USDA-FORESTSERVICE FS-2500-8 (7/00)

Date of Report: 09/16/2000

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated WFSU-SULT funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 1. Initial Request (Best estimate of funds needed to complete eligible rehabilitation 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 DESCRIPTION

A. Fire Name: **West Basin Fire**

B. Fire Number: **X097 (BLM G211) 074 (FS)**

C. State: **Idaho (Nevada)**

D. County: **Cassia/Twin Falls, Co**

E. Region: **04 - Intermountain**

F. Forest: **14 - Sawtooth**

G. District: **01 – Burley/Twin Falls – Cassia Division**

H. Date Fire Started: **08-17-2000**

I. Date Fire Contained: **08-24-2000**
Date Fire Controlled: 8/26/2000

J. Suppression Cost: **est. $387,000**

K. Fire Suppression Damages Repaired with Suppression Funds – WFSU-PF-12
1. Fireline waterbarred (miles): **approximately 15 miles**
2. Fireline seeded (miles): **to be seeded by Elko BLM (approx 23 mi.)**
3. Other (identify): **repair 4 water catchments in system roads, to provide drainage. These were excavated during suppression activities.**

L. Watershed Number: **17040213 – Salmon Falls Creek**
17040211 – Goose Creek

M. Total Acres Burned: **55,231 (Idaho and Nevada)**
NFS Acres (16,392 - ID) Other Federal (399 - ID) State (638 - ID) Private (4,608 ID)

N. Vegetation Types: **Wyoming sagebrush/Idaho fescue; bluebunch wheatgrass; aspen/lodgepole; ceonothus/curlleaf mountain mahogany; Salix/Carex**

O. Dominant Soils: **Typic and Argic Haploborolls coarse loamy mixed**
Lithic Haploborolls loamy skeletal mixed
Typic Vitrandepts coarse loamy mixed frigid

P. Geologic Types: **Limestone – western portion; basalt, volcanic ash – eastern portion**

Q. Miles of Stream Channels by Order or Class:
4th order – 6 miles; 3rd order – 15 miles; 2nd order – 10 miles

R. Transportation System

Trails: **0 miles** Roads: **20 miles of secondary roads**

PART III - WATERSHED CONDITION

A. Burn Severity (acres): **est. 14,000** (low) **est. 2,000** (moderate) **0** (high)

B. Water-Repellent Soil (acres): **0**

C. Soil Erosion Hazard Rating (acres):
10,000 (low) **6,000** (moderate) **391** (high)

D. Erosion Potential: ____ tons/acre

E. Sediment Potential: ____ cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): **3***
(*unless monitoring results dictate further rest from livestock grazing)

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

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

D. Design Storm Duration, (hours): ____

E. Design Storm Magnitude, (inches):

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

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

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

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

Threats to Human Life

Field reviews by Forest personnel following containment of the West Basin Fire indicate that there are no human habitations within floodprone areas affected by the wildfire on Forest Service lands. No significant increases in sedimentation is expected. The large majority of the burn on Forest Service lands was determined to be of low fire intensity by the BAER Team.

Threats to Long-term Soil Productivity and Ecosystem Integrity

The main concern is to protect the burned area from grazing for a full three growing seasons and to be sure that neither the burn nor the suppression efforts will allow encroachment of noxious weeds. Field and aerial reviews by the BAER Team indicate that there is a substantial risk of noxious weed invasion along roads, trails, and dozer lines used during fire suppression activities. This threat is due to a high liklihood that noxious weed seeds were brought into the area by fire equipment that has been used extensively on other wildfires throughout the West and in known noxious weed locations. There is also a threat of weed seeds such as cheatgrass could blow in from neighboring land in Nevada. The District has been active in maintaining this as a weed-free area, actively and aggressively treating any noxious weed locations identified during routine surveys. The establishment of noxious weeds in this area could increase the potential for long-term loss of soil productivity resulting in accelerated soil erosion and plant community conversion.

Isolated pockets of aspen were burned by the wildfire. These areas are forage habitat for Canada lynx (ESA Threatened species) prey and are included in the suitable foraging habitat base for this species. There is a high liklihood that the low burn severity will serve to provide adequate regeneration and improved vigor within these stands

Threats to Sage Grouse and Sharp-tailed Grouse Habitat

Both the Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*) and the sage grouse (*Centrocercus urophasianus*) have been petitioned for listing under the Endangered Species Act. The main threat identified in each of the listing packages is loss of sagebrush habitat either through agricultural conversion or as a result of wildfire. The southwest and southern portion of the Cassia Division is considered a key habitat area for both species. Historical sage grouse leks have been located both on and adjacent to Forest Service lands. One historic lek located on Forest Service lands,

TF062, was burned over. The loss of sagebrush habitat in this area could affect grouse reproductive success. Approximately 900 acres of key habitat in the southwest portion of the Cassia Division is targeted for re-seeding with sagebrush in order to quickly re-establish this vegetative component to reduce the potential impact to short-term survival and breeding success.

Threats to Yellowstone Cutthroat Trout Habitat

One 6th level HUC is identified as having strong populations of Yellowstone cutthroat trout. This watershed, Piney-Goose, burned at low intensities. The riparian vegetation was lightly burned or unburned, leaving a substantial amount in place to act as a sediment trap if a moderate to heavy rain event were to occur. It is the opinion of the Soil Scientist, David Gilman, and the Hydrologist, Valdon Hancock, that these drainages have reasonable natural protection from sediment loading that will result from the wildfire. However, active headcuts are located within the drainage, and a temporary natural increase in erosion is inevitable. No mitigation is proposed for this time but will be considered if monitoring indicates the need for control.

B. Emergency Treatment Objectives:

The goal of the burned area emergency rehabilitation is to:

- Protect the existing perennial plant communities from grazing for a minimum of three growing seasons.
- Re-establish native plant communities in a timely fashion in order to protect the ecological integrity of the ecosystem and reduce the potential for establishment of noxious weeds. Use of native species is preferable to resist competition from invasive species and to readily re-establish the primary food source for sage grouse and sharp tailed grouse, two recently petitioned sagebrush dependent species.

Treatment objectives to achieve this goal are:

- Accelerate the re-establishment of sagebrush (*Artemesia wyomingensis*), the dominant forage species for sage grouse and sharp tailed grouse, on 900 acres of Forest Service lands.
- Control expected invasion of noxious weeds within the area, especially along and adjacent to Forest roads, trails, and dozer lines used by fire equipment during the suppression efforts. The potential for windblown seeds of noxious weeds to be dispersed from adjoining areas in Nevada, to across the entire burn area, is high.
- Provide fences necessary to protect the burned area, including the proposed seeding, from grazing for three growing seasons. The fencing will cost about $4500 per mile in order to last 3 years; a much cheaper fence could be installed for one year, but it would have to be re-installed each of the following two years at a greater total cost. About 12 miles of fence are needed prior to the 2001 grazing season in order to protect the burn and the re-seeded lands from grazing. These fences are necessary for successful re-seeding. However, 8 miles of this fencing can be installed by permittees under existing agreements to permit grazing, at considerable savings, at a cost of $2500 per mile. Thus, only 4 miles of fence will be needed at a cost of $4500 per mile.

- Remove sediments from 6 livestock/wildlife watering ponds where significant sediment deposits from the burned area are expected. In addition, project funds will be used to replace 6 water troughs and associated water facilities damaged by the fire; these costs are not included in the cost summary in Part IV.
- Water-bar, re-contour, and re-seed 15 miles of dozer lines with a mixture of native grasses/forbs. Contracting for aerial seeding will be done in conjunction with the Elko BLM Office and per BLM specifications (suppression funds).
- Repair 4 water catchments on system roads, created during suppression activities, in order to provide proper drainage, with suppression funds.

C. Probability of Completing Treatment Prior to First Major Damage-Producing Storm:

Land **75** % Channel **N/A** % Roads **90** % Other **75** %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	**75**	**90**	**90**
Channel	**N/A**	**N/A**	**N/A**
Roads	**90**	**90**	**90**
Struct.	**90**	**90**	**90**

E. Cost of No-Action (Including Loss):

F. Cost of Selected Alternative (Including Loss):

G. Skills Represented on Burned-Area Survey Team:

[**X**] Hydrology [**X**] Soils [ ] Geology [**X**] Range [ ]
[ ] Forestry [**X**] Wildlife [ ] Fire Mgmt. [ ] Engineering [ ]
[ ] Contracting [ ] Ecology [**X**] Botany [**X**] Archaeology [ ]
[ ] Fisheries [ ] Research [ ] Landscape Arch [ ] GIS

Team Leader: **Deb Bumpus**

Email: **dbumpus@fs.fed.us** Phone: **208-727-5003**
FAX: **208-727-5029**

H. **Treatment Narrative:**

Land Treatments:
Aerial seed 900 acres of Wyoming sagebrush (*Artemesia wyomingensis*) within 60 days following submittal of this report to expedite the re-establishment of this key sage grouse and sharp tailed grouse component. These targeted acres include both key forage areas, wintering grounds, and historic lek locations. Monitoring will be necessary to determine both the amount of successful germination and the amount of time it will take for the seedlings to reach a height where cattle impacts will be negligible. Cattle will be rested a minimum of three growing seasons (no grazing prior to fall, 2003). If monitoring indicates that sufficient cover of plants has not been reached, additional rest from grazing may be necessary. Immediate replacement of 12 miles of fence destroyed by the fire will be necessary to keep the re-seeded area protected from livestock grazing and drift from adjacent BLM and/or private lands.

Aerial seed all dozer lines with a mix of Snake River wheatgrass (Secar), Western Wheatgrass (any variety), and Sandberg Bluegrass (any variety) (Idaho fescue is unavailable), during the fall, 2000, within 60 days of submittal of this report. Construct water bars and close off access points after re-seeding efforts are completed. All seed will be certified weed-free.

Plant Species	**Seeding Rate**	**Acres to be Treated**	**Estimated Cost/lb**	**Total Cost**
Sagebrush (*Artemesia wyomingensis*)	0.25 lb/acre PLS	900	$136.00	$30,600
Snake River Wheatgrass (Secar)	3 lb/acre PLS	27	$8.53	$691.00
Western Wheatgrass	1 lb/acre PLS	27	$12.00	$324.00
Sandberg Bluegrass	1 lb/acre PLS	27	$24.00	$648.00
TOTAL				**$19969.00**

Channel Treatments:
No channel treatments are recommended. It will be necessary to closely monitor Goose Creek (which contains Yellowstone cutthroat trout) for a period of three years to ensure no sedimentation or headcut problems increase. If monitoring during the fall and spring seasons of 2000 - 2001 shows any indication of these two conditions increasing, additional funds will be requested at that time to treat the problem. It will be necessary to immediately treat any headcuts as they arise.

Road Treatments:
Following suppression activities, dozer operators constructed water bars along Forest Roads. Four of these were dug too deep and without proper drainage, essentially acting as water entrapments. It will be necessary to repair these areas this fall, prior to winter precipitation.

Structures:
Several Forest Service structures were either damaged or destroyed by the West Basin Fire. These structures are located on the following allotments: Piney Unit of Goose Creek Allotment; south half of Big Creek Allotment; and 100% of Tunnel Hill Allotment. Provide 12 miles of fenceline, necessary to exclude grazing for three growing seasons, prior to the grazing season on adjacent BLM and private lands. Remove sediment from 6 livestock/wildlife watering ponds, during the fall, 2000 and spring/summer 2001 seasons.

Noxious Weed Treatments: The threat of spread of existing noxious weeds from outside the general area can be expected as a result of the fire. In addition, fire suppression actions were conducted by crews and equipment brought into the fire from many areas across the United States including BLM areas in Utah, Idaho and Nevada where there are infestations of various species of noxious or non-native invasive plants. No preventative measures were taken to prevent the introduction of non-native invasive weed seeds or plant into the burned area or vicinity. The burned area is currently free of State listed noxious weeds. It is very probable that non-native invasive plant seeds were introduced into the area by suppression actions or are being introduced by wind from neighboring areas in Nevada. Any invasion of noxious weeds as identified by the State of Idaho, the "All States Noxious Weeds List", or the Federal Noxios Weeds List will be targeted for immediate irradication using appropriate herbicides and application techniques. This treatment will take place under the direction of the Burley/Twin Falls District Ranger in accordance with the Forest Noxious Weed Management Plan and Environmental Analysis. These actions will be coordinated with local State and County agencies. The amount of treatment will be based on monitoring the burned area and access routes for weed invasion. It is reasonable to expect the spread over about 10 acres as a result of this fire. This project provides for erradication treatments for up to 10 acres annually for the period following the fire through the year 2003 at an application cost of $100 per acre ($1000 annually).

H. **Monitoring Narrative:**

Weed Monitoring and Treatment Plan
The following methods will be followed during this phase of the monitoring plan:

- Evaluate the weed infestations in the area using existing information. This evaluation will include known locations and management activities to treat the noxious weeds prior to the wildfire.
- Briefly describe any of the fire suppression-related activities that were aimed at preventing the spread of non-native invasive plants to or from the fire. Consider:
    - Contract requirements for cleaning equipment before bringing it to the fire.
    - Contract requirements for use of weed free seed and mulches used on fire line and camp restoration actions.
    - Establishment of equipment cleaning areas used during suppression activities or at demobilization.
- Provide a description or map quantifying disturbed areas including fire lines, fire camp, spot camps, helispots, access roads, or other sites disturbed by

suppression and support activities. Map will be prepared prior to initiation of treatment.

- Evaluate the potential for spread of existing non-native invasive species or introduction of new species through the burned area, suppression sites or adjacent areas as a result of the wildfire event or suppression actions. Cheatgrass is known to occur on Nevada BLM lands to the south and west.
- Monitor the dozer lines and Forest Roads used for access for a period of three growing seasons (2001, 2002, and 2003) and a minimum of 10 days per year (one week in the spring and one week in the fall) during each of these years.
- An additional 20 days per year will be necessary to monitor the remainder of the burn area. Three seasons are necessary in order for sufficient growth to occur to provide staff with positive identification of any noxious weed. Monitoring will be conducted per Region 4 Range Monitoring standards using existing transects. Percent ground cover, grass and forb diversity, and vigor will be measured. Stands of pure native grass species will also be monitored, using a belt transect method to detect any species change or noxious weed infestation. If any new noxious weed infestations occur along the dozer lines, within the burn area, or within pure native grass stands, local Forest Service staff will request additional dollars to purchase herbicide and seed. Establish photo points within each native grass stand monitored, to measure the above parameters.

Sagebrush Regeneration Monitoring Plan

- Verification of the re-establishment of this species will be monitored within the same transects identified above. Establish photo points within each of these transects to specifically verify sagebrush re-seeding progress.

Aspen Stand Regeneration Monitoring Plan

- Monitor affected aspen stands for three years (2000, 2001, and 2002) to ensure that livestock grazing does not occur until these stands have effectively reached a height where grazing impacts will not affect growth rate or form. Monitor yearly growth rate and percentage of resprout within two extreme stands; one that only received leaf scorching and one which was heavily burned. Funding for this monitoring will be through sources other than BAER. If, after the 2001 season, these stands are still being impacted by grazing, the District will seek other means of protection.

Forest Road Repairs

- Establish before and after photo points at each site where road repairs are necessary. There are 4 areas where dozer operators put in water bars without an outlet for water drainage. These will act as water catchments and need to be re-shaped prior to winter precipitation in order to provide proper drainage.

Part VI – Emergency Rehabilitation Treatments and Source of Funds by Land Ownership

Line Items	Units	Unit Cost	# of Units	WFSU SULT $	Other $	# of units	Fed $	# of Units	Non Fed $	Total $
A. Land Treatments										
Sagebrush seeding	lbs	$136	225	$30,600			$0		$0	$30,600
Noxious Weed Control	acres	$100	10	$1,000			$0			$1,000
Helicopter	hours	$750	4	$3,000			$0		$0	$3,000
				$0			$0		$0	$0
Subtotal Land Treatments				$34,600			$0		$0	$34,600
B. Channel Treatments										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Channel Treat.				$0			$0		$0	$0
C. Road and Trails										
Snake R. wheatgrass	lbs	$8.53	81	$0	$691		$0		$0	$0
Western wheatgrass	lbs	$12.00	27	$0	$324		$0		$0	$0
Sandberg bluegrass	lbs	$24.00	27	$0	$648		$0		$0	$0
Helicopter	hrs.	$800	1	$0	$800		$0		$0	$0
Remove water catch.	each	$400	4	$0	$1,600					$0
Subtotal Road & Trails					$4,063		$0		$0	$0
D. Structures										
Fencing (3-yr temp)	miles	$4,500	4	$18,000			$0		$0	$18,000
Fence (permittee share	miles	$2,500	8	$20,000	16,000		$0		$0	$20,000
Sed. Removal /ponds	each	$2,000	6	$12,000			$0		$0	$12,000
				$0			$0		$0	$0
Subtotal Structures				$50,000	$16,000		$0		$0	$50,000
E. BAER Evaluation										
Salaries				$6,000			$0		$0	$6,000
Travel				$800			$0		$0	$800
G. Monitoring Cost	days	$275	30	$8,250			$0		$0	$8,250
H. Totals				**$99,650**			**$0**		**$0**	**$99,650**

PART VII - APPROVALS

1. _____ _____
Forest Supervisor (signature) Date

2. _____ _____
Regional Forester (signature) Date