United States Department of Agriculture **Forest Service** **Nez Perce National Forest** **Route 2, Box 475 Grangeville, ID 83530 208 983-1950**

File Code: 2520 **Date:** August 1, 2001
Route To:

Subject: Burnt Flats Fire Burned Area Report

To: Regional Forester

Enclosed is an amended 2500-8 for the Burnt Flats Fire. Culvert upgrades were required because of erosion from private lands being salvaged logged which were contributing sediment from above Forest road 243A. This is a request for an additional $5,000 to cover purchase and installation of two culverts.

/s/ Bruce E. Bernhardt

BRUCE E. BERNHARDT
Forest Supervisor

Enclosure

Cc:
Cindy Swanson
Rick Stowell
Bruce Simms
Pat Green

USDA-FOREST SERVICE FS-2500-8
(7/00)

Date of Report: September 11, 2000B

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: Burnt Flats

B. Fire Number: ID-CWS-043012

C. State: Idaho

D. County: Idaho

E. Region: 01

F. Forest: Nez Perce

G. District: Clearwater

H. Date Fire Started: Aug. 10, 2000

I. Date Fire Controlled: Sept 9, 2000

J. Suppression Cost: $7,900,000

K. Fire Suppression Damages Repaired with Suppression Funds (in progress)
1. Fireline waterbarred (miles): 31
2. Fireline seeded (miles): 20
3. Other (identify): 21 acres safety zones obliterated, drainage restored and erosion control on 15 miles secondary roads,

L. Watershed Number: 1706020901

M. Total Acres Burned: 20,219 within fire perimeter, not all burned
NFS Acres (13,413) Other Federal ( ) State (4017) Private (2792)

N. Vegetation Types: foothills grassland, disturbed grassland, ponderosa pine-douglas-fir, mixed conifer

O. Dominant Soils: Argixerolls

P. Geologic Types: Basalt dominant, granitic minor

Q. Miles of Stream Channels by Order or Class: 40 miles order 1, 13 miles order 2, 12 miles order 3, 1.1 miles order 4, using 1:100,000 hydrography

R. Transportation System

Trails: 24 miles Roads: > 62 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 9000 (low) 2100 (moderate) 8180 (high)

B. Water-Repellent Soil (acres): Virtually none detected in sampling. No surface erosion noted after 2 inches of rainfall in one week after the fire.

C. Soil Erosion Hazard Rating (acres):
178 (low) 15977 (moderate) 5064 (high)

D. Erosion Potential: .1 tons/acre (yr 1) and .02 tons/acre (year 2)

E. Sediment Potential: 2.2 cubic yards / square mile routed to the mouth of Whitebird Creek (year 1) And .4 cubic yards per square mile (yr 2)

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 3

B. Design Chance of Success, (percent): 90

C. Equivalent Design Recurrence Interval, (years): 2

D. Design Storm Duration, (hours): 6

E. Design Storm Magnitude, (inches):

F. Design Flow, (cubic feet / second/ square mile): 7.0

G. Estimated Reduction in Infiltration, (percent): None

H. Adjusted Design Flow, (cfs per square mile): 7.0

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

Context: The affected 5th code watershed supports listed spring chinook and steelhead. Post fire debris torrents are thought to have historically played a role in long term maintenance of stream channel complexity in the mainstem.

Threats to Water Quality:

1) A small tributary watershed (Bull Run Creek) burned severely over some 23% of its area. It is a high gradient channel with potential to contribute substantial woody debris and cobble to the South Fork of Whitebird Creek. However, soils are not hydrophobic and the tributary is small in area compared to the South Fork. We are requesting funds to improve drainage capability on the road in the watershed to avoid concentrating location and timing of road related runoff.

2) A debris torrent from this channel is quite possible given its condition and morphology. No other watershed treatment is proposed, but we are requesting funds to monitor stream cross section and substrate above the confluence of South Fork Whitebird Creek and 2 cross sections within Bull Run Creek to describe the consequences of no treatment. This would augment existing monitoring station data in North and South Fork Whitebird below Bull Run Creek. Installation would be in 2000 before runoff and data collected and compiled in FY 2001.

Threats to Long-term soil productivity and ecosystem integrity:

1) Yellow starthistle is well established on private lands adjacent to the Nation Forest lands. Susceptible grassland habitat on National Forest lands adjacent to yellow starthistle infestations burned and will be highly prone to invasion. We are requesting funds to spot treat new outbreaks of invasive weeds within susceptible habitats in FY 2001. NEPA is in place for this activity.

Threats to heritage Resources:

1) No threats to heritage resources due to fire effects have been identified. Fire suppression activities have impacted one prehistoric site.

B. Emergency Treatment Objectives:

1) Improve drainage capability on the road in a severely burned subwatershed to avoid concentrating location and timing of road related runoff, and to reduce risk of road failure.

2) Monitor stream cross section and substrate above the confluence of South Fork Whitebird Creek and 2 cross sections within Bull Run Creek to describe the consequences of no treatment and decide if subsequent treatments are needed.

3) Control infestation of yellow starthistle in habitat made more susceptible by the fire, to reduce impacts to plant community integrity and soil productivity.

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

Land **NA** % Channel ___ % Roads **90** % Other ___ %

D. Probability of Treatment Success

	Years after Treatment		
	1	**3**	**5**
Land	80	85	90
Channel			
Roads	80	90	90
Other			

E. Cost of No-Action (Including Loss): Includes potential for road failure and culvert reinstallation ($10,000), efforts to control expanded yellow starthistle ($12,500) = $22,500 plus additional unquantified costs associated with loss of forage production and ecosystem effects of widespread herbicide use on non-target species over a large area and potential effects to listed fish of road failure.

F. Cost of Selected Alternative (Including Loss): $10,000

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Pat Green, forest ecologist and soil scientist

Email: pgreen@fs.fed.us Phone: (208)-983-1950 FAX: (208)-983-4099

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: spot spray with herbicide for yellow starthistle, spring 2001.

Channel Treatments: None

Roads and Trail Treatments: Improve and stabilize culvert inlets, add waterbars and drainage dips in road way. Armor main culvert inlet and outlet. Install two additional larger culverts to accommodate runoff from above road 243A

Structures: None

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.)

Two existing forest monitoring stations are in place on North and South Fork Whitebird Creek. The monitoring requested in this proposal would add one cross section on North Fork Whitebird above the confluence with Bull Run creek. This would include surface particle measurements and cobble embeddedness. Three cross sections in Bull Run Creek would be measured to describe changes in channel cross section in the burned tributary. Stations would be installed in September 2000 and read again in September of 2001.

Invasive weed monitoring would track changes to the number and extent of new outbreaks in relation to weed spread and treatment effectiveness. Initial monitoring would consist of determine the presence or absence of invasive weeds following broadscale transects along Bentz and Pinnacle Ridges within susceptible grasslands. Treatment effectiveness would be determined by measuring changes in density and cover of the target weed using quadrats placed within the identified outbreaks. Monitoring would be established in May of 2001, read again in late July and if necessary treatment quadrats would be re-read in late August.

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

			NFS Lands				Other Lands			All
		Unit	# of	WFSU	Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	SULT $	$	units	$	Units	$	$
A. Land Treatments										
Spot herbicide	acres	$200	20	$4,000			$0		$0	$4,000
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Land Treatments				$4,000			$0			$4,000
B. Channel Treatments				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Channel Treat.										
C. Road and Trails										
Culvert improvement	each	$200	5	$1,000			$0		$0	$1,000
Waterbars and dips	each	$100	10	$1,000			$0		$0	$1,000
Install larger culverts	each	$2,500	2	$5,000			$0		$0	$5,000
Subtotal Road & Trails				$7,000			$0		$0	$7,000
D. Structures										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Structures				$0			$0		$0	$0
E. BAER Evaluation										
				$0			$0		$0	$0
G. Monitoring Cost				$0			$0		$0	$0
Channel cross section	each	$600	4	$2,400						$2,400
FY 2001 data collectio	each	$600	4	$2,400						$2,400
Report	each	$700	1	$700						$700
Weed monitoring	plots	$250	5	$1,250						$1,250
Subtotal Monitoring				$6,750			**$0**			$6,750
H. Totals				**$17,750**						**$17,750**

PART VII - APPROVALS

1. */s/ Bruce E. Bernhardt* _____
Forest Supervisor (signature) Date

2. _____ _____
Regional Forester (signature) Date