (Forward, Flank, Backing)
- ___ Resistance to Control
- ___ Spotting Distance

Smoke/Air Quality

- ___ Mixing/Dispersal (Good, Fair, Poor)
- ___ Trajectory of Column (Surface/Upper Level)
- ___ Duration (Active Burning/Smoldering)
- ___ Problems

Note: It is recommended that photos be taken to document smoke dispersal.

Post Burn

First Order Fire Effects

- ___ Percent of Area Burned
- ___ Percent of Fuels Consumed (By Fuel Loading Size Class, when possible)
- ___ Percent of Thatch/Duff Consumed
- ___ Scorch Height
- ___ Mortality

Note: The information in the first two categories will be used to determine the amount of particulate matter produced, and may/will be used by State Air Quality Regulators.

APPENDIX F-1

Interagency Burned Area Rehabilitation Guidebook

**Interpretation of Department of the Interior 620 DM 3
For the Burned Area Rehabilitation of Federal and Tribal Trust
Lands
Version 1.3
October 2006**

Interagency Burned Area Rehabilitation Guidebook Version 1.3

Approved by:

_____	Date _____
Bureau of Indian Affairs	
_____	Date _____
Bureau of Land Management	
_____	Date _____
National Park Service	
_____	Date _____
U.S. Fish and Wildlife Service	

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2 Introduction

The purpose of the Interagency Burned Area Rehabilitation Guidebook (Guidebook) is to provide general operational guidance for the Department of the Interior Burned Area Rehabilitation (BAR) activities after a wildfire. In conjunction with Departmental and agency policy, it is designed to provide agency administrators and BAR specialists with sufficient information to:

- Understand BAR policy, standards, and procedures.
- Assess wildfire damage and develop a cost effective plan or report.
- Assess and report accomplishments.

It consolidates and provides an interagency interpretation of BAR policies, procedures, objectives, and standards where there is Departmental and agency agreement. Individual agency policy and procedure manual guidance can be more but not less restrictive than that presented in this Guidebook.

3 BAR Policy Implementation

3.1 Policy, Direction, and Program Coordination

BAR and emergency stabilization activities are an integral part of wildfire incidents, but are planned, programmed, and funded separately from each other. Guidance for emergency stabilization is found in a separate guidebook. Departmental BAR policies are found in the Department of the Interior (620DM3) policy documents and available on the Department of the Interior Emergency Stabilization and Burned Area Rehabilitation website. Individual agencies have supplemented this policy:

- Bureau of Indian Affairs (BIA)
- Bureau of Land Management (BLM)
- National Park Service (NPS)
- U.S. Fish and Wildlife Service (FWS)

3.2 Objective, Priority and Allowable Actions

3.2.1 Objectives

Based on actions identified in approved land and fire management plans:

- To evaluate actual and potential long-term post-fire impacts to critical cultural and natural resources and identify those areas unlikely to recover naturally from severe wildfire damage.
- To develop and implement cost-effective plans to emulate historical or pre-fire ecosystem structure, function, diversity, and dynamics consistent with approved land management plans, or if that is infeasible, then to restore or establish a healthy, stable ecosystem in which native species are well represented.
- To repair or replace minor facilities damaged by wildland fire.

3.2.2 Priority

- To repair or improve lands damaged directly by a wildland fire; and
- To rehabilitate or establish healthy, stable ecosystems in the burned area. If it becomes necessary to prioritize, this will be done by the Department of the Interior National Burned Area Rehabilitation (NBAR) coordinators based on relative values to be protected, commensurate with rehabilitation costs. All burned area rehabilitation plans and actions must reflect these priorities.

3.2.3 Allowable Actions

- Repair or improve lands unlikely to recover naturally from wildfire damage by emulating historical or pre-fire ecosystem structure, function, diversity, and dynamics consistent with existing land management plans.
- Chemical, manual, and mechanical removal of invasive species, and planting of native and non-native species, consistent with 620DM3.8F, restore or establish a healthy, stable ecosystem even if this ecosystem cannot fully emulate historical or pre-fire conditions.

- Tree planting to reestablish burned habitat, reestablish native tree species lost in fire, prevent establishment of invasive plants, and regenerating Indian trust commercial timberland as prescribed by a certified silviculturalist to not regenerate for ten years following the fire.
- Repair or replace wildfire damage to minor operating facilities (e.g., campgrounds, interpretive signs and exhibits, shade shelters, fences, wildlife guzzlers, etc.). Rehabilitation may not include the planning or replacement of major infrastructure, such as visitor centers, residential structures, administration offices, work centers and similar facilities. Rehabilitation does not include the construction of new facilities that did not exist before the fire, except for temporary and minor facilities necessary to implement burned area rehabilitation efforts.

3.3 Safety

Employee and Public Safety Is the First Priority in Every Management Activity. All planning and implementation activities must reflect this commitment. A job hazard analysis will be prepared for each incident activity.

3.4 Definitions (as in 620 DM 3)

Agency Administrator:

Line officer (or designee) of the agency or jurisdiction that has responsibility for the incident. For the following agencies, this unit may include:

- Bureau of Indian Affairs (BIA) - Director, Office of Trust Responsibility, Regional Director, or Superintendent.
- Bureau of Land Management (BLM) - Director, State Director, District Manager or Field Office Manager.
- Fish and Wildlife Service (FWS) - Director, Regional Director, Complex Manager or Project Leader.
- National Park Service (NPS) - Director, Regional Director, Park Superintendent, or Unit Manager.

Burned Area Rehabilitation Plan (BAR Plan):

A document that specifies treatments required to implement post-fire rehabilitation policies. This plan may be programmatic (prepared in advance) and applicable to clearly defined types of incidents and situations, or prepared by an interdisciplinary team of specialists during or immediately following the containment of a wildland fire.

Burned Area Rehabilitation Team (BAR Team):

A standing or ad hoc group of technical specialists (hydrologists, rangeland management specialists, biologists, soil scientists, etc.) that are assigned to prepare a BAR Plan.

Burned Area Emergency Response: Planned actions to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life or property resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources.

Emergency Stabilization.

Planned actions to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life or property resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources. Emergency stabilization actions must be taken within one year following containment of a wildland fire.

Fire Suppression Activity Damage:

Damage to resources, lands, and facilities resulting from wildfire suppression actions, in contrast to damages resulting from a wildfire.

National Burned Area Rehabilitation Coordinators Group (NBAR):

The coordinators consist of a representative from the Department of the Interior (DOI) bureaus (BIA, BLM, FWS, NPS) and the Office Wildland Fire Coordination.

Non-Native Invasive Species:

Species that were not components of pre-European settlement vegetative communities:

- which have been introduced, either deliberately or inadvertently;
- which have the capacity to aggressively invade new habitats, displacing and out-competing native species, and;
- whose introduction does or is likely to cause economic or environmental harm or harm to human health.

Rehabilitation:

Efforts (non-emergency) undertaken within three years of a wildfire to repair or improve fire-damaged lands which are unlikely to recover to management approved conditions; or to repair or replace minor facilities damaged by fire.

Restoration:

The continuation of rehabilitation beyond the initial three years, or the repair or replacement of major facilities damaged by the fire.

Wildland Fire:

Any non-structure fire that occurs in the wildland. Three distinct types of wildland fire have been defined and include wildfire, wildland fire use, and prescribed fire.

- **Wildfire** – An unplanned, unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the wildfire out.
- **Wildland Fire Use** – The application of the appropriate management response to naturally-ignited wildland fires to accomplish specific resource management objectives in pre-defined designated areas outlined in Fire Management Plans. Operational management is described in the Wildland Fire Implementation Plan (WFIP).
- **Prescribed Fire** – Any wildland fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and NEPA requirements (where applicable) must be met, prior to ignition.

3.5 Program Coordination

The BIA, BLM, NPS, and FWS will coordinate BAR program activities locally and nationally. Coordination of BAR efforts with the incident management team, other federal land management agencies, other federal (e.g., NRCS, BOR, DOD, USGS, etc.), state and local agencies, tribes, and private landowners is encouraged to meet program objectives. BAR activities need to be closely coordinated with resource managers and other non-wildfire rehabilitation activities to avoid potential conflicts.

3.5.1 Preplanning

Internal/external coordination can be an important process in the successful implementation and completion of all phases of BAR.

The local unit staff should:

- Identify key external agency contacts prior to the wildfire season.
- Jointly review the rehabilitation and restoration section of the Fire Management Plan (FMP).
- Identify potential treatments for BAR within a unit's Fire Management Plan.
- Identify in advance suppliers, equipment, storage facilities and identifying seed mixes and implementation personnel.
- Meet with all BAR technical specialists, wildland fire management staff, and other appropriate staff to discuss roles and responsibilities and to clarify areas of disagreement and/or confusion.

3.6 Timeframes

- Burned Area Rehabilitation (BAR) finances post-fire efforts up to three years from the containment date of the fire. Treatments and activities are funded in one-year increments and are reviewed at the end of each fiscal year and funded with the next fiscal year funds, as appropriate.
- BAR is a non-emergency activity and the completion of the BAR Plan and plan approval is driven by any activity or treatment implementation needs (e.g., herbicide treatment effectiveness).
- Funding for this activity is competitive among bureaus and is based on proposed projects submitted through the National Fire Plan Operations and Reporting System (NFPORS).
- NFPORS data entry is accomplished following plan approval and upon activity or treatment accomplishment
- An annual accomplishments reports including monitoring results are required by the beginning of the fiscal year.
- A final treatment accomplishment report will be submitted within 60 days following the completion of planned burned area rehabilitation treatments, or at the latest, 3 years plus 60 days following wildfirecontainment which ever comes first.

3.7 Funding Rules

Funding for this activity is competitive among bureaus and is based on proposed projects submitted through the National Fire Plan Operations and Reporting System (NFPORS).

The competitive funding awards are approved by the Interior National Burned Area Rehabilitation Coordinators on a priority basis using established common criteria. Rehabilitation treatments and activities are normally funded the fiscal year following the wildfire unless rehabilitation contingency funds are available that are distributed on a first come first serve basis. Treatments and activities are funded in one-year increments and are reviewed at the end of each fiscal year and funded with the next fiscal year funds, as appropriate. While there is no guarantee that subsequent year projects are funded, continuation of previous year funded projects is a priority in the BAR Funding Criteria (as found on the Department of the Interior Emergency Stabilization and Burned Area Rehabilitation web site). Should requests exceed available funding, plans are prioritized based on values at risk and priorities to meet resource objectives.

Selection of the funding awards on prior-year fires will occur shortly after the start of the fiscal year. Funding will be distributed upon passage of the Interior Appropriation bill.

Projects may be funded in midyear if contingency funds are available. After the plan is approved, the National Burned Area Rehabilitation Coordinator will prepare a fund transfer request.

4 BAR Standards

BAR treatments/activities are intended to repair or improve lands damaged directly by the wildfire and unlikely to recover naturally from severe wildfire damage or repair or replace wildfire damage to minor operating facilities. These treatments/activities must be in accordance with approved management plans and applicable agency policy, standards, and all relevant federal, state, and local laws and regulations. BAR funds can only be used for burned area assessments, BAR Plan development and implementation, and monitoring on agency lands within the perimeter of the wildfire or potential impact area downstream from the burned area (see Departmental guidance on Wyden Amendment in [Appendix I](#)). The cost of BAR treatment(s) will be commensurate with the values to be protected.

Standard treatments are to be used that have been validated by monitoring data from previous projects, or when there is documented research establishing the effectiveness of such actions.

4.1 Treatment Considerations

4.1.1 Cadastral Survey

BAR funding for cadastral survey activities is only provided if the information is needed for BAR Plan development and implementation. Project areas have cadastral survey work done with BAR funds only where land ownership adjacent to proposed BAR treatments is in question—not to answer long-standing, large-scale ownership questions. Survey monuments must be located and flagged for avoidance prior to any surface disturbing activity that could result in damage to or destruction of the survey monument.

4.1.2 Experimental Technology

Experimental technology (equipment, plant materials, etc.) that has not previously been field tested and proven to be effective is not funded with BAR funding. Research projects are coordinated through the local agency administrator and may be funded through the Joint Fire Science Program or other funding sources.

4.1.3 Prescribed Fire and Wildland Fire Use

Prescribed Fire - BAR funding is not appropriate for prescribed fire actions. However, if a prescribed fire is converted to a wildfire, then BAR funding may be appropriate for only those acres that are delineated or partitioned following the conversion or declaration as a wildfire.

Wildland Fire Use - BAR funding is not appropriate for wildland fire use. However, if a wildland fire use wildland fire is converted to a wildfire, then BAR funding may be appropriate for only those acres that are delineated or partitioned following the conversion or declaration as a wildfire.

Any treatments determined to be necessary on prescribed or wildland fire use that have not been converted or declare wildfires, must be paid for by the prescribed fire, wildland fire use or benefiting activity project funds.

4.1.4 Fuels Management

Post-fire fuel management activities that are designed to address a fuels issue and not site rehabilitation are not appropriate for BAR funding.

4.1.5 Clean Water Act

The Corps of Engineers may require modifications to BAR treatments to ensure that the environmental impacts to stream channels or wetlands are minimal under General Permit 37.

4.1.6 Wildfire Suppression Activity Damage Repair

Suppression activity damage repairs are the responsibility of the Incident Commander and are funded using the suppression account. This work should be completed by the incident management team prior to final demobilization of the suppression forces whenever practical. However, it may be more cost-effective and practical to delay some repairs to improve the chance of success. It is the responsibility of the agency administrator to ensure suppression activity damage repair.

4.1.7 Wildlife

Wildlife populations may continue to degrade unburned areas in and adjacent to the burned area, and may have a major effect on the success of BAR treatments. Agreements with the appropriate fish and wildlife management agencies (if needed) should be developed before the BAR treatments are implemented, prescribing how wildlife is managed. The BAR Plan should identify what measures are needed to prevent further burned area degradation from wildlife use, and treatment specifications should address timely implementation.

Treatments to mitigate the loss of fish and wildlife habitat are appropriate for BAR funding. BAR treatments must be consistent with wildlife habitat management objectives in approved habitat management plans. As with other treatments, a combination of criteria including cost, adaptability, probability of successful establishment, etc., should be considered before finalizing a prescription in important wildlife habitats.

4.2 Treatment Standards

4.2.1 Cultural Resources

BAR funds cannot be used for restoration of any cultural resource or heritage site.

BAR funds are used to ensure burned area rehabilitation treatments conform to Section 106 of the National Historic Preservation Act (NHPA).

- Burned area rehabilitation treatments that disturb the soil surface are reviewed for potential effects on significant cultural resources. The appropriate agency cultural resource specialist should become involved in treatment planning as early as possible.
- Treatments evaluated as No Historic Property (no historic properties present), or as actions permitted under existing agency programmatic agreements (PA) or memorandum of agreement (MOA) can be undertaken without further State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) consultation. Treatments with no adverse effect can be undertaken after appropriate consultation with SHPO or THPO. Treatments with adverse effect should be addressed by the agency cultural resource coordinator.

4.2.2 Non-native Invasive Control

Burned area rehabilitation funds can be used to control non-native invasive plants in burned areas only if an approved management plan and existing program is in place addressing non-native invasive species control.

The use of integrated pest management methods is preferred when addressing the management and control of existing or potential invasive non-native plant species. The rehabilitation program funds the use of chemical, biological, mechanical, cultural, and physical treatments necessary to minimize the establishment of invasive species in conjunction with vegetative treatments, or for site preparation proposed for other rehabilitation treatments. The pesticides proposed must be previously approved for use on public lands. All applicable label and environmental restrictions must be followed. Control of invasive species also complies with Executive Order 13112, Invasive Species which promotes the control of invasives to minimize their impact.

Allowable Actions

- Assessments to determine the need for treatment. Contingent:
 - Known infestations
 - Possibility of new infestation due to management actions
 - Suspected contaminated equipment use areas
- Treatments to prevent detrimental invasion (not present on the site) by non-native invasive species.
- Treatment of invasive plants introduced or aggravated by the wildfire. The treatment objective when the population is aggravated is to maintain the invasion at no more than pre-wildfire conditions.

Prohibited Actions

- Systematic inventories of burned areas.

The treatment specification must include a threshold level where the treatment is initiated (e.g. presence of Canada thistle, 10 percent cover of cheat grass, etc.) and a practical, cost-effective management action to be undertaken (mechanical removal, broadcast herbicide application, etc.).

4.2.3 Re-vegetation

Natural recovery by native plant species is preferable to planting or seeding, either of natives or non-natives. It is essential that the potential for recovery of native or seeded vegetation and invasion by weeds be evaluated prior to making a decision whether to seed a burned area. Re-vegetation of burned areas is not an appropriate use of BAR funds if natural regeneration will result in a vegetation type that meets BAR objectives.

Planting of seed or seedlings for BAR is an appropriate treatment if seeding or planting of vegetation is prescribed to be effective within Departmental policy and it repairs or improves land unlikely to recover naturally from wildfire damage by emulating historical or pre-fire ecosystem structure, function, diversity, and dynamics consistent with existing land management plans.

The use of pesticides must be identified in an existing approved management plan and have an existing integrated pest management program and implement the bureau pesticide use permit process. Site preparation using integrated pest management methods on burned land may be funded with BAR funds for re-vegetation treatments (see non-native invasive species control section). The potential for invasive non-native plant invasion is considered when developing the seed prescription.

Native versus Non-native Plants - Species planted on burned areas must provide the protection required by BAR Plan objectives, be consistent with the appropriate approved land management plan, and be in compliance with Executive Order 13112, Invasive Species, February 3, 1999.

Non-native seed may be used when allowed in agency policy. Use of native species is preferred to the use of non-natives for BAR treatments. However, a mixture of native and non-native species is preferable to using only non-natives if the desired natives are not available, and if the use of non-natives is consistent with approved land management plans.

Competitive non-natives should be avoided in the seed mixture to facilitate the establishment and persistence of the native species.

Testing of Seed and Vegetative Material - All seed is tested to ensure compliance with the State noxious-seed requirements recognized in the Administration of the Federal Seed Act. All purchased seed must meet all requirements of the Federal Seed Act (7 USC 1551-1610), the state seed laws where it will be delivered, and Federal specifications JJJ-S-181. All seed will be tested for purity and germination (Pure Live Seed or Tetrazolium) to meet contract specifications and should be tested for weed and noxious weed seed by an independent seed testing organization. Certified seed (e.g., source identified tag) ensures the genetic origins of the parent plant material or the collection origin.

Tetrazolium tests, performed by state seed laboratories, may be used on shrub seeds and for species where dormant or hard seeds are common. Tetrazolium tests may also be authorized by the agency when seed laboratories do not have enough lead time to use a full germination test. The use of certified seed is required (if available) to ensure that desired genetic traits are present. The use of source-identified seed is recommended when native seed is collected from wildland sites to ensure that a local or otherwise adapted seed source is used to re-vegetate the burned area. Straw and other vegetative mulch materials should be purchased as certified weed-free by a State agricultural agency or should be sampled and tested for noxious weeds prior to use.

4.2.4 Forest Management

Forest management may be considered if the ecosystem is unlikely to recover naturally from wildfire damage as prescribed by a certified silviculturalist to not regenerate for ten years following the fire. Tree planting is limited to the following; the use of BAR funds to plant trees must be addressed in an approved land management plan:

- Facilitating the succession and stabilization of forest ecosystems.
- Re-establishing habitat for federally listed threatened or endangered species, or other special status species.
- Reintroducing or re-establishing native tree species and seed sources lost in a stand replacement fire.
- Reforestation on Indian trust lands.

BAR funds **cannot** be used for timber salvage assessment and the costs associated with the actual salvage sale (i.e., timber inventory, contract preparation, etc.).

4.2.5 Livestock, Wild Horse and Burro Management

Exclusion of livestock, wild horses or burros may be critical for the recovery of burned vegetation or establishment and maintenance of new seedlings.

Recovery/Establishment Period – Re-vegetated and recovering areas may be closed to livestock grazing to promote recovery of burned perennial plants and/or facilitate the establishment of seeded species. An assessment is needed to determine the length of time livestock exclusion is required to meet BAR objectives. Livestock permittees must be informed of potential closures early during the plan preparation process.

Grazing Management - Wild horses and burros may need to be excluded from treatment areas. BAR funds may be used for fencing or relocation (both actions must be consistent with approved land management plans and agency wild horse and burro policy) until the area recovers. Exclusion or relocation must occur before the animals can damage the remaining vegetation. Both actions must be consistent with approved land management plans, Wild Horse and Burro management plans, and agency wild horse and burro policy.

Movement of animals must be completed within one year of containment of the fire.

4.2.6 Federal Field Unit Infrastructure

Minor Facilities

The repair or replacement of minor improvements and facilities (e.g., kiosks, fences, interpretive or boundary signs, recreation facilities, corrals, guzzlers, trails, permanent long-term monitoring plots, etc.) burned or damaged by wildfire to pre-fire specifications is authorized with the use of BAR funds only if these improvements or facilities are necessary for implementing an approved land management plan. It does not include the construction of new or upgraded facilities that did not exist before the fire. BAR treatments and maintenance of BAR improvements beyond 3 years from containment of the wildfire is funded by other program funding. Minor facility repair or replacement must be addressed in the BAR plan.

Major Facilities

Replacement or repair of major facilities (e.g., visitor centers, residential structures, administration offices, work centers or similar facilities and their contents) with BAR funds is prohibited.

4.2.7 Monitoring

BAR funds for monitoring are limited to:

Treatment Implementation: It is appropriate to determine if the treatment was implemented according to plan specifications.

Treatment Effectiveness: It is appropriate to monitor whether a treatment achieved its objective (e.g. whether herbicide eradicated the invasive species or whether willow and cottonwood trees successfully survived, grew, and rehabilitated the stream bank).

Prohibited Actions

- Monitoring to determine if the decision not to implement any treatment was appropriate (e.g., monitoring natural recovery). However, the use of an untreated area (control) in a paired comparison design to evaluate the effectiveness of a treatment is acceptable where values to be protected will not be affected by an untreated area.
- Monitoring the impacts or effects of the wildfire (e.g. water quality monitoring to evaluate the impacts of wildfire on the recovery of an endangered species; post-fire monitoring of threatened and endangered species presence or reproductive status and reproductive success, etc.).
- Long-term monitoring (more than 3 years following containment of the fire) related to treatment longevity and effectiveness.
- Research
- It is not appropriate to monitor to determine the indirect effects of a treatment (e.g., changes in wildlife habitat structure, condition, or use).

Monitoring intensity should be commensurate with the treatment investment, complexity of the BAR treatments, and level of concern or controversy associated with the BAR treatment.

4.2.8 Public Use Management

Agency administrators should consider area closures to protect public safety, natural recovery, and active BAR treatments. Burned or seeded areas may be temporarily closed to the public by excluding vehicle, bicycle, horse, and foot use if unacceptable resource damage would occur or if danger to the public is present due to wildfire damage or BAR activities. Land management plans should be reviewed prior to implementing BAR measures to identify other areas of special management concern

(Areas of Critical Environmental Concern, outstanding natural areas, primitive areas, Wild and Scenic Rivers, National Trails, Research Natural Areas, National Conservation Areas, National Monuments, etc.) to ensure BAR treatments are consistent with management objectives for these special management areas.

Law Enforcement - Law enforcement activities should be accomplished within existing capability and funding authority, or by shifting priorities. Law enforcement is not typically funded using BAR funds except in unusual circumstances.

4.2.9 Threatened and Endangered Species

All BAR Plans should be reviewed to determine if threatened or endangered species or their habitat would be benefited or adversely affected by the implementation of BAR treatments. Agencies must consult with the U.S. Fish and Wildlife Service (Ecological Services Offices) or National Marine Fisheries Service, as appropriate, on all BAR actions that may affect a threatened and endangered listed species or its habitat to ensure compliance with Section 7 of the Endangered Species Act. Timeframes for review and consultation may last several months. Therefore, every effort should be made to initiate these actions early in the BAR planning process.

Post-fire monitoring of threatened and endangered species status or recovery is not funded with BAR funds unless the monitoring is for the purpose of assessing treatment effectiveness of threatened and endangered species habitat rehabilitation measures and is in an approved BAR Plan.

4.2.10 Removal of Treatments

Any treatments, or parts thereof, installed using BAR funds can be removed using BAR funds if removal is completed within three years of containment of the wildfire. If treatments remain after three years of wildfire containment other funds must be used for removal costs and other programs must become responsible for managing and maintaining the treatments.

5 Program Administration

5.1 Roles and Responsibilities

Agency Administrator directs and coordinates the development and implementation of all management operations of an administration unit. This includes developing and implementing the BAR Plan.

Agency/Bureau BAER Coordinator coordinates program issues within their own agency/bureau.

Regional/State BAER Coordinator coordinates program issues within their own regions/states.

Burned Area Rehabilitation (BAR) Team assesses the need for BAR treatments/activities and prepares a BAR Plan for the agency administrator. BAR teams are established to quickly address BAR issues.

5.2 BAR Program Funding

Funding for BAR treatments/activities is provided under Wildland Fire Management funding authorities. See [Chapter 4](#) for appropriate and inappropriate use of the BAR funds.

See [Chapter 3.7](#) Funding Rules for how projects receive consideration for funding.

5.2.1 Cost Accounting

Agency specific cost tracking processes are used to accurately track expenditures. Use Fire Codes to track funding. The complexity of the project dictates the complexity of the cost tracking system.

5.2.2 Personnel Funding

All participants may fund their base 8 hours from BAR. Though BAR is a non-emergency activity, it is an unpredictable amount of unplanned work; however, careful planning should eliminate any need for overtime. If overtime is needed, overtime hours can be charged to BAR. Performance awards can be funded with BAR funding, but only with the approval of the bureau's National Burned Area Emergency Response Coordinator. Administratively Determined (AD) personnel cannot be used on BAR projects.

For further information on overtime, hazard pay, and other personnel funding issues see Interagency Incident Business Management Handbook.

5.3 Planning

Each BAR project requires the preparation, submittal, and approval of a BAR Plan. The BAR Plan is written separately from the Emergency Stabilization / Burned Area Emergency Response (BAER) Plan.

5.3.1 BAR Plan

The BAR Plan must be consistent with approved land and resource management plans. Development of the BAR Plan objectives are guided by resource management objectives and general management practices identified in approved land and resource management plans.

Though the non-emergency nature of BAR planning allows bureaus to use normal local unit resources and a normal planning approach, it is an unpredictable amount of unplanned work requiring careful planning.

An approved BAR Plan is required before any BAR funds can be obligated toward implementation. Written approval is required for all activities and treatments and will be documented in the final BAR Plan.

5.3.2 Transition to Resource Management Activities

Frequently, BAR treatments/activities initiates a management action that is significantly longer than the three year funding limitations (e.g., non-native invasive species control, appropriate livestock and animal management, etc.) The BAR Plan should identify the types of programs, funding and steps that are needed to tie BAR to long term management programs and their goals. The Plan may also identify other potential program areas and funding sources able to accommodate these added long-term management commitments and actions beyond the three year funding limits. Unless long-term activities are fully integrated into the other program areas, the ultimate success of the activity and the benefits to the resource may be jeopardized.

5.4 BAR Program Accountability

Accountability for the BAR program lies with each agency's administrator. Individual agencies establish accountability responsibilities for:

- Plan review and approval/disapproval (resource and funding appropriateness)
- Financial accountability
- Plan implementation
- Plan implementation review and evaluation
- Program review and evaluation

Significant deviations from treatment specifications or costs as prescribed in the approved plan require a plan amendment. All treatments/activities, including plan amendments, must be completed within three years of wildfire containment.

Accomplishments are tracked and reported in the corporate database (e.g., NFPORS). Fiscal obligations and accomplishments are tracked and documented by an annual accomplishment report each fiscal year. A final accomplishment report is required after completion of the BAR project. Any BAR funds not expended following completion of the plan cannot be used for other purposes.

To sustain accountability for provided funding, annual and final accomplishment reports (See section 7.10) are to be submitted to the approval authority. The corporate database must be kept current. The annual accomplishment report should include treatments applied, dollars spent, treatment effectiveness, monitoring results, and an assessment in narrative form of each aspect of the project. The annual and final accomplishment reports are a mandatory requirement for continued treatment effectiveness monitoring funding and account closure.

5.5 Information Management

Approved BAR Plans, treatment effectiveness reports, and accomplishment reports should be shared with other federal and non-federal agencies/bureaus.

5.6 Agreements

Agreements can be made between agencies for the implementation of BAR activities and treatments. Funding for Bureau of Reclamation projects will be from that Agency's funds only.

There must be an agreement before any service is performed. Without an agreement, there is no authority to obligate funds for services. Specifications for funding responsibilities should include billing procedures and schedules for payment. Any agreement that extends beyond one fiscal year must be made subject to the availability of funds. Any transfer of federal property must be in accordance with federal property management regulations. All agreements must undergo periodic joint review and, as appropriate, revision.

Because funding for burned area rehabilitation treatments is provided in one-year increments for no more than three years following containment of a wildland fire, agreement to obligate funds in one fiscal year for use in another is only done when there is not sufficient time to initiate and complete the contracting necessary to begin treatment work identified in an approved plan.

The chart below is a synopsis of the three basic agreement types, contract, interagency agreement, and memorandum of understanding.

TYPES OF AGREEMENTS

TYPE OF AGREEMENT	DEFINITION	SIGNATORY AUTHORITY	REFERENCES	CONTACT FOR INFORMATION
Contract	A mutually binding legal document obligating the seller to furnish supplies or services (including construction) and the buyer to pay for them.	Only warranted Contracting Officers may award contracts.	Federal Acquisition Regulations, 48 CFR; and Department Acquisition Regulation System.	Respective Headquarters or regional office Contracting Officer
Interagency Agreement	An agreement between Federal Agency(ies)/Bureaus used to reimburse an Agency for goods or services provided to the agency.	Warranted Contracting Officers are the only officials who may award Interagency/ Intra-Agency Agreements in combination with the respective agency administrator.	Federal Acquisition Regulations, 48 CFR 17.5; and Department Acquisition Regulation.	Same as above.
Memorandum of Understanding (MOU)	A written agreement between the agency and another entity(ies) that confirms the use of cooperative policies or procedures to promote mutual endeavors.	MOUs are signed by the Director/Deputy Commissioner or agency administrator.	Internal Guidance	Same as above.

APPENDIX F-2

Interagency Burned Area Emergency Response Guidebook

**Interpretation of Department of the Interior 620 DM 3 and USDA
Forest Service Manual 2523
For the Emergency Stabilization of Federal and Tribal Trust Lands
Version 4.0
February 2006**

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2 Introduction

The purpose of the Interagency Burned Area Emergency Response Guidebook (Guidebook) is to provide general operational guidance for Department of Agriculture and the Department of the Interior emergency stabilization activities after a wildfire. In conjunction with Departmental and agency policy, it is designed to provide agency administrators and emergency stabilization specialists with sufficient information to:

- Understand emergency stabilization policy, standards, and procedures.
- Assess wildfire damage and develop a cost effective plan or report.
- Assess and report accomplishments.

It consolidates and provides an interagency interpretation of emergency stabilization policies, procedures, objectives, and standards where there is Departmental and agency agreement. Individual agency policy and procedure manual guidance can be more but not less restrictive than that presented in this Guidebook.

3 Emergency Stabilization Policy Implementation

3.1 Policy, Direction, and Program Coordination

Emergency Stabilization and Rehabilitation activities are an integral part of wildfire incidents, but are planned, programmed, and funded separately from each other. Guidance for Burned Area Rehabilitation is found in a separate guidebook which is currently under development for DOI agencies. Departmental emergency stabilization policies are found in Department of Agriculture (FSM 2523) and Department of the Interior (620DM3) policy documents. Individual agencies have supplemented this policy:

- USDA Forest Service
- Bureau of Indian Affairs (BIA)
- Bureau of Land Management (BLM)
- National Park Service (NPS)
- U.S. Fish and Wildlife Service (FWS)

3.2 Objective and Priority

To determine the need for and to prescribe and implement emergency treatments to minimize threats to life or property or to stabilize and prevent further unacceptable degradation to natural and cultural resources resulting from the effects of a fire. Natural recovery is preferable.

3.3 Employee and Public Safety

Employee and Public Safety Is the First Priority in Every Management Activity. All planning activities must reflect this commitment. Accordingly, planning team members conform to National Wildfire Coordinating Group (NWCG) safety, training, qualification (NWCG-PMS 310-1, Wildland Fire Qualifications), Interagency Standards for Fire and Fire Aviation Operations, and incident business management standards prior to control of the fire.

Assessment activities need to be closely coordinated with fire fighting activities to avoid conflicts between wildfire fighting efforts and emergency stabilization planning. Burned area assessment activities must be coordinated with the Incident Commander.

A job hazard analysis will be prepared for each incident activity.

3.4 Definitions

Agency Administrator:

Line officer (or designee) of the agency or jurisdiction that has responsibility for the incident. For the following agencies, this unit may include:

- Bureau of Indian Affairs (BIA) - Director, Office of Trust Responsibility, Regional Director, or Superintendent.
- Bureau of Land Management (BLM) - Director, State Director, District Manager or Field Office Manager.
- Fish and Wildlife Service (FWS) - Director, Regional Director, Complex Manager or Project Leader.
- National Park Service (NPS) - Director, Regional Director, Park Superintendent, or Unit Manager.
- USDA Forest Service - Chief, Regional Forester, Forest Supervisor, or District Ranger

Burned Area Emergency Response: An agency response to a wildfire implementing the emergency **stabilization program**.

Burned Area Emergency Response Plan/Report (BAER Plan/Report):

This emergency stabilization document specifies treatments approved to implement post-wildfire emergency stabilization policies on an individual incident. This plan/report is prepared by an interdisciplinary team of specialists during or immediately after the containment of a wildfire. Department of the Interior uses the term “plan” and the USDA Forest Service uses the term “report”. The Emergency Stabilization Plan and Burned Area Emergency Response Plan are synonymous.

Burned Area Emergency Response Team (BAER Team):

A standing or ad hoc group of technical specialists (hydrologists, rangeland management specialists, biologists, soil scientists, etc.) that are assigned to prepare a BAER Plan/Report.

Emergency Stabilization:

Planned actions to stabilize and prevent unacceptable degradation to natural and cultural resource, to minimize threats to life or property resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources.

Fire Suppression Activity Damage:

Damage to resources, lands, and facilities resulting from wildfire suppression actions, in contrast to damages resulting from a wildfire.

National Burned Area Emergency Response Coordinators Group (NBAER):

The coordinators consist of a representative from the Department of the Interior (DOI) bureaus (BIA, BLM, FWS, NPS, Office Wildland Fire Coordination), and the USDA Forest Service.

Non-Native Invasive Species:

Species that were not components of pre-European settlement vegetative communities:

- which have been introduced, either deliberately or inadvertently;
- which have the capacity to aggressively invade new habitats, displacing and out-competing native species, and;

- whose introduction does or is likely to cause economic or environmental harm or harm to human health.

Rehabilitation:

Efforts (non-emergency) undertaken within three years of a wildfire to repair or improve fire damaged lands which are unlikely to recover to management approved conditions; or to repair or replace minor facilities damaged by fire.

Restoration:

The continuation of rehabilitation beyond the initial three years, or the repair or replacement of major facilities damaged by the fire.

Values to be Protected (values at risk):

Includes property, structures, physical improvements, natural and cultural resources, community infrastructure, and economic, environmental, and social values.

Wildland Fire:

Any non-structure fire that occurs in the wildland. Three distinct types of wildland fire have been defined and include wildfire, wildland fire use, and prescribed fire.

- **Wildfire** – An unplanned, unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the wildfire out.
- **Wildland Fire Use** – The application of the appropriate management response to naturally-ignited wildland fires to accomplish specific resource management objectives in pre-defined designated areas outlined in Fire Management Plans. Operational management is described in the Wildland Fire Implementation Plan (WFIP).
- **Prescribed Fire** – Any wildland fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and NEPA requirements (where applicable) must be met, prior to ignition.

3.5 Program Coordination

The BIA, BLM, NPS, FWS and USDA FS will coordinate emergency stabilization program activities locally and nationally. Coordination of emergency stabilization efforts with the incident management team, other federal land management agencies, other federal (e.g., NRCS, BOR, DOD, USGS, etc.), state and local agencies, tribes, and private landowners is encouraged to meet program objectives.

3.5.1 Preplanning

Internal/external coordination can be a critical process in the successful implementation and completion of all phases of emergency stabilization.

The local unit staff should:

- Identify key external agency contacts prior to the wildfire season.
- Hold a preseason meeting to discuss roles and responsibilities.
- Jointly review the rehabilitation and restoration section of the Fire Management Plan (FMP).

- Identify potential treatments for emergency stabilization within a unit's Fire Management Plan.
- Identify in advance suppliers, equipment, storage facilities and identifying seed mixes and implementation personnel.
- Meet with all emergency stabilization technical specialists, fire management staff, and other appropriate staff to discuss roles and responsibilities and to clarify areas of disagreement and/or confusion.

3.5.2 Incident Management Coordination

When appropriate, the agency administrator should assign/request a BAER Team before the wildfire is contained. The Incident Commander and BAER Team Leader should communicate and coordinate activities. Several Incident Management Team functions may provide support for the BAER team such as:

- Logistics Section – expanded dispatch, supply, ordering, etc.
- Finance Section – agency unit finance section (contracting officer)
- Plans Section – GIS and mapping services, Incident Action Plans
- Safety Officer
- Operations Section – suppression impact inventory, suppression rehab specifications, aerial reconnaissance
- Information Officer – news releases, media interviews, public meetings
- Other incident personnel as appropriate

3.5.3 BAER Plan/Report Implementation

The BAER Plan/Report may or may not be implemented by the same individuals involved in its development. The agency administrator should appoint an implementation leader before the assessment team demobilizes. The assessment team and implement team leader should coordinate.

3.5.4 Burned Area Rehabilitation Coordination

On wildfires where burned area rehabilitation is anticipated the agency administrator should identify a rehabilitation coordinator (not supported by emergency stabilization funds) as part of the BAER Team in order to collect and organize data for the rehabilitation plans and activities.

4 Emergency Stabilization Standards

Emergency stabilization treatments/activities are intended to protect public safety and stabilize and prevent further degradation to affected natural and cultural resources. These treatments/activities must be in accordance with approved management plans and applicable agency policy, standards, and all relevant federal, state, and local laws and regulations. Emergency stabilization funds can only be used for burned area assessments, BAER Plan/Report development and implementation, and monitoring on agency lands within the perimeter of the wildfire or potential impact area downstream from the burned area (see agency guidance on Wyden Amendment). The cost of emergency stabilization treatment(s) will be commensurate with the values to be protected.

4.1 Treatment Considerations

4.1.1 Cadastral Survey

Emergency stabilization funding for cadastral survey activities is only provided if the information is needed for BAER Plan/Report development and implementation. Project areas have cadastral survey work done with emergency stabilization funds only where land ownership adjacent to proposed emergency stabilization treatments is in question—not to answer long-standing, large-scale ownership questions. Survey monuments must be located and flagged for avoidance prior to any surface disturbing activity that could result in damage to or destruction of the survey monument.

4.1.2 Experimental Technology

Experimental technology (equipment, plant materials, etc.) that has not previously been field tested and proven to be effective is not funded with emergency stabilization funding. Research projects are coordinated through the local agency administrator and may be funded through the Joint Fire Science Program or other funding sources.

4.1.3 Prescribed Fire and Wildland Fire Use

Prescribed Fire - Emergency stabilization funding is not appropriate for prescribed fire actions. However, if a prescribed fire is converted to a wildfire, then emergency stabilization funding may be appropriate for only those acres that are delineated or partitioned following the conversion or declaration as a wildfire.

Wildland Fire Use - Emergency stabilization funding is not appropriate for wildland fire use. However, if a wildland fire use wildland fire is converted to a wildfire, then emergency stabilization funding may be appropriate for only those acres that are delineated or partitioned following the conversion or declaration as a wildfire.

Treatments that are determined to be necessary on prescribed or wildland fire use wildland fires that have not been converted or declare wildfires, are paid for by the prescribed fire, wildland fire use or benefiting activity project funds.

4.1.4 Fuels Management

Post-fire fuel management activities that are designed to address a fuels issue and not site stabilization are not appropriate for emergency stabilization funding.

4.1.5 Clean Water Act

The Corps of Engineers may require modifications to emergency stabilization treatments to ensure that the environmental impacts to stream channels or wetlands are minimal under General Permit 37.

4.1.6 Wildfire Suppression Activity Damage Repair

Suppression activity damage repairs are the responsibility of the Incident Commander and are funded using the suppression account. This work should be completed by the incident management team prior to final demobilization of the suppression forces whenever practical. However, it may be more cost-effective and practical to delay some repairs to improve the chance of success. It is the responsibility of the agency administrator to ensure suppression activity damage repair.

4.1.7 Wildlife

Wildlife populations may continue to degrade unburned areas in and adjacent to the burned area, and may have a major affect on the success of emergency stabilization treatments. Agreements with the appropriate fish and wildlife management agencies (if needed) should be developed before the emergency stabilization treatments are implemented, prescribing how wildlife is managed. The BAER Plan/Report should identify what measures are needed to prevent further burned area degradation from wildlife use, and treatment specifications should address timely implementation. If wildlife control techniques are not installed before next season's green-up, a majority of the animal damage will have occurred. By green-up, there will probably be enough forage in the burned area to prevent any concentrated damage in the unburned area, and treatment after green-up would not be cost effective.

Treatments to mitigate the loss of fish and wildlife habitat are not appropriate for emergency stabilization funding except to prevent permanent impairment of designated critical habitat for federal, state listed, proposed or candidate threatened and endangered species. See also Threatened and Endangered Species (See 4.2.8).

4.2 Treatment Standards

4.2.1 Cultural Resources

The objectives of cultural resource activities and treatments funded under emergency stabilization are to stabilize and prevent degradation to archeological sites, cultural landscapes, traditional cultural properties, and historic structures (until long-term cultural resource management strategies can be developed and implemented using other funding) and to ensure emergency stabilization treatments conform to Section 106 of the National Historic Preservation Act (NHPA).

Allowable Actions

• Site Stabilization and Protection

- Determining whether known historic properties may be further degraded (e.g., site inspection record). Incidental discovery of cultural resource sites should be noted and may be protected.
- Patrolling, camouflaging, or burying significant heritage sites are appropriate actions when necessary to prevent a critical loss of heritage site value when looting potential is high. Patrolling should be considered only where there are not other effective alternatives.

• NHPA Section 106 Compliance

- Emergency stabilization treatments that disturb the soil surface are reviewed for potential effects on significant cultural resources. The appropriate agency cultural resource specialist should become involved in treatment planning as early as possible.
- Treatments evaluated as No Historic Property (no historic properties present), or as actions permitted under existing agency programmatic agreements (PA) or memorandum of agreement (MOA) can be undertaken without further State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) consultation. Treatments with no adverse effect can be undertaken after appropriate consultation with SHPO or THPO. Treatments with adverse effect should be addressed by the agency cultural resource coordinator.

Prohibited Actions

- Systematic inventories or surveys.
- Assessments of the cultural resource damage caused by the fire.
- Site and data recovery, cataloging, and other programmatic administrative actions.
- Heritage site restoration.
- Wildfire suppression activity damage repair.

4.2.2 Non-native Invasive Control

Emergency stabilization funds can be used to control non-native invasive plants in burned areas only if an approved management plan and existing program is in place addressing non-native invasive species control.

The use of integrated pest management methods is preferred when addressing the management and control of existing or potential invasive non-native plant species. The emergency stabilization program funds the use of chemical, biological, mechanical, cultural, and physical treatments necessary to minimize the establishment of invasive species in conjunction with vegetative treatments, or for site preparation proposed for other emergency stabilization treatments. The pesticides proposed must be previously approved for use on public lands. All applicable label and environmental restrictions must be followed. Control of invasive species also complies with Executive Order 13112, Invasive Species which promotes the control of invasives to minimize their impact.

Allowable Actions

- Assessments to determine the need for treatment. Contingent:
 - Known infestations
 - Possibility of new infestation due to management actions
 - Suspected contaminated equipment use areas
- Treatments to prevent detrimental invasion (not present on the site) by non-native invasive species.
- Treatment of invasive plants introduced or aggravated by the wildfire. The treatment objective when the population is aggravated is to maintain the invasion at no more than pre-wildfire conditions.
- Treatments to prevent permanent impairment of designated Critical Habitat for Federal and State listed, proposed or candidate threatened and endangered species.

Prohibited Actions

- Systematic inventories of burned areas.
- Treatments designed to achieve historic conditions or conditions described in an approved land management plan, but did not exist before the fire.
- Treatments beyond one year post wildfire containment.

The treatment specification must include a threshold level where the treatment is initiated (e.g. presence of Canada thistle, 10 percent cover of cheat grass, etc.) and a practical, cost-effective management action to be undertaken (mechanical removal, broadcast herbicide application, etc.).

4.2.3 Re-vegetation

It is essential that the potential for recovery of native or seeded vegetation and invasion by weeds be evaluated prior to making a decision whether to seed a burned area. Re-vegetation of burned areas is not an appropriate use of emergency stabilization funds if natural regeneration will result in a vegetation type that meets emergency stabilization objectives.

Planting of seed or seedlings, for emergency stabilization in a burned area is an appropriate treatment if seeding or planting of vegetation is prescribed to be effective within Departmental policy and:

- Stabilizes the site and minimizes water or wind erosion,
- reduces the invasion of non-native invasive plants, or
- prevents critical habitat for federal listed threatened or endangered species from being more impaired than if nothing was done.

The use of pesticides must be identified in an existing approved management plan and have an existing program. Site preparation using integrated pest management methods on burned land may be funded with emergency stabilization funds for re-vegetation treatments (see non-native invasive species control section). The potential for invasive non-native plant invasion is considered when developing the seed prescription.

Native versus Non-native Plants - Species planted on burned areas must provide the protection required by BAER Plan/Report objectives, be consistent with the appropriate approved land management plan, and be in compliance with Executive Order 13112, Invasive Species, February 3, 1999.

Non-native seed may be used when allowed in agency policy. Use of native species is preferred to the use of non-natives for emergency stabilization treatments. However, a mixture of native and non-native species is preferable to using only non-natives if the desired natives are not available, and if the use of non-natives is consistent with approved land management plans.

Competitive non-natives should be minimized in the seed mixture to facilitate the establishment and persistence of the native species.

Testing of Seed and Vegetative Material - All seed is tested to ensure compliance with the State noxious-seed requirements recognized in the Administration of the Federal Seed Act. All purchased seed must meet all requirements of the Federal Seed Act (7 USC 1551-1610), the state seed laws where it will be delivered, and Federal specifications JJJ-S-181. All seed will be tested for purity and germination (Pure Live Seed or Tetrazoline) to meet contract specifications and should be tested for weed and noxious weed seed by an independent seed testing organization. Certified seed (e.g., source identified tag) ensures the genetic origins of the parent plant material or the collection origin.

Tetrazolium tests, performed by state seed laboratories, may be used on shrub seeds and for species where dormant or hard seeds are common. Tetrazolium tests may also be authorized by the agency when seed laboratories do not have enough lead time to use a full germination test.

The use of certified seed is required (if available) to ensure that desired genetic traits are present. The use of source-identified seed is recommended when native seed is collected from wildland sites to ensure that a local or otherwise adapted seed source is used to re-vegetate the burned area.

Straw and other vegetative mulch materials should be purchased as certified weed-free by a State agricultural agency or should be sampled and tested for noxious weeds prior to use.

4.2.4 Forest Management

Forest stabilization, reforestation, rehabilitation etc. are not appropriate use of emergency stabilization funding. Timber salvage is not authorized with emergency stabilization funding. A detailed timber salvage assessment and the costs associated with the actual salvage sale (e.g., timber inventory, contract preparation, etc.) cannot be charged to emergency stabilization.

4.2.5 Livestock, Wild Horse and Burro Management

Exclusion of livestock, wild horses or burros may be critical for the recovery of burned vegetation or establishment and maintenance of new seedlings.

Recovery/Establishment Period – Re-vegetated and recovering areas may be closed to livestock grazing to promote recovery of burned perennial plants and/or facilitate the establishment of seeded species. An assessment is needed to determine the length of time livestock exclusion is required to meet emergency stabilization objectives. Livestock permittees must be informed of potential closures early during the plan preparation process.

Grazing Management - Wild horses and burros may need to be excluded from treatment areas. Emergency stabilization funds may be used for fencing or relocation (both actions must be consistent with approved land management plans and agency wild horse and burro policy) until the area recovers. Exclusion or relocation must occur before the animals can damage the remaining vegetation. Both actions must be consistent with approved land management plans, Wild Horse and Burro management plans, and agency wild horse and burro policy.

Movement of animals must be completed within one year of containment of the fire.

4.2.6 Federal Field Unit Infrastructure

Facilities - The emergency stabilization of improvements and minor facilities (e.g., signs, guardrails, pit toilets, etc.) burned or damaged by wildfire is appropriate only for public health and safety.

HAZMAT and Facility Assessment and Stabilization - A visual inspection for hazardous conditions/materials and structural integrity of facilities affected by wildfire is required prior to their being reopened or made accessible to the public. Appropriate inspections are conducted by a qualified technical specialist. A written condition assessment (including hazardous materials - HAZMAT) of each affected structure is submitted as part of the approved BAER Plan/Report. Emergency stabilization funds are not to be used to develop reconstruction or repair plans, or to initiate or complete any of the work outlined in these documents. For safety purposes, safety measures required to block public access to damaged structures may be funded by emergency stabilization funds. Hazardous materials discovered during field assessments may be secured with emergency stabilization funds. Hazardous material removal and mitigation are not funded with emergency stabilization funds.

Early Warning Flood/Evacuation System - Federal agencies should address flooding risks on Federal and Tribal lands. Known flooding risks to non-Federal lands should be coordinated with appropriate local emergency management agency.

Coordination between federal, state, and local agencies is essential. Early warning systems rain gauges, or satellite driven systems are often necessary to monitor rainfall amounts and intensity in moderate to high intensity burns in immediate proximity to values to be protected (highways, structures, etc.).

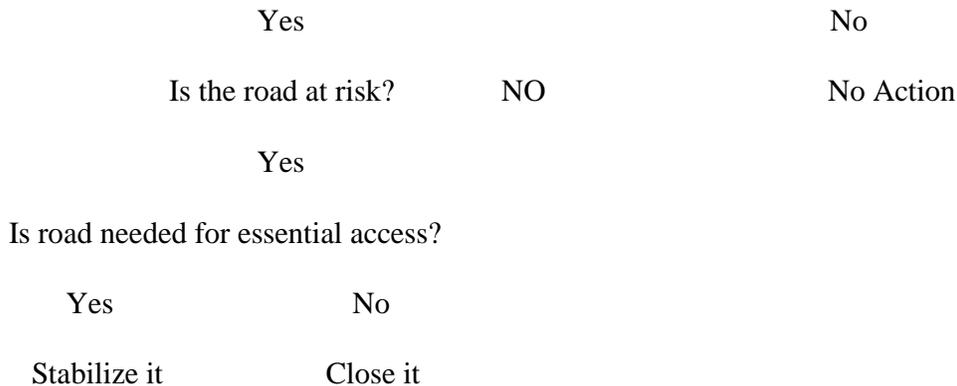
The local emergency action agency is responsible for public evacuation planning, public notification, and evacuation on non-federal lands.

Emergency Road Repair and Maintenance - The responsibility for road repair and maintenance does not change due to wildfires. Identified road system issues and identified repair and maintenance needs are coordinated between all parties involved.

Road closure is preferable unless the road is needed to provide immediate access to essential activities (e.g., hospital post office access, threatened or endangered species management, communication systems).

Decision Tree for determining Emergency Stabilization actions on roads

Is the agency responsible for road maintenance?



Stabilization of a road includes the minimal work to keep the road passable according to agency standards. Bringing the road to the maintenance standard that existed before the fire is not necessarily covered by the emergency stabilization funds.

Access to recreation sites is not considered essential and does not provide justification for emergency stabilization treatments.

Prohibited Actions

- Normal road maintenance
- Road reconstruction
- Improving the road to better than pre-fire conditions
- Maintenance, construction, or reconstruction of bridges (major facility)

Fencing - Permittee agreements dictate the responsibility of fencing related to livestock management. The livestock owner has the responsibility to keep livestock out of burned areas.

Gates, cattle guards, and fencing that exceed the amount required to protect treatments or values to be protected should be funded with a separate benefiting account. Therefore, emergency stabilization funds are not to be used to fence the private/public land boundary unless state laws (such as those pertaining to herd districts) are in effect. Removal of temporary fencing using emergency stabilization funds must be accomplished within the three year funding cycle. If the gates, cattle guards, or fencing is needed beyond three years then maintenance and/or removal must use other funds.

Protective fencing is allowed using emergency stabilization funding to protect installed treatments and for the health and safety of agency personnel and the public.

Boundary fencing, in and of itself, is not allowed for emergency stabilization funding.

Safety Signs - Signs necessary to close trails, warn of pending floods, promote public safety, or otherwise assist with emergency stabilization actions (directional, road, danger signs, etc.) may be procured, installed, maintained, and removed (within 3 years following containment of the fire) using emergency stabilization funds.

4.2.7 Monitoring

Emergency stabilization funds for monitoring are limited to:

Treatment Implementation: It is appropriate to determine if the treatment was implemented according to plan specifications.

Treatment Effectiveness: It is appropriate to monitor whether a treatment achieved its objective (e.g. log erosion barriers and straw mulching stabilized soils or whether willow and cottonwood trees successfully survived, grew, and stabilize the stream bank).

Prohibited Actions

- Monitoring to determine if the decision not to implement any treatment was appropriate (e.g., monitoring natural recovery). However, the use of an untreated area (control) in a paired comparison design to evaluate the effectiveness of a treatment is acceptable where values to be protected will not be affected by an untreated area.
- Monitoring the impacts or effects of the wildfire (e.g. water quality monitoring to evaluate the impacts of the burn on and post-fire recovery of an endangered species, post-fire monitoring of threatened and endangered species presence, reproductive status and reproductive success, etc.).
- Long-term monitoring (more than 3 years following containment of the fire) related to treatment longevity and effectiveness.
- Research
- It is not appropriate to monitor to determine the effects of treatment (e.g., changes in wildlife habitat structure, condition, or use).

Monitoring intensity should be commensurate with the treatment investment, complexity of the emergency stabilization treatments, and level of concern or controversy associated with the emergency stabilization treatment.

4.2.8 Public Use Management

Agency administrators should consider area closures to protect public safety, natural recovery, and active emergency stabilization treatments. Burned or seeded areas may be temporarily closed to the public by excluding vehicle, bicycle, horse, and foot use if unacceptable resource damage would occur or if danger to the public is present due to wildfire damage or emergency stabilization activities. Temporary fences may be appropriate to close areas where passive management closures have failed. Land management plans should be reviewed prior to prescribing emergency stabilization measures to identify other areas of special management concern to ensure emergency stabilization treatments are consistent with management objectives for these special management areas. Public information services concerning hazards, public use and area closures can be provided.

Tree Hazards - Hazard tree removal can only occur along roads and trails and in high use areas (e.g., developed campgrounds) when area closure is not possible. Trees to be felled must have been killed or damaged by the wildfire and must display an overall hazard rating of five in accordance with a Tree Hazard Rating System. Trees damaged by wildfire suppression actions and deemed hazardous must be removed under wildfire suppression accounts.

Trail Stabilization - To protect public safety, trails should be closed. When closure is not possible, burned slopes in the immediate proximity above and below the trail as well as the trail can be stabilized. Other funding (e.g. rehabilitation) are used to repair trails and other minor facilities to management plan standards. Appropriate trail stabilization measures which are funded with emergency stabilization funds include:

Allowable Actions

- Trail Slopes - Stabilization of burned slopes in immediate proximity above and below the trail to prevent further trail degradation. But only if closure is not possible or not effective in achieving treatment objectives.
- Waterbars (breaks) - The absence of or insufficient waterbars may create erosion induced safety hazards. Construction of the soil, rock or log waterbars is appropriate, but waterbars damaged or destroyed as a result of suppression efforts are repaired and/or replaced with wildfire suppression funding.

Prohibited Actions

- Repair or replacement of major facilities.
- The emergency stabilization of any trail to a standard above its pre-fire condition is also prohibited.

Public Safety - Area closure may be accomplished by signing/fencing or patrolling, whichever is most cost effective.

4.2.9 Threatened and Endangered Species

A burned area assessment should identify post-fire threats to federal and tribal listed or proposed threatened and endangered species and what, if any, cost effective stabilization measures can be implemented to prevent further post-fire condition degradation. Post-fire monitoring of threatened and endangered species status or recovery is not funded with emergency stabilization funds unless the monitoring is for the purpose of assessing treatment effectiveness of threatened and endangered species stabilization measures and is in an approved BAER Plan/Report.

Removal and relocation of threatened or endangered species:

- The FS, BLM, BIA, and NPS do not have the authority to move threatened or endangered species. When threatened or endangered species need protection, the appropriate federal or tribal managing authority must be identified and consulted.
- The land management agency and threatened and endangered species management authority can enter into agreement about how and who will remove and relocate the species.

All BAER Plans/Reports should be reviewed to determine if threatened or endangered species or their habitat would be benefited or adversely affected by the implementation of emergency stabilization treatments. Agencies must consult with the U.S. Fish and Wildlife Service (Ecological Services Offices) or National Marine Fisheries Service, as appropriate, on all emergency stabilization actions that may affect a threatened and endangered listed species or its habitat to ensure compliance with Section 7 of the Endangered Species Act. Timeframes for review and consultation may last several months. Therefore, every effort should be made to initiate these actions early in the emergency stabilization planning process.

4.2.10 Watershed Stabilization

Watershed stabilization includes those emergency stabilization treatments necessary to protect life, property, and watershed values (soil productivity and water quality and quantity). Watershed treatments may meet a prevention strategy, protection strategy, or removal strategy.

Prevention strategies are treatments applied at the potential source of an emergency to prevent an emergency from developing. Examples of prevention treatments are those applied to ground surfaces to prevent surface erosion, to control overland runoff, to trap sediment, to encourage infiltration into the soil profile, and to stabilize sites of potential deep erosion or mass wasting.

Protection strategies are based on recognition that an emergency cannot be prevented by direct application of prevention treatments to flood/debris flow source areas. Protection strategies are treatments designed to control an emergency when it happens, to slow or delay flood flows, to redistribute sediment loads, and to directly control flood runoff within channels.

Removal strategies are treatments designed to remove values to be protected from damage caused by increased water runoff.

Prevention Strategies – Treatments (e.g., mulch, geotextures, contour trenches, etc.) are designed to provide effective ground cover to reduce surface erosion potential, to increase infiltration rates, to control overland runoff, and to protect water quality. Seeding treatments should be implemented only for purposes of protecting life and property, prevent the establishment or reestablishment of non-native invasive species, or for preventing the loss of irreplaceable resources (including Threatened and Endangered species, candidate species, and historic properties). Specific legislation may also

provide specific justification for protecting soil and/or watershed values. Seeding specifications for emergency stabilization purposes must be compatible with approved land management plans. Field units without specifically approved plans must submit seeding proposals in accordance with agency guidelines. Seed used for emergency stabilization treatments is subject to appropriate State seed and weed laws and is tested for purity and germination. Funding for stabilizing suppression impacts should come from the suppression funding.

Protection Strategies – Treatments (e.g., straw bale check dams, silt fences, debris removal, etc.) are designed to provide effective means to trap and stabilize in-channel sediments, control down-cutting, maintain the integrity of channel morphology, and minimize flash flooding. The following channel treatments are eligible for emergency stabilization funding.

Removal Strategies - Occasionally it is more feasible or cost effective to move some values to be protected than it is to attempt to protect those values on the site. The removal of a potential property loss from the path of a predicted flood can be funded via emergency stabilization funds if the following conditions are met.

4.2.11 Removal of Treatments

Any treatments, or parts thereof, installed using emergency stabilization funds can be removed using emergency stabilization funds if removal is completed within three years of containment of the wildfire. If treatments remain after three years of wildfire containment other funds must be used for removal costs.

5 Program Administration

5.1 Roles and Responsibilities

Agency Administrator directs and coordinates the development and implementation of all management operations of an administration unit. This includes developing and implementing the incident action plan, and the BAER Plan/Report.

Agency/Bureau BAER Coordinator coordinates program issues within their own agency/bureau.

Regional/State BAER Coordinator coordinates program issues within their own regions/states.

Burned Area Emergency Response (BAER) Team assesses the need for emergency stabilization treatments/activities and prepares a BAER Plan/Report for the agency administrator. BAER teams are established to quickly address emergency stabilization issues.

Incident Management Team plans and implements wildfire suppression activity damage repair (620DM3.10 and FSM 2523.4) for the agency administrator.

5.2 Emergency Stabilization Program Funding

Funding for emergency stabilization treatments/activities is provided under emergency fire management funding authorities. See Chapter 4 for appropriate and inappropriate use of the emergency stabilization funds.

Burned Area Rehabilitation is a separate program. Guidance for Department of the Interior rehabilitation activities and funding is found in a separate guidebook (Interagency Burned Area Rehabilitation Guidebook is currently under development for DOI agencies).

5.2.1 Cost Accounting

Agency specific cost tracking processes are used to accurately track expenditures. Use Fire Codes to track funding appropriated and spent for each specification found in the plan is useful for tracking expenditures. The complexity of the project dictates the complexity of the cost tracking system. Some factors to consider include:

Non-agency planning team members may be covered by an agency reimbursement authorization for salary, travel and per diem expenses issued by the host agency. This is exclusive of the agencies (BLM, BIA, FWS, NPS, USDA FS) covered in the Interagency Agreement Between the Bureau of Land Management, Bureau of Indian Affairs, National Park Service, U.S. Fish and Wildlife Service of the United States Department of the Interior and the Forest Service of the United States Department of Agriculture” (1997).

- Non-agency implementation team members may be covered by an agency reimbursement authorization for salary, travel and per diem expenses issued by the host agency. The affected agency must establish reimbursable account codes, as needed.
- An Implementation Cost Unit Leader or Incident Business Advisor should be a team member on complex projects involving multiple funding sources or agencies/bureaus.

5.2.2 Personnel Funding

All wildland fire funded personnel (except hazard fuels) will fund their base 8 hours from their base funding when working on wildfire suppression activity damage or emergency stabilization activities.

All non-fire funded and hazard fuels personnel may charge their base 8 hours to emergency stabilization accounts when performing those work activities.

Fire and non-fire funded personnel overtime hours will be charged to the emergency stabilization account.

For further information on overtime, hazard pay, and other personnel funding issues see Interagency Incident Business Management Handbook.

5.3 Planning

Each emergency stabilization project requires the preparation, submittal, and approval of a BAER Plan/Report.

5.3.1 BAER Plan/Report

The BAER Plan/Report must be consistent with approved land and resource management plans. Development of the BAER Plan/Report objectives are guided by resource management objectives and general management practices identified in approved land and resource management plans.

The emergency nature of the anticipated post-fire response dictates that the BAER Plan/Report must be developed expeditiously. The planning approach is the use of a local BAER team to assess the values at risk and recommend treatments to reduce the risk. A regional or national team may be used if the complexity of the plan exceeds the capability of the local unit, or includes multiple agency ownerships, or on large complex wildfires.

An approved BAER Plan/Report is required before any emergency stabilization funds can be obligated toward implementation. There are instances where emergency stabilization actions may need to begin while developing the plan. Written approval is required for all activities and treatments and will be documented in the final BAER Plan/Report.

5.3.2 Transition to Resource Management Activities

Occasionally, emergency stabilization treatments/activities initiates a management action that is significantly longer than the emergency funding limitations (e.g. structural emergency stabilization treatments, biotic community stabilization, non-native invasive species control, appropriate livestock and animal management, etc.) The BAER Plan/Report should identify the types of programs and steps that are needed to tie BAER to long term management programs and their goals. The Plan/Report may also identify other potential program areas able to accommodate these added long-term management commitments and actions beyond the emergency funding limits. Unless long-term activities are fully integrated into the other program areas, the ultimate success of the activity and the benefits to the resource may be jeopardized.

5.4 Emergency Acquisition Authorities

The Federal Acquisition Regulations (FAR) apply to procurements accomplished in support of BAER activities, are the same regulations that apply to procurements accomplished to support wildfire suppression activities. Both suppression and BAER are supported by the same wildfire incident mobilization, resource availability, and incident business management procedures as other aspects of the incident. BAER projects acquisitions must be expeditious because the emergency stabilization measures are needed before damaging or degrading events are likely to occur.

Using the authorities listed below, agencies may be able to shorten advertising time, limit the amount of competition obtained, and in extreme cases, not obtain competition. The important thing to note is that the agencies “shall request offers from as many potential sources as is practicable under the circumstances.” (FAR 6.302-2(C)(2)).

It is the government’s policy to obtain fair and open competition to ensure the best deal can be obtained and that agencies are spending the taxpayer’s money wisely. When obtaining competition, always consider price as well as other factors such as past performance, experience, quality, etc. Following are some of the competition thresholds listed in the FAR:

- Acquisitions under \$2,500 – Competition is not required, but should be obtained if possible.
- Acquisitions \$2,500 to \$25,000 – Competition should be obtained to the maximum extent practicable. Normally, a minimum of three quotes should be obtained. The number of quotes obtained is dependent on the nature of the supplies and services being obtained. If competition is not obtained, the file must be documented with the reasons.
- Generally, all acquisitions over \$25,000 must be advertised and we must obtain full and open competition. Acquisitions over \$100,000 must be published 15 days before the issue date of the solicitations, and the advertisement time must be at least 30 days. There are a number of exceptions to these advertising requirements. The authority used during fires is the following:
 - FAR 5.202 (a)(2) – The proposed contract action is made under the conditions described in 6.302-2 (or, for purchases conducted using simplified acquisition procedures. If unusual and compelling urgency precludes competition to the

maximum extent practicable) and the Government would be seriously injured if the agency complies with the time periods specified in 5.203;

o FAR6.302-2 – Unusual and compelling urgency. –

(a) Authority

(1) Citations: 10 U.S.C. 2304 (c)(2) or 41 U.S.C. 253(c)(2).

(2) When the agency's need for the supplies or services is of such an unusual and compelling urgency that the Government would be seriously injured unless the agency is permitted to limit the number of sources from which it solicits bids or proposals, full and open competition need not be provided for.

(b) Application. This authority applies in those situations where -

(1) An unusual and compelling urgency precludes full and open competition; and

(2) Delay in award of a contract would result in serious injury, financial or other, to the Government.

(c) Limitations.

(1) Contracts awarded using this authority shall be supported by the written justifications and approvals described in 6.303 and 6.304. These justifications may be made and approved after contract award when preparation and approval prior to award would unreasonably delay the acquisition.

(2) This statutory authority requires that agencies shall request offers from as many potential sources as is practicable under the circumstances.

Agencies are required to prepare justifications for the file whenever they do not obtain the maximum competition required. If preparation of the justification would unreasonably delay the acquisition, the justifications may be prepared and approved after contract award. It is the responsibility of technical and contracting personnel to work together to provide, and certify as accurate and complete, necessary data to support their recommendations for other than full and open competition. Specific information required for justifications may be obtained in Part 6.303-2 of the Federal Acquisition Regulations through the units contracting officer.

Justification may be on an individual or class basis. In years when there are a large number of fires, justifications have been prepared on a class basis. The approval for the justification is dependent on the total dollars involved.

National Fire Plan "Contracting and Assistance" is available on an interagency basis. (See National Fire Plan website: www.fireplan.gov).

5.5 Emergency Stabilization Program Accountability

Accountability for the emergency stabilization program lies with each agency's administrator. Individual agencies establish accountability responsibilities for:

- Plan review and approval/disapproval (resource and funding appropriateness)

- Financial accountability
- Plan implementation
- Plan implementation review and evaluation
- Program review and evaluation

Significant deviations from treatment specifications or costs as prescribed in the approved plan require a plan amendment. All treatments/activities, including plan amendments, must be completed within one year of wildfire containment.

Accomplishments are tracked and reported in the corporate database (e.g., NFPORS). Fiscal obligations and accomplishments are tracked and documented by an annual accomplishment report each fiscal year. A final accomplishment report is required after completion of the BAER project. Any emergency stabilization funds not expended following completion of the plan cannot be used for other purposes.

To sustain accountability for provided funding, annual and final accomplishment reports are to be submitted to the approval authority. The corporate database must be kept current. The annual accomplishment report may cover treatments applied, dollars spent, treatment effectiveness, monitoring results, and an assessment in narrative form of each aspect of the project. The annual and final accomplishment reports are a mandatory requirement for continued treatment effectiveness monitoring funding and account closure.

5.6 Information Management

Approved BAER Plan/Reports, treatment effectiveness reports, and accomplishment reports should be shared with other federal and non-federal agencies/bureaus. For DOI, data must be entered in the database of record in order to receive future emergency stabilization funding.

5.7 Agreements

Agreements can be made between agencies for the implementation of emergency stabilization activities and treatments. There will be no billing or reimbursement between bureaus of the Department of the Interior and the Department of Agriculture for personnel and other resources involved in burned area emergency stabilization planning. Funding for Bureau of Reclamation projects will be from Bureau of Reclamation funds only.

There must be an agreement before any service is performed. Without an agreement, there is no authority to obligate funds for services. If an agreement cannot be executed prior to the start of work, at a minimum there must be a letter of intent signed by the parties involved. Specifications for funding responsibilities should include billing procedures and schedules for payment. Any agreement that extends beyond one fiscal year must be made subject to the availability of funds. Any transfer of federal property must be in accordance with federal property management regulations. All agreements must undergo periodic joint review and, as appropriate, revision.

Agreements obligating emergency stabilization sub-activity funds cannot allow these funds to be expended beyond the one-year time limit following containment of the wildfire.

The chart below is a synopsis of the three basic agreement types, contract, interagency agreement, and memorandum of understanding.

TYPES OF AGREEMENTS

TYPE OF AGREEMENT	DEFINITION	SIGNATORY AUTHORITY	REFERENCES	CONTACT FOR INFORMATION
Contract	A mutually binding legal document obligating the seller to furnish supplies or services (including construction) and the buyer to pay for them.	Only warranted Contracting Officers may award contracts.	Federal Acquisition Regulations, 48 CFR; and Department Acquisition Regulation System.	Respective Headquarters or regional office Contracting Officer
Interagency Agreement	An agreement between Federal Agency(ies)/Bureaus used to reimburse an Agency for goods or services provided to the agency.	Warranted Contracting Officers are the only officials who may award Interagency/ Intra-Agency Agreements in combination with the respective agency administrator.	Federal Acquisition Regulations, 48 CFR 17.5; and Department Acquisition Regulation.	Same as above.
Memorandum of Understanding (MOU)	A written agreement between the agency and another entity(ies) that confirms the use of cooperative policies or procedures to promote mutual endeavors.	MOUs are signed by the Director/Deputy Commissioner or agency administrator.	Internal Guidance	Same as above.

6 Plan Development

Burned area assessments are conducted to validated anticipated emergency stabilization needs either defined in fire and resource management plans or identified in initial fact finding activities. The assessment determines what realistic and cost effective emergency stabilization treatments are needed; not to document the effects of the fire (i.e., natural or cultural resource damage, fire effects, etc.) or to validate whether an appropriate management response (e.g., limited or modified suppression) was appropriate.

6.1 Assembling the Planning Team

The agency administrator is responsible for BAER Plan/Report development which may include assembling an interdisciplinary planning team to conduct burned area assessments and begin plan development. If emergency stabilization actions are anticipated, the BAER team should be assembled and ready to work within sufficient time to complete the BAER Plan/Report to meet agency timelines. BAER Teams can be a standing or ad hoc group of technical or scientific specialists that may be local, regional, or national. BAER Plans/Reports can be multi/interagency when agency administrators agree that a multi/interagency plan is appropriate.

Team size and make-up will vary dependent on the wildfire size, values to be protected, time frames, and jurisdictions involved. Generally the team should include resource specialists (geomorphology, soils, hydrology, revegetation, wildlife, ecology, range, watershed, invasive species, historic properties, etc.), members knowledgeable about post-fire impacts and effective stabilization techniques and local unit resource advisors. Adding trainees to a BAER project is encouraged.

A team member may represent several skills. Inclusion in the team of expertise from cooperating agencies or offices is encouraged, especially when the needed skills are not available within the agency. Access to needed expertise can be obtained through the interagency coordination dispatch system or through contracts.

A National DOI Interagency BAER team may be resource ordered on a complex wildfire or a wildfire that crosses agency boundaries (mobilization procedures for the national interagency BAER team is described in the National Interagency Mobilization Guide). The Agency Administrator should plan to support the BAER Team with local resource specialists. The requesting agency may prepare a Letter of Direction for the BAER team to develop and prepare the BAER Plan/Report. Demobilization of dispatched personnel will be through normal interagency coordination dispatch channels and processes if available.

6.2 Review of Current Available Resources and Wildfire Data

Prior to field inspection of the burned area, the planning team should:

- Receive a start up briefing with agency administrator.
- Review the field unit fire, land, and resource management plans and relevant plans that are relevant.
- Review all wildfire suppression operational plans, resource advisor reports, and the Wildland Fire Situation Analyses. Suppression plans/actions provide valuable information concerning the relative values the field unit places on individual resources.
- Have all existing relevant resource management data including monitoring studies, inventories (vegetation, cultural, and Threatened and Endangered, including sensitive species), state comprehensive wildlife conservation strategies, and previously implemented BAER plans.

- Review monitoring studies and vegetation inventories which provide valuable information on pre-burn invasive species populations and plant composition that may be useful in deciding what actions may be necessary, or whether natural recovery may preclude the need for intensive treatments.
- Review information on fire history, fire ecology and effects, fire management planning, historic properties
- Review treatment effectiveness monitoring data on the success or failure of past wildfire stabilization treatments. This is essential in developing proposed treatments.
- Review soil surveys which contain important information on characteristics of soils relative to erosion potential, the success of seeding, ecological site information, seeding success potential, and other important information.
- The planning team should review and become familiar with the information contained in the Fire Effects Information System (FEIS) computerized database, the *Fire Effects Guide*, and other relevant literature, documentation, and expertise. The FEIS is described in *Fire Effects Information System: User's Guide, USDA Forest Service General Technical Report INT-GTR-327*. It contains information on 900 plant species, 90 animal species, and 25 plant communities. Summaries are updated periodically as new fire ecology information becomes available. The *Fire Effects Guide*, sponsored by the NWCG, is available from the Publications Management System manager at the National Interagency Fire Center (NIFC) warehouse as NFES 2394. Numerous other technical references should also be consulted and are available on the Internet (including the NRCS websites) and other locations to ensure that the appropriate techniques and plant species are utilized in planned projects.
- Another source of information about potential species to be used in re-vegetation is the NRCS-USGS Biological Resources Division VegSpec website (<http://plants.usda.gov>). The VegSpec is a web-based, expert system that aids technical people or managers in making sound decisions on what plants to plant on specific sites. It integrates the Natural Resources Conservation Service (NRCS) soils, plants, and climate databases for plant selection which addresses conservation problems. Other sources of information on vegetation (including the potential for invasion by undesirable species), soils, and site potential (ecological site) should also be reviewed to help determine if seeding is necessary is for the success of the emergency stabilization project.
- Review other relevant available information.
- Location of fire retardant drop locations. (So they can be evaluated for treatments.)

Areas of concern (e.g. wilderness and wilderness study areas, areas of critical environmental concern, erosion hazards, threatened and endangered species habitats, historic properties etc.) should also be identified from field unit records prior to field inspection.

Aerial photographs, GIS layers, and maps are essential tools for the planning team to include on initial wildfire inspections. Habitat improvements and other agency facilities within the wildfire perimeter are plotted on maps/photos to assist the team in identifying burned structures for reconstruction or replacement consideration.

The planning team may develop a burned area map delineating burn severity using accepted protocols and definitions for the purpose of focusing their assessment activities.

6.3 Burned Area Assessment

After the preliminary information has been reviewed and assembled, the planning team conducts one or more field inspections of the burned area to assess values at risk as a result of the wildfire. Aerial and ground assessments must be coordinated with the Incident Management Team Commander.

Values at risk may include human life, property, natural resources, historic properties, threatened and endangered species, potential for exotic invasives, soil productivity and Native American or other cultural values. Once identified, values at risk should be evaluated for appropriate emergency stabilization action. These evaluations may require coordination with local specialists and appropriate models should be used and referenced.

The planning team should develop a burned area map delineating burn severity using accepted protocols and definitions.

The planning team should evaluate burn severity and predicted watershed response to determine the potential for flooding, debris flows, surface erosion and other related processes, e.g., natural regeneration of vegetation.

6.4 Cost-Risk Analysis

A Cost-Risk Analysis of the proposed actions and no action alternative should be prepared to assure the treatment costs do not exceed the values to be protected.

6.5 Planning Team Recommendations

Upon completion of the burned area field inspections, the planning team reports its initial findings and recommendations and provides an agency administrator briefing. Identification of values to be protected and emergency stabilization needs are discussed with the agency administrator. Options for emergency stabilization, potential costs, consultation and cooperation needs, and potential controversies associated with the proposed treatments are presented at this time. The agency administrator accepts, modifies, or rejects the team's recommendations and gives direction to the team how to proceed with BAER Plan/Report development.

6.6 Preparing the BAER Plan/Report

In most cases, it is a local BAER team that will prepare the BAER Plan/Report. However, if a regional or national team is called in, it is expected that local resources will provide support and assistance in the preparation of the BAER Plan/Report. In preparing the BAER Plan/Report, the team should work with the field unit staff to take the following actions:

- Determine the availability and cost of the treatment or activity supplies (e.g. seed proposed for planting).
- Begin making arrangements for the cultural and threatened and endangered species consultations, including coordinating with agency contracting specialists.
- Determine the availability and make preliminary arrangements for necessary equipment.
- Coordinate with the agency administrator and with affected or interested parties regarding proposed emergency stabilization practices.
- Coordinate with the Regional/State/National Office on complex or controversial emergency stabilization funding issues or technical questions.

Information needed to complete the plan may include:

- Agency review and approvals.
- Summary wildfire narrative and activities and treatments needed.
- Fire location and background information.
- Type of plan (e.g., initial submission, or amendment).
- Values at risk.
- Values to be protected and their location.
- Emergency stabilization objectives.
- Planning team organization and membership.
- Activity and treatment specifications.
- Emergency stabilization funding needs.
- Consultations made by the planning team.
- Burn area assessments.
- Environmental compliance documentation
- Explanation of treatments with respect to values at risk.
- Maps, photo documentation, supporting documents, etc.
- Monitoring objectives and procedures/protocols.

BAER Plan/Report templates and examples are available at agency websites (DOI).

6.7 BAER Plan/Report Approval

The planning team completes the plan and obtains an initial review from policy, technical, or other interested parties prior to the submission of the plan to the agency administrator. If problems are defined, they should be worked out before the plan is submitted for approval. The agency administrator is responsible for submitting the BAER Plan/Report to the appropriate approving official for final approval.

	BIA	BLM	FWS	NPS	FS
Local Approval Level	\$100,000 Agency Superintendent	\$0 Field/District Manager	\$0 Refuge Manager	\$0 Park Superintendent	\$0 District Ranger \$0 Forest Supervisor
Regional/State Certification level	\$100,000-\$240,000 Regional Director	<\$100,000 State Director	<\$500,000 Regional Director with regional Fire Management Coordinator concurrence	<\$300,000 Regional Director	\$500,000 Western Region Foresters \$100,000 Eastern Regional Forester
National Certification Level	>\$250,000 Chief, Branch of Fire Management	>\$100,000 Director	>\$500,000 Chief, Branch of Fire Management Officer	>\$300,000 National Fire Management Officer	>\$100,000 or \$500,000 Chief

The agency administrator, planning team, or approving official is encouraged to request input from the State, Regional and/or National Office staffs on any BAER Plan/Report before submitting it for approval. The use of electronic means of transmitting plans is encouraged.

6.8 Transition to Plan Implementation

Ideally, BAER Plan/Report development personnel are the same people assigned to implementation. When the plan is implemented by a different team, the implementation team leader should be involved in the planning effort.

With regional/national teams, planning and implementation personnel may be different (e.g., standing BAER team completes the planning and the local unit personnel complete the implementation of approved treatments). In this case, it is important to prepare a transition memo (from the planning team to the affected agency administrator(s)) with implementation recommendations, and all BAER Plan/Report file(s). These measures should help to ensure a clean, organized transition from planning to implementation. It is also important that the departing planning team conduct a close-out and transition meeting with the affected agencies to discuss the findings of the burned area assessments, treatment proposals and other mitigation measures, and approval and funding procedures. This transition meeting should include the following key transition individuals: agency administrator, planning team leader, implementation team leader, and administrative/procurement officer. The planning team may be contacted by implementation personnel to explain specific aspects of the plan. Treatment specifications in the Plan/Report should be sufficiently detailed that the implementers do not have to reanalyze the treatment need, extent, character and costs or to question the practicality of the treatment.

6.9 Plan Amendment

For the first year following wildfire containment, the plan/report may be amended, if the initial burned area assessment(s) were incomplete or new information shows that the BAER Plan/Report may not accomplish its objectives. Maintenance, repair or replacement of emergency stabilization treatments can occur for up to three years following wildfire containment.

6.10 Planning of Treatment Effectiveness Monitoring and Evaluation

BAER Plans/Reports must include provisions for monitoring and evaluation of treatments.

Monitoring and evaluation of post-fire treatments are critical for understanding and improving such treatments. The objective of treatment effectiveness is to determine if plan objectives were met. Effectiveness monitoring is used to evaluate whether the installed treatment had the desired effect. This information is used to adapt management treatments and activities for the current and future projects to increase effectiveness.

Monitoring intensity should be commensurate with the complexity of the emergency stabilization treatments and the level of concern or controversy associated with the emergency stabilization treatment. The effectiveness monitoring specification should document the specific monitoring objective for that project, the monitoring protocol, personnel/equipment needed, and the funding needs. Those treatments that have been identified for effectiveness monitoring, must have monitoring provisions and procedures specified. Procedures for collecting, archiving and disseminating results are also necessary, and results should be entered into the existing corporate database.

7 Emergency Stabilization Plan Implementation

7.1 Implementation

Actions to implement emergency stabilization treatments should begin immediately upon plan approval. Implementation should begin as soon as necessary to complete the treatment prior to the rainy season, onset of winter, weather, or other shutdowns. Potential delays or issues should be addressed early in the implementation process to facilitate completion of treatments at the proper time to ensure maximum probability of success. Implementation complexity increases dramatically in situations where a wildfire has burned across property boundaries.

7.2 Responsibility and Coordination

Unlike the planning effort, which is often done by a single interagency team, each affected agency identified in the BAER Plan/Report must assume the overall responsibility for the implementation of treatments on its the lands it manages. Private, state, county, and city lands are typically coordinated by the Natural Resources Conservation Service (NRCS) through the Emergency Watershed Program (EWP). Whenever possible, treatment implementation should be coordinated across agency lines by "piggy-backing" on existing contracts, sharing contracting officer's representative (COR) responsibilities, etc. Cooperation between agencies charged with the implementation of similar or identical treatments within the same wildfire perimeter is not only possible, but is highly encouraged as an opportunity for real cost savings and management efficiency.

7.3 Project Management

The agency administrator should assign an implementation leader to assure ensure all plan treatments/activities are completed on time and according to the specification. Depending on the complexity of the plan, this may be a collateral or full time duty. The project implementation leader's duties may include:

- Safety of implementation activities.
- Supervising plan and individual treatment specification preparation and implementation.
- Equipment and supply procurement.
- Ensuring contract administration by certified CORs.
- Coordination with region/state/national coordinator.
- Implementation monitoring.
- Accomplishment reports (annual, final).
- Corporate database documentation.

Treatments must conform to federal procurement laws, rules and regulations and agency and Departmental manuals. The initial approved emergency stabilization spending authority is issued for the period up to one year following containment of the wildfire (monitoring and failed treatment maintenance may continue for up to three years). After submission of the final accomplishment report or the emergency stabilization funding time limit lapses (whichever comes first), appropriate emergency stabilization obligations cease and unspent funding authority is withdrawn. Accurate actual cost accounting records of expenditures must be kept by fiscal year in the annual accomplishment report.

Complex, long-term projects on large fires may require a formal Implementation Plan. This plan may include: organizational chart, communications plan, safety plan, priority treatment implementation, responsibilities, etc.

7.4 Project Records

Accurate and up-to-date records of estimated and actual expenditures must be kept. Projects should be structured in order to reduce the local administrative unit record keeping. Project records are kept at the local administrative unit and available for review and audit.

7.5 Organization

The implementation team leader is responsible for identifying procurement needs to the administrative officer and agency administrator early in the implementation phase. The Agency Administrator is responsible for providing procurement services. The implementation team leader and local administrative staff are responsible for establishing and maintaining effective working relationships. It is recommended that in complex situations, the implementation team should be organized using Incident Command System (ICS) principles.

7.6 Contract Inspection

For every treatment/activity installed through a contract, it is necessary that a certified inspector inspect and accept the work completed. The inspection should verify that the work was completed according to the contract specifications. Contractors cannot be issued final payment until the inspection is completed and the work is acceptable and in compliance with contract specifications.

7.7 Preparation

Administrative units should anticipate (programmatic planning) and arrange for supplies, equipment, and services normally required for emergency stabilization work before the fire season. These arrangements may include blanket purchase agreements, open-end contracts, emergency equipment rental agreements, and so forth. Such arrangements may be done in conjunction with fire management activities. (See NWCG Interagency Incident Business Management Handbook).

7.8 Project Maintenance

Some treatments/activities may require periodic maintenance to ensure continuous and effective functioning and to protect the financial investment in the treatment. Adequate maintenance must be provided until the conditions specified in the plan are met and the treatment measures are no longer needed. Structures used in emergency stabilization may be removed rather than maintained or replaced after they have outlived their design life and after the objectives in the plan are met.

Maintenance and removal of emergency stabilization structures are funded through the emergency stabilization program for up to three years after containment of the fire. If this removal occurs after the three year funding period, removal costs must be programmed and charged to the appropriate agency funding account.

7.9 Implementation of Monitoring

The annual accomplishment report contains information on monitoring progress/results and is required in order to continue to receive funding to monitor for an additional year.

Cooperative efforts in monitoring the results of emergency stabilization projects are encouraged; these efforts could be with research organizations, neighboring offices, other office programs, agencies, or universities.

Monitoring information and results should be entered and retained in an easily accessible corporate database. Information gained in monitoring is strongly encouraged to be shared through websites, professional papers, technical bulletins, symposia, workshops, training, etc.

7.10 Accomplishment Reporting

To provide for accountability for funding approved, a standardized, final accomplishment report must be filed with the approving official. The submission of the final accomplishment report effectively closes out the emergency stabilization portion of the project.

The agency administrator reports accomplishments on projects and tracks expenditures of funds under the emergency funding authority. The agency administrator is also responsible for entering data into the corporate database.

The final accomplishment report is a statement of what activities and treatments were completed. The information in the final report should include:

- The original specification and subsequent submissions.
- Descriptions of the implementation of the treatments, including final treatment maps and specifications.
- Expenditures.
- Completion date of the treatment(s).
- Projected follow-up activities and treatments.
- Treatment effectiveness.

Assessments for each of the resources affected, e.g., cultural, forestry, vegetation, fish and wildlife, soil and watershed, etc.

7.11 After Action Review

An after action review (aka lessons learned) of every BAER Plan/Report is necessary to identify information and knowledge gaps, training needs and research opportunities. It can identify what worked and what didn't from a process perspective. The appropriate timing is conditional on plan/report implementation since actual implementation will identify the strengths and weaknesses in the plan/report.

8 References

- Herrick, J.E., J.W. Van Zee, K.M. Havstad, L.M. Burkett, and W.G. Whitford, 2005. Monitoring Manual for Grassland, Shrubland, and Savanna Ecosystems. USDA- ARS Jornada Experimental Range, Las Cruces, New Mexico 88003-8003.
- Napper, C. 2005. draft Burned Area Emergency Response Treatments Catalog. San Dimas Technology and Development Center, San Dimas, CA. 180p.

APPENDIX F-3

Burned Area Emergency Response/ Burned Area Rehabilitation Contact List

Name	Email	Office	Phone
National Office			
Lou Ballard Fire Management Specialist	Lou_Ballard@fws.gov	Branch of Fire Mgt. US Fish & Wildlife Service 3833 S. Development Ave. Boise, ID 83705	(0)208-987-5584 (c) 208-859-8359
Region 6 Regional Office			
Rich Sterry Regional Fire Planner	Rich_Sterry@fws.gov	US Fish& Wildlife Service 134 Union Blvd. Lakewood, Co 80228	(o) 303-236-8124 (c) 720-635-1977
Shane Del Grosso Regional Fire Management Specialist	Shane_Delgrosso@fws.gov	C/O Aerial fire Depot 5765 W. Broadway Huron, SD 57350	(o) 605-352-5894 (c) 605-354-3226
Jim Kelton Regional Fire Mgt Coordinator	Jim_Kelton@fws.gov	US Fish& Wildlife Service 134 Union Blvd. Lakewood, Co 80228	(o) 303-236-8125 (c) 303-378-3086
Dave Carter Asst. Regional Fire Mgt Coordinator	Dave_Carter@fws.gov	US Fish& Wildlife Service 134 Union Blvd. Lakewood, Co 80228	(o) 303-236-8110 (c) 720-244-8826
Mid Plains Fire Management District			
Bill Waln Mid Plains Fire Mgt. District FMO	Bill_Waln@fws.gov	Quivira NWR 1434 NE. 80 th Street Stafford, KS 67578	(o) 620-486-2393 (c) 620-727-3466
Deon Steinle Mid Plains Fire Mgt. District AFMO	Deon_Steinle@fws.gov	Marais des Cygnes NWR 24141 Kansas Hwy 52 Pleasanton, KS 66075	(o) 913-352-8956 x103 (c) 913-294-6513
Rocky Mountain Arsenal NWR			
Dave Lucas Acting Project Leader	David_c_Lucas@fws.gov	Rocky Mountain Arsenal 6550 Gateway Rd. Commerce City ,CO 80022	(o)303-289-0350 (c) 770-329-1685
Bruce Hastings Deputy Project Leader	Bruce_Hasting@fws.gov	Rocky Mountain Arsenal 6550 Gateway Rd. Commerce City ,CO 80022	(o)303-289-0533
Tom Ronning Wildlife Refuge Specialist	Tom_Ronning@fws.gov	Rocky Mountain Arsenal 6550 Gateway Rd. Commerce City ,CO 80022	(o)303-2896-0406 (c)303-594-3415
Scott Whiteaker Wildlife Refuge Specialist	Scott_Whitekaer@fws.gov	Rocky Mountain Arsenal 6550 Gateway Rd. Commerce City ,CO 80022	(o) 303-289-0995 (c) 970-217-0876

APPENDIX G-01

Current Staff Qualifications

Name	Status	Wildfire Qualifications	Prescribed Qualifications
Joel Colvin	Qualified	FFT1, FALB, ICT5(T)	
William Kutosky	Qualified	FFT1, FALA, ICT5(T), ENGB(T)	
Dave Lucas	Qualified	FSC1, FSC2, FFT2	
Tom Ronning	Qualified	FFT1, FALB, ICT5(T)	RXB3(T)
Scott Whiteaker	Qualified	ENGB, FALB, ICT5	RXB3(T), FIRB(T)
Jesse Fernandez (seasonal)	Qualified	FFT2	
Jarred Fallon (seasonal)	Qualified	FFT1, FALB, ICT5, ENGB(T)	

APPENDIX G-2

FIRE CACHE, FIRE EQUIPMENT AND VEHICLE LIST

Category	Name of Equipment	Number of Equipment
Tools	Maccloud	8
	Shovels	7
	Pulaski	7
	Spring Rakes	5
	Shovel Covers	2
	Pulaski	10
	Maccloud Cover	3
Radio Equipment	Full Light Bar	1
	Light Bar	1
	Individual Light Bars	2
	Moible Radio	1
	Moible Radio	1
	Plastic Radio Anchors	10
	Complete Radio Set	1
	Metal Mount Bars for Radios	3
	Antennae	1
	E L Johnson Radio	1
	Law Enforcement Light Bars	2
	Batteries (DDA)	20 cases
	Auto Equipment	Grill
Motor Oil (32oz)		5
Power Steering (32oz)		1
Starting Fluid		1
Liquid Wrench		1
Safety Vests		4
Toe Strap		1
Air Fliter		1
Air Fliter		1
Air Fliter		1
Wire Chock Straps		6
Funnels		2
Spair Tire		1
Tool Kit		1
Clippers		1
Jumper Cables		1
Rachet Straps	4	

	Ice Remover	1
	Wrenches	10
	Screwdrivers	10
Personal Protective Equipment	Old-Style Fire Practice Shelter	9
	Old-Style Fire Shelter	7
	New-Style Fire Practice Shelters	61
	New-Style Fire Shelters	23
	Head Lamps	5
	Pairs of Safety Glasses	20
	Neck Shrouds	8
	Head Bands for Helmets	4
	Pairs of Ear Plugs	40
	Pairs of Gloves	10 (L)/ 9 (M)
	Nomex Pants (Waist 26-30)	4
	Nomex Pants (Waist 30-34)	11
	Nomex Pants (Waist 32-36)	4
	Nomex Pants (Waist 34-38)	6
	Nomex Pants (Waist 36-40)	3
	Nomex Pants (Waist 38-42)	1
	Nomex Pants (Waist 40-44)	3
	Hardhats	12
	Brush Jackets	7
	Small Nomex Shirts	1
	Medium Nomex Shirts	9
	Large Nomex Shirts	3
	Extra Large Nomex Shirts	5
	Red T-Shirts (FWS) Large	3
	Radio Harnesses	4
	Pack Shack Line Gear	4
	Yellow Line Gear	4
	Eagle Pack Line Gear	1
	Green Project Packs (Saw Kits)	6
	14 Day Bags	5
	Pairs of Fire Boots	3
	Overalls (Large)	1
	Canteens	24
Class Material	Nozzle Discharge Calculator	11
	Appendix B	11
	Fireline Handbooks	7
	IRPG (Orange)	11
	IRPG (Yellow)	2

	Foam vs Fire Workbook	18
	Water Equipment Handling Guide	14
	Instructors Manuel for S-131 (FF1)	1
	Student Workbooks for S-131 (FF1)	30
	Student Workbooks for S-190 (Intro Fire Behavior)	19
	Student Workbooks for S-211 (Pumps)	16
	Student Workbooks for S-212 (Chain Saws)	20
	Student Glossary for S-212 (Chain Saws)	20
	Instructors Manuel for S-234 (Ignitions)	1
	Student Workbooks for S-234 (Ignitions)	15
	Instructors Manuel for Look up, Look down, Look all around	1
	Student Workbook for Look up, Look down, Look all around	15
Signs	Signs (4 CSA, 4 PBO)	8
	Sign Stands	8
Camping	Coolers	2
	Camping chairs	2
	Tents	6
	Sleeping Pads	3
	Wool Blankets	4
	Sleeping Bags	4
	Tent Compartment Bags	8
	Canvas Tarps	4
	Tarps (other)	3
	All weather Blanket	1
Fittings	Gated-Wye Values (1.5 in, NH)	18
	Gated-Wye Values (1 in, NPSH)	5
	Gated-Wye Values (3/4 in, NH)	19
	Shut Off Valve (1.5 in, NH)	9
	Shut Off Valve (1 in, NPSH)	18
	Shut Off Valve (3/4 in, NH)	8
	Adjustable Nozzle (1.5 in, NH)	3
	Adjustable Nozzle (1.0 in, NPSH)	1
	Adjustable Nozzle (3/4 in, NH)	5
	Foam Nozzles (1.5 in, NH)	3
	Foam Nozzles (3/4 in, NH)	9
	Hose Clamps	4
	Hose Reel	1
	Hydrant Wrenches	3
	Hydrant Connect	1
	Hand Primer	1
	Foot Values (1.5 in)	2

	Spanners (5 in)	6
	Spanners (8 in)	4
	Spanners (12 in)	2
	Mop Up Wands	4
	Forester Nozzles	4
	Forester Stream Tips	7
	Tee value with value/cap (1.5 in)	2
	Tee value with value (1.5 in)	2
	Tee value with cap (1 in)	4
	Tee value with value (3/4 in)	15
	2.5 NH × 1.5 NH Reducer	4
	1.5 NH × 1.0 NH Reducer	1
	1.5 NH × 1.0 NPSH Reducer	9
	1.5 NPSH × 1.0 NPSH Reducer	7
	1.0 NPSH × 3/4 NH Reducer	12
	1.5 Checker and Bleeder	4
	Double Male (2.5 in, NH)	1
	Double Female (2.5 in, NH)	1
	Double Female (1.5 in, NH)	9
	Double Male (1.0 in, NH)	7
	Double Female (1.0 in, NPSH)	4
	3/4 NH × 1 NPSH Inceasor	2
	1.0 NH × 1.0 NPSH Adaptor	4
	1.5 NPSH × 1.5 NH Adaptor	2
	1.0 NSPH × 1.0 NH Adaptor	2
	Foot Values (1.5 in)	2
Gaskets	Gaskets (2.0 in)	67
	Gaskets (1.5 in)	77
	Gaskets (1.0 in)	75
	Gaskets (3/4 in)	55
	Metal Graters	10
Hoses	Hose Pack	1
	3/4 inch hose (50ft)	17
	1 inch hose (50ft)	2
	1 inch hose (100ft)	18
	1.5 inch (100ft)	19
Pumps/Water Devies	Flota Pump (2 cycle Engine)	1
	Small Folda Tank 5ft	1
	Folda Tank	1
	Bladder Bags	7
	Collaspable Pals	2
	Draft Hoses	3
	Pump Head	1

	Mini-Striker Pump	5
	HyPro Foam Pro	1
	Foam-FLO	1
Saws	Flat Files (8 in)	1
	Flat Files (10 in)	8
	Large Wedges	7
	Chaps (30 in)	2
	Chaps (32 in)	2
	Chaps (40 in)	2
	Saw Kit Bags	2
	Saw Bar (35 in)	1
	Dogs	4
	Dogs	2
	Dogs	4
	Dogs	2
	Washers	8
	Bar Nuts	11
	Sprockets (RIM)	6
	Ring Drive Sprockets	2
	Half-rop Bar	1
	Chain Catchers	6
	Spark Plugs	8
	Fuel Caps	3
	Needle Cages	6
	E-clips	7
	Pick up Body	11
	Saw Bar (25 in)	2
	Bar Covers (Small)	3
	Stihl chain saw	3
	Stihl leaf blower	1

License #	Property #	Vehicle type	remarks
Fire funded Vehicles			
487465	666429	Type 6 Engine	(E-6412) 2003 f-450, mod 52, 300gal
Refuge funded vehicles used for fire			
l486776	675245	Type 6 Engine	(E-6274) 2002 F-550, mod52, 200gal
I-00084	687970	utv	2004 Polaris Ranger, 100gal
CP 4050	On loan from Army	Water Tender	3000gal
487473	673497	Water truck	1966 Kaiser 6x6 2.5 ton 1000gal
487475	673729	Water truck	1972 AM General 6x6 2.5 ton 1000gal

APPENDIX G-3

Desired NUS Levels Including 2 Engines and a 10 Person Cache

Description	NFES#	GSA#	NUS	Current	Location
Personal Gear					
Helmet, safety plastic	0109	8415-01-055-2265	12		
Goggles, safety	0300	4240-01-292-2818	12		
Glasses, safety (clear)			12		
Head Lamp, (4 cell AA)	0713	6230-01-387-1399	12		
Shelter, fire w/case	1069	4240-01-121-8698	12		
Pack FF field pack (yellow)	1372	8465-01-169-3996	12		
First Aid Kit, type I (individual)	0067	6545-00-656-1092	12		
Gloves (assorted sizes)			22		
Nomex Shirts (assorted sizes)			24		
Nomex Pants (assorted sizes)			24		
Nomex Coats (assorted sizes)			12		
Chaps, protective, size 32 Chaps, protective, size 36 Chaps, protective, size 40	0045 0078 0150	8415-00-286-7507 8415-01-028-5575 8415-01-294-7717	1		
Canteen, 1 qt. plastic	0037	8465-01-102-6381	60		
Bag, sleeping w/ zipper/ light	0022	8465-01-119-5562	12		
Tent, two person	0077		10		
MRE's case	1842	8970-00-149-1094	3		
Hose and Fittings					
Hose, synthetic, hotline, 1" x 100'	1238	4210-01-166-8122	1200		
Hose, synthetic, hotline, 1.5" x 100'	1239	4210-01-165-6597	1200		
Hose, synthetic, hotline, 3/4" x 50'	1016	4210-01-167-1061	1200		
Nozzle, combination, barrel 1"	1081	4210-01-165-6603	6		
Nozzle, combination, barrel 1.5"	1082	4210-01-167-1123	4		
Nozzle, 3/4" garden hose	0136	4730-00-595-1103	6		
Nozzle, forester	0024	4210-00-640-1892	6		
Shut-off, valve ball 1"	1201	4210-01-165-6599	2		
Shut-off, valve ball 1.5"	1207	4210-01-165-6600	2		
Shut-off, valve ball 3/4"	0738	4210-01-412-5684	2		
Wye, gated 1" NPSH-F x 1" NPSH	0259	4210-00-126-5108	2		
Wye, gated 1.5" NH-F x 1.5" NH-M	0231	4210-00-984-3475	0		
Wye, gated 3/4"	0739	4210-01-412-6335	1		

Description	NFES#	GSA#	NUS	Current	Location
Reducer, 1" NPSH-F x 3/4" M	0733	4210-01-079-9286	1		
Reducer, 1.5" NH-F x 1" NH-M	0009		2		
Reducer, 1.5" NH-F x 1" NPSH-M	0010	4210-00-975-2969	1		
Reducer, 2" NPSH-F x 1.5" NH-M	0417		2		
Increaser 1" NPSH-F x 1.5" NH-M	0416	4210-01-080-6532	2		
Increaser 1.5" NH-F x 2" NPSH-M	0854		4		
Increaser 3/4" NH x 1" NPSH	2235	4210-01-080-6531	2		
Tee, w/valve 1.5" NH-F x 1.5" NH-M x 1" NPSH-M	0230	4210-01-081-0417	0		
Wrench, hydrant	0688		3		
Wrench, spanner .5 to 1.5"	0231	4210-00-984-3475	2		
Wrench, spanner 1.5" to 2.5"	0235	5120-00-596-1427	0		
Hand Tools (combination of the following)			22		
McLeod	0296	4210-00-203-3512			
Pulaski	0146	5120-00-293-3467			
Shovel, fire	0171	5120-00-965-0609			
Swatter, fire (flapper)	1868				
Combi tool	1180	5120-01-240-2120			
Council rake	1807	4210-00-540-4512			
Other Equipment					
Backpack pump, complete	1149	4320-00-289-8912	1		
Foam, Class A Silvex (5 gal)	1145		4		
Chainsaw			0		
Saw Kit (including chaps)			0		
Portable Pump			0		
Portable Tank			0		
Sprinkler System			0		
Pump, head spare			0		
Batteries, AA pkgs 20	0030	6135-00-985-7845	13		
Drip torch	0241		1		
Drip torch, replacement parts (box)			1		
-breathing rods -- 4					
-check valve seat -- 6					
-discharge plug gasket --10					

Description	NFES#	GSA#	NUS	Current	Location
-discharge sealing plug --10					
-tank collar gasket -- 4					
-Igniter (wicks)-- 4					
Flare pistol			1		
Flare pistol cartridges			48		
Fusee, case (72 per case)	0105	1370-00-294-1279	1		
Ribbon, flagging, orange flourescent	0844	9905-00-684-0928	12		
Ribbon, flagging, yellow	0278	9905-00-542-4503	12		
Ribbon, flagging, pink flourescent			12		
Ribbon, flagging, killer tree			12		
Tape, filament roll		7510-00-582-4772	4		
<u>Additional Inventory</u>					
Personal Gear					
Face Shrouds			12		
Chin Straps			12		
Sleeping Mats, Box			12		
Canteens, 1 gallon			0		
Chapstick, Box			0		
Compasses			12		
Red Bags			12		
Briefcase, Grey			10		
Webgear			0		
Air Beds			0		
Wool Blanket			0		
Hose and Fittings					
Hose, 1.5" x 25' shorty			50		
Hose Clamps			1		
3/4" Wye			0		
1" Wye			0		
Tee, w/Valve 1.5" x 1.5" x 1"			4		
Tee, w/Valve 1" x 1" x 1"			2		
Tee, w/Cap 1" x 1" x 3/4"			2		
Tee, w/Cap 1.5" x 1.5" x 1"			4		
Mop-up Wands			4		
1.5" Foot Valves			2		
2" Foot Valves			2		
Gaskets, Set			2		
Reducer, 2.5" to 1.5"			2		
Reducer, 1.5" to 3/4"			0		
Double Female, 1.5"			4		
Double Female, 1"			2		
Double Male, 1.5"			2		

Description	NFES#	GSA#	NUS	Current	Location
Double Male, 1"			2		
Nozzle, Foam 18 gpm			2		
Forester Tip, Straight Stream			4		
Forester Tip, Fog			4		
Other Equipment					
Flight Helmet			2		
Tarp, Blue			0		
Cabela's Pack Sack			0		
First Aid Kit, 20 person			1		
Weight Vest			10		
Drip Torch, Fuel Bottle			0		
Pack Sack, Green			3		
Fuel Sticks, Weather Station			0		
Weather Observation Records			2		
Belt Weather Kit			2		
Fire Shelter, Practice			10		

APPENDIX G-4

Capital Improvements

RMA Refuge Improvements:

Visitor center

Contact station

Administration building (bld. 121)

Maintenance building (bld. 120)

Motor pool (bld. 124)

Seed building (bld. 181)

Butler building (bld. 180)

Trailer z-83

Trailer z-84

Other USFWS Non Refuge:

Wildlife & Sport fish Restoration (bld. z-80)

Eagle Repository (bld. 128)

Other Capital Improvements:

The US Army and its sub-contractors have many buildings and other capital improvements throughout the refuge.

Rocky Flats Refuge Improvements:

Equipment storage building

Lindsey Ranch Barn (historical building)

Two Ponds Refuge Improvements:

none