

Date of Report: August 30,2006

BURNED-AREA REPORT

(Reference FSH 2509.13)

PART I - TYPE OF REQUEST**A. Type of Report**

- ☒ 1. Funding request for estimated emergency stabilization funds
☐ 2. Accomplishment Report
☐ 3. No Treatment Recommendation

B. Type of Action

- ☒ 1. Initial Request (Best estimate of funds needed to complete eligible stabilization measures)
☐ 2. Interim Report # _____
 ☐ Updating the initial funding request based on more accurate site data or design analysis
 ☐ Status of accomplishments to date
☐ 3. Final Report (Following completion of work)

PART II - BURNED-AREA DESCRIPTIONA. Fire Name: Potato FireB. Fire Number: Potato ID.SCF.006294C. State: IdahoD. County: CusterE. Region: Intermountain, R4F. Forest: Salmon-Challis National ForestG. District: Yankee ForkH. Fire Incident Job Code: P4C1S2I. Date Fire Started: July 27, 2006J. Date Fire Contained: 95% as of August 30,2006K. Suppression Cost: \$14,000,000**L. Fire Suppression Damages Repaired with Suppression Funds**1. Fireline waterbarred (miles): 132. Fireline seeded (miles): 0

3. Other (identify):

Seeding Rankin Road and Safety Zone and helispot at Bonanza townsite and Yankee Fork District office (ICP).M. Watershed Number: 170602010605, 170602010502, 170602010603N. Total Acres Burned: 18,236 Potato Fire, 218 Zane Fire

NFS Acres(18,454) Other Federal () State () Private ()

O. Vegetation Types: Mountain big sage with bluebunch wheatgrass or Idaho fescue; Douglas-fir with snowberry, pinegrass, or elk sedge; Subalpine fir and/or whitebark pine with elk sedge.

P. Dominant Soils: Typic Cryorthents, sandy-skeletal mixed and loamy-skeletal mixed; Typic Cryoborolls, coarse-loamy mixed; Argic Pachic Cryoborolls, loamy-skeletal mixed; Typic Cryumbrepts, sandy-skeletal mixed; Typic Haploxerolls, loamy-skeletal mixed, frigid.

Q. Geologic Types: The burned area is located in Northern Rocky Mountain physiographic province. The geology is derived from igneous extrusive Challis volcanics features overlying the intrusive granitics of the Idaho Batholith. The visual express of the landforms indicate these geologic formations have experienced faulting, uplift, glaciation, cryoplanation, and stream cutting.

R. Miles of Stream Channels by Order or Class: Total of 87 miles of stream:

S. Transportation System

Trails: 19 miles Roads: 4 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 5,166 (low) 4,394 (moderate) 2,818 (high) 6,077 (unburned)

B. Water-Repellent Soil (acres): 5,327

C. Soil Erosion Hazard Rating (acres):
1,202 (low) 7,620 (moderate) 9,632 (high)

D. Erosion Potential: 7 – 13 tons/acre (2 years after the fire)

E. Sediment Potential: 3,200 – 5,486 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 2-5

B. Design Chance of Success, (percent): 80

C. Equivalent Design Recurrence Interval, (years): 5

D. Design Storm Duration, (hours): 1

E. Design Storm Magnitude, (inches): 0.51

F. Design Flow, (cubic feet / second/ square mile): 7.8

G. Estimated Reduction in Infiltration, (percent): 28

H. Adjusted Design Flow, (cfs per square mile): 9.9

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Background: The Potato Fire burned approximately 18,236 acres between July 27 and August 29, 2006. A lightning strike started the fire near Basin Lakes and burned an area immediately west and northwest of the Bonanza townsite about 7 miles north of Stanley, Idaho. The fire burned through grass, subalpine Fir, and Lodgepole pine. One small, abandoned historic cabin has been lost. The fire threatened power transmission lines, campgrounds and mining claims, as well as natural and historic resources. The Hecla Mine was protected, however, a portion of one watershed above the mine site was burned with a mosaic that included some acres of moderate to high severity.

Summary of Issues:

1) **Human Life and Safety.** There is a high volume of use of the trails, campgrounds, and facilities within and near the burned area. The campgrounds are used heavily during hunting season and the trails through the burned area are used to access public lands both within and past the fire's perimeter. There will be a moderate to high level of risk to forest visitors from falling snags and rolling rocks for many years.

- There are four major trails within the burned area that receive high use. The West Fork Trail, Deadwood Trail, Basin Lake Trail, and Lightning Creek Trail. These trails are open to single-track motorized travel and connect to the Basin Creek, Knapp Creek/Valley Creek trail systems.
- Direct fire effects to recreation opportunities include impeded trail access due to downed fire-killed trees, high-burn severity damage to vegetation on the out-slope of trail tread edges, several burned log water bars, and the loss of a 45' long treated lumber puncheon bridge. The downed fire-killed trees present a unique safety hazard on trails routed across steep sideslopes because there is no opportunity for motorcyclists to maneuver without putting themselves at risk. Danger from falling snags, burned out stump holes under trail treads, and reduced trail tread width will be high along some portions of the trails. There will also be increased risk to recreationists from debris flows and flash floods in case of large precipitation events.
- Because of topographic constraints, trails within the burn perimeter generally occur on the lower portions of slopes, in close proximity to streams. Water bars and dips on all trails are sufficient only for pre-burn conditions. Ensuring full functionality of existing water bars and dips, and constructing additional temporary water bars on steeper trail sections and trail sections in close proximity to streams will be necessary to reduce erosion from trails that would impact water quality and downstream beneficial uses.

2) **Property.** Although the permitted mine site and facilities did not burn, upslope areas burned at high and moderate severity. Pre-fire debris flows originating from the upper slopes of Washout Creek, a 350 acre drainage, have occurred annually. The vegetation that buffered debris and overland flow from the talus slope above was burned. As a result of the changed watershed conditions, accelerated overland flow with increased debris loads may flow onto the mine site and potentially damage the access road, the west ditch (waste rock storage water treatment pipeline), and the tailings impoundment liner. Besides the road, ditch, and liner, other mine facilities (including the water treatment facilities) are not expected to be at risk because the debris path flows into a dispersion area that is estimated to be sufficient to capture the eroded material.

3) **Critical Natural Resources.**

- Aquatic Resources – Aquatic resources of concern include the West Fork Yankee Fork River and many of its tributaries. The West Fork and the mainstem Yankee Fork support three Federally listed fish species including Bull trout, Chinook salmon, and Steelhead trout. These waters also support the Westslope Cutthroat trout, a Region 4 sensitive species. These salmonid species have been documented throughout the two drainages. The West Fork and the mainstem Yankee Fork are designated Critical Habitat for Chinook salmon and Steelhead trout. The West Fork Yankee Fork River and many of its tributaries contain excellent habitat conditions for salmonid species. Though the mainstem Yankee Fork contains listed salmonids, instream habitat has been degraded by dredging activities that occurred in the 1940's. The areas of most concern because of severely burned areas upstream are located in the West Fork Yankee Fork River, Deadwood Creek, and Lightning Creek. Some smaller tributaries have also been burned.

- Soil Productivity - Elevated soil erosion, sedimentation, runoff, and stream flows are expected to occur at decreasing rates over two to five years after the fire, until vegetation has sufficiently recovered to restore the surface soil-hydrologic function and processes of the watersheds that burned at moderate and high severity.
- Noxious weed infestations are known to exist within and adjacent to the fire perimeter, at the ICP location (Yankee Fork compound), at least 1 of the helispots (Bonanza) as well as along several of the travel routes (both roads and trails) used to both access the incident and manage it. Noxious and invasive species known to exist within this zone of influence are: Spotted Knapweed, Rush Skeletonweed, Leafy Spurge, Musk and Canada Thistle, Yellow Toadflax, Tansy Ragwort and Hound's Tongue. Specific concerns are associated with the movement of noxious weed seeds with respect to existing infestation and fire management activities. In addition there are concerns about the introduction of new noxious or invasive weed seeds from outside the area associated with fire management activities and the disturbance of existing seed banks by both the fire and fire management.

B. Emergency Treatment Objectives:

- Reduce the risk of failure to roads and trails that may impact to downstream water quality.
- Reduce the risk of sedimentation to fish habitat downstream from severely burned hillslopes.
- Reduce threats to personal injury and/or human life of visitors along travel routes.
- Prevent invasive plant species from out competing native species following the burn.
- Protect facilities at the Hecla Mine from increased, debris-laden streamflow.

C. Probability of Completing Treatment Prior to Damaging Storm or Event:

Land 75 % Channel N/A % Roads/Trails 80 % Protection/Safety 80 %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	85	60	45
Channel	90	75	60
Roads/Trails	90	77	70
Protection/Safety	100	90	80

E. Cost of No-Action (Including Loss): \$717,000

F. Cost of Selected Alternative (Including Loss): \$452,160

G. Skills Represented on Burned-Area Survey Team:

☒ Hydrology ☒ Soils ☒ Geology ☐ Range
☐ Forestry ☒ Wildlife ☐ Fire Mgmt. ☐ Engineering
☐ Contracting ☐ Ecology ☐ Botany ☒ Archaeology
☒ Fisheries ☐ Research ☐ Landscape Arch ☒ GIS

Dave Deschaine, Hydrologist
 Terry Hardy, Soil Scientist
 Joey Vacirca, Fisheries Biologist
 Jennifer Purvine, Wildlife Biologist
 Piper Gethel, Geologist

Dean Morgan, Geologist
John Rose, Archeologist
David Morris, GIS

Team Leader: T.J. Clifford

Email: tjclifford@fs.fed.us

Phone: 208-365-7000 FAX: 208-365-7037

H. Treatment Narrative:

(Describe the emergency treatments, where and how they will be applied, and what they are intended to do. This information helps to determine qualifying treatments for the appropriate funding authorities. For seeding treatments, include species, application rates and species selection rationale.)

Land Treatments:

Washout Mulching

Description:

- Mulch (wood or wheat or barley) is applied to the ground as a continuous cover to replace ground cover lost in the fire, maintain soil moisture, and accelerate recovery of native vegetation.

Location (Suitable) Sites:

- Slopes above the Hecla Mine Site with High Severity burns. Refer to Treatment Map.
- Suitable sites are designated on the BAER Treatment map and in the field by either watershed or operations staff. Treat 16 acres either using manual application or aerial application. Slopes between 0 to 60% and where needle cast is not expected.

Design/Construction Specifications:

- Straw must conform to Idaho State Department of Agriculture (ISDA) Certified Noxious Weed Free Standards. Suitable straw includes barley, rice, and wheat grasses or wood straw. The straw must be dry (less than 12 percent internal moisture content) to ensure proper dispersal during aerial applications.
- The rate of application is determined by qualified individuals who have been trained in the principles of BAER treatments. Application rate will be 1.0 ton/acre (2000 pounds) and applied as a continuous cover. This is about 35 - 40 straw bales (≈60 lb/bale) per acre, spread 1/4 inch deep, if evenly distributed (approximately 3 straw shafts deep).
- The straw bales must be delivered early to the staging area and kept dry. This may require use of canvas tarps or plastic covers to protect from precipitation and condensation.
- Special ground support and equipment needs:
- Ground distribution will require that straw bales weigh between 50 and 80 pounds. Bales will be delivered to the mine site at an approved location (approval by mine site manager). Delivery will include unloading, neatly stacking, and covering. A loader will be available at the start of straw application to load flatbed trucks for supporting hand crews.
- Aerial distribution will require that straw bales weigh between 800 and 1000 pounds. Bales will be delivered to the mine site at an approved location (approval by mine site manager). Delivery will include unloading, neatly stacking, and covering. A loader will be available at the start of straw application to load flatbed trucks for supporting helicopter delivery and loading nets.

Purpose of Treatment:

- The purpose of straw mulch is to stabilize the steep slopes above the Hecla Mine site and tailing pond by replacing the natural ground cover consumed by the fire. In addition to providing immediate soil protection from erosion and loss of nutrient capital, and the associated sediment deposition in streams, mulching also helps reduce downstream peak flows by absorbing and slowly releasing accelerated overland runoff due to bare soil, hydrophobic soils and compacted soils. Mulching even small areas at the source of floodwaters, and other areas critical to slope

stabilization, can often protect much larger downstream areas from the cumulative effects of hill slope runoff. Mulching also helps to secure seeds that are either stored in the soil, or applied as an emergency treatment, that may otherwise be eroded off-site and maintains a favorable moisture and temperature regime for seed germination and growth.

Treatment Effectiveness Monitoring:

- Visually inspect effectiveness of treatments and repair as needed.

Aerial Mulching

Description:

- Mulch (wood or wheat or barley) is applied to the ground as a continuous cover to replace ground cover lost in the fire, maintain soil moisture, and accelerate recovery of native vegetation.
- Mulch will attenuate peak streamflows and reduce the risk for debris flows to spawning areas in the West Fork Yankee Fork watershed.

Location (Suitable) Sites:

- Slopes with moderate to high severity burn have been identified in the West Fork Yankee Fork watershed and identified on the Treatment Map.
- Suitable sites are designated on the BAER Treatment map and in the field by either watershed or operations staff. Treat 330 acres aerially. Slopes between 20 to 60% and where needle cast is not expected.

Design/Construction Specifications:

- Straw must conform to Idaho State Department of Agriculture (ISDA) Certified Noxious Weed Free Standards. Suitable straw includes barley, rice, and wheat grasses or wood straw. The straw must be dry (less than 12 percent internal moisture content) to ensure proper dispersal during aerial applications.
- The rate of application is determined by qualified individuals who have been trained in the principles of BAER treatments. Application rate will be 1.0 ton/acre (2000 pounds) and applied as a continuous cover. This is about 2.5 straw bales (≈800 lb/bale) per acre, spread 1/4 inch deep, if evenly distributed (approximately 3 straw shafts deep).
- The straw bales must be delivered early to the staging area and kept dry. This may require use of canvas tarps or plastic covers to protect from precipitation and condensation.
- Special ground support and equipment needs:
- Delivery will include unloading, neatly stacking, and covering. A loader will be available at the start of straw application to load helicopter nets.
- Aerial distribution will require that straw bales weigh between 800 and 1000 pounds. Bales will be delivered to the mine site at an approved location (approval by mine site manager). Delivery will include unloading, neatly stacking, and covering. A loader will be available at the start of straw application to load flatbed trucks for supporting helicopter delivery and loading nets.

Purpose of Treatment:

- The purpose of straw mulch is to stabilize the steep slopes in headwater drainages that have burned at high severity. This mulching treatment is meant to attenuate expected peak flows and debris flow potential to important fish habitat and salmon/bull trout spawning areas in the West Fork Yankee Fork Salmon River. It will replace the natural ground cover consumed by the fire. In addition to providing immediate soil protection from erosion and loss of nutrient capital, and the associated sediment deposition in streams, mulching also helps reduce downstream peak flows by absorbing and slowly releasing accelerated overland runoff due to bare soil, hydrophobic soils and compacted soils. Mulching even small areas at the source of floodwaters, and other areas critical to slope stabilization, can often protect much larger downstream areas from the cumulative effects of hill slope runoff. Mulching also helps to secure seeds that are either stored in the soil, or applied as an emergency treatment, that may otherwise be eroded off-site and maintains a favorable moisture and temperature regime for seed germination and growth.

Treatment Effectiveness Monitoring:

- Visually inspect effectiveness of treatments and repair as needed.

Noxious Weed Treatment

Description:

- Treat documented noxious weed infestations that have resprouted in the burned area. This allows for the immediate treatment and eradication (i.e. hand pulling, herbicide application, biological agent control, seeding of native species) of known infestations.
- Treat undocumented noxious weed infestations that have been located as a result of monitoring within the burned area. Focus on areas disturbed during fire management operations and travel routes used to support fire management operations.

Location (Suitable) Sites:

- Existing known weed infestations within and directly adjacent to the Potato Fire burned area on Forest (see map in project files). Locations will be identified through Weed Monitoring Treatment described later in this request. These locations will be documented and mapped for future monitoring and treatment.

Design/Construction Specifications:

- Select herbicide, application rate, and application timing based on specific weed being treated, and access to the location of the infestation.
- Consideration for TES (listed species) habitat and sensitivity when selecting appropriate herbicide.

Purpose of Treatment:

- Reduce the potential for establishment of new noxious weed infestations in highly susceptible burned areas, prevent spread of existing infestations, and prevent increase in weed density in existing infestations.

Channel Treatments:

Washout Catch Basins

Description:

- Large depression at the mouth of Washout Creek to capture bedload and debris.

Location (Suitable) Sites:

- Refer to Treatment Map for locations on the Hecla Mine site.
- On the road located at the mouth of Washout Creek and above the tailings pond.

Design/Construction Specifications:

- Excavate bedload deposition to the depth of geotextile liner (approximately 18 in.) in the mouth of Washout Creek and the unnamed drainage directly to the south. The width of the excavation will be the entire width of washout creek and unnamed tributary to the slope breaks on either side of the channel. The length of excavation will be from the road surface up channel until the break in slope where scour ends and deposition begins.

Purpose of Treatment Specifications:

- To capture and manage bedload and debris that may be transported from Washout Creek during a storm events and spring runoff.

Treatment Effectiveness Monitoring:

- Inspect catchment basins after major precipitation events, after spring runoff, and prior to snowfall to ensure maximum capacity is maintained throughout the year.

Washout Diversion Structure

Description:

- Elevated freeboard to enhance the effectiveness of the catchment basin.

Location (Suitable) Sites:

- Refer to Treatment Map for locations on the Hecla Mine site.
- On the road located at the mouth of Washout Creek and above the tailings pond.

Design/Construction Specifications:

- Place Jersey barriers in a semicircle on the road surface starting at the North hillslope and

extending to the ditch (CH12) directly across from the southern channel embankment.

Purpose of Treatment Specifications:

- To allow greater depth of storage in the Washout Creek catchment basin. Materials transported in Washout Creek will be deposited in the catchment basin with reduced velocities and increased roughness. Storage capacity will be increased with the addition of the Jersey barriers.

Treatment Effectiveness Monitoring:

- Inspect culverts after major precipitation events, after spring runoff, and prior to snowfall to ensure maximum capacity of the catchment basin is maintained throughout the year.:

Washout Overflow Structure

Description:

- To ensure that any excess flow that passes over the road from a runoff event in Washout Creek is controlled by constructing a low point in the road just below the mouth of Washout Creek.

Location (Suitable) Sites:

- Refer to Treatment Map for locations on the Hecla Mine site.
- On the road located at the mouth of Washout Creek and above the tailings pond.

Design/Construction Specifications:

- Construct a grade dip according to FSH specifications.
- The design would be about 50 feet along the length of the road and outsloped from the current road grade on the inside ditch to a point 3 feet lower than the current road grade on the outslope of the road tread.
- Grade would be 3 – 10 percent in and out of the prevailing grade of the existing road at the outslope edge of the road.
- Material removed from the catch basin (preferably > 4 inch diameter) would be used to harden the grade dip to a depth of 6-12 inches along the entire dipped surface.

Purpose of Treatment:

- To manage any flows that exceed the catch basin design. Any overflow would be transferred across the road surface and dispersed between the road and the tailings pond.

Treatment Effectiveness Monitoring:

- Inspect culverts after major precipitation events, after spring runoff, and prior to snowfall to ensure maximum capacity of the culvert is maintained throughout the year.

Roads and Trail Treatments:

Trail Hazards Removal

Description:

- Ensure visitor safety by removing hazards that are a result of the burned area.

Location (Suitable) Sites:

- Sixteen miles of trail that are within the burn perimeter and within moderate to severely burned areas or downstream from moderate to severely burned drainages.

Design/Construction Specifications:

- Identify hazard trees that pose a threat to public health and safety along trails. Identify and mark burned out stump holes near or in the trail's tread. Identify sections of trail that have sloughed as a result of loss of vegetation along outsloped edges of trails.
- Identify fire-downed trees that pose a threat to public health and safety along trails that are routed through or below burned slopes. Qualifying trees would include those logs that are crossing the trail in a location that cannot be negotiated safely and cannot turn around without posing unacceptable risk to the rider.
- Widen trail tread width where out slope edge was damaged by fire.
- Cut burned hazard trees near the trail, clear fire-downed trees blocking the trail. Especially on single-track motorized trails routed along steep sideslopes for no capacity for turn-around.
- Remove burned debris from puncheon bridge area. Post a sign warning of danger in crossing burned bridge.
- Repair damaged tread (stump holes) in burned areas to prevent visitors from falling into invisible

holes.

Purpose of Treatment Specifications:

- For the safety of trail users as they pass through the burned area.

Treatment Effectiveness Monitoring:

- Visual inspection after snowmelt. Regularly assess remaining trees for indications they have been weakened to the point of posing a threat and remove them when necessary.

Trail Erosion Control

Description:

- Install temporary grade dips or water bars along portions of trails where threat to water quality and fish habitat is greatest and clean existing bars, dips, and culverts on all trails before snowfall. Work must be performed prior to snowfall in order to be functional for spring melt-off or a seasonal rain-on-snow event that could prove catastrophic for the trail and downstream beneficial uses.

Location (Suitable) Sites:

- Trail sections within moderate - high severity burned areas that are greater than 5-8% grade and/or lie where existing erosion control features are not sufficient to handle increased runoff.

Design/Construction Specifications:

- Install 90 temporary grade dips or water bars on trails within high and moderate burn areas to ensure water is diverted to prevent erosion and to prevent failure of trail bed.
- Clean existing water bars.
- According to USFS Trails Handbook 2309.18. Installation should be designed to last no more than 3 years. Permanent structures are not part of this treatment.

Purpose of Treatment Specifications:

- To ensure drainage structures is sufficient to divert water effectively given increased runoff and increased sediment movement.
- To protect property and high value watershed values such as T&E species spawning and rearing habitat.

Treatment Effectiveness Monitoring:

- Inspect trails after major precipitation events, after spring runoff, and prior to snowfall to assess effectiveness of erosion control structures at diverting water from trail surface.

Culvert Addition

Description:

- Install an additional overflow culvert at 1 location that is at risk for flooding and/or debris flows as a result of burned conditions in the upper portion of the watershed.

Location (Suitable) Sites:

- Locations are identified on the Treatment Map for one unnamed tributary to Jordon Creek and crossing the Jordon Creek road.

Design/Construction Specifications:

- Survey, design, and contract administration by USFS.
- Forest Service Specifications for Construction of Roads and Bridges and Special Contract Provisions.

Purpose of Treatment:

- The purpose of these treatments is to increase culvert capacities to accommodate increased water flows and associated bedload and debris, restore road template drainage, and decrease the chances of washing road fill into adjacent streams.

Culvert Monitor and Clean

Description:

- Monitor the entrance and exit of two culverts that process flows from tributaries to Jordon Creek to reduce the threat to water quality and fish habitat after high intensity precipitation events, prior to snowfall, and as soon as possible after the start of spring snowmelt. Ensure the culverts retain maximum flow capacity throughout the season because spring melt-off, summer thunderstorms,

or a rain-on-snow event could prove catastrophic for the road, drain-down pipe, and downstream beneficial uses.

Location (Suitable) Sites:

- Refer to Treatment Map for locations on the Jordon Creek road.

Design/Construction Specifications:

- Monitoring of the two culverts should be accomplished through a maintenance agreement with the Hecla Mining Company.
- Mechanically shovel and flush debris from culverts and place excess material outside of bankfull channel where it cannot re-enter stream channels.
- Remove debris and fill from channel and around culvert.
- Manually remove woody debris around catch basin and in channel upstream or downstream from culvert.

Purpose of Treatment:

- To maximize culvert and channel capacity to handle flood flows, protect road beds, protect drain-down pipe from Hecla Mine tailing pond, and mitigate impacts to downstream beneficial uses.

Treatment Effectiveness Monitoring:

- Inspect culverts after major precipitation events, after spring runoff, and prior to snowfall to ensure maximum capacity of the culvert is maintained throughout the year.

Protection/Safety Treatments:

Road/Trail Hazard Signing

Description:

- Install signs at all roads, trails and trailheads that enter the burned area or provide access to trails within the burn warning of increased hazard from falling burned trees, debris flows and flooding.

Location (Suitable) Sites: (See Treatment Map)

- Trailheads.
- Trails at a point where trail intersects the edge of burned area.
- Suitable roads such as Jordon Creek Road, Yankee Fork Road, and Basin Creek Road.

Design/Construction Specifications:

- Reflectorized wood backed signs with letter size according to USFS Handbook specifications mounted on 4"x4"x8' posts at heights and distances mandated in USFS Handbook.

Purpose of Treatment Specifications:

- Ensure maximum visibility and readability of signs to warn public of hazards in burned area.

Treatment Effectiveness Monitoring:

- Regularly inspect signs for visibility and ask visitors if they saw signs.

I. Monitoring Narrative:

(Describe the monitoring needs, what treatments will be monitored, how they will be monitored, and when monitoring will occur. A detailed monitoring plan must be submitted as a separate document to the Regional BAER coordinator.)

Weed Monitoring

Description:

- The noxious weed monitoring is to ensure early detection of noxious weed introduction in the burned area and suppression sites as a result of suppression or wildfire activity. Early detection of noxious weed infestations will minimize the spread and initiate rapid treatment to new infestations associated with fire suppression/fire effects.

Location (Suitable) Sites:

- Monitoring areas include all sites disturbed by the fire suppression activities such as helibases, helispots, drop points, heliwater spots, spike camps, and fire camp. All travel routes into and through the burned area should be monitored.

Design/Construction Specifications:

- Authorized individuals will conduct all monitoring to insure compliance with specific, detailed requirements (intensity, frequency, funding, timing, length of time, locations, etc). Monitoring will be conducted following established R4 Monitoring methods.
- Monitoring will be done at intensity and frequency to identify spread or occurrence of weed infestations following the fire event and recovery. Monitoring will be accomplished by a two person crew or contract crew over a three-day period. Initial monitoring will take place after the fire (beginning early Spring/Summer of 2007). Additional monitoring and treatment may be requested depending what is found within the burned area.
- Select herbicide, application rate, and application timing based on specific weed being treated, and access to the location of the infestation.
- Consideration for TES (listed species) habitat and sensitivity when selecting appropriate herbicide.
- Documented weed infestations include the species of Spotted Knapweed, Rush Skeletonweed, Leafy Spurge, Musk and Canada Thistle, Yellow Toadflax, Tansy Ragwort and Hound's Tongue.

Purpose of Treatment:

- The purpose of Noxious Weed Monitoring is early detection of noxious weed introduction in the burned area and suppression sites as a result of suppression or wildfire activity. Early detection of noxious weed infestations will minimize the spread and initiate rapid treatment to new infestations associated with fire suppression/fire effects. Noxious weed species and invasives found during the monitoring will be treated at time of identification.

Part VI – Emergency Stabilization Treatments and Source of Funds

Interim #

			NFS Lands				Other Lands				All
		Unit	# of		Other		# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER \$	\$		units	\$	Units	\$	\$
A. Land Treatments											
Washout Cr Mulch	acres	390	16	\$6,240	\$0			\$0		\$0	\$6,240
Aerial Mulch	acres	1000	330	\$330,000	\$0			\$0		\$0	\$330,000
Noxious Weed Treatm	days	600		\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Land Treatments				\$336,240	\$0			\$0		\$0	\$336,240
B. Channel Treatments											
Washout Catch Basin	hour	140	0	\$0	\$0			\$0	30	\$4,200	\$4,200
Washout Diversion Str	hour	180	10	\$1,800	\$0			\$0		\$0	\$1,800
Washout Overflow Stru	hour	140	10	\$1,400	\$0			\$0		\$0	\$1,400
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Channel Treat.				\$3,200	\$0			\$0		\$4,200	\$7,400
C. Road and Trails											
Culvert Addition		4800	1	\$4,800				\$0		\$0	\$4,800
Culvert Monitor & Clea	ea	600	2	\$1,200				\$0		\$0	\$1,200
Trail Hazards Remova	mile	434	16	\$6,944	\$0			\$0		\$0	\$6,944
Trail Erosion Control	waterba	77	90	\$6,930	\$0			\$0		\$0	\$6,930
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Road & Trails				\$19,874	\$0			\$0		\$0	\$19,874
D. Protection/Safety											
Hazard Signing	sign	289	14	\$4,046	\$0			\$0		\$0	\$4,046
				\$0	\$0			\$0		\$0	\$0
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Structures				\$4,046	\$0			\$0		\$0	\$4,046
E. BAER Evaluation											
Team	days	4200	8		\$33,600						
Consultation	days	300	7		\$2,100			\$0		\$0	\$33,600
Insert new items above this line!								\$0		\$0	\$2,100
Subtotal Evaluation					\$35,700			\$0		\$0	\$35,700
F. Monitoring											
Weed Monitoring	days	600	3	\$1,800	\$0			\$0		\$0	\$1,800
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Monitoring				\$1,800	\$0			\$0		\$0	\$1,800
G. Totals				\$365,160	\$35,700			\$0		\$4,200	\$405,060

PART VII - APPROVALS

 1. /s/William A. Wood _____
 Forest Supervisor (signature)

 09/01/2006 ____
 Date

 2. /s/ Mary Wagner for _____
 Regional Forester (signature)

 09/08/2006 ____
 Date