Date of Report: 08-27-03
Revised: March 25, 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
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

] 1. Initial Request (Best estimate of funds needed to complete eligible rehabilitation measures)
**Assessed through August 23, 2003**

[X ] 2. Interim Report
[X ] 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: Wedge Canyon

B. Fire Number: 14415

C. State: Montana

D. County: Flathead

E. Region: 01

F. Forest: Flathead

G. District: Glacier View

H. Date Fire Started: 7/18/2003

I. Date Fire Contained: Unknown

J. Suppression Cost: $26,013,175 (as of 8-26-03)

K. Fire Suppression Damages Repaired with Suppression Funds
**The following information is not available at this time. This information will be added at a future date.**
1. Fireline waterbarred (miles):
2. Fireline seeded (miles):
3. Other (identify):

L. Watershed Number: (Sixcode HU's) 170102060102, 170102060103, 170102060203, 170102060206, 170102060202, 170102060203, 170102060206, 170102060209, 170102060211
M. Total Acres Burned: NFS Acres (20,467) Glacier NP (19,740) State (1,094) Private (1,456)

N. Vegetation Types: Douglas-fir, Western Red Cedar, and Subalpine fir Potential Vegetation Types

O. Dominant Soils: Udifluvents, Eutroboralfs, Cryoboralfs, Cryochrepts, and Cryants

P. Geologic Types: Precambrian meta-sedimentary; predominantly argillites, siltites, quartzites, or limestones.

Permian limestone, and Tertiary siltstone

Q. Approximate Miles of Stream Channels by Order: First Order - 86 miles, Second Order - 14miles, Third through Fifth Order - 19 miles.

R. Transportation System: Trails: 8 miles FS-FNF 2 miles NPS-GNP
Roads: 67 miles FS-FNF 33 miles NPS-GNP 6 miles State 6 miles Private

## PART III - WATERSHED CONDITION

A. Burn Severity (acres): 4,979 (low) 26,256 (moderate) 3,858 (high)

B. Water-Repellent Soil (acres): 22,237

C. Soil Erosion Hazard Rating (acres): 2,670 (low) 22,180 (moderate) 10,510 (high)

D. Erosion Potential: 19.4 tons/acre (average) (range .5 to 41.1 tons/acre)

E. Sediment Potential: 10,026 cubic yards / square mile

## PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 2

B. Design Chance of Success, (percent): 80

C. Equivalent Design Recurrence Interval, (years): 100 (flow)

D. Design Storm Duration, (hours):

E. Design Storm Magnitude, (inches):

F. Design Flow, (cubic feet / second/ square mile): 36 to 47

G. Estimated Reduction in Infiltration, (percent): 40

H. Adjusted Design Flow, (cfs per square mile): 70 to 88

## PART V - SUMMARY OF ANALYSIS

A. Describe Watershed Emergency:

- Watershed, Fisheries, and Aquatics, both within the fire area and downstream.

Aerial reconnaissance verified by field observations of the Wedge Canyon Fire Area revealed that the burn severity was primarily moderate and low, with concentrated areas of high burn severity. The high soil burn severity sites initially have will have less vegetation re-growth (vegetation cover) to protect the surface soil from erosion; especially when compared to the low burn severity areas. The southerly aspect high soil burn severity sites have the least potential for rapid natural revegetation. Aerial observations and follow-up ground investigations revealed that the most extensive area of high soil burn severity occurred in section 36 of Trail Creek. The Northerly aspects in this area have deeper volcanic ash with less rock fragments than the southerly aspects. Vegetation should be better on the northerly aspects because there was more viable root mass remaining in the topsoil on these aspects. Soil erosion potential on these sites can be more than 30 plus tons /acre with a high intensity rainstorm prior to the hydrophobic

conditions being ameliorated. There are also two other sites in Whale Creek (section 23/24 and 22) that exhibits the same post-fire characteristics. Treatment is recommended for all of these sites.

Bull trout are listed as threatened under the Endangered Species Act. Both Whale Creek and Trail Creek are considered critical habitat in the draft Bull Trout Recovery Plan and both have been identified as INFS priority watersheds. Whale Creek and Trail Creek combined represent up to 86% of the total redds counted annually in the North Fork of the Flathead River System and up to 59% of redds counted annually in the entire Flathead System. Both streams provide spawning and rearing habitat that is critical to the recovery of the species. Whale, Trail, and Tepee Creeks also support conservation populations of westslope cutthroat trout, which are considered a sensitive species in Region 1. The Tepee Creek population is isolated and fragmented which decreases population resiliency to habitat changes due to the fire. Increased sediment loads post-fire are expected to impact spawning and rearing habitat quality.

Whale Creek is listed on the Montana 305(b) list as having siltation (sediment) and habitat alteration problems. Flathead Lake, also listed and downstream from the fire area, has an identified nutrient enrichment problem.

The BAER Analysis Team identified a large number of critical sites in this fire that are related to roads. Existing undersized culverts/road crossings may plug or be overtopped and fail, particularly ones with areas of significant fire above them. Portions of the fire area may experience increased surface erosion The Moose Fire of 2001 had indicate erosion on high severity burn sites that were not treated. Increased post-fire stream flows may cause the existing undersized culverts/road crossings to plug or be overtopped and fail, particularly in areas with significant fire above them. The fire has killed a large number of trees, many of which have already fallen down into the channels, with many more ready to fall. The concern is that sediment and debris may bury spawning gravels, fill pool habitat, and alter habitat connectivity in the Trail Creek and Whale Creek drainages.

- Threats to Long-term Soil Productivity and Ecosystem Integrity

Field reviews within the burned area validated a threat to long-term soil productivity and ecosystem integrity in areas of high burn severity where vegetation recovery is questionable. Compromised soil productivity and fire suppression activities have provided a natural avenue of ingress to a host of noxious weed species that are currently found in moderate to heavy populations throughout the road system that crisscrosses the burned area in the Flathead Forest. A similar situation exists along road corridors and at trailheads throughout the burned area of Glacier National Park, especially where suppression activities disturbed the soil surface or where burn severity was high.

The spread of noxious weeds is expected to increase dramatically within the fire area, especially along roads and trails where fire suppression activities disturbed the existing weed seed bank and opened uninfested lands to invasion by adjacent weed populations. Those species of greatest concern include spotted knapweed (Centaurea maculosa), St. Johns wort/Goatweed (Hypericum perforatum), Orange hawkweed (Hieracium aurantiacum) and Canada thistle (Circium arvense). All are Montana state and Flathead County listed noxious weed species. There are isolated infestations of Common tansy (tanacetum vulgare) as well. Tansy ragwort (Senecio jacobaea) has been located in the adjacent Moose fire area.

Natural regeneration of Whitebark pine has a low probability due to the lack of sufficient seed producing trees. This species has been identified through the Northern Region Overview as at high risk of being lost as a component in the ecosystem, primarily because of the exotic disease whitepine blister rust. Re-establishing this species is of high priority, in recognition of its important role in high elevation ecosystems. The Wedge Creek fire killed a large portion of the remaining live, cone-producing whitebark pine trees in the area. Two thousand whitebark pine seedlings that were planted two years ago in a harvested area near Hornet Lookout were also killed by the fire.

- Threats to Life and Property

Field review within the burn confirm that there is a risk to property and life. These risks include hazard trees along roads and trails throughout the fire area, loss of trail and road signs, damage to roadside barriers and guard rails.

The existing road systems that lie within the Wedge Canyon burned area have numerous stream crossings that have been affected by the fire. Culverts that are currently plugged or have catchments that are full or brushed in should be cleaned out to insure unobstructed flows. In the event of heavy rain or rain on snow events road patrols be sent out to inspect the road system stream and ditch relief crossings to identify and correct any potential problem areas before adverse resource impacts occur.

The existing road systems that lie within the Wedge Canyon burned area have numerous stream crossings that have been affected by the fire. Culverts that are currently plugged or have catchments that are full or brushed in should be cleaned out to insure unobstructed flows. Flathead National Forest System Roads 318, 114, 9805, 1665, 5399 need additional drainage.

Trail integrity may have been affected by the fire. Structural erosion improvements along the trails have been impacted. An intensive survey is required to identify all areas along trails and developed recreation sites to detail impacts to trails as current conditions may pose a threat to human health and safety.

Private lands affected or potentially affected by the fire were evaluated and no emergency conditions were identified.

B. Emergency Treatment Objectives:

- Minimize fire effects on water quality and fisheries habitat by reducing the amount of sediment delivered to streams.
- Mitigate effects on long-term soil productivity and ecosystem function/integrity by seeding and/or straw mulching targeted areas, by spraying existing noxious weed infestations, and restoring whitebark pine to the ecosystem.
- Provide for public health and safety by conducting hazard tree assessments and treatment, safety inventory along trails and by repairing, replacing, and installing health and safety signs and guard rail.
- Minimize fire effects on the road and trail system by restoring and improving drainage on road and trail systems, by removing floatable woody debris in and around culverts, and by conducting storm patrols during runoff events.

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

Land **80** % Channel **100** % Roads **90** % Other **90** %

D. Probability of Treatment Success

| | Years after Treatment | | |
|---|---|---|---|
| | 1 | 3 | 5 |
| **Land** | | | |
| Seeding | 75 | 85 | 90 |
| Spraying | 85 | 60 | 30 |
| Straw Mulching | 75 | 50 | 30 |
| | | | |
| **Channel** | | | |
| Stream Relocation | 85 | 90 | 95 |
| LWD | 80 | 85 | 90 |
| | | | |
| **Roads** | 80 | 85 | 90 |

| | | | |
|---|---|---|---|
| **Trails** | 80 | 85 | 85 |
| | | | |
| **Other** | | | |
| Reforestation | 80 | 80 | 80 |

E. Cost of No-Action (Including Loss): **See attached cost-risk analysis document.**

F. Cost of Selected Alternative (Including Loss): **See attached cost-risk analysis document.**

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Mark Story, Hydrologist, Gallatin National Forest

Email: mtstory@fs.fed.us Phone: 406-522-8573

H. **Treatment Narrative:**

LAND TREATMENTS:

Hillslope Treatments

In selected high soil burn severity areas in the Wedge Canyon Fire on Flathead NF lands a seeding of a short-term cover crop and straw mulching is proposed. These sites include areas of sections: 35 and 36 in Trail Creek, 23 and 24 in Whale Creek, 22 in Whale Creek, and 14 in Tepee Creek. This treatment objective is to allow for some vegetation establishment in the fall of 2003 and the resulting sediment filtering capacity in the spring of 2004 prior to the natural regevetation of the shrub communities on these sites. The natural re-vegetation/reestablishment of shrubs on these sites will be slower and will result in less vegetation cover for several years. Because of the steep slopes, and silty surface soils there is an increased risk of post-fire soil erosion and increase stream sedimentation. These streams provide habitat for Bull trout and Cutthroat trout. The treatments of sites should reduce the soil erosion potential significantly. The estimated reduced using the WEPP erosion model is 22 tons per/acre/year the first year, and 20 tons per/acre/year the second year.

In Trail Creek (NE¼, Section 36) Road 114 crosses an unstable hill-slope. The fill slope of the road erodes silt size to gravel size materials directly into a Bull trout spawning reach of Trail Creek. The wildfire will increase the erosion from the cutslope and fillslope due to increased overland flow and increased soil dry raveling because of vegetation loss on the cutslope. The proposed treatment is to re-route Trail Creek for a distance of 300 feet directly below the fillslope area, and to mulch and seed (grasses & shrubs) the fill-slope and cutslope. The combination of these two treatments will significantly reduce the risk of fire-accelerated sedimentation into the spawning gravel areas of Trail Creek.

Noxious Weed Control

Increases of noxious weeds into burned areas will be treated by application of herbicide, mechanical or cultural control of known noxious weed infestations along identified road systems, campgrounds, parking areas, administrative facilities, trailheads and other features identified in the weed treatment specification in both

Glacier National Park and on the Flathead Forest. Identified sites have been ground-truthed and pose a threat for establishment, seed set and spread into vulnerable areas. It is recommended to begin treatment as soon as fall rosettes of target species are visible and continue treatment through spring and fall of 2004.

Restoration of Whitebark pine

Up to 200 whitebark pine cones are proposed to be collected from the few remaining live whitebark pine trees in the Wedge Canyon fire area to provide seed for growing 3000 whitebark pine seedlings. These seedlings would be planted within the fire area along Hornet Ridge, spread out within the moderate and high severity burned area (about 300 acres). The fire killed a large portion of the few remaining cone-producing whitebark pine trees in this area, as well as 2000 recently planted whitebark pine seedlings.

Critical Area Seeding

It was determined that aerial seeding could be an effective emergency watershed treatment to provide a buffer strip along the most highly susceptible stream channels that would assist in site stabilization and protection of watershed resources. Seeding would be used in conjunction with other watershed treatments to establish a barrier to soil movement. Aerial mulching will also be implemented to protect against soil loss. Aerial seeding of a non-persistent annual barley grain has been prescribed on the lower portion of steep slopes adjacent to vulnerable stream channels where there was high burn severity. This seed will germinate rapidly, tiller readily and provide stalk and straw to intercept rain and slow downslope soil movement. Native perennial grass seeding will occur on steep slopes where burn severity is so extreme that it is doubtful that any native seed or plant propagule bank remains. These treatment areas are adjacent to critical bull trout streams.

The recommended native seeding prescription calls for 24 lbs PLS/acre (70 seed/ft.$^2$) and includes the following native cultivars available from a number of commercial sources in the Intermountain area:

| | | | |
|---|---|---|---|
| Idaho Fescue | Festuca idahoensis | 10 seed/ft$^2$ | 0 .96 lb/acre |
| Slender Wheatgrass | Elymus trachycaulus | 20 seed/ft$^2$ | 5.47 lb/acre |
| Blue Wildrye | Elymus glaucus | 20 seed/ft$^2$ | 9.68 lb/acre |
| Mt. Brome | Bromus marginatus | 20 seed/ft$^2$ | 7.92 lb/acre |

Seeding of the barley should be done as soon as possible to provide for immediate germination and growth. Native seed will be applied in October to insure a dorminant fall seeding to prevent fall germination.

CHANNEL TREATMENTS:

Realign 300 feet of Trail Creek in the SW¼ NW¼ of Section 35 in T37N, R23W, approximately 1 mile above Thoma Creek to move the channel away from the base of an existing slump. The treatment will remove a fire-accelerated source of fine sediments from above a documented bull trout spawning area. Geomorphic techniques (i.e.; Rosgen) will be used to create the new channel to allow it to function naturally.

Tepee Creek supports a Conservation population of westslope cutthroat trout. The culvert at milepost 4.4 on forest road 907 is a fish passage barrier for both adult and juvenile fish. Currently, cutthroat is limited to 2.5 miles of habitat, and is highly susceptible to localized extinction because of the limited amount of habitat. Removing this fish passage barrier will increase the amount of available habitat and provide access to an additional 5.5 miles of currently unoccupied, high quality habitat. Habitat expansion will increase population resiliency to potential habitat losses. Removing the culvert and recreating natural channel conditions will facilitate fish passage, eliminating the risk of structural failure and culvert maintenance. The culvert will be removed and replaced with a temporary bridge during the 2004 field season to open fish passage and facilitate access for upcoming restoration & management activities.

ROADS AND TRAIL TREATMENTS:

*General*

Road systems within the Wedge Canyon burned area on both National Forest and National Park Service lands are in generally good condition. Hazard tree assessments and treatments are currently ongoing as a function of the suppression efforts. Additional assessments for human safety are needed along trails and roads used and not used for fire suppression impacted by fire. Road inspections will be performed during fire rehabilitation on all road systems used for fire access to insure that road prisms and drainage diversion dips are properly in or out sloped for surface water drainage. Roads traversing the burned area that were not used for suppression should also be patrolled to insure all ditches and drainage features are clear of debris to maintain proper road drainage.

The existing road systems that lie within the Wedge Canyon burned area have numerous stream crossings that have been affected by the fire. Culverts that are currently plugged or have catchments that are full or brushed in should be cleaned out to insure unobstructed flows. In the event of heavy rain or rain on snow events, road patrols will be sent out to inspect the road system stream and ditch relief crossings to identify and correct any potential problem areas before adverse resource impacts occur. The purpose of this work is to decrease the risk that ditch relief and road stream crossings fail resulting in culvert washouts as well as ditch and road surface water flows being diverted down roadways causing washouts. **Road patrols will be mobilized immediately upon receiving heavy rain or rain on snow events. Assessment and treatment should be conducted during the fall of 2003 and spring of 2004 as necessary.**

**Trails**

A comprehensive trail safety and damage assessment was not conducted for this report due to active burning and safety concerns on trail locations. An assessment is needed in order to determine impacts of the fire to the trail systems and to identify necessary trail work to protect important resources. These trails include the Cliff Creek, and Hornet Lookout on the Flathead National Forest. Trails and campgrounds in the burned area are currently closed to public use due to fire suppression activities. **Trails assessments will be conducted as soon as safety conditions warrant before allowing public access.**

**Roads**

On Flathead National Forest System Roads 318, 114, 9805, 1665, 5399 need additional drainage including dips and placement of riprap for bank and fill slope stabilization and soil erosion control. One site has been identified for culvert removal and returning the crossing site to as near natural conditions as practicable. An additional four locations have been identified as needing riprap placement at culvert inlets and headwalls for cut slope bank stabilization and culvert discharge channels. An additional two sites were identified as needing riprap for road stabilization at road grade sags. These sites will also require straw bales staked at the drain locations to intercept potential sediment flows associated with road and bank runoff. Site Specific locations and specifications can be found in the engineering project files. **This work should be conducted before spring runoff.**

**Critical Road Treatments**

The existing road slump at about mile post 6 on Forest road 114 should have the dead trees along the top of the scarp line to the solid rock base cut and removed. The cut slope toe where the dozer cut through leaving a vertical face should be laid back to as near a continuous slope as possible. This work should be performed prior to fall rains and is needed to decrease the risk of additional material sliding onto the road surface and resulting in additional material blocking the roadway and sliding down into the creek channel below the road. **This work should be performed during the fall of 2003 to minimize exposure to precipitation or snowmelt runoff.**

**Structures**

Visual inspection of the existing road structures within the burned area identified one site in need of treatment. The bridge crossing at Thoma Creek on Forest road 114 indicated severe charring of both wing walls. A

detailed inspection of the treated lumber on these wing walls should be performed to determine the effects of the fire and if they need to be replaced to insure public and administrative safety when the road is open for travel. The abutments and running planks appeared to have little burning or damage. The stream channel should be cleared of the large burnt woody debris and large boulders at and upstream of the bridge crossing to prevent stream blockage and the potential for damage of the bridge structure. **This work will be performed during the fall of 2003 to minimize exposure to rain or snow events.**

I. **Monitoring Narrative:**

**The following is a brief synopsis of proposed monitoring. Detailed monitoring plans are included in the attached specification sheets.**

Bull Trout Habitat Monitoring

Habitat use validation monitoring is proposed to determine whether changes in habitat use occur post-fire in areas down gradient of channel and hillslope treatments. Bull trout spawning redd counts and stream temperature thermographs are proposed throughout critical spawning reaches of Whale Creek and Trail Creek. BAER treatment effectiveness monitoring is proposed to evaluate changes in spawning habitat quality down slope of proposed hillslope treatments that are being implemented to reduce sediment delivery to critical spawning reaches in Whale Creek and Trail Creek.

Noxious Weed Treatment Monitoring

Monitor effectiveness of control treatments implemented; scout all fire suppression related disturbance as well as areas of high burn severity (as specified in the weed monitoring specification) where weed invasion potential is substantial and control treatments will be required; accurately map treated and new noxious weed populations using GPS and GIS. Establish photo plots for documentation.

Whitebark Pine Monitoring

Monitor whitebark pine and its habitat within the Wedge Fire area to determine the effect of the fire. Assess tree survival, cone production and potential for natural regeneration. This species is an important ecosystem component and wildlife food source whose populations have been severely depleted due to blister rust.

Re-vegetation Monitoring

Reseeded areas will be monitored the first year following treatment (2004) to determine success of re-vegetation efforts on slope and watershed stability within the Robert Fire on the Flathead National Forest lands. Determine vegetation re-establishment on seeded areas as an effective cover for the stabilization of critical watersheds and the protection of downstream values at risk.

## PART VI - EMERGENCY REHABILITATION TREATMENTS AND SOURCE OF FUNDS BY LAND OWNERSHIP

**WEDGE CANYON FIRE**

| | | | Flathead NF | | | Glacier NP | | OTHER LANDS | |
|---|---|---|---|---|---|---|---|---|---|
| | | Unit | # of | WFSU | Other | # of | Fed | # of | Non Fed |
| Line Items | Units | Cost | Units | SULT $ | $ | units | $ | Units | $ |
| | | | | | | | | | |
| **A. Land Treatments** | | | | | | | | | |
| Heli Seeding: Cereal Grain | acre | 44 | 442 | $19,448 | | | | | |
| Helicopter Mulch | acre | 411 | 393 | $161,523 | | | | | |
| Revegetate Trail Creek Slump | each | 12455 | 1 | $12,455 | | | | | |
| Weed Control | acre | 131 | 63 | $8,253 | | 21 | $3,030 | | |
| Heritage Site Protection | each | 1446 | 1 | $1,446 | | | | | |
| Whitebark Pine Seedlings | each | 4.25 | 3000 | $12,760 | | | | | |
| | | | | | | | | | |
| *Subtotal Land Treatments* | | | | **$215,885** | | | **$3,030** | | |
| | | | | | | | | | |
| **B. Channel Treatments** | | | | | | | | | |
| Remove Tepee Creek Culvert & Replace w/ Temporary Bridge - Fish Barrier | each | 58,000 | 1 | $58,000 | | | | | This treatment was $3848 in the original BAER plan of 8-25-03 |
| Trail Creek Channel Reconstruction | each | 8343 | 1 | $8,343 | | | | | |
| | | | | | | | | | |
| *Subtotal Channel Treatments* | | | | **$63,343** | | | **$0** | | |
| | | | | | | | | | |
| **C. Road and Trails** | | | | | | | | | |
| Area Wide Culvert Cleaning | each | 9352 | 1 | $9,352 | | 1 | $3,063 | | |
| Remove Culverts | each | 2212 | 1 | $2,212 | | | | | |
| Stab Culverts (Inlets & Outlets) | each | 655 | 4 | $2,620 | | | | | |
| Install Diversion Dips on Roads | each | 1237 | 1 | $1,237 | | | | | |
| Storm Patrol | each | 1853 | 1 | $1,853 | | 1 | $513 | | |
| Hazard Tree Assess - Roads | miles | 35 | 22 | $770 | | 8 | $275 | | |
| Hazard Tree Tmts - Roads | miles | 187 | 22 | $4,114 | | 8 | $2,172 | | |
| Hazard Tree Assess - Trails | miles | 37 | 6.5 | $240 | | | | | |
| Hazard Tree Tmts - Trails | miles | 317 | 6.5 | $2,060 | | | | | |
| Install/Maintain Trl Waterbars | miles | 354 | 6.5 | $2,301 | | | | | |
| Trail Assessment | miles | 561 | 6.5 | $3,647 | | | | | |
| Install Hazard Warning Signs | each | 446 | 8 | $3,568 | | 2 | $1,449 | | |
| Inventory Burned Signs | each | 1710 | 1 | $1,710 | | | | | |
| | | | | | | | | | |
| *Subtotal Road & Trails* | | | | **$35,684** | | | **$7,472** | | |
| | | | | | | | | | |
| **D. Structures** | | | | | | | | | |
| Repair Thoma Bridge | each | 21650 | 1 | $21,650 | | | | | |
| | | | | | | | | | |
| *Subtotal Structures* | | | | **$21,650** | | | **$0** | | |
| | | | | | | | | | |
| **E. BAER Evaluation** | | | | | | | | | |
| Team | | | | $61,000 | | | $13,000 | | |
| LANDSAT Photo | | | | $9,000 | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Implementation Leader** | | | | $20,000 | | | $5,000 | | |
| **Public Information** | | | | $500 | | | $500 | | |
| | | | | | | | | | |
| ***Subtotal BAER Evaluation*** | | | | **$90,500** | | | **$18,500** | | |
| | | | | | | | | | |
| **F. Monitoring** | | | | | | | | | |
| **Monitor Bull Trout Habitat** | each | 20808 | 1 | $20,808 | | | | | |
| **Monitor Seed/Reveg Effect** | acres | 12 | 190 | $2,280 | | | | | |
| **Monitor Weeds** | acres | 20 | 760 | $15,200 | | 100 | $1,646 | 12 | |
| **Monitor Whitebark Pine** | acres | 23 | 60 | $1,380 | | | | | |
| **Monitor Heritage Site** | each | 2259 | 1 | $2,259 | | | | | |
| **BAER Assmt. Proc. Eff. Mtg** | each | 6300 | 1 | $6,300 | | | | | |
| | | | | | | | | | |
| ***Subtotal Monitoring*** | | | | **$48,227** | | | **$1,646** | | |
| | | | | | | | | | |
| **G. Totals** | | | | **$475,289** | | | **$30,648** | | |

NOTE: The Tepee Creek modification results in a net increase of $54,152. The spec sheet included in this package replaces the original Tepee spec sheet.

## PART VII - APPROVALS

1. _____ 8/27/03
Forest Supervisor (signature) Date

2. _____ 8/27/03
Regional Forester (signature) Date

3. _____ 8/27/03
Glacier NP Supervisor (signature) Date