

Date of Report: November 7, 2001

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: Walton

B. Fire Number: P18516

C. State: Idaho

D. County: Idaho

E. Region: One

F. Forest: Clearwater

G. District: Lochsa Ranger District, Powell Zone

H. Date Fire Started: August 28, 2001

I. Date Fire Contained: September 3, 2001

J. Suppression Cost: ~\$2.5 million

K. Fire Suppression Damages Repaired with Suppression Funds

- 1. Fireline restoration (miles): Total = 6.6 miles. 1.6 miles of dozer line and 1.0 miles of excavator line was obliterated. No waterbars were used since lines were recontoured and slash placed on the surface to break up water flow patterns. 4.0 miles of handline was obliterated with 0.5 miles being waterbarred before obliteration
- 2. Fireline seeded (miles): 0
- 3. Other (identify):

L. Watershed Number: 170603034500

M. Total Acres Burned: 474

NFS Acres (161) Other Federal () State () Private (313)

N. Vegetation Types: Coniferous forests comprised primarily of: Douglas-Fir, Engelmann spruce, lodgepole pine, subalpine fir, western larch, grand fir, and western redcedar. Much of the private land has been recently harvested.

O. Dominant Soils: Soils in the fire area are shallow to moderately deep. Textures are generally loams, sandy loams, and silt loams in the fine-earth fraction with many soils being skeletal (loamy-skeletal, sandy-skeletal) due to frost-churning weathering processes, colluvial mixing, and shallow depths. Dominant parent materials are Belt Series metasedimentary rocks of the Wallace Formation. Mount Mazama volcanic ash ranges from absent on rocky ridges to depths up to 22" in concave swales and draws. Temperature regimes are primarily cryic. Moisture regimes range from xeric on dry, thin soil breakland landforms to udic on gentler landforms with deeper soils. Mineralogy is mixed. Dominant subgroups are Andic Cryochrepts and Typic Cryandepts. Soil erosional hazards range from low to high, dependent primarily on geology and landform. Steep landforms result in high to very high sediment delivery efficiencies across much of the area. (See attached maps).

P. Geologic Types and LTAs: Geology is primarily Belt Series metasedimentary rocks of the Wallace Formation. The ash layer varies in thickness from 22" to absent or mixed over the remainder of the area with rocky soils to the surface. The landtype associations (LTAs) within the fire perimeter are: 38.2% frost-churned ridges (LTA 70C), 36.2% glacial troughs (LTA 47B), 17.7% breaklands (LTA 20C), 5.7% glacial terraces, fans, and outwash plains (LTA 12B), and 2.2% alpine icecap (LTA 50). (See attached LTA map).

Q. Miles of Stream Channels by Order or Class: Class 1 = 0.60 Miles, Class 2 = 0.95 Miles, Total = 1.55 Miles.

R. Transportation System:

Miles of Trails and Roads

| | Trails | Roads | Total |
|---------|-----------|------------|------------|
| NFS | 0.0 Miles | 1.01 Miles | 1.01 Miles |
| Private | 0.0 Miles | 3.54 Miles | 3.54 Miles |
| Total | 0.0 Miles | 4.55 Miles | 4.55 Miles |

PART III - WATERSHED CONDITION

A. Burn Severity (acres): (See attached map)

Low: (45.4%) Moderate: (53.8%) High: (0.8%)

Burn Intensity by Ownership

| Watershed | Ownership | Low Intensity | Moderate Intensity | High Intensity |
|--------------|----------------|---------------|--------------------|----------------|
| Walton Creek | Forest Service | 86.3% | 13.7% | 0.0% |
| | Plum Creek | 24.3% | 74.4% | 1.3% |

B. Water-Repellent Soil (acres): 195 Acres (41.2%)

C. Soil Erosion Hazard Rating: (See attached maps)

Mass Wasting Potential 32.7% (low) 51.7% (moderate) 15.7% (high)

Burn Intensity (%) by Mass Wasting Potential Class

| Mass Wasting Class | Low Burn Intensity | Mod. Burn Intensity | High Burn Intensity |
|--------------------------|--------------------|---------------------|---------------------|
| Low (32.7% of area) | 38.4% | 60.6% | 1.0% |
| Moderate (51.7% of area) | 48.3% | 51.7% | 0.0% |
| High (15.7% of area) | 33.8% | 64.0% | 2.2% |

Debris Avalanche Potential 76.3% (low) 23.7% (moderate) 0.0% (high)

Burn Intensity (%) by Debris Avalanche Potential Class

| Debris Avalanche Class | | Low Burn Intensity | Mod. Burn Intensity | High Burn Intensity |
|------------------------|-----------------|--------------------|---------------------|---------------------|
| Low | (76.3% of area) | 39.4% | 59.4% | 1.2% |
| Moderate | (23.7% of area) | 54.3% | 45.7% | 0.0% |
| High | (0.0% of area) | --- | --- | --- |

Sediment Delivery Efficiency 3.6% (low) 39.8% (moderate) 34.9% (high) 21.7% (very high)

Burn Intensity (%) by Sediment Delivery Efficiency Class

| Sediment Delivery Class | | Low Burn Intensity | Mod. Burn Intensity | High Burn Intensity |
|-------------------------|-----------------|--------------------|---------------------|---------------------|
| Low | (3.6% of area) | 93.8% | 6.2% | 0.0% |
| Moderate | (39.8% of area) | 27.5% | 70.3% | 2.2% |
| High | (34.9% of area) | 49.0% | 51.0% | 0.0% |
| Very High | (21.7% of area) | 53.7% | 46.3% | 0.0% |

D. Erosion Potential: 0.05 tons/acre¹

E. Sediment Potential: 37.3 cubic yards/mile²

¹ WATBAL for Walton Creek. Post fire produces 15.7 t/mi²/yr = 31.4 t/mi²/two years = 0.05 t/acre/two years.

² WATBAL for Fix Creek. Post fire produces 31.4 t/mi²/two years x 1.19 yd³/t = 37.3 yds³/mi².

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years):

The effects of the Walton Fire on recovery of vegetation within its boundaries will vary primarily by the intensity of the burning that took place and the available seed sources. Much of the Plum Creek Timber Company (PCTC) lands had recently been harvested and logging slash was piled in many locations. The intensity of the burning was influenced by slope, aspect, and the vegetative cover and slash present when the fire burned.

Low intensity Burn Areas: In the areas where the burn intensity was non-existent to low, tree mortality is expected to be 30% or less. Vegetative Recovery is considered to be any vegetation which providing more than 80% cover which effectively intercepts rainfall and provides an extensive root mass as defined on page II-26 of the Clearwater National Forest Plan. These low intensity burn areas in forested areas are expected to maintain adequate live tree stocking levels in most cases. Vegetative recovery would be expected to occur within one growing season. Perennial grasses, forbs, and shrubs generally will resprout after low intensity burns and a duff/litter layer will reform within several years. Low intensity burned portions in harvested areas should be planted, with the expectation that trees will be established and free to grow within five growing seasons. Vegetative recovery will vary from 0 to 5 years depending upon whether the low intensity burn occurred in a forested or harvested portion of the area.

Moderate Intensity Burn Areas: In forested areas where the burn intensity was moderate, up to 80% of the trees are expected to die as a result of the fire. In harvest areas, the pre-burn tree cover was less than 10%, with the fire burning primarily in scattered logging slash. Tree planting should occur both areas, regardless of ownership, to re-establish forest cover on the sites. All areas requiring tree planting should have trees established and free to grow within five growing seasons. Vegetative recovery will vary from 3-15 years. Existing seed of shrubs and forbs, stored deeper in the soil, should provide some vegetation regeneration as well.

One portion of moderate intensity burn near the western flank of the fire is in a location that was determined by field review to have a high hazard for landslides (see attached photo). It is situated on a breakland LTA immediately above Walton Creek. Previous timber harvest, combined with the destruction of tree roots by the fire, has significantly increased the probability of landslides. This is due to the loss of root strength and curtailed evapotranspiration, which removes excess water from the soil. Consequently, the fire has increased the likelihood of mass wasting in this location. To reduce the mass wasting hazard, the establishment of a new stand of trees via planting will have the greatest likelihood of success. As the new stand develops a new root mat will develop, stabilizing the site and evapotranspiration will increase as the trees grow. Within 15 to 20 years, the landslide hazard should be reduced to pre-burn/pre-harvest levels.

High Intensity Burn Areas: The high burn intensity areas were limited to slash piles and log decks where the fire burned extremely hot and heated the soil to high levels. Tree planting should occur in these locations with trees established and free to grow within five growing seasons. Vegetative recovery will vary from 10-20 years or more depending on soil productivity losses. The heat produced by the high intensity burning in these areas has destroyed much of the existing seed stored in the soil, so it is unlikely native shrubs and forbs will sprout in these areas.

Vegetative Recovery Period - Years

| Burn Intensity | Total Acres | Reforestation Period | Vegetative Recovery Period * |
|-----------------------|--------------------|-----------------------------|-------------------------------------|
| None to Low | 215 | 0-5 years | 0-5 years |
| Medium | 255 | 3-5 years | 3-15(-20)years |
| High | 4 | 3-5+ years | 10-20+ years |
| Total | 474 | | |

*Vegetative Recovery is considered be any vegetation which provide >80% cover which effectively intercept rainfall and provides an extensive root mass.

| | |
|---|--|
| B. Design Chance of Success, (percent): | <u>80%</u> |
| C. Equivalent Design Recurrence Interval, (years): | <u>25 Year</u> |
| D. Design Storm Duration, (hours): | <u>24 Hours</u> |
| E. Design Storm Magnitude, (inches): | <u>3.40 Inches</u> |
| F. Design Flow, (cubic feet / second/ square mile): | <u>22.60 cfs^m³</u> |
| G. Estimated Reduction in Infiltration, (percent): | <u>40%</u> |
| H. Adjusted Design Flow, (cfs per square mile): | <u>50.13 cfs^m⁴</u> |

PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

The Walton Fire burned 474 acres in the Upper Lochsa watershed. The fire burned along the main Walton Creek and several tributaries. Ownership within the burn is Plum Creek Timber Company (66.0%) and National Forest System (NFS) (34.0%) lands. There is no residential property within the burned area. A State of Idaho fish hatchery is located on NFS lands 2.0 miles downstream from the fire boundary. The fire burned 215 acres (45.4% of the area) at a low intensity, with most (64.7%) of this area on NFS lands (139 acres). Moderate intensity burn areas covered 255 acres (53.8% of the area), with most (91.4%) on Plum Creek Timber Company lands (233 acres). It is estimated that a total of 4 acres (0.8%) burned at high intensity, all on Plum Creek Timber Company lands. These were primarily in slash piles and log decks. Hydrophobic conditions were observed on approximately 195 acres (41.2%) with a depth ranging from the surface to 2".

The watershed is important for both timber production and watershed management, so soil productivity is a critical component of this report. Walton Creek contains populations of Westslope cutthroat, bull, and steelhead trout. Cutthroat have the widest distribution and highest densities of the three species. They occur along the entire drainage and into Walton Lakes. Bull trout and steelhead were observed in very low and low densities, respectively downstream from the fire perimeter. Both are listed as Threatened under ESA. One hundred percent of Walton Creek provides summer rearing habitat for salmonids and 4% is suitable for winter rearing. Spawning habitat for resident fish is of variable quality and accounts for only 2% of the stream. Spawning habitat for steelhead is fair to poor and limited to less than 0.2% of the stream. The majority of bull trout and steelhead spawning likely occurs downstream from the fire perimeter.

Forest Road 111A travels through much of the burn area. It was determined that there was little fire-related damage to the road. The suppression crews will perform road maintenance to clean existing drainage structures, ditches, and grade roadbed. This road maintenance, and prudent use by Plum Creek Timber Company during wet weather conditions, should significantly reduce any road-related risks to downstream resources and facilities.

No cultural resources were threatened or affected by the Walton Fire. Although seven recorded sites, five potential sites, and five historic trails are located within a five-mile radius of the burned area, none were affected by fire activity. The nearest resource is the 1913 historic Forest Service trail through Goat Roost to Tom Beal Park along a ridge about ½ mile west of the burn area, and this was well removed from any fire or fire support activity. A field survey of Walton Creek downstream from the burn area in Section 2, T36N, R14E

³ Snake River Adjudication data and USGS Magnitude and Frequency of Instantaneous Peak Flow at Gaging Stations in Idaho. 9.20 cfs^m bank full flow at the White Sand Creek gage x 2.46 (ratio of Q25 to Q1.5) = 22.6 cfs^m.

⁴ 3.4" = 91.42 cfs^m of rain (25 year storm for 24 hours). Runoff from the design storm is 22.6 cfs^m so infiltration is 68.82 cfs^m. If infiltration were decreased by 40%, it would be 41.29 cfs^m. 91.42 cfs^m - 41.29 cfs^m = 50.13 cfs^m of runoff.

was conducted on September 6, 2001 to identify any archaeological resources which could be affected by increased sedimentation or stream flow from the fire, but no such resources were found.

Using the WATBAL model, we have determined that sediment production will increase from 30% to 42% over natural in the Walton Creek watershed as a result of the fire. We estimate that peak flows will not increase due to the fire since the timber harvest had mostly been completed and previous WATBAL had accounted for the tree removal. Sediment increases from surface erosion in the moderate and high intensity burned areas should not alter conditions in the channel.

Stream surveys were conducted on Walton Creek in 1999 by Clearwater Biostudies, Inc.. The burned area encompasses habitat reaches WAL-5, WAL-6, and WAL-7 and fish stations FWAL-7, FWAL-8, and FWAL-9. Walton Creek has an average gradient of 8%, and a streambed dominated by boulders, rubble, and cobble. Primary pools occur in moderate abundance (17/km) and bank stability is excellent. Average cobble embeddedness was moderately high at 41%. The stream is dominated by riffle (38%) and riffle-run (25%) habitats. Instream cover was good and bank cover fair. Acting and potential (riparian) wood levels were high at 34 and 42 pieces per 100m, respectively. Pool quality is fair, mostly due to high gradients and confined channel (Rosgen B2a). Riparian areas are dominated by large conifers (western redcedar, Engelmann spruce, and subalpine fir). Four landslides occurred in the Walton Creek watershed during the flood events of 1995-1996, but none occurred within the burn perimeter.

Potential Effects to Aquatic Systems

Plum Creek Timber Company Lands

The mainstem of Walton Creek dissects the burned area. From the northern edge of the ownership/fire boundary to ¼ mile upstream, there are adequate numbers of trees (mostly western redcedar) to protect the stream from temperature increases and to provide for current and future woody debris needs. Few riparian trees were fire killed in this reach. The likelihood of impacts from surface erosion are very low in this reach due to the presence of a lateral glacial moraine on the east side of the stream and a large terrace on the west side. Any surface erosion from fire burned hillslopes should be captured within these landforms. The likelihood of mass wasting is low in this area due to the retention of large numbers of surviving trees on the steep slope to the west. The potential impacts to fish in this reach are very low.

The remaining ¼ mile of stream up to the southern boundary of Plum Creek lands burned to the stream banks. Large numbers of trees were fire killed and many of the tops snapped off or were felled for safety reasons. This section will be deficient in future woody debris recruitment and may be slightly susceptible to temperature increases. Potential temperature increases are likely to be minor given the high elevation of the stream system and the presence of vegetation both above and below the reach. The fallen trees have increased instream and riparian woody debris levels significantly. This section of stream will be the most susceptible to fire effects from surface erosion since little riparian vegetation is left. The fallen trees may help to filter some surface erosion, but would not likely prevent or reduce the direct effects of mass wasting into the stream.

Field review of the steep breakland slope above the west bank of Walton Creek showed a high potential for mass wasting. Fans and dissections exist from previous mass wasting events and the loss of tree cover and roots from the timber harvest and burn have increased the hazard. Sediment generated by a mass movement could negatively alter the channel, thus impacting Westslope cutthroat trout and possibly bull trout. In addition, soil productivity would be negatively impacted by both surface erosion and mass wasting events in this area.

The potential negative effects from surface erosion and mass wasting to fish and site productivity are high in this reach until vegetation is reestablished. Based on the potential for sediment production from both surface erosion and increased mass wasting hazards, it is our judgment that treatments (grass seeding, log erosion barriers and tree planting) are needed in this area to prevent watershed damage and maintain soil productivity.

National Forest System Lands

This portion of Walton Creek remains virtually unchanged. The understory is dominated by dense stands of alder and the overstory by large western redcedar. There will be no significant effects to temperature or current and future downed woody debris levels. There was a slight increase in instream wood levels due to the felling of trees. There would be no effects to fish species in this reach since both hillslopes and riparian areas remain intact and well vegetated.

Downstream Considerations

Walton Creek is the main water supply for the State of Idaho, Powell Fish Hatchery, which is located on National Forest System lands 2.0 miles downstream from the burned area at the mouth of Walton Creek. The hatchery collects and raises spring Chinook salmon which are not an ESA listed species, but do provide fishing opportunities for the Nez Perce Tribe and local anglers. The potential impacts to the fish hatchery from the fire could range from none, to loss of juvenile smolts from sediment increases due to surface erosion at the breakland location, to major structural damage to the hatchery itself if a landslide/debris avalanche occurred.

Overall Effects

Mass wasting event presents the most serious risk of sediment impacts to fish in Walton Creek. The retention of good riparian canopies along the most of the stream will maintain temperature and will provide for current and future downed woody debris needs. In the event of a landslide, the lower two miles of Walton Creek would experience increased sediment and cobble embeddedness levels. This could negatively affect both bull trout and steelhead populations in the stream whose primary spawning and rearing areas are downstream from the burned area. Cutthroat trout are not likely to be effected due to their wide distribution and high densities. A major precipitation event could result in surface erosion or a landslide event that could negatively affect the hatchery water supply at Powell Fish Hatchery. The potential to kill fish within the hatchery would be high. General site productivity could also be negatively effected from both surface erosion and potential mass wasting events from the steep breakland slope above Walton Creek on the west portion of the burn.

B. Emergency Treatment Objectives:

The emergency treatment objectives will be to reduce mass wasting hazards and to maintain soil productivity and downstream water quality. Specifically, we are concerned with the potential for:

- 1) Loss of soil productivity due to surface erosion and mass wasting on the breakland slope above Walton Creek.
- 2) Watershed/fisheries impacts to Walton Creek and the downstream State of Idaho, Powell Fish Hatchery due to the high sediment delivery potential from surface erosion and mass wasting events into Walton Creek.

Treatments designed to reduce the risk of the potential adverse effects of the fire include:

- 1) Use the Wyden Amendment to allow use of BAER funding authority to plant trees on approximately 55 acres of both Plum Creek Timber Company and National Forest System lands where the risk of mass wasting is high due to fire impacts (see attached map). We realize that the treatments will take more than two years to become effective but it is important that site recovery take place at the earliest possible date. Should NRCS and/or private funding become available the BAER expenditures will not be made. Both of these sources are not guaranteed to date and the fish hatchery below is a high value facility needing every possible protection.
- 2) Use the Wyden Amendment to Place log erosion barriers to maintain site productivity and reduce the probability of surface erosion and subsequent sediment delivery into Walton Creek (see attached map).

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

Land **60** % Channel **n/a** % Roads **n/a** % Other **n/a** %

Probability of Treatment Success – Years After Treatment

[illegible]

E. Cost of No-Action (Including Loss): \$179,008 (See Appendix A)

G. Skills Represented on Burned-Area Survey Team:

| | | | |
|------------------------------|----------------------------|-----------------------------------|--------------------------------|
| [X ⁵] Hydrology | [X ⁶] Soils | [] Geology | [] Range |
| [X ⁷] Forestry | [X ⁸] Wildlife | [] Fire Mgmt. | [X ⁹] Engineering |
| [] Contracting | [X ¹⁰] Ecology | [] Botany | [X ¹¹] Archaeology |
| [X ¹²] Fisheries | [] Research | [X ¹³] Landscape Arch | [X ¹⁴] GIS |

Team Leader: Jim Mital

Email: jmital@fs.fed.us

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¹⁴ Donna Bonzagni, Powell GIS Specialist

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:

Tree Planting: It is estimated that 350 acres will require regeneration within the perimeter of the Walton Fire, with most needed on Plum Creek Timber Company lands. Approximately 55 acres (52 acres on PCTC lands and 3 acres on NFS lands) of this planting is needed to protect soil and watershed resource values on areas prone to mass wasting. Planting will be done with seedlings of a species typically found on the various habitat types present. Tree spacing will vary from 7' x 7' (889 trees/acre) to 8'x 8' (680 trees/acre) on National Forest land, while Plum Creek Timber Company would likely plant at 10' x 10' or wider spacing to meet the 200 tree/acre minimum for seedlings required by the Idaho Forest Practices Act.

Tree planting on National Forest Land needed to meet National Forest Management Act and/or Idaho Forest Practices Act requirements would be financed by congressionally appropriated money. Planting needed for watershed protection (3 acres) would be funded with Emergency Watershed Rehabilitation Funds (WFSU). Planting need to protect watershed values on Plum Creek Timber Company lands (52 acres) within the Walton Fire should be eligible for Emergency Watershed Protection Program funds which can be requested from the Natural Resource Conservation Service.

Grass seeding is recommended on 52 acres to minimize surface erosion losses and sediment impact into Walton Creek. Seeding will be done at a rate of 30 pounds per acre primarily with annual ryegrass. This grass will provide first season ground cover, but will not persist to cause competition problems with tree regeneration.

Watershed Treatments Proposed – Acres and Costs

Watershed Treatments Proposed By Ownership – Acres and Cost

| Ownership | Planting Total (Acres) | Planting for Watershed Protection Only (Acres) | Watershed Protection Planting Cost/Acre (total cost) | Log Erosion Barriers for Watershed Protection (Acres) | Log Erosion Barriers Cost/Acre |
|---------------------------|------------------------|--|--|---|--------------------------------|
| Plum Creek Timber Company | ~300 | 52 | \$250/acre (\$13,000) | 47 | \$250/Acre \$11,750 |
| National Forest Land | ~50 | 3 | \$600/acre (\$1800) | 0 | \$250/Acre \$0 |
| Total | ~350 | 55 | \$14,8 | 47 | \$11,750 |

Channel Treatments:

None

Roads and Trail Treatments:

None

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.)

I

Proposed Monitoring Activities:

- (1) Monitor hillslope and downstream channel conditions for BAER treatment implementation and effectiveness. Tree planting and log erosion barriers will be monitored by the Forest Soil Scientist via on the ground surveys in 2002 to assess proper execution to ensure the treatments were satisfactorily completed. Post BAER treatment stream channel conditions will be evaluated by a Fisheries Biologist.

Estimated monitoring cost is \$1500.

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

| Line Items | Units | Unit Cost | NFS Lands | | | | Other Lands | | | | All Total |
|-----------------------------------|-------|-----------|------------|-----------------|----------|--|-------------|------------|------------|-----------------|-----------------|
| | | | # of Units | WFSU SULT \$ | Other \$ | | # of units | Fed \$ | # of Units | Non Fed \$ | |
| A. Land Treatments | | | | | | | | | | | |
| Tree planting-NFS | Acres | \$600 | 3 | \$1,800 | | | | \$0 | | \$0 | \$1,800 |
| Tree planting-Private | Acres | \$250 | | \$0 | | | | \$0 | 52 | \$13,000 | \$13,000 |
| Log erosion Barriers* | Acres | \$250 | 47 | \$11,750 | | | | \$0 | 47 | \$11,750 | \$23,500 |
| Grass Seeding* | Acres | \$100 | 47 | \$4,700 | | | | \$0 | 47 | \$4,700 | \$9,400 |
| <i>Subtotal Land Treatments</i> | | | | <i>\$18,250</i> | | | | <i>\$0</i> | | <i>\$29,450</i> | <i>\$47,700</i> |
| B. Channel Treatments | | | | | | | | | | | |
| None | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| <i>Subtotal Channel Treat.</i> | | | | <i>\$0</i> | | | | <i>\$0</i> | | <i>\$0</i> | <i>\$0</i> |
| C. Road and Trails | | | | | | | | | | | |
| None | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| <i>Subtotal Road & Trails</i> | | | | <i>\$0</i> | | | | <i>\$0</i> | | <i>\$0</i> | <i>\$0</i> |
| D. Structures | | | | | | | | | | | |
| None | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| | | | | \$0 | | | | \$0 | | \$0 | \$0 |
| <i>Subtotal Structures</i> | | | | <i>\$0</i> | | | | <i>\$0</i> | | <i>\$0</i> | <i>\$0</i> |
| E. BAER Evaluation | | | | | | | | | | | |
| Personnel Costs | | \$10,000 | 1 | \$10,000 | | | | \$0 | | \$0 | \$10,000 |
| Vehicle Use | | \$500 | 1 | \$500 | | | | \$0 | | \$0 | \$500 |
| | | | | | | | | \$0 | | \$0 | \$500 |
| G. Monitoring Plan | Each | \$1,500 | 1 | \$1,500 | | | | \$0 | | \$0 | \$1,500 |
| H. Totals | | | | \$30,250 | | | | \$0 | | \$29,450 | \$60,200 |

* Log Erosion Barriers placed on private land in Fall 2001 to protect downstream NFS lands and improvements. NRCS Emergency Watershed Program funding appears not to be available to accomplish this work, so WFSU funds are used to accomplish this work to prevent watershed damage from fall rains and spring runoff. It is possible the NRCS will reimburse the Forest Service for this work at a later date. Grass seeding will be accomplished in Spring 2002 with EWP funds, if available, or WFSU funds if necessary. The charges are shown in both columns, but will ultimately be paid from one source.

PART VII - APPROVALS

1. /s/ John Keerseemaker for Larry Dawson 11/07/01
Forest Supervisor (signature) Date

2. _____
Regional Forester (signature) Date