

Date of Report: 9/11/06

BURNED-AREA REPORT
(Reference FSH 2509.13)**PART I - TYPE OF REQUEST****A. Type of Report**

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

B. Type of Action

- ☒ 1. Initial Request (Best estimate of funds needed to complete eligible stabilization 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 DESCRIPTIONA. Fire Name: Lake GeorgeB. Fire Number: OR-DEF-000668C. State: ORD. County: Deschutes/LinnE. Region: 6F. Forest: Deschutes/WillametteG. District: Sisters/DetroitH. Fire Incident Job Code: P6C3KJI. Date Fire Started: Aug. 7, 2006J. Date Fire Contained: 97% Sept. 3, 2006K. Suppression Cost: \$11,150,161**L. Fire Suppression Damages Repaired with Suppression Funds**

1. Fireline waterbarred (miles): approx. 1mile
2. Fireline seeded (miles): 0
3. Other (identify): none

M. Watershed Number: 170703010901 (Dry Creek)N. Total Acres Burned: Deschutes NF (4927) / Willamette NF (607)
NFS Acres (5534) Other Federal () State () Private ()

O. Vegetation Types: At the lower elevations vegetation is primarily composed of mixed conifers including white fir, ponderosa pine, and lodgepole pine with a snowbrush and sedge understory. In the upper elevations vegetation types include lodgepole pine with scattered mountain hemlock and true fir. Understory vegetation at these elevations includes huckleberry, sedges, needlegrass, princess pine, lupine, squaw carpet, and pinemat manzanita.

P. Dominant Soils: Surface soils consist of a loamy sand texture as a result of basaltic ash deposits from nearby Sand Mountain. These soils were originally classified as Typic Cryorthents or Cryandepts and would likely now fall into the ashy Vitricryand classification within the Andisol soil order.

Q. Geologic Types: Mt Washington is a stratovolcano which has undergone extensive erosion due to mountain glaciers. Other geologic features in the area include glacial moraines which have formed steep ridges at the base of Mt Washington and basalt lava flows which originated from nearby Belknap Crater.

R. Miles of Stream Channels by Order or Class: 1.24 mi (Perennial)

S. Transportation System:

Trails: 4.37 miles (PCT/Charlton 3.69 mi. and Dry Creek 0.69 mi.) Roads: 1.96 miles

PART III - WATERSHED CONDITION

A. Burn Severity-soils (acres): 2773 (low) 2726 (moderate) 35 (high)

1. Fire Intensity-vegetation mortality (acres): 841 (underburned) 1228 (mixed) 3465 (stand replacement)

B. Water-Repellent Soil (acres): 0

C. Soil Erosion Hazard Rating (acres): 5520 (low) 7 (moderate) 7 (high)

D. Erosion Potential: 3.44 tons/acre

E. Sediment Potential: 37 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

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

C. Equivalent Design Recurrence Interval, (years): 25yr.

D. Design Storm Duration, (hours): 0.5hr.

E. Design Storm Magnitude, (inches): 0.67-0.77in.

F. Design Flow, (cubic feet / second/ square mile): 34-39cfs/m

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

H. Adjusted Design Flow, (cfs per square mile): 34-39cfs/m

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

1. Human Life and Safety (Post Fire Hazards, and Danger trees)

2. Property (Facilities, and Trails)

3. Critical Natural/Cultural Resources (Water Quality, Soils, Plant Communities, Wilderness, and Cultural)

B. Emergency Treatment Objectives:

2523.02 - Objectives

To determine the need for and to prescribe and implement emergency treatments to minimize threats to life or property or to stabilize and prevent unacceptable degradation to natural and cultural resources resulting from the effects of a fire.

1. Protect the public and agency employees from identified threats by:

- a. posting hazard/warning signs on trails and trailheads
- b. removing safety hazards and obstructions on trails

2. Minimize destruction of property identified by:

- a. controlling drainage problems on trails
- b. rehabilitating trails

3. Prevent unacceptable resource damage identified by:

- a. preventing soil erosion on trails
- b. preserving cultural sites
- c. treating weed infestations from known/outside sources
- d. re-posting wilderness boundary

C. Probability of Completing Treatment Prior to Damaging Storm or Event:

Land 80 % Channel % Roads/Trails 80 % Protection/Safety 95 %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	80	80	80
Channel			
Roads/Trails	80	80	80
Protection/Safety	95	95	95

E. Cost of No-Action (Including Loss): \$922,000

F. Cost of Selected Alternative (Including Loss): \$315,706

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: R.J. Strohm

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Phone: 541-383-5638

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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.)

2523.2 – Emergency Stabilization Treatments

3. Appropriate Measures. Use appropriate measures as follows:

b. Structures. Structural treatments are appropriate when needed to minimize the risk to downstream life and property, to reduce unacceptable erosion, to minimize unacceptable degradation of water quality, to stabilize critical or significant natural or cultural resources, or to protect treated or recovering areas from uses that could cause erosion or interfere with recovery.

c. Hazard Removal, Warning, and Controls. Stabilization or removal of physical hazards caused or aggravated by the fire that threaten life or property are appropriate treatments when there are no other protection options. Warning, signing, or other measures should be used to limit immediate threats to public safety or to limit public or livestock access in order to protect treated or recovering areas.

d. Facility Replacement. Replacement of destroyed or damaged minor facilities, such as signs or guardrails, is an appropriate measure when human health or safety is at risk and there are no other protection options.

g. Other Measures.

(1) Patrolling, camouflaging, or burying significant heritage sites are appropriate actions when necessary to prevent a critical loss of heritage site value when looting potential is high. Patrolling should be considered only when there are no other effective alternatives.

(2) Direct treatment of invasive plants introduced or aggravated by the fire or fire suppression activities is appropriate when indirect prevention measures are not practical.

(3) All BAER activities that have the potential to introduce or spread noxious weeds, both terrestrial and aquatic, should include appropriate prevention practices.

Key to Part IV-Emergency Stabilization Treatments and Source Funds, (D-Deschutes, W-Willamette, L-Land Treatment, T-Trails, P- Protection/Safety, M-Monitoring)

Line Items

A. Land Treatments:

Weed treatments

L1D- Prevent Noxious weed spread and introduction to protect native plant communities and rare plants. The goal is to prevent or reduce noxious weed establishment and invasion into the burned area. This would involve surveying the fire area roads, safety zones, dozerlines, and larger firelines for new infestations, and removal of any discovered seed sources by manual control to prevent spread and establishment. Some waterbars along the Pacific Crest Trail will be replaced and these should also be checked for weed invasion.

The probability of completing treatment in the first year is high. Crews would complete the work next summer.

The probability of treatment success is high. The plants are easily seen in bloom by road surveys or in vegetative conditions in walking surveys.

If indications of weed invasions are found in the first year of monitoring, additional funding may be requested, depending on availability of other program funding to address the problem.

Cultural surveys

Policy

Proposed BAER Treatments fall under the definition of an Undertaking following Section 106 (S106) of the National Historic Preservation Act, as amended (NHPA). Thus treatments where ground disturbing activities are proposed must be subjected to S106 consultation, including field survey, assessment of effects and submittal of reports by a cultural resource/heritage specialist under our Region 6 PA with Oregon SHPO in a timely manner.

L2D- In FY 2007 complete, tribal consultation, SHPO reporting, pedestrian surveys of up to 5 miles of trail. Inventory, evaluate, and document if installation BAER design measures are adequate to protect known sites from emergency BAER treatments. One archeologist working 10 days would complete inspections.

Cultural inventory

L3D & L4W- Devegetation of the potential site area can lead to erosion of subsurface site components on slopes above the creek and to increased surface collection by forest visitors due to increased surface visibility. There is a need to protect this potentially significant prehistoric site from data loss due to erosion or artifact collection. Locate and inventory site, and create site record to document changed condition from the fire and monitor changes in artifact location and distribution.

Wilderness boundary posting

L5D- Insure that wilderness values are maintained and mechanized access is prohibited in the vicinity of dozer line rehab areas on the eastern perimeter of the Mount Washington Wilderness. Recommended treatments to reduce this risk include surveying and posting the Wilderness boundaries, between Drop Point 2 and 3, at the Dry Creek Trailhead, and between Drop point 2 and 4. This boundary is in close proximity to four wheeler use.

B. Channel Treatments:

None recommended

C. Roads and Trail Treatments:

Roads- None recommended

Trails-

Trail rehabilitation

T1D- The Pacific Crest Trail (PCT) is recognized by the Nation, and emergency stabilization treatments to re-open the trail are necessary. The treatments will be consistent with wilderness management objectives. Recommended treatment actions are to move fallen burned trees and obstructions from the trail, making the trail usable, and to prevent resource damage (soil degradation). Some adjacent danger trees may be cut for wilderness crew protection while implementing treatments. Follow FSM 2323.43b policy. Dry Creek trail has the same issues that must be addressed.

T2W- Since it is not feasible to close the PCT, and falling snags would not be consistent with Wilderness values, an exception must be considered to cut some of the danger trees tall enough to hit the trail, and move fallen burned trees and debris from the path.

Trail drainage control

PCT & Dry Creek trail

T3D- Sisters Ranger District proposes to manage trail surface water within or directly downslope of moderate and high intensity burn areas (Fall 2006). Includes re-establishing waterbars and the trail template, removing outside berms, improve trail surface drainage. This treatment would occur on steeper segments of the Dry Creek trail approximately 0.7 miles adjacent to Dry Creek and tributary drainages.

PCT (Charlton trail)

T4W- Wooden water bars were destroyed or damaged on approximately 1.9 miles of the PCT on the McKenzie River Ranger District as a result of fire activity. These structures need to be replaced, as soon as soil conditions are appropriate, so that improper drainage associated with the facility does not aggravate erosion and gullyng on exposed soils adjacent to the trail. Soils are currently dry and powdery as a result of extremely dry weather and traffic associated with suppression activities, making stable construction of these structures impossible. These structures will also need to be maintained after the first winter runoff season.

D. Protection/Safety Treatments:

Trail hazard signing

P1D- Sisters Ranger District is requesting placement of warning signs to alert the public to danger on two locations on the PCT, Dry Creek trail and trailheads. Signs would be installed at Dry Creek trailhead, and at points entering and leaving the burn area within the Wilderness.

P2W- McKenzie River Ranger District would recommend installing signs to warn the public of increased hazard that has resulted from fire activities. Signs would be installed at the Big lake Trailhead, the Dee Wright Trailhead, and along the Pacific Crest Trail south of Big Lake where informal trails from the Patjens Lake area intersect the PCT. The actual structures would consist of temporary posts and sign boards and warning signs.

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.)

2523.3 - Monitoring

Monitoring is done to verify the implementation of emergency stabilization treatments and observe the site-specific effectiveness and functioning of treatments in order to determine if additional treatments are needed. Monitoring of recovery may be done in certain cases to evaluate if subsequent treatments are warranted where values at risk were identified, but no treatment measures were implemented, due to concerns regarding effectiveness or practicality.

F. Monitoring

Weed sites

M1D- Results of the weed prevention treatments will be monitored by writing a brief report documenting the results of the summer's surveys. This documents implementation and provides valuable documentation of the weed risk from inadequate prevention measures, describes problem areas, and will provide data for future weed control in the area if needed.

M2W- During follow up water bar maintenance, the area will be evaluated for the presence of introduced noxious weeds. If needed, supplemental funding will be requested at that time for appropriate treatment needs.

Cultural sites

M3D & M4W- Monitoring should be performed of the site condition to determine if de-vegetation of the site from the fire is resulting in secondary effects from erosion or visitor collection from increased visibility. An archaeologist will visit the site with the site records to record changes to the physical characteristics of soil movement within the site, look for signs of site disturbance by visitors, and document changes in surface artifact distribution and density. Monitoring should be conducted in the fall, after rain events for the first year and in the spring after snow melt.

Trails

M5D & M6W- Monitoring should be performed of the trail rehabilitation and drainage control to assure they were successful following winter moisture and spring run off events for three years.

Hazard signing

M7D & M8W- Monitoring effectiveness of both trail hazard signing, and wilderness boundary posting should be performed in the fall, spring and summer for three years.

Part VI – Emergency Stabilization Treatments and Source of Funds

Interim #

Line Items	Units	Unit Cost	NFS Lands		Other \$	Other Lands				All
			# of Units	BAER \$		# of units	Fed \$	# of Units	Non Fed \$	Total \$
A. Land Treatments										
L1D Weed Treatment	Days	\$173	26	\$4,498	\$0		\$0		\$0	\$4,498
L2D Cultural Surveys	Days	\$300	10	\$3,000	\$0		\$0		\$0	\$3,000
L3D Cultural Inventory	Each	\$1,500	2	\$3,000	\$0		\$0		\$0	\$3,000
L4W Cultural Inventory	Each	\$1,500	1	\$1,500	\$0		\$0		\$0	\$1,500
L5D Wilderness Bndy Post	Mile	\$8,000	2.65	\$21,200	\$0		\$0		\$0	\$21,200
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Land Treatments</i>				\$33,198	\$0		\$0		\$0	\$33,198
B. Channel Treatments										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Channel Treat.</i>				\$0	\$0		\$0		\$0	\$0
C. Road and Trails										
T1D Trail Rehabilitation	Mile	\$5,000	2.55	\$12,750	\$0		\$0		\$0	\$12,750
T2W Trail Rehabilitation	Mile	\$5,000	1.85	\$9,250	\$0		\$0		\$0	\$9,250
T3D Trail Drainage Control	Mile	\$2,500	2.55	\$6,375	\$0		\$0		\$0	\$6,375
T4W Trail Drainage Control	Mile	\$2,500	1.85	\$4,625	\$0		\$0		\$0	\$4,625
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Road & Trails</i>				\$33,000	\$0		\$0		\$0	\$33,000
D. Protection/Safety										
P1D Trail Haz. Signing	Each	\$750	5	\$3,750	\$0		\$0		\$0	\$3,750
P2W Trail Haz. Signing	Each	\$750	4	\$3,000	\$0		\$0		\$0	\$3,000
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Structures</i>				\$6,750	\$0		\$0		\$0	\$6,750
E. BAER Evaluation										
THSP Assessment Team	LS	\$5,000	1	\$5,000	\$5,000		\$0		\$0	\$5,000
<i>Insert new items above this line!</i>				---	\$0		\$0		\$0	\$0
<i>Subtotal Evaluation</i>				---	\$5,000		\$0		\$0	\$5,000
F. Monitoring										
M1D Weed Sites	Days	\$250	4	\$1,000	\$0		\$0		\$0	\$1,000
M2W Weed Sites	Days	\$250	3	\$750	\$0		\$0		\$0	\$750
M3D Cultural Sites	Days	\$300	10	\$3,000	\$0		\$0		\$0	\$3,000
M4W Cultural Sites	Days	\$300	7	\$2,100	\$0		\$0		\$0	\$2,100
M5D Trails	Days	\$250	20	\$5,000			\$0		\$0	\$5,000
M6W Trails	Days	\$250	14	\$3,500	\$0		\$0		\$0	\$3,500
M7D Haz. Signing	Days	\$250	20	\$5,000			\$0		\$0	\$5,000
M8W Haz. Signing	Days	\$250	14	\$3,500	\$0		\$0		\$0	\$3,500
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
<i>Subtotal Monitoring</i>				\$23,850	\$0		\$0		\$0	\$23,850
G. Totals				\$96,798	\$5,000		\$0		\$0	\$101,798
Previously approved										
Total for this request				\$96,798						

Total Deschutes NF \$68,573
Total Willamette NF \$28,225

PART VII - APPROVALS

1. /s/ Leslie A. C. Weldon
Deschutes Forest Supervisor (signature) 9-11-06
Date

2. /s/ Dallas Emch
Willamette Forest Supervisor (signature) 9-11-06
Date

3. _____
Regional Forester (signature) _____
Date