



File Code: 2520-3

Date:

Route To:

Subject: Fontenelle Fire Interim #1 BAER Request

To: Forest Supervisor, Bridger-Teton NF

After consultation with the Regional BAER Coordinator, I have approved the enclosed Interim #1 2500-8 BAER request for the Fontenelle Fire for the amount of \$23,489. This request includes the funding of waterbars for trail protection and replaces the initial costs estimates for hazard tree removal along trails. Your total authorization for the Fontenelle fire to date is \$98,491. Please send an updated spreadsheet (Part 6 of form 2500-8) showing the amounts authorized to date for each treatment. The spreadsheet can be sent directly to the Regional BAER Coordinator. You are reminded that you do not receive a lump sum amount, but are authorized to expend funds by treatment type up to the amount requested. You must keep track of all funds by treatment type and by fiscal year. A report must be sent at the end of the fiscal year to the RO showing the expenditures for each fire. A final 2500-8 report must be submitted to the RO when projects and treatments have been completed and reviewed.

A separate interim report can be submitted for approval if additional inventory depicts other emergency situations. A request for funds should be submitted at the appropriate time if you determine additional emergency funding is needed beyond the first year.

Please contact Jeff Bruggink, Regional BAER Coordinator, at (801) 625-5357 if you have any questions or concerns.

JACK A. BLACKWELL
Regional Forester

Enclosure

Cc
WO (Max Copenhagen)
Bridger-Teton NF: (Randy Davis)
AS (Dick Ottesen)
BPR (Jeff Bruggink, Ken Heffner, Bill Burbridge)

Date of Report:

10/2/00

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

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

B. Type of Action

- ☐ 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: Fontenelle

B. Fire Number: WY-BTF-054

C. State: WY

D. County: Lincoln

E. Region: 4

F. Forest: Bridger-Teton

G. District: Kemmerer

H. Date Fire Started: 8/13/00

I. Date Fire Controlled: To be determined

J. Suppression Cost: \$1,600,000

K. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): 0
2. Fireline seeded (miles): 0
3. Other (identify): Closed road opened during suppression activities

L. Watershed Number: 140401010307 and 140401010305

M. Total Acres Burned: 14,560

NFS Acres(14,063) Other Federal (48) State (223) Private (226)

N. Vegetation Types: Mixed conifer, aspen/shrub, sagebrush/grass, and willow/sedge

O. Dominant Soils: Fine, smectic, Mollic Cryoboralfs, (Map Unit 304), Fine, smectic, Argic Cryoborolls (Map Unit 232), Loamy-skeletal, mixed, superactive, Mollic Cryoboralfs (Map Unit 353)

P. Geologic Types: Colluvium composed of sandstone, mudstone, claystones, and limestone with some sandstone and limestone bedrock outcrops.

Q. Miles of Stream Channels by Order or Class:

2nd Order: 20 3rd Order: 21

R. Transportation System

Trails: 33 miles

Roads: 1.5 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 9,464 (low) 3,640 (moderate) 1,456 (high)

B. Water-Repellent Soil (acres): 1,456

C. Soil Erosion Hazard Rating (acres):
0 (low) 9,464 (moderate) 5,096 (high)

D. Erosion Potential: 40 - 50 tons/acre¹

E. Sediment Potential: 17,245 - 21,555 cubic yards / square mile²

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 3-5

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

C. Equivalent Design Recurrence Interval, (years): 50

D. Design Storm Duration, (hours): 1.0

E. Design Storm Magnitude, (inches)³: 1.2

F. Design Flow, (cubic feet / second/ square mile)⁴: 10.6

G. Estimated Reduction in Infiltration, (percent): 10

H. Adjusted Design Flow, (cfs per square mile): 12

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

Overall, the fire burned in a mosaic pattern leaving areas of lightly and unburned vegetation. However there are areas within the fire perimeter, where the fire concentrated in the head waters of several perennial streams, i.e., Bear Trap, Blue Jay, Little Bear, Minnie Holden, South Fontenelle, and Spruce Creeks. Soils in the burned area have silty and clayey surface textures that once disturbed yield high amounts of suspended sediment. Bear Trap, South Fork of Fontenelle and Spruce Creeks are fish bearing and provide habitat for the Colorado Cutthroat Trout which is currently petitioned for federal listing with the US Fish and Wildlife Service. Blue Jay and Little Bear Creeks are not fish bearing but do drain into the Fontenelle Creek which supports Colorado Cutthroat Trout. An extensive trail system exists within the fire perimeter and has had wooden waterbars damaged and/or destroyed. Sections of the trail system lie in close proximity to stream courses and pose a significant threat to their water quality, streambank stability, and associated riparian areas. Due to the additional surface

¹ National Soil Survey Handbook, 1996, 430-IV-NSSH, page 618-95.

² The Nature and Property of Soils, 1990, page 106.

³ Wyoming Water Atlas, 1986, page 98.

⁴ Water in Environmental Planning, 1978, page 300.

water, supplemental waterbars and check dams will be needed to reduce sediment entering nearby streams and ponds. Hazard trees are also present in the vicinity of the damaged trail system which pose a safety risk to trail users.

B. Emergency Treatment Objectives:

- 1.) Prevent loss of life.
- 2.) Minimize sedimentation of nearby watercourses.

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

Land ___ % Channel ___ % Trails 80 % Other ___ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land			
Channel			
Roads/ Trails	95	95	100
Other			

E. Cost of No-Action (Including Loss): \$215,000

F. Cost of Selected Alternative (Including Loss): \$336,500

G. Skills Represented on Burned-Area Survey Team:

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input checked="" type="checkbox"/> Geology	<input checked="" type="checkbox"/> Range	<input checked="" type="checkbox"/> Recreation
<input type="checkbox"/> Forestry	<input checked="" type="checkbox"/> Wildlife	<input type="checkbox"/> Fire Mgmt.	<input checked="" type="checkbox"/> Engineering	<input type="checkbox"/>
<input type="checkbox"/> Contracting	<input type="checkbox"/> Ecology	<input type="checkbox"/> Botany	<input checked="" type="checkbox"/> Archaeology	<input type="checkbox"/>
<input checked="" type="checkbox"/> Fisheries	<input type="checkbox"/> Research	<input type="checkbox"/> Landscape Arch	<input checked="" type="checkbox"/> GIS	

Team Leader: Randy L. Davis

Email: rdavis03@fs.fed.us

Phone: 307-739-5521

FAX: 307-739-5010

H. Treatment Narrative:

Land Treatments: None planned at this time.

Channel Treatments: None planned at this time.

Roads and Trail Treatments:

Trails:

The loss of waterbars combined with the burned overstory vegetation is expected to cause accelerated erosion of the trail tread and generate large volumes of sediment. This is serious concern given the silty and clayey surface soils and the proximity of water courses. The estimated trail distance of these contributing zones is less than 100 feet on either side of the stream course along with minor stream crossings. Approximately 7.5 miles of trail are directly related to the watershed emergency. Additional waterbars are needed in these contributing trail segments to avoid detrimental impact to the stream's aquatic habitat. Especially for those streams supporting Colorado cutthroat trout which is currently a petitioned fish species. Reduction of trail related sediment will enhance spawning habitat and streambank stability and protect riparian vegetation. An inventory for waterbar needs has been conducted and specific needs of each trail segment are listed below.

Trails

ID Number	Location/facility	Description of needs	Cost estimate
001	Little Bear Cr. Trail	Install 15 waterbars	\$2,250
003	South Fork Fontenelle Trail	Install 30 waterbars	\$4,500
016	Blue Jay Creek - Indian Mtn Trail	Install 23 waterbars	\$3,450
017	West Bear Trap Trail	Install 11 waterbars	\$1,650
018	Bear Trap Trail	Install 11 waterbars	\$1,650
026	Spruce Creek Trail	Install 23 waterbars	\$3,450
Subtotal			\$16,950

The area of the burn is very popular for horseback riding, hiking and hunting. These trails are used by outfitters and livestock permittees. An inventory has been conducted to determine what if any hazard trees are along the trail corridor that poses a safety risk to recreation users. Specific needs for each trail segment are listed below.

Hazard Tree Removal

ID Number	Location/facility	Description of needs	Cost estimate
001H	Little Bear Cr. Trail	Clear 22 hazard trees	\$550
003H	South Fork Fontenelle Trail	Clear 51 hazard trees	\$1,275
016H	Blue Jay Creek - Indian Mtn Trail	Clear 43 hazard trees	\$1,075
017H	West Bear Trap Tr.	Clear 41 hazard trees	\$1,025
018H	Bear Trap Trail	Clear 28 hazard trees	\$700
026H	Spruce Creek Trail	Clear 14 hazard trees	\$350
171H	Commissary Ridge Tr.	Clear 41 hazard trees	\$1,025
Subtotal			\$6,000

Roads:

Work on the approved Initial Request currently in-progress.

Structures:

Work on the approved Initial Request currently in-progress.

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				\$0				\$0	\$0	\$0	\$0
B. Channel Treatments				\$0				\$0	\$0	\$0	\$0
C. Road and Trails											
Little Bear Cr. Trail Waterbars	Each	150	15	\$2,250				\$0		\$0	\$2,250
Little Bear Cr. Tr. Hzrd Trees	Each	25	22	\$550				\$0		\$0	\$550
S. Fk. Fontenelle Tr Waterbars.	Each	150	30	\$4,500				\$0		\$0	\$4,500
S. Fk. Fontenelle Tr Hzrd Trees	Each	25	51	\$1,275				\$0		\$0	\$1,275
B.J. Cr-Indian Mtn Tr Wtrbrs	Each	150	23	\$3,450				\$0		\$0	\$3,450
B.J. Cr-Indian Mtn Tr Hzrd Trees	Each	25	43	\$1,075				\$0		\$0	\$1,075
W. Bear Trap Tr Waterbars	Each	150	11	\$1,650				\$0		\$0	\$1,650
W. Bear Trap Tr Hzrd Trees	Each	25	41	\$1,025				\$0		\$0	\$1,025
Bear Trap Tr Waterbars	Each	150	11	\$1,650				\$0		\$0	\$1,650
Bear Trap Tr Hzrd Trees	Each	25	28	\$700				\$0		\$0	\$700
Spruce Cr Trail Waterbars	Each	150	23	\$3,450				\$0		\$0	\$3,450
Spruce Cr Trail Hzrd Trees	Each	25	14	\$350				\$0		\$0	\$350
Commissary Ridge Tr Hzrd Trees	Each	25	41	\$1,025				\$0		\$0	\$1,025
Subtotal Road & Trails				\$22,950				\$0		\$0	\$22,950
D. Structures											
Subtotal Structures				\$0				\$0		\$0	\$0
E. BAER Evaluation											
Davis Salary	Days	289	1	\$289				\$0		\$0	\$289
Wytanis Salary	Days	250	1	\$250				\$0		\$0	\$250
Subtotal BAER Evaluation				\$539				\$0		\$0	\$539
G. Monitoring Cost				\$0				\$0		\$0	\$0
H. Totals				\$23,489				\$0		\$0	\$23,489

PART VII - APPROVALS

1. /s/ Kniffy Hamilton
Forest Supervisor (signature)

10/2/00
Date

2. _____
Regional Forester (signature)

Date _____