USDA United States Department of Agriculture | Forest Service | Okanogan-Wenatchee National Forest | 215 Melody Lane
Wenatchee, WA 98801
TTY (509) 664-9201
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File Code: 2520
Date: October 15, 2012

Kent Connaughton
Regional Forester
Pacific Northwest Regional Office
333 SW First Avenue
Portland, OR 97204-3440

This is an initial request for funding of treatments identified in the enclosed Burned Area Emergency Response (BAER) Report (FS 2500-8) for the Table Mountain Complex of the Central WA Fire Incident. It contains our request for $202,563 in WFSU-SULT funds. This incident occurred in the southern portion of the Okanogan-Wenatchee National Forest, Cle Elum Ranger District in Kittitas County, Washington. The Table Mountain Complex burned area encompasses approximately 42,634 acres. There are approximately 31,777 acres of National Forest administered land, 10,587acres of WA State land and 270 acres of privately owned land within the Table Mountain Complex Fire perimeter.

Resource specialists developed specific recommendations that will not result in detrimental effects to the human environment. Reports of existing conditions, maps, photos, and various other items related to the BAER assessment are final or near final are being filed at: O:\NFS\OkanoganWenatchee\Project\ForestWide\2520BAER\OkaWenFireComplexes2012

BAER consists of emergency actions needed to prevent loss of lives and property or to mitigate unacceptable resource degradation. I have reviewed the Report and determined that actions are consistent with current national BAER direction Interim Directive No. (FSM id_2520-2012-1) and will not have significant impacts.

If you have questions regarding this request, please contact Central WA Fire BAER Team Leader Tommy John at (303) 275-5583 or Greg Kuyumjian at (509) 664-9330. Stuart Woolley, (509-679-4281) has been identified to be the Acting BAER Implementation Leader.

Sincerely,

REBECCA LOCKETT HEATH
Forest Supervisor

cc: Tommy John, Greg Kuyumjian, Karen A Bennett

USDA-FOREST SERVICE FS-2500-8 (6/06)

Date of Report: 10-15-2012

BURNED-AREA REPORT
(Reference FSH 2509.13)

PART I - TYPE OF REQUEST

A. Type of Report

[X] 1. Funding request for estimated emergency stabilization funds
[ ] 2. Accomplishment Report
[ ] 3. No Treatment Recommendation

B. Type of Action

[X] 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 DESCRIPTION

A. Fire Name: **Table Mountain**

B. Fire Number: **WA-OWF-000642**

C. State: **WA**

D. County: **Kittitas**

E. Region: **6**

F. Forest: **Okanogan-Wenatchee**

G. District: **Cle Elum Ranger District**

H. **Fire Incident Job Code: P6G8DZ**

I. Date Fire Started: **9/8/2012**

J. Date Fire Contained: **10/5/2012**

K. Suppression Cost: **As of 10/6/2012 - $17,900,000**

L. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): **Unknown at this time**
2. Fireline seeded (miles): **Unknown at this time**
3. Roads: **At the time of writing this report, access to the Table Mountain Fire was restricted and information was obtained from the Burn Area Reflectance Classification (BARC) map and local knowledge. Using the other fire complexes as a gage, it is believed that roughly 25-40% of roads will be treated under suppression rehab to address immediate concerns caused during fire**

suppression activities including re-establishing closures on those maintenance level 1 roads used for suppression.

M. Watershed Number (HUC5): **1703000105 Taneum Creek-Yakima River; 1703000104 Wilson Creek-Cherry Creek**

N. Total Acres Burned: **42,634 Total Acres**

NFS Acres: **31,777 (74%)** Other Federal: **0** State: **10,587 (25%)** Private: **270 (0.6%)**

O. Vegetation Types: **Vegetation in the Table Mountain Fire consists of a subalpine fir/engelmann spruce/lodgepole pine forest type in the high burn severity areas. A series of dry and moist meadow systems occur throughout the area which contain several TES species of concern. Both dry and moist plant associations exist in the lower elevations, consisting of a lodgepole pine/larch series, ponderosa pine/Douglas fir series, and in moister northern slopes, a grand fir/douglas fir series. Table Mountain also contains a higher elevation sagebrush/wild onion/bunch grass plant community. Riparian forests are limited to the narrow stream corridors. Rock outcrops are found throughout the fires and are a dominate feature that contain plant and lichen communities common to either granite or sandstone formations.**

P. Dominant Soils: **Ashy loams and sands ranging from mesic to frigid, with some silt loams in mesic environments. The majority of soils within the fire area are influenced by andic properties.**

Q. Geologic Types: **Sedimentary, metamorphic (i.e. migmatite) and igneous (i.e. basalt, andesite and rhyolite)**

R. Miles of Stream Channels by Order or Class: **86 total miles of stream**

12.1 miles of intermittent, 44.5 miles of perennial, 29.4 miles off Forest (perennial, intermittent, ephemeral)

S. Transportation System

Trails: **78.1 miles** Roads: **172 miles**

PART III - WATERSHED CONDITION

A. Burn Severity (acres): **Unburned: 15,340 (35%) Low: 7,914 (19%) Moderate: 5,509 (13%) High: 13,722 (32%)**

Soil burn severity mapping was conducted from Oct 6th to Oct 10th. The initial BARC map showed predominantly low burn severity for all fires but one. Validation of the BARC occurred through two aerial reconnaissance flights, and ground visits to predetermined locations. The flight validation confirmed or adjusted spatial boundaries. BARC values were validated or adjusted based on pre-identified site locations for BARC values of low, moderate and high.
An additional inconsistency was found in the BARC mapping. In this case the presence of high burn severity was found under a green canopy. BARC values indicated that these areas were either low or unburned. The soils cadre felt this underestimate of severity was obscured by the canopy. Often these fire effects are consistent with high soil burn severity effects, and often this condition occurred on steep slopes with ash deposits of 2-4 inches. It was postulated that depth of duff, topography and burning conditions formed the conditions to create this effect (MacDonald & Huffman, 2004 and DeBano, 2000). This effect was noted in both the Wenatchee Complex (Peavine and Poison Fires) and the Okanogan Complex (Buckhorn Fire), but may exist in all complexes.

B. Water-Repellent Soil (acres): **13,722 acres.**
Due to the size of the fire, depth of hydrophobic effects and topography of the fire area; only high soil burn severity was determined to have strong contiguous water repellency.

C. Soil Erosion Hazard Rating (acres): **Low (3,384)** **Moderate (9,643)** **High (23,573)**

D. Erosion Potential: **31 tons/acre**
There is potential for accelerated erosion from the effects of the fire. Modeling indicates a 2,800% increase over natural erosion rates. The increased erodible soil can result in downstream sediment, which can bulk flows resulting in increased flooding impacts. This sediment can also impair critical habitat for T&E aquatic species. The loss of soil can impair soil productivity in the short and potentially long term future, which may also influence T&E flora species.

E. Sediment Potential: **630 cubic yards/square mile**

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years):	5
B. Design Chance of Success, (percent):	80
C. Equivalent Design Recurrence Interval, (years):	25
D. Design Storm Duration, (hours):	24
E. Design Storm Magnitude, (inches):	4
F. Design Flow, (cubic feet / second/ square mile):	17
G. Estimated Reduction in Infiltration, (percent):	66
H. Adjusted Design Flow, (cfs per square mile):	240

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

HUMAN LIFE/SAFETY and PROPERTY

Threats to life/safety and property exist in valley bottom areas and in steep burned gulches throughout and downsream from the burned area. Residents and road users will be exposed to increased risk of flooding and debris flow. Houses and other structures, driveways, other private property, Forest Service recreation facilities, and roads and trails located in valley bottoms adjacent to or in the floodprone areas or near stream channels, are at increased risk for flooding and debris flows. In several locations, structures and roads are located on alluvial and debris flow fans at the outlets of severely burned gulches and are at increased risk for debris flows. Water diversion infrastructure is at risk due to sediment and debris accumulation. Numerous ponds and small reservoirs within the burned area are at increased risk of filling with sediment and/or dam failure.

Roads

There are approximately 54 miles of maintenance level 2 roads, 21 miles of maintenance level 3-5 roads and 23 miles of maintenance level 1 roads, many of which were reopened for suppression use, located within the perimeter of the Table Mountain Fire. Physical access to this fire was not available at the time of the writing of this report and actual work will be estimated based on a 30% pro-rating of the work identified for those fires with a HIGH risk rating. One exception will be the inclusion of road treatment R14b – Fabricate and install gate, including portal signage for administrative closures within the fire area. Due to the intensity and severity of this fire, road treatments will be estimated based on 30% of the total road treatments for the other complexes. Discussions with the district indicate that immediate needs will include the need for 3 gates and associated portal signage to implement administrative closures.

Trails and Recreation Facilities

Recreational opportunities within the burn area include camping(dispersed and developed), hiking, fishing, horseback riding, mountain biking, off-highway vehicle riding, snowmobiling, hunting, driving for pleasure, Christmas tree cutting, and firewood cutting. There are approximately 75 miles within the fire perimeter. Of those, 28 miles are in high burn severity areas, 10 miles are in moderate burn severity, and 13 miles are in low burn severity; the remaining miles are un unburned areas. Trail use includes jeep, single track motorcycle, hiking, and horseback riding in the summer, and snowmobiling, snowshoeing and cross-country skiing in the winter.

A small sample of the trails were surveyed on the ground and from the air which validated the recreation values at risk. The trails surveyed did not have adequate size or frequency of drainage structures to control erosion, particularly on steep slopes, and there is potential for loss of the trail tread if adequate draiange is not installed.

The Table Mountain A-Fram, Haney Meadows horse camp (19 campsites - each containing a heavy duty wood picnic table and metal fire ring, an interpretive sign, a cement toilet building, and three pit toilets) were burned in the fire. There is a threat of harzardous material from these structures being mobilized during precipitation runoff events. Similar concerns exist for the Lion Rock lookout, although effects are unknown at this time.

NATURAL RESOURCES

Soils

High and moderate soil burn severity in all complexes may impact soil productivity. It is assumed that both severity classes will react similarly and are considered to produce an erosion potential that will create a loss to soil productivity. The greatest acreage in this condition is located within the Table Mountain Fire where broad areas are mapped as moderate and high soil burn severity. However, when Soil Burn Severity mapping is compared with acceptable slopes for treatment (20% to 50%), the majority of the area is too gentle to warrant treatment. The remaining acreages were too small to justify purchase of supplies and mobilization of equipment. Since this is a rapid assessment, it is recommended that the Forest conduct additional surveys to see if any ground treatments are warranted, especially within the areas of high soil burn severity that are under a green canopy.

Hydrology

The potential values at risk include road and trail infrastructure, human life and safety, and water quality, due to increased debris flows and floods. The models within the Table Top Mountain Fire Complex show increased peak flows. Upper Naneum and Pearson Creek, based upon the burn severity and landform, show the largest percent increase in post fire peak flows. The meadow in basin landform will partially attenuate the effects of the peak on flooding of the Lower Naneum stream reaches. The combination of the increase in peak and the channel conditions may result in channel adjustments and bank erosion. Regardless of some expected attentuation, widespread flooding downstream and potential effects to private property still exist. For the Swauk landform, First Creek, Boulder Creek and Williams Creek are expected to produce flows that may cause road damage at stream crossings. That road assessment needs have not yet been assessed.

T&E Wildlife

The species known to occur in or near the fire complexes include the northern spotted owl (Strix occidentalis caurina), and a suite of wide-ranging carnivores: gray wolf (Canis lupus), north American wolverine (Gulo gulo), Canada lynx (Lynx canadensis), and grizzly bear (Ursus arctos horribilis). Wide ranging carnivore species were not likely directly impacted by the fire. They are mobile and are generally able to escape a fire, although, disturbance from the fire itself and suppression activities, as well as habitat loss, may have displaced individual animals. The habitats and species occurrences are at risk to further losses, disturbances, and habitat degradation from post-fire events.

T&E Fisheries

Based on evaluation of BARC maps, road layers, and input of a local hydrologist, it is likely the Table Mountain Fire will have an adverse effect on the Upper Columbia Steelhead in tributaries to Swauk Creek (Williams Creek). Swauk Creek within the Yakima watershed is likely to be negatively affected by erosion in the Williams Creek Drainage and will likely have locally severe effects to listed fish and designated critical habitat units (CHU). The BAER team was not allowed to access the fire to assess the risk. The projection based on BARC mapping, aerial assessment, and professional judgment is that there will be locally severe effects in Williams, Boulder, Cougar Gulch and First Creek. Effects may also be visible at the 5th field scale (Swauk Creek). There are several miles of critical Columbia River steelhead habitat and crossings located downstream, both within and outside of the fire perimeters, which will be directly affected by the fire intensity and acreage burned within the headwaters and upper portions of the watersheds.

T&E Plants

Impact of the fire and fire suppression activities on federally and state listed plant species may reduce a species existing distribution and result in a loss of species viability or create significant trends towards federal listing.

Noxious Weeds

Establishment and expansion of the invasive plant species into burned areas and the areas of suppression activity are at risk to become new infestations. Invasives species have the potential for native vegetation, and listed plant species community conversion. Both wildlife and humans may be affected by these plant community conversions through impacts to forage, shelter or increased fire hazards.

Cultural Resources

Cultural resources with fire sensitive or combustible components are most susceptible to direct fire effects. Additional direct fire effects include suppression activities such as the construction of dozer or hand line through surface or subsurface cultural deposits. Indirect fire effects have the potential to impact a greater number of cultural resources over a longer period of time. Indirect effects may include erosional threats, visibility and accessibility threats, and hazardous fuel loading/fire-killed tree falling threats. A total of 49 cultural resource sites are identified as "potential values at risk" within the fire perimeter. GIS analysis using the BARC severity layer shows that 35 sites occur in low burn severity, 4 sites occur in moderate severity, and 10 sites occur in high burn severity. All 49 sites will require field assessments to determine fire effects and potential treatment requirements. The 14 sites occurring in moderate and high burn severity areas are rated at high or very high risk of information loss. These sites may require emergency data recovery, along with soil and site stabilization treatments including revegetation seeding, tree falling, and soil erosion barrier installation. Sites occurring on slopes within moderate or high burn severity will also require monitoring to ensure features or subsurface remains are not damaged or exposed by erosion or soil movement. The BAER risk for impacts to these resources is considered to be high.

B. Emergency Treatment Objectives:

Human Life/Safety, Property

Hydrology/Increased Stream Flow

Provide for public safety due to anticipated increases in flood stormflows and potential for debris torrents that could cause great concern for public safety, private homes and property, infrastructure values including U.S Forest Service roads and recreation facilities.

Roads

Road treatments are concentrated where debris loading within the perimeter of these fires has been increased as a result of the fires and possess a risk and concern to blockage of the existing culvert or drainage structures. Drainage features and treatments were prioritized based the Risk rating analysis completed by the BAER team including 1) Public Safety; 2) Soil Productivity; 3) Water Quality; 4) Infrastructure loss with an emphasis on quality and abundance of fisheries habitat. Specific objectives are to:

1. Reduce the potential for accelerated surface runoff to damage Forest Service roads within and directly downstream of the fire.
2. Reduce the potential for road related surface/mass erosion and accelerated sediment delivery to downstream high value fisheries habitat, private water supplies, and private dwellings
3. Reduce the potential for debris "bulking" when a debris flow encounters a road-related drainage structure.
4. Reduce the potential for roads to act as a conduit for overland flow and increasing sediment loading.
5. Reduce road-related hazards related to the burned area.

Trails

1. Ensure safety of the public and employees through administrative closures, signing etc.
2. Protect the trail and developed recreation infrastructure
3. Reduce water quality impacts and soil erosion associated with trails

NATURAL RESOURCES

Noxious Weeds

The areas that had high soil burn severity are at a greater risk for invasion by noxious weeds species. Both noxious weed seeds present in the seed bank those introduced during suppression efforts pose a high risk of replacing the native plant community, thus affecting the entire succession of post burn plant communities. The weeds identified to be controlled are all known to benefit by fire through increased seed germination and being highly competitive in bare and disturbed soils. These species will quickly establish within these burn areas, dominate the vegetation, and impede the natural revegetation of the site by natives.

T&E Wildlife

Post-fire impacts include further loss of old growth Douglas-fir trees within spotted owl activity centers from a prolonged Douglas-fir beetle infestation. Douglas-fir beetles are active in the area and can be expected to attack and kill any large Douglas-fir trees that were damaged but not killed by the fire (C. Mehmel, Forest Entomologist, pers. comm, Oct. 9, 2012). Douglas-fir bark beetles will be attracted to and occupy these dead and dying trees their preferred host. As the beetles fully occupy the dead and dying trees, the beetle will then infect living healthy trees. The loss of additional old growth Douglas-fir trees in activity centers would adversely impact the spotted owl population that currently exists on the Okanogan Wenatchee NF and constitutes an emergency for recovery of the northern spotted owl. Since large Douglas-fir trees, high basal areas, and dense canopies are some of the basic spotted owl habitat components, it would take a minimum of 100 years for the habitat to become suitable again. Application of the anti-aggregation pheromone (MCH) is extremely effective at preventing Douglas-fir beetle attacks (Ross et al. 2006) and will help to avoid the risk of post-fire loss of old growth Douglas-fir trees in spotted owl activity centers.

T&E Fish

Reduce increased sedimentation to critical habitat by implementing road and trail treatmens.

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

Land **80** % Channel N/A % Roads/Trails **70** % Protection/Safety **90** %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	70%	80%	80%
Channel	N/A	N/A	N/A

Roads/Trails	50%	80%	100%
Protection/Safety	80%	80%	90%

E. Cost of No-Action (Including Loss):

F. Cost of Selected Alternative (Including Loss):

G. Skills Represented on Burned-Area Survey Team:

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

USFS Team Leader: Tommy John. Email: tjohn@fs.fed.us. Phone: 303/275-5583

A Forest Service BAER team was was assembled to conduct the burned area assesment and the BAER process of evaluating burned area conditions, critical values at risk, threats, risk and treatments was employed. Because the fire burned both NFS and non-federal lands, inter-disciplinary and inter-agency coordination occurred throughout the process. External partners and their agancies are listed below.

Forest Service BAER Team Members (core team)

Forest ServiceTeam Lead	Tommy John
Assistant Team Lead	Greg Kuyumjian
Soils	Jim Archuleta/Ted Huffman
Hydrology	Jennifer Hickenbottom/Rob Lawler/Matt Karrer/Bill Ehinger
Affected Interest Liason	Liz Schnackenberg
NoxiousWeeds/Botany	Migonne Bivin/Helen Lau
Engineering	Peggy Fisher/Lou Lebrand
Recreation	Randy McLandress/Angela McPhee/Bob Stoehr/TJ Broom
Wildlife	Andrea Lyons
Fisheries	Bob Nichols/Emily Johnson
Cultural Resources	Lindsey Smith/Powys Gadd
GIS	Dorothy Thomas/Julia Gower
Public Information	Cathleen Thompson

External Partners and Contacts

Jeff Krupka	USFWS
Neal Hedges	Chelan-Douglas Land Trust
Catherine Rowden	National Weather Service
Julie Sanderson	Noxious Weed Department of Chelan County
Keith Goehner	Chelan County Commisioner
Amy Hindershot	NRCS
Tina Duffey	Chelan-Douglas Land Trust
Jason Detamoe	Chelan County Public Works
Christina Wollman	Kittitas County
Eric Ellis	BLM

Ron Walters	Chelan County Commissioner
David Toften	WADOT
Von Pope	Chelan County PUD
Pete Lopushinsky	WDFW
Ray Faini	WSU extension
Tracy Valentine	City of Leavenworth
Justin Yeager	NOAA Fisheries
Mike Rickell	Cascadia Conservation District
Anna Lael	Cascadia Conservation District

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:

Noxious Weed – It is critical to begin controlling invasive plants and treatments will be proposed in the spring of 2013.

T&E Wildlife- Post-fire tree mortality within spotted owl activity centers will not likely be known until next spring. Aerial application of MCH to approximately 400 acres within the Table Mountain Fire complex will be proposed in the spring of 2013.

Heritage-
The Table Mountain fire area has the highest density of heritage sites of all the areas the BAER team assess. Fire-killed trees within archaeological sites have the potential to fall on features and up-end root systems exposing subsurface prehistoric and historic artifacts. This can further contribute to the loss of nonrenewable archaeological data and expose human remains. Objective: Hand-cut standing dead trees within site boundaries, focusing on falling trees away from features. Felled trees can be used as erosion control barriers around the site, and to camouflage highly visible sites from the public.
Treatment cost: Treatment includes felling trees from archaeological features and some contour felling with chainsaws. Chainsaw work will be done by a certified saw crew and work will be monitored by a professional archaeologist.

A saw crew will work with the archaelogist to ensure that the area can be access and if needed, removed hazard trees that pose a risk to Heritage sites. We are requesting $43,353 to documented and protect the heritage sites. We estimate 49 possible sites.

Channel Treatments:

None proposed at this time.

Road and Trail Treatments:

Roads: A variety of road treatments are proposed depending on the local setting.

Treatment #R1 –Surface Water Management: Clean inlets and outlets of existing relief culverts and those culverts in active stream channels to reduce the buildup of sedimentation which may lead to fill failure

along road grades >2% within or directly downslope or downgrade of moderately to high soil severity burn areas, and in areas contiguous with critical fisheries habitat.

Treatment #R2 – Construct/Improve Armored Drainage Sag: Construct outsloped drain sags with armoring to improve ditch relief and the ability of roads to better handle anticipated increases in surface runoff including debris and help prevent bulking of debris flows. This treatment may be used in conjunction with other treatments. Actual spacing of drainage sags will be based on Forest Service Handbook direction and location of topographical features.

Treatment #R3a – Construct/Improve Armored Drainage Dip: Construct outsloped drain dips with armoring to improve ditch relief and the ability of roads to better handle anticipated increases in surface runoff including debris and help prevent bulking of debris flows. This treatment may be used in conjunction with other treatments. Actual spacing of drainage dips will be based on Forest Service Handbook direction and location of topographical features.

Treatment #R6 – Remove Existing Culverts: Remove existing culverts and associated fill in selected channel or draw locations to reestablish more natural flow pattern and reduce the risk of culvert plugging due to increased sedimentation loading from the upslope fires. To be used in conjunction with Treatment #R2, #R3 or #R8

Treatment #R8 – Reshape to match natural drainage: To be used within the Klone and Peavine Fires. Once culverts are removed under treatment #R6, reshape the excavated fill slopes to match existing stream channel dimensions (bankfull width, sloped back at a 2H:1V ratio) to reestablish more natural flow patterns and reduce the risk of debris bulking in these drainages. These drainages are within critical fisheries habitat and in the case of Mission Creek (Peavine Fire) directly upstream of the town of Cashmere and several agricultural farms and homes directly adjacent to the channel. These drainages have a history of debris movement. Additional long-term management of these systems will be needed.

Treatment #R9a – Armor dip and outfall: To be used in conjunction with treatments #R2, #R3a&b, and #R6. Armor used to hardened inlets and outlets, especially on exposed fills to reduce water velocities and disperse water across the fill-slopes. Three inch material was used for costing of this pay item.

Treatment #R9b – Armor dip and outfall: To be used in conjunction with treatments #R2, #R3a&b, and #R6. Armor used to hardened inlets and outlets, especially on exposed fills to reduce water velocities and disperse water across the fill-slopes. Class I or II riprap was used for costing of this pay item.

Treatment #R10 – Rip rap: Treatment to be used along the south 7100 road. To be used in conjunction with treatments #R2, #R3a&b, and #R6. Armor used to harden inlets and outlets, especially on exposed fills to reduce water velocities and disperse water across the fill-slopes. Three foot minus riprap was used for costing of this pay item.

Treatment #R11 – Remove roadway fill and haul to waste site: To be used in conjunction with treatment #R8. Treatment pays for the excavation and haul of the backfill material out of the drainage basin.

Treatment #R14b – Gate installation: Install 3 new gates to enforce an administrative closure until threats to public safety and the road system can be evaluated.

Treatment #R15 – Storm Patrol: Patrol area during and immediately after storm events to repair, unplug, or aid in drainage of road drainage features within those drainages of moderate to high burn intensity to reduce the risk of catastrophic road drainage failure and high sedimentation yield. High intensity and flashiness of these high bedload systems increases the risk to infrastructure damage. Days included for

pre-storm assessment of the Table Mountain Fires, due to the inaccessibility of the fire area to the BAER team. Recommend two person teams to complete the assessment.

Trails:

Stabilization of 4wd/motorized trails and additional drainage on 28 miles will minimize sediment delivery and transport from floodflows and protect natural resources downstream (see prioritized list of trails in Recreation Report for Fall 2012 Emergency work)

The following 4WD and single track motorized trails are Cle Elum Ranger District priorities for BAER treatments due to their locations in high burn severity areas, potential for capturing or intercepting increased post-fire flood runoff, and locations adjacent to stream channels and the number of trail-stream crossings. Work to help stabilize these trails is necessary in the Fall of 2012.

1. 4W315 Nealy Creek Jeep Trail – 2 miles east of trail junction 1371
2. 4W320/4W318 Jeep Trails – 2.5 miles where road runs N/S next to stream.
   4W319 Jeep Trail – 1 mile near upper part of trail, located in headwaters
3. Trail # 1381 Single Track – 2 miles S of Ken Wilcox horse camp, runs along Naneum Creek.
4. Trail # 1372 Single Track – 1 mile near intersection with trail # 1373, runs along Howard Creek

Protection/Safety Treatments:

1. Install gates to help enforce administrative closures to mitigate public safety risk.

2. Provide formal notification of Kittitas County officials of the increased risk to life and private property downstream, due to flooding.

3. Work with the NRCS and NOAA and private landowners to streamline approval of an early flood warning system for the areas downstream along Naneum Creek for installation on Forest Service lands. A warning system has the potential to reduce the risk of flood related impacts to property and human life downstream.

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.)

Part VI – Emergency Stabilization Treatments and Source of Funds Interim

			NFS Lands			Other Lands				All
		Unit	# of		Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER $	$	units	$	Units	$	$
A. Land Treatments										
Heritage site protection	each	884.75	49	$43,353	$0		$0		$0	$43,353
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$43,353	$0		$0		$0	$43,353
B. Channel Treatments										
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Channel Treat.				$0	$0		$0		$0	$0
C. Road and Trails										
Road Stabilization	each	93485	1	$93,485	$0		$0		$0	$93,485
Trail Stabilization	miles	8.5	3750	$31,875	$0		$0		$0	$31,875
Trail Bridge removal	each	6	1300	$7,800	$0		$0		$0	$7,800
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$133,160	$0		$0		$0	$133,160
D. Protection/Safety										
Closure/signs/patrol	each	1	20050	$20,050	$0		$0		$0	$20,050
Alert station review	each	1	6000	$6,000	$0		$0		$0	$6,000
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Structures				$26,050	$0		$0		$0	$26,050
E. BAER Evaluation										
				---			$0		$0	$0
Insert new items above this line!				---	$26,000		$0		$0	$26,000
Subtotal Evaluation				---	$26,000		$0		$0	$26,000
F. Monitoring										
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$0	$0		$0		$0	$0
G. Totals				$202,563	$26,000		**$0**		**$0**	**$228,563**
Previously approved										
Total for this request				**$202,563**						

PART VII - APPROVALS

1. _____ 10.15.12
Forest Supervisor (signature) Date

2. _____ _____
Regional Forester (signature) Date