Bruggink edit 09/03/2003 Date of Report: August 29, 2003
UPDATED- March 5, 2004

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
[X] 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)

[X] 2. Interim Report
[X] Updating the initial funding request based on more accurate site data or design analysis
[X] Status of accomplishments to date

[ ] 3. Final Report (Following completion of work)

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Blackfrog Complex B. Fire Number: P11554

C. State: Idaho and Montana D. County: Lemhi-Ravalli-Beaverhead

E. Region: 04 and 01 F. Forest: Salmon-Challis; Beaverhead-Deerlodge and Bitterroot

G. District: North Fork, Wisdom, Sula and West Fork

H. Date Fire Started: 7/12/2003 Blackwall/Frog Pond 7/19/03 I. Date Fire Contained: **9/1/03**

J. Suppression Cost: $4.9 millon 8/26/03
K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): ½-1
2. Fireline seeded (miles):
3. Other (identify): Several miles of road was chipped to dispose of wood fiber from underthinning on contingency lines, and also rehabed some helicopter pads, helitanks and LZs.

L. Watershed Number:Montana: Butler 100200040405, May 100200040403;
Overwhich Cr.1701205010404, Straight Cr. 1701205010403,
West fork of the East Fork Bitterroot River 1701205010402
Idaho: Upper North Fork Salmon River 170602030601; Dahlonega 170602030603

M. Total Acres Burned: 6,578 (Frog Pond = 2,082; Blackwall = 4,496)
NFS Acres(x) Other Federal ( ) State ( ) Private ( )

N. Vegetation Types: Sub-alpine fir, Douglas-fir, Ponderosa pine, Spruce, lodge-pole pine, shrubs, grouse whortleberry, beargrass, pine grass.

O. Dominant Soils: Soil textures include:loamy sand, sandy loams and loams: Landforms include the following: Frost churned, weakly to moderate Dissected Lands; Moderately Dissected Mountain Slopelands in Quartzite, Cool and Moist Sites; Moderately Dissected Mountain Slopelands in Quartzite, Cold and Moist Sites; Moderately Dissected Mountain Slopelands in Quartzite, Warm and Dry Sites; Cryic Ridgelands, in Granite, Moist Sites; Cryic Headlands in Granite, Moist Sites; Moderately Dissected Mountain Slopelands in Granite, Moist Sites; Rocky, Moderately Dissected Cryic Mountain Slopelands in Granite; Steep Glaciated Headlands in Granite, Moist Sites; Moderately Dissected Mountain Slopelands in Granite, Cool and Moist Sites; Moderately Dissected Mountain Slopelands in Granite, Cold and Moist Sites. This includes Inceptisols of the subgroup, Dystric Cryochrepts and Typic Cryochrepts

P. Geologic Types: Granite 95%; Quartzite 5%

Q. Miles of Stream Channels by Order or Class: 14 miles perennial; 3 1/8 miles Intermittent

R. Transportation System

Trails: est 23 miles Roads: 0 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1,973 (low) 4,105 (moderate) 0 (high)
On-site and aerial photos do not indicate any high severity areas. Talus rock/rock outcrop= approx. 500 ac

B. Water-Repellent Soil (acres): est 700, due to dry conditions, soil textures

C. Soil Erosion Hazard Rating (acres):(est)
600 (low) 5,478 (moderate) 500 (high)
(Est. about 500 acres in Stevenson Creek drainage)

D. Erosion Potential: 1.7 - 3 tons/acre

E. Sediment Potential: 1,100- 1,730 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

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

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

D. Design Storm Duration, (hours): na

E. Design Storm Magnitude, (inches):

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

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

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

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

Due to the shortage of helicopter flying time from the pilots during this time, the BAER team did not over-fly the Complex, but made professional judgemnets from information as told to them from the Wisdom District Ranger, on-site investagations, some photographs and Resource Advisors.

MONTANA: R-1: The Wisdom Ranger District on the Beaverhead-Deerlodge National Forest has a major watershed emergency due to increased soil erosion on trails due to burned log waterbars: Approximately 200 wood log waterbars need to be replaced, since they were destroyed from the forest fire. This is part of the Wisdom Districts trail water erosion program and is required to minimize the surface runoff that would otherwise cause serious trail erosion, due to the coarse sandy soils found on granite. No downstream values are at risk on this district. The only area of concern from a soils resource view is in the Stevenson Creek watershed. This drainage contained sparse amounts of natural vegetation. This area is a very steep, erosive, granite soil watershed. Slopes generally are greater than 70 percent in the Stevenson Creek drainage. Major problem with crews on the ground for any stabilization is a safety factor due to the loose, sandy unstable footing on the very steep slopes. The BAER Team and the Wisdom District Ranger all thought that this is a natural event and safety is the main issue. The team conducted an on-site investigation on an area that consisted of low and moderated burn severity. This review showed that there was no high severity burned areas. The preliminary study indicated that the site had substantial organic material left on and in the soil over most of the burned area surveyed, and many had potential needlecast to help provide protection. Many shrubs and herbaceous (especially Pine Grass) root systems or foliage were visible, suggesting that some protection from erosion is present, along with the potential for sprouting. Generally, 90 percent of the fire area contains slopes ranging from 30 to 50 percent with slope lengths (short) around 200 feet. The Fish Biologist says that for the potential rehabilitation area he does not believe any rehabilitation efforts to protect fisheries resources would be practical or have a high potential to be successful. Therefore, he is not recommending any fisheries fire rehabilitation efforts for this fire at this time. Some local erosion will result, along with increased flows, which may not be measurable downstream. No major concerns on the West Fork and Sula Ranger Districts of the Bitterroot National Forest, except for knapweed at the higher elevations (see Monitoring for Knapweed below). The Wisdom Ranger District on the Beaverhead-Deerlodge National Forest has some major concerns with the potential of knapweed (see Monitoring below) being brought into the District, since the fire area is weed free now. A small amount of knapweed is found in the Bighole Valley.

IDAHO-**R-4**: **NONE**: A new 10 ft. width pipe-arch culvert was installed in the mid-1990's during the Lost Trail Pass (Hwy 93N) re-construction period. This culvert was designed to meet the anadrous fisheries concerns at that time on the West Fork of the North Fork of the Salmon River. This culvert is greater than bank-full width for the stream and is not likely to be over-topped by flood flows. Possible high water concern on the Moose Creek Estates is at the 1st wooden bridge crossing. The north side support of the bridge is in-line of being washed out if high flows occur. There is an old short tree stump and some brush that is diverting the West Fork Creek at this time around the abutment. This north abutment was poorly armored and may be prone to erosion or undercutting during any high flows. There are no significant structures in the flood plain or even the inner gorge for the next severl miles, so effects would be limited to channel adjustment and variable sediment deposition over the immediate downstream reach, for an undetermined distance below the crossing. Numerous slump areas are found on the South side of the West Fork of the North Fork of the Salmon River, upstream from the culvert on Highway 93 North. These numerous slump type areas will provide a collection area for runoff from the steep, rocky hillside. The soils are derived from quartzite on the south end of the fire with with granite on the higher slopes and to the north and west. The soil was wet from the overnight rainstorm on August 22nd and did not penetrate below about one inch. The burned soil and the un-burned soil both showed hydrophobic conditions about one inch below the surface. The texture was a silt loam and very dry. I do not think that the hydrobhobic soil conditions where burned was caused by the fire, but is a natural condition. The ground surface was covered by approximately 50 to 80 percent of large gravels, cobbles and stones. Needle cast was occurring when the team was doing an on-site investigation. The slope was very steep, but there was a large amount of not completely burned large logs over the area. The team conducted an on-site investigation

on an area that consisted of low and moderated burn severity. From a distance it looked like a high burn severity, but being on-site of the same area showed it to be moderate. The preliminary study indicated that the site had substantial organic material left on and in the soil over most of the burned area surveyed, with many fine roots just under the soil surface that were not burned and many areas had potential needlecast to help provide protection. Some small shrubs and beargrass showed growth of 6 to 8 inches since the fire were visible, suggesting that some protection from erosion is present, along with the potential for sprouting. I do not see any indication of mass volumes of water over-flowing down into the creek. Overall, it appears to be a good mosaic burn pattern. The riparian creek was full of natural debris and many plung pools. In addition, potential success of treatments on the Frog Pond Fire area are low, due to steep, rocky slopes. The BAER Team felt there would be an extremely low probability of the increased flow from the burned area threatening public safety or causing any notable damage to private property. The Fish Biologist says that for the potential rehabilitation area he does not believe any rehabilitation efforts to protect fisheries resources would be practical or have a high potential to be successful. Therefore, he is not recommending any fisheries fire rehabilitation efforts for this fire at this time. No emergency treatments are necessary to mitigate hydrologic effects of the Frog Pond fire burn areas. The North Fork Ranger District of the Salmon National Forest has knapweed at lower elevations along Highway 93 North, Gibbonsville Road, Old State Creek logging road (according to Resource Advisor), but not at higher elevations (see Monitoring for Knapweed below).

B. Emergency Treatment Objectives:

R-1: **Wisdom Ranger District**: Log Waterbars: Approximately 200 wood log waterbars needs to be replaced since they were destroyed from the forest fire. This is part of the Districts trail water erosion program and is required to minimize the surface runoff that would otherwise cause serious trail erosion, due to the coarse sandy soils found on granite. Estimated cost for materials and implementation is $15,000 plus $890 for overhead, for a total cost of $15,890.

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

Land __ % Channel __ % Roads/Trails 90 % Other __ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land			
Channel			
Roads			
Other	90	90	90

E. Cost of No-Action (Including Loss): est $ 30,000- 35,000

F. Cost of Selected Alternative (Including Loss): $ 25,538

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Gary Jackson

Email: gljackson@fs.fed.us Phone: 208-756-5110 FAX: 208-756-5151

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:

Channel Treatments:

Roads and **Trail Treatments**:

R-1: Wisdom Ranger District: Log Waterbars: Approximately 200 wood log waterbars needs to be replaced since they were destroyed from the forest fire. This is part of the Districts trail water erosion program and is required to minimize the surface runoff that would otherwise cause serious trail erosion, due to the coarse sandy soils found on granite. Log replacement will be before winter snows. Estimated cost including implementation and overhead is $15,890.
Log waterbars replaced was 120 for a total cost of $7,845 that was ($65 each). This leaves a carryover of $7,155 to be used for an additional replacement of 110 log waterbars at $65 each to be used in 2004.

.

Structures:

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.)

Region 1:

Noxious Weed: Knapweed

No knapweed occurs at this time within the fire area on the Wisdom Ranger District. Knapweed needs to be monitored at the following sites: Helicopter landing sites (H 1, 2, 4, 5 and 11); Spike Camps: 1 Camp, 2 Camp, Stevenson, Ruby Root, Butler, Meadow, Continental, Bear; Heliwell site on Trail Creek; Drop Points # 6, 21, 22 and 23; Trails # 66, 102, 103, and the Continental Divide National ScenicTrail. The Chief Joseph Parking Lot, Heliwell, wash station and Drop Points can all be monitored in one day. The Anderson road can be monitored at the same time of checking the Continental Spike Camp. Knapweed needs to be monitored for the first year, in 2004 to determine if any has become established. Generally, knapweed in the first year might be hard to identify until it has enough growth to identify verses the other weeds that might also become established at the same time. Therefore, monitoring dollars will be requested at the end of the first year for the second year to make sure the idenity of any new knapweed infestations. No noxious weed monitoring in 2003.

Region 4:

Noxious Weed: Knapweed

The monitoring on the North Fork Ranger District of the Salmon National Forest will consist of a crew that can walk up the 3-mile trail and back down the Nez Perce trail in one day. To reach the drop points and helispots on the Northwest corner of the Blackfrog Fire area in Montana, they can drive to the end of the Saddle Mountain Road # 081, then proceed along the Divide Trail # 106 to Drop Point 10 (driveable Forest Trail) and walk to the West helispot (H-8). On returning to their vehicle on the Divide Trail # 106 and along the (Saddle Mountain Road), they can monitor for knapweed. Knapweed is found on the Old State Creek road system and also at the Drop Point 3, (parking area) on Hwy 93 N, across from the Elk Ranch. In one day the monitoring crew can check the following, since they are all on or near the Saddle Mountain road FS #081: the helispot along the Continental Divide trail (H-8), three Drop Points (4, 10, 12), the Saddle Mountain Road itself, the helispot above the Ski Lodge (H-7), the ICP camp and wash station located at the lodge parking lot and the Lost Trail Pass Snowmobile Parking Lot (7 mile cut off F.S. Rd. # 1260), located about 200 feet east of the intersection of Hwy. 93 N and Highway #43 (to Wisdom). Helispot H-6 should not require monitoring since it had limited use and is well established with beargrass and elk sedge. The lower elevations along the Gibbonsville Road and along Highway 93N contains existing knapweed. Generally, knapweed in the first year might be hard to identify until it has enough growth to identify verses the other weeds that might also become established at the same time. Therefore, monitoring dollars will be requested at the end of the first year for the second year to make sure the idenity of any new knapweed infestations. No noxious weed monitoring in 2003

REGION-1

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

			NFS Lands				Other Lands			All
Line Items	Units	Unit Cost	# Of Units	WFSU SULT $	Other $	# Of Units	Fed $	# Of Units	Non Fed $	Total $
A. Land Treatments										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Land Treatments				$0			$0		$0	$0
B. Channel Treatments										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Channel Treat.				$0			$0		$0	$0
C. Road and Trails										
Replace Log H20 Bars	Each	$75	200	$15,000						$15,000
Actual cost replace log H20 bars	Each	$65	120	$ 7,845						$7,845
Implem/overhead	Day	$178	5	$890						$ 890
				$0			$0		$0	0
Subtotal Road & Trails				$15,890			$0		$0	$15,890
D. Structures										
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Structures				$0			$0		$0	$0
E. BAER Evaluation										
Assessment				$1,716			$0		$0	$1,716
Travel				$62			$0		$0	$62
Subtotal BAER				$1,778						$1,778
Actual cost				$1,778						$1,778
G. Monitoring Cost										
Knapweed										
Trail # 66	Day	$178	1	$178						$178
Trail # 102	Day.	$178	1	$178						$178
Trail # 103	Day	$178	1	$178						$178
Continental Divide Trail	Day	$178	3	$534						$534
Drop Points+ Heliwell	Day	$178	1	$178						$178
Spike Camps	Day	$178	8	$1,424						$1,424
Helispots	Day	$178	2	$356						$356
FS Road # 624	Day	$178	1	$ 178						$178
Subtotal Monitoring			23	$3,204						$3,204
H. Totals				**$20,872**			**$0**		**$0**	**$20,872**
Actual cost to date				$9,623						$9,623

REGION-4
Part VI – Emergency Rehabilitation Treatments and Source of Funds by Land Ownership

			NFS Lands				Other Lands			All
Line Items	Units	Unit Cost	# of Units	WFSU SULT $	Other $	# of Units	Fed $	# of Units	Non Fed $	Total $
A. Land Treatments										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Land Treatments				$0			$0		$0	$0
B. Channel Treatments										
				$0			$0		$0	$0
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Channel Treat.				$0			$0		$0	$0
C. Road and Trails										
				$0			$0		$0	$0
				$0			$0		$0	$0
Subtotal Road & Trails				$0			$0		$0	$0
D. Structures										
				$0			$0		$0	$0
Subtotal Structures				$0			$0		$0	$0
E. BAER Evaluation										
Assessment				$3,571			$0		$0	$3,571
Travel				$ 70			$0		$0	$ 70
Subtotal BAER				$3,641			$0		$0	$3,641
Actual cost				$3,641						$3,641
G. Monitoring Cost										
Knapweed										
Saddle Mt. Rd # 081 (2 people)	Hrs.	$25	5	$125						$125
Divide Trail # 106 (2 people)	Hrs.	$25	10	$250						$250
Helispots (2 sites/2 people)	Hrs.	$25	10	$250						$250
Drop Points (3sites/2 people)	Hrs.	$25	3	$ 75						$ 75
ICP-Lost Trail Ski Lodge-Wash S	Hrs.	$25	3	$ 75						$ 75
3-Mile /NezPerce Trail (2 people)	Hrs	$25	10	$ 250						$ 250
Subtotal Monitoring			41	$1,025						**$1,025**
H. Totals				**$4,666**			**$0**		**$0**	**$4,666**
Actual cost to date				$3,641						$3,641

PART VII - APPROVALS

1. WILLIAM A. WOOD
   Forest Supervisor Salmon-Challis NF Date

2. _____ _____
   Forest Supervisor (signature) Date

3. _____ _____
   Regional Forester (signature) Date

4. _____ _____
   Regional Forester (signature) Date