Forest Service

Okanogan-Wenatchee National Forest

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File Code: 2520 **Date:** October 27, 2017
Route To:

Subject: Burned Area Emergency Response for Uno Peak Fire

To: Regional Forester

This is an initial request for funding of treatments identified in the enclosed Burned Area Emergency Response (BAER) Report (FS 2500-8) for the Uno Peak Fire. It contains our request for $84,470 in WFSU-SULT funds. This incident occurred in the central portion of the Okanogan-Wenatchee National Forest, within Chelan Ranger District in Chelan County, Washington. The Uno Peak Fire burned area includes about 8,750 acres of National Forest System lands.

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\ OkaWenFireComplexes2017\ UNO.

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_2520-2017-1) and will not have significant impacts.

Two appendixes are attached to the FS 2500-8; Appendix A is the soil burn severity maps and Appendix B are the treatment map.

If you have questions regarding this request, please contact Okanogan Wenatchee BAER Team Leader Molly Hanson at (509) 664-9330 or Teresa Tucker, Resources/Planning Staff Officer at (509) 679-4281.

for MICHAEL R. WILLIAMS
Forest Supervisor

cc: Cara Farr, Molly Hanson, ,Teresa Tucker, James Simino

Date of Report: 10/27/2017

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: Uno Peak

B. Fire Number: WA-OWF-000458

C. State: Washington

D. County: Chelan

E. Region: PNW (06)

F. Forest: Okanogan-Wenatchee NF

G. District: Chelan RD

H. Fire Incident Job Code: P6LA8H

I. Date Fire Started: August 30, 2017 inciweb)

J. Date Fire Contained: 10/15/2017 (per

K. Suppression Cost: $6,900,000

L. Fire Suppression Damages Repaired with Suppression Funds
1. **Fireline waterbarred (miles):** 9
2. **Fireline seeded (miles):** 9
3. **Other (identify):** 149 (no repair needed)

M. Watershed Number:

Watershed (HUC10)	Watershed Name	Subwatershed (HUC12)	Subwatershed Name
1702000902	Upper Lake Chelan	170200090205	Prince Creek
		170200090207	Lone Fir Creek-Lake Chelan
		170200090208	Safety Harbor Creek
		170200090209	Big Creek-Lake Chelan
		170200090210	Falls Creek-Lake Chelan

N. Total Acres Burned:~8,750
[~8,750] NFS Acres [0] Other Federal [0] State [0] Private

O. Vegetation Types: The Uno Fire covers a large amount of elevational landscape, ranging from 1,100 ft at the Lake Chelan shoreline at Safety Harbor Creek to Uno Peak at to 7,500 ft. In the high elevation, these plant communities have seen frequent fire intervals and contain large stretches of lodgepole pine/Ceanothus shrublands to a rocky, whitebark pine/subalpine fir grouseberry understory in the higher elevations.

P. Dominant Soils: Soils are somewhat variable and range from moderately coarse textured to ashy soils with large amounts of internal surface rocks throughout their profile. Surface textures are generally sandy loams, fine sandy loams or loamy sand which are highly erodible.

Q. Geologic Types: The majority of the Uno Creek Fire is underlain by massive crystalline rocks. Approximately 1,500 hundred acres of the Uno Creek Fire is underlain by foliated crystalline rocks, typically on the southern margins of the fire.

R. Miles of Stream Channels by Order or Class:

Stream Type	Total Miles
Intermittent	11
Perennial	11
Total	23

S. Transportation System

Trails: 13 miles Roads: 1 mile

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1,471 **(low)** 3,233 **(moderate)** 2,086 **(high)**

Soil Burn Severity Mapping was conducted from September 29th to October 5th 2017. Validation of the Burned Area Reflective Classification (BARC) occurred from field visits during that time period. The ground visits 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.

Watershed	Subwatershed (Acres)	Burned Acres	Low Severity Acres	Moderate Severity Acres	High Severity Acres
Upper Lake Chelan	Lone Fir Creek (32037)	1,828 (6%)	436 (1%)	841 (3%)	306 (1%)
	Prince Creek (23069)	54 (<1%)	5 (<1%)	15 (<1%)	0
	Safety Harbor Creek (11484)	6,673 (58%)	1,030 (9%)	2,377 (21%)	1,780 (16%)
	Totals (66,590)	8,559 (13%)	1,471 (2%)	3,233 (5%)	2,086 (3%)

B. Water-Repellent Soil (acres): 5,319 (62% of burned area) Based on extensive field validation, 100% of sampled soils in the moderate soil burn severity were water repellant.

C. Soil Erosion Hazard Rating (acres): 0 **(low)** 0 **(moderate)** 7,997 **(high)**

Almost all soils (>99%) have high erosion hazard making them very susceptible to accelerated erosion and loss of soil productivity when the protective vegetative ground cover is removed as in the case of the soils burned in the moderate and high burn severity class.

D. Erosion Potential: **Pre-Fire:** 5 tons/acre **Post-Fire:** 35 tons/acre

E. Sediment Potential: 2,128 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):	4.1
F. Design Flow, (cubic feet / second/ square mile):	65
G. Estimated Reduction in Infiltration, (percent):	62
H. Adjusted Design Flow, (cfs per square mile):	220

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats (narrative):

The Uno Peak Fire burned 8,726 acres in an area that had burned in 2001 as part of the Rex Fire and in 1970 as part of the Safety Harbor Fire. A reburn of an area with a large amount of accumulated downed debris from the past fires, which increased the residence time of fire at the ground surface and contributes to the large acreage of high SBS. A BAER team began assessing the area for post-fire emergencies on September 28, 2017. In that time the team has identified the following values at risk to post-fire threats.

Human Life & Safety
Threats to life and safety and property may exist at the outflow of Safety Harbor Creek on the shore of Lake Chelan and in the steep burned drainages throughout and downstream from the burned area. Campers, day visitors, boaters on Lake Chelan may be exposed to increased probability of flooding and debris laden flows at Safety Harbor and also on trails within the fire perimeter. The fire burned at small arces of the upper watershed of Lone Fir Creek, there are no developed recreation sites at this outlow, however there is a low risk to flood flows entering Lake Chelan.

Safety Harbor Creeks is expected to have increases in postfire flows by 340%. The campground, dock, shelter and toilet location at the outlet of Safety Harbor Creek are all located on the alluvial fan at Lake Chelan and are within a flood prone area. The burned watershed upstream from the campground and facilities is obstructed from view by the steep terrain and visitors to the fan area would not be aware of the increased flood hazard down at the lake shore.

Increased probability of risk to public health from potential flooding of pit toilet and contamination from loss of control of human waste exists at Safety Harbor.

Threats to Property
The threat to property from post-fire conditions exists. Recreation facilities located at the outflow of Safety Harbor Creek and Lone Fir Creek are at risk from an increased probability for flooding and damage. . At Safety Harbor, recreation facilities are located on alluvial fans at the outlet of a severly burned upper watershed and incised gorges and are at increased risk for debris-laden flash flood flows.

The segments of Forest Service roads within the burned area are at a limited risk due to

location on upper ridge above the fire (roads were utilized as control lines during fire suppression).

Forest Service Trails within the burned area are at risk from increased water, erosion, sedimentation, and/or debris. Impacts include damage to the trail bed and/or loss of access due to severe erosion of the trail surface, or deposition of sediment or debris. Increased risk for temporary loss of ingress/egress exists on trails within the burned area.

Threats to Natural Resources

The risk to natural resoucres such as soil productivity and hydrologic function is very high based on high percentage of the fire area at high burn severity combinded with inherrent high erosion hazard of the native soils.

Impaired soil productivity and loss of seed bank may impact plant species locally and result in a loss of species viability. Establishment and expansion of the invasive plant species into the burned area are at risk to become new infestations.

The probability is high that rates of soil erosion and sediment delivery to stream channels will be significantly higher in moderate and high soil burn severity areas. This loss of water control, erosion and sediment delivery will impact MIS and R6 Sensitive Species within close proximity to the burn area.

EMERGENCY DETERMINATION

The BAER team began assessing the area for post-fire emergencies on September 29, 2017. In that time the team has identified the following values at risk to post-fire threats. Interim reports may be submitted as additional assessments are completed. The risk matrix below, Exhibit 2 of Interim Directive No.: **2520-2017-1** was used to evaluate the Risk Level for each value identified during Assessment. Only values at risk that had a risk of Intermediate or above are discussed.

Probability of Damage or Loss	**Magnitude of Consequences**		
	Major	Moderate	Minor
	RISK		
Very Likely	**Very High**	**Very High**	**Low**
Likely	**Very High**	**High**	**Low**
Possible	**High**	**Intermediate**	**Low**
Unlikely	**Intermediate**	**Low**	**Very Low**

The table below describes the values at risk, probability of damage or loss, magnitude of consequences, risk, rationale for emergency treatment or actions and proposed treatments. Emergency Treatments activities (*public health and safety, land, channel, road and trail treatments, protection and safety or public engagement actions).

Value at Risk	Description of Threat	Probability Magnitude Risk	Rationale for Emergency Management Actions	Risk Reduction Treatments/ Management Actions
Human Life and Safety Visitor use at Safety Harbor	Flooding and debris flows are expected in Safety Harbor Creek. Risk to employees and visitors from flooding at developed recreation site including dock, campground, toilet, shelter area on Lake Chelan	Likely Major Very High	To avoid impacts to human health and safety from being caught in flood waters and debris. Post-fire runoff may increase ~250% from ~60% of the fire burned at High and Moderate severity. Safety Harbor had post-fire flash flooding event in June 1972 that inundated the floodplain where the campground/ facilities exists today.	Remove dock and gangway to prohibit boat access to lake shore facilities below burned area. Close Safety Harbor campground, shelter, toilet area until flood risk is reduced through vegetative recovery. Signage, public outreach and agency coordination to communicate post-fire changed conditions. . Certified letters to appropriate agencies to inform of changed conditions
Human Life and Safety Public Health	Flooding and debris flows are expected in Safety Harbor Creek. Risk to water quality impacts from flooding of vault toilet located in floodplain at Safety Harbor	Likely Moderate High	To avoid potential impacts to public health from water quality contamination from human waste at the campground area and Lake Chelan.	Pump and sanitize toilet at Safety Harbor. The pump truck/equipment would be barged up lake to Safety Harbor

Value at Risk	Description of Threat	Probability Magnitude Risk	Rationale for Emergency Management Actions	Risk Reduction Treatments/ Management Actions
Human Life and Safety Lake Chelan boaters at Lone Fir creek.	Flooding and debris flows are expected in Safety Harbor Creek. Risk to employees and visitors from flooding at Lone Fir Creek outlet on Lake Chelan	Unlikely Minor Low	To avoid potential impacts to human life and safety from flooding. Little to no change in runoff is expected from the small area (4%) of the watershed burned at High and Moderate Severity. There is limited beach access below Lone Fire Creek outlet on Lake Chelan.	Discuss potential risk in public outreach materials
Human Life and Safety Trail Access	Risk to hikers along trails routed through the inner gorge of Safety Harbor Creek on of FS Trails # 1259, 1260, 1261	Very likely Major Very high	To increase awareness of increased post-fire flood risk and to avoid impacts to human life and safety from flash flooding on trails and trail crossings in areas within and below Moderate and High burn severity.	Trail closures Signage, public outreach and coordination to communicate post-fire risks
Human Life and Safety Trail Access	Risk to hikers along trails along portions of trails in High and Moderate SBS: FS Trail # 1257,1258,1259, 1260, 1261	Possible Major High	To reduce risk to hikers from burned area hazards (stump holes, hazard trees, and rock fall hazards) in areas within and below Moderate and High burn severity.	Trail closures Signage, public outreach and coordination to communicate post-fire risks

Value at Risk	Description of Threat	Probability Magnitude Risk	Rationale for Emergency Management Actions	Risk Reduction Treatments/ Management Actions
Property Safety Harbor develop recreation site	Damage to campground, shelter, vault toilet, gangway and dock are expected from increased flood flows, debris on the alluvial fan	Likely Major Very High	To reduce damage to developed recreation site infrastructure	Install wing wall deflector to protect toilet and shelter. Close campground from use on floodplain. Remove dock and gangway to protect infrastructure from flood damage. Move picnic tables out of inundation zone.
Property Road Infrastructure	Damage to FS Roads 8200000, and 82001060 from loss of water control on roads	Possible Moderate Intermediate	Imminent hazards to the roads system vary from minor sloughing and culvert blockage to partial or total loss of road template.	Both roads are at or near the top of a ridge and both were utilized during suppression efforts. Both are subject to treatment by Fire Suppression Repair and no BAER treatments are recommended.
Property Trail Infrastructure	Damage to FS Trails # 1259, 1260, 1261 from loss of water control on trails	Very Likely Moderate High	Trail segments with high erosional hazard were susceptible to accelerated erosion pre-fire, therefore trails within high and moderate burn severity, are prone to increased post-fire runoff, concentration of flow, and erosion of the trail surface.	Drainage structures will be installed along 9 miles of trail to control runoff and avoid, minimize and mitigate damage to the trail bed and downslope hillslopes

Value at Risk	Description of Threat	Probability Magnitude Risk	Rationale for Emergency Management Actions	Risk Reduction Treatments/ Management Actions
Natural Resources Soil Productivity	Approximately 60% of the fire area is burned at High and Moderate soil burn severity posing a widespread threat to soil productivity. The extent and degree of changes is unknown. Loss of productivity due to erosion is considered to be long-term but recovery of hill-slope stability is likely to occur within 3-5 years following the fire.	Very Likely Major Very High	Hillslope treatments are limited due to timing and topographic limitations, therefore treatments to control water on road and trail infrastructure in areas of High and Moderate soil burn severity will help to avoid further degradation to soil productivity	Road and trail drainage treatments are proposed to control the increase in runoff and avoid erosion of road and trail bed and sedimentation into streams

Value at Risk	Description of Threat	Probability Magnitude Risk	Rationale for Emergency Management Actions	Risk Reduction Treatments/ Management Actions
Natural Resources Hydrologic Function	Risk of impacts to hydrologic function from increased runoff and erosion. Approximately 60% of the watershed is burned at High and Moderate soil burn severity posing a widespread threat to hydrologic function with lasting impacts to hydrologic response.	Very Likely Major Very High	Hillslope treatments are limited due to timing and topographic limitations, therefore treatments to control water on road and trail infrastructure in areas of High and Moderate soil burn severity will help to avoid further degradation to hydrologic function.	Road and trail drainage treatments are proposed to control the increase in runoff and avoid erosion of road and trail bed and sedimentation into streams.
Natural Resources Riparian Function	Flooding and debris flows are expected in Safety Harbor Creek. Channel widening or incision may occur resulting in degradation to riparian areas from increased flows, channel erosion and loss of riparian vegetation.	Very Likely Major Very High	Hillslope treatments are limited due to timing and topographic limitations, therefore treatments to control water on road and trail infrastructure in areas of High and Moderate soil burn severity will help to avoid further degradation to riparian function.	Road and trail drainage treatments are proposed to control the increase in runoff and avoid erosion of road and trail bed and sedimentation into streams

Value at Risk	Description of Threat	Probability Magnitude Risk	Rationale for Emergency Management Actions	Risk Reduction Treatments/ Management Actions
Natural Resources MIS, R6 Sensitive Species Habitat (not a BAER value)	Threats to the landlocked kokanee salmon in Safety Harbor Creek, Lone Fir Creek and Lake Chelan. Region 6 Sensitive Species Pygmy whitefish (Lake Chelan) and Westslope cutthroat trout.	Very Likely Minor Low	Hillslope treatments are limited due to timing and topographic limitations, therefore treatments to control water on road and trail infrastructure in areas of High and Moderate soil burn severity will help to avoid further degradation to riparian function and aquatic habitat.	Natural recovery of watershed conditions
Natural Resources Native or naturalized plant communities.	Risk to forested native or naturalized vegetative communities due to significant tree mortality, where natural regeneration is delayed to the loss of the canopy	Likely Moderate High	There are populations of Diffuse Knapweed (Class B noxious weed) along the travel routes in the burn area. Nearby infestations of knapweed were likely to move into the burned area, due to the wind-blown dispersal nature of the seed and the inability of the existing native seed bank to offer natural competition.	Early Detection Rapid Response treatments for invasive species
Natural Resources Native or naturalized plant communities.	Risk to Whitebark pine recovery Federal Candidate and Sensitive	Likely Minor Very Low	Whitebark pine burned within this fire perimeter. The natural seed production of the pine and burn intervals may or may not line up to provide seed production post fire.	Natural recovery of watershed and vegetative conditions, some restoration planting may occur through restoration effort.

Value at Risk	Description of Threat	Probability Magnitude Risk	Rationale for Emergency Management Actions	Risk Reduction Treatments/ Management Actions
Natural Resources TES Wildlife	Threats to wide ranging carnivore critical habitat from vegetation loss, degraded soil productivity and hydrologic and riparian function.	Likely Minor Very Low	Natural recovery of watershed and vegetative conditions, some restoration planting may occur through restoration effort.	Natural recovery of watershed and vegetative conditions, some restoration planting may occur through restoration efforts

B. Emergency Treatment Objectives (narrative):

Mitigate effects of changed post-fire watershed response on human life and safety, particularly where FS recreation facilities are at risk of damage and where floods and debris-laden flows present a hazard to Forest Service visitors at Safety Harbor.

Coordinate with partner agencies to mitigate the risk to human life and safety on trails and from Lake Chelan access.

Mitigate the potential for loss or damage of trail infrastructure within the burn area.

Mitigate the spread of invasive plant species within the burned area.

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

Land 50% **Channel** N/A% **Roads/Trails** 60% **Protection/Safety** 80%

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	50	50	60
Channel	N/A	N/A	N/A
Roads/Trails	60	60	60
Protection/Safety	90	95	95

E. Cost of No-Action (Including Loss): $606,000

F. Cost of Selected Alternative (Including Loss): $402,200

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Molly Hanson and Gregory A. Kuyumjian

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Core Team Members:

Rory Steinke (Soils)	Ken Bigelow (Engineering)	Helen Lau (Botany)
Dave Moore (Soils)	Lori McAlister (Engineering)	AngelaMcPhee (Recreation)
Tim Downing(Soils)	Matt Karrer (Geology)	Julia Gower (GIS)
Kristen Meier (Soils Trainee)	Stephen Slaughter (DNR Geology)	Carly Reed (PIO)
Kerri Lange (Soils Trainee)	Trevor Contreras (DNR Geology)	DanO'Conner (Web PIO)
Kit MacDonald (Soils)	Katherine Rowden (NWS Hydrology)	
Eric Merten (Aquatics Trainee)	Tom Matthews (Hydrology Trainee)	

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: Early Detection Rapid Response to control new invasive infestations within high and moderately burned areas along known vectors. Two treatments are proposed with one in the spring and another in the fall.

Implementation Support (Note: for all treatments) Includes SO Coordinator and cost tracking support as well as needed day-to-day coordination and support from the Chelan Ranger District.

Channel Treatments: N/A

Roads and Trail Treatments: Temporary Closure of "Safety Harbor Trail" and landing. Nine miles of trail stabilization within area of high burn seveity with an estimated 30 drainage structures per mile. No road treatments are proposed.

Protection/Safety Treatments: Remove dock at Safety Harbor and place into storage. Install a wing defector to reduce potential high flow impacts to vault toilet and shelter area. Temporary Closure of 3 campgounds at Safety Harbor. (Note: All work at Safety Harbor requires a barge to transport materials and supplies in and out). Trail closure of the Safety Harbor Trail. Notification and outreach to affected parties to include the commercial and private boating communities utilizing Safety Harbor.

Open House with cooperating and other local agencies and entities to share finding and path forward related to Forest Service BAER assessment and treatments along with other agency responsibilities such as: National Weather Service (NWS), National Reserources Conservation Service (NRCS), County Emergency Services, Collaborative Partners, as well as others). Specifically will include public information related to closure of Safety Harbor sites and trail, post fire effects on the landscape, and public usage near the burned areas.

Outreach/PIO support for public coordination and dissemination of BAER information, to include website support. and to field public and partner information requests along with interagency coordination. One open house to include appropriate agencies with jurisdiction (NWS, County Emergency Services, NRCS, and others) and partners to share findings and

responsibilities. Notification letters to agencies with jurisdiction of changed conditions related to the fire.

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.)

Effectiveness monitoring is proposed for protection and safety treatments and trail stabilization treatments. Evaluate the necessity for maintaining the closure in terms of flood risk reduction.

Type	Days	Grade	Cost
Monitoring closure effectiveness	7 & 6	GS-12 & GS-11	$5,850
Trail treatments	6	GS-7 Trail tech	$1,800

Part VI – Emergency Stabilization Treatments and Source of Funds Interim #

			NFS Lands			Other Lands				Al
Line Items	Units	Unit Cost	# of Units	BAER $	Other $	# of units	Fed $	# of Units	Non Fed $	Tot $
A. Land Treatments										
EDRR (spring/fall)	acres	130	24	$3,120	$0		$0		$0	$
Implementation Support	Job	2400	1	$2,400	$0		$0		$0	$
Insert new items above this line!				$0	$0		$0		$0	
Subtotal Land Treatments				$5,520	$0		$0		$0	$
B. Channel Treatments										
N/A				$0	$0		$0		$0	
Insert new items above this line!				$0	$0		$0		$0	
Subtotal Channel Treat.				$0	$0		$0		$0	
C. Road and Trails										
closure signage	each	750	4	$3,000	$0		$0		$0	$
patrol	day	225		$0	$0	10	$2,250		$0	$
boat support	day	500		$0		10	$5,000		$0	$
trail stabilization	mile	1000	9	$9,000	$0		$0		$0	$
Insert new items above this line!				$0	$0		$0		$0	
Subtotal Road & Trails				$12,000	$0		$0		$0	$1
D. Protection/Safety										
Remove Dock	ea	20400	1	$20,400	$0		$0		$0	$2
Deflector; shelter area	ea	32400	1	$32,400	$0		$0		$0	$3
notification letters	ea	200	5	$1,000	$0		$0		$0	$
notices (signs/flyers)	batch	200	5	$1,000	$0		$0		$0	$
Outreach/PIO	days	300	10	$3,000	$0		$0		$0	$
Open House	event	1500	1	$1,500	$0		$0		$0	$
Insert new items above this line!				$0	$0		$0		$0	
Subtotal Structures				$59,300	$0		$0		$0	$5
E. BAER Evaluation										
	Report	$48,000		—		1	$48,000		$0	$4
Insert new items above this line!				—	$0		$0		$0	
Subtotal Evaluation				—	$0		$48,000		$0	$4
F. Monitoring										
Treatment Effectiveness										
Trail Drainage Control	days	300	6	$1,800	$0		$0		$0	$
Closure effectiveness	days	450	13	$5,850	$0		$0		$0	$
Insert new items above this line!				$0	$0		$0		$0	
Subtotal Monitoring				$7,650	$0		$0		$0	$
G. Totals				$84,470	$0		$48,000		$0	$13
Previously approved										
Total for this request				$84,470						

PART VII - APPROVALS

for 1. _____
Forest Supervisor (signature)

10/27/2017
Date

2. _____
Regional Forester (signature)

11/2/2017
Date