Clark Fire – August 2016

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

Date of Report:

8/09/2016

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: Clark

B. Fire Number:CA- INF-001415

C. State:CA

D. County: Mono

E. Region: R5

F. Forest: Inyo

G. District: Mono Lake_

H. Fire Incident Job Code: P5KKY5

I. Date Fire Started: 8/04/2016

J. Date Fire Contained: August 15,2016,

K. Suppression Cost: 3m

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): Approximately 3 miles rehabed.
2. Fireline seeded (miles):
3. Other (identify):

M. Watershed Number: McLaughlin Creek-Owens River(180901020103), Little Sand Flat- Mono Lake Frontal (180901010205)

N. Total Acres Burned:_
NFS Acres(2819) Other Federal ( ) State () Private ()

O. Vegetation Types: Jeffrey Pine, Lodgepole pine, Sage, bitterbrush,

P. Dominant Soils: Springmeyer family, Vitrandic Xerorthents, pumiceous family, Haypress family

Q. Geologic Types:Bishop Tuff, Quartz latite of Bald Mountain, Colluvium

R. Miles of Stream Channels by Order or Class:
Intermittent:9.1 Ephemeral:..4 miles

S. Transportation System

Trails: N/A miles Roads:8.5 (level 2) miles(NFS) 3.9 miles (County)

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1594__ V. Low 175__ (low) 895__ (moderate) 155__ (high)

B. Water-Repellent Soil (acres): 1,050

C. Soil Erosion Hazard Rating (acres):
1,769__ (low) _250___(moderate) _800____ (high)

D. Erosion Potential: 4.2 _tons/acre

ERMiT allows users to predict the probability of a given amount of sediment delivery to the base of a hillslope following variable burns on forest, rangeland, and chaparral conditions in each of five years following wildfire. The ERMiT model can be accessed at http://forest.moscowfsl.wsu.edu/fswepp/
ERMiT Model Assumptions and Inputs:

- Slope length was 200 feet for all ERMiT runs
- Soil surface texture was sandy loam
- Soil Rock Content was 20%/Volume
- There is a low (20%) probability the rates of erosion will exceed the amounts shown in the preceding table in the first year following the fire.

Dry ravel was observed in Clark Canyon Creek east of the rock climbing parking area on 1N47Cand oversteepened drainage areas. on loosely consolidated soils on steep slopes (>50%) under dry conditions immediately after a fire. It can often produce higher soil loss rates than that created by rainfall events, especially during a low rainfall year. Dry ravel is an ongoing process that increases after a fire because the vegetation that was holding the soil in place on the hillside is removed. Dry ravel in steep in-gorge areas can "super charge" sediment loading in stream channel, greatly increasing the amount of available sediments for transport.

Wind erosion in the Eastern Sierra is a major erosional process. Wind erosion mobilizes ash and fine sediment and deposits them in swalls and drainages. This was observed during the BAER assessment. This material is highly mobile and avaiable for transport during storm events.
Conclusions:

- There is a high probability that rates of soil erosion and sediment delivery to stream channels will be significantly higher in moderate and high soil burn severity areas.
- High intensity, short duration summer thundershowers are storm events of concern. Additionally, longer duration medium intensity storms over the winter months are like to generate erosion and flooding within and downstream from the burned area.
- In addition to fire, existing ground disturbance (roads) influence soil erosion and watershed response

to precipitation events within the burned area.

Soil Burn Severity and ancilliary characteristics:

Forested: Burned forested areas were mapped ranged from low to high soil burn severity. Extensive removal of forest floor ground cover occurred in moderate and high soil burn severity areas. Soil heating effects were noticable in high severity areas. Generally, soil heating effects were low in moderate and low burn severity areas most of the area. Observed pine needles under pumice surface in many areas, this is likely do to soil creep burying existing needles and duff. Needle cast is likely to occur in the low and moderate soil burn severity polygons and recovery of slope stability and watershed hydrologic response will be accelerated where this occurs.

Shrub: Most of the shrub vegetation within the burned area was mapped as low or moderate soil burn severity. Although these areas had areas of bare ground before the fire, removal of ground cover was often high and it is expected that erosion and sediment delivery to stream channels from these slopes will be high. Vegetative recovery is likely to occur through sprouting of shrubs and establishment of grasses and herbaceous vegetation. Low severity was mapped on Bald Mountain in the 1993 fire area. Recovery of watershed hydrologic response depends on many factors and is likely to take at least 3-5 years.

Grass, Bare Ground and Rock Outcrop: Grass, bare ground and rock outcrop areas within the burn were mapped as unburned or low burn severity. Soil heating in these areas was very low and, although minimally affected by the fire, recovery of watershed response is expected to occur rapidly.

E. Sediment Potential: 2,688 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years):	3-5
B. Design Chance of Success, (percent):	80
C. Equivalent Design Recurrence Interval, (years):	5
D. Design Storm Duration, (hours):	.5
E. Design Storm Magnitude, (inches):	...51
F. Design Flow, (cubic feet / second/ square mile):	35
G. Estimated Reduction in Infiltration, (percent):	37
H. Adjusted Design Flow, (cfs per square mile):	72 See below for additonal info

PART V - SUMMARY OF ANALYSIS

Introduction:
The Clark Fire started the afternoon of August 4,2016 from a lightning strike in Clark canyon on the Mono Lake Ranger District. The fire burned approximately 2819 acres within and around the Indiana Summit RNA

The soil burn severity (SBS) map shows approximately 37% burned at high and moderate soil burn severity. The rest of the fire was either very low, low soil burn severity or unburned. The northern part of the fire burned in a mosiac of very low and unburned. Some of this is attritubed to recent fuel reduction work completed outside the Indiana Summit RNA. It is very important to understand the difference between *fire intensity* and *burn severity*, and *soil burn severity* as defined for watershed condition evaluation in Burned Area Emergency Response BAER analyses. Fire intensity or burn severity as defined by fire, fuels, or vegetation specialists may consider such parameters as flame height, rate of spread, fuel loading, thermal potential, canopy consumption, tree mortality, etc. For BAER analyses, mapping is not simply vegetation mortality or above-ground effects of the fire – soil burn severity considers additional surface and below-ground factors that relate to soil hydrologic function, runoff and erosion potential, and vegetative recovery. Areas of high and moderate soil burn severity are present throughout the fire. Areas of high and moderate soil burn severity (especially high) are considered "flood source" areas and can produce accelerated runoff and sedimentation affecting roads, water quality, and downstream infrastructure.

Based on historic precipitation patterns, it can be expected that late season monsoon rains or frontal storms in mid-late September are the first runoff producing events following the Clark Fire. General at the first rains in September there is drying period until mid-NoThe risk of flooding and erosional events will increase as a result of the fire, creating hazardous conditions within and downstream of the burned area. These hazardous conditions may be worsened in the case of a rain-on-snow event, where long-duration rainstorms falling on a shallow snowpack can produce very high peak flows.

The fire was divided into sub-watersheds with "pourpoints" established at the bottom of burned watersheds, or where values at risk were located. Watershed runoff response is referenced to these points.

Soils/Erosion Response

Soils in the fire area have a sandy and pumiceous non-cohesive surface texture, with various amounts of gravel and cobble. Erosion response is heavily influenced by soil burn severity, hillslope geomorphology, slope and surface texture. The burn affected soil aggregate stability, canopy cover, ground cover and infiltration rates. Before the fire, most of the forest areas had protective ground cover in the form of litter, duff or ground vegetation. Shrub dominated areas had ground cover mainly within the "dripline" of the shrubs, withbare ground between the shrubs and grasses. In areas of moderate and high burn severity, it is highly likely that increased rates of soil erosion and sediment delivery to stream channels will occur, for two or three years after the fire, particularly on steep slopes that contained shrubs and are slow to recover. Many of the moderate burn severity areas in Jeffrey Pine stands will have large amounts of needle cast this fall which will help mitigate post-fire erosion.

Pre-fire slope stability and recovery of watershed hydrologic response is dependent on many factors and typicaly occurs within 3-5 years following the fire. Recovery of high burn severity areas is generally slower because little or no ground cover remains, the potential for needle cast is low and soils may be impacted by fire effects. High burn severity in riparian areas (small areas within Clark Canyon) should recover faster than hillslopes given the higher water table and the ability of riparian vegetation to rapidly resprout.

Watershed Response:

The fire occurred within the McLaughlin Creek-Owens River, Little Sand Flat- Mono Lake Frontal (HUC 12) watersheds. . Sub watersheds in the fire area were delineated and hydrologic modeling conducted during the BAER assessment.

Clark Canyon creek is an ephemeral channel that drains in the private lands downstream of the fire and eventually into the Owens River.

Hydrologic modeling was conducted for the fire area and all the watersheds modeled have an expected increase in the Q5 discharge compared to pre-fire conditions. In East Branch Clark Canyon watershed we expect an increase in Q5 discharge by 100% more than the pre-fire conditions. This is due to the amount of high and moderate soil burn severity in the watershed.

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See Table 2 for the results of the hydrologic modeling.

Table 1 displays the amount of burn severity and acres burned throughout the fire area

Watershed	Total Acres	Very Low/Unburned Acres	Low Severity Acres	Moderate Severity Acres	High Severity Acres
East Branch Clark Canyon	875.25	218.36	151.04	405.65	100.2
West Branch Clark Canyon	2541.17	2031.13	0	454.22	55.82
Clark Canyon Watershed @ Owens River	5003.25	3778.06	175.15	894.58	155.46
Other Watersheds than Clark Canyon	302	302	0	0	0
Total Burn Acres For Fire Polygon	2822	1596.46	175.5	894.58	155.46

Table 2. Hydrologic modeling for select watershed in the Clark Fire.

Clark Fire BAER - Inyo NF

**Design Flow for 5 year storm (South Lahontan/Colorado Desert Region)

			Pre-Fire Peak Flow in cubic feet per second (cfs)				Soil Burn Severity (acres)				In Cubic Feet per Second (cfs)						
Pour Point Analysis Watersheds	Drainage Acres	Drainage Area (mi2)	Q2	Q5	Q10	Q25	Unburned	Low	Moderate	High	Pre fire Q5	Q from unburned	Q from low	Q from moderate	Q from High	Post fireTotal Q5	Change in Q5 Flow
East Branch Clark Cyn	875.25	1.37	12	70	177	472	219	151	405	100	70	18	12	82	54	166	135%
West Branch Clark Cyn	2571.17	4.02	21	121	305	815	2031	0	895	56	121	96	0	106	18	220	81%
Clark Cyn Watershed	5003.25	7.82	29	170	427	1141	2184	175	895	155	170	74	6	76	35	192	13%
														Total Post Fire Flow: 578 cfs			

Water Quality

It is highly unlikely that post-fire ash, fine soil, and debris will make it to the Owens River. Table 1 above shows that there is a 13% increase in peak flow in Clark Canyon at the Owens River as compared to pre-fire conditions. Clark Canyon creek below the fire area is highly vegetated with a broad channel that can dissipate flood flows. The sagebrush flat below the fire is likely to experience deposition of ash, soil and debris adjacent to the Clark Canyon creek channel. The risk for adverse effects to water quality to the Owens River are consider **Very Low.**

Geology/geologic response:

Rock Fall: Rock fall occurred under pre-fire conditions below steep rockout crop areas in the rock climbing area in Clark Canyon. Large boulders were observed below the steep rock outcrop areas.. Rock fall will likely continue at an increased rate for several years following the fire due to loss of groundcover and will increase temporarily during runoff events. The integrity of the rock for rock climbing is unknown The risk for rock fall occurrence as a result of the fire is considered to be **High.**

Debris Flow: Evidence of recent pre-fire debris flows within the burned area were not observed. The east fork of Clark Canyon could experience mudflows excavating the stored sediments found in the main channel and tributaries throughout the watershed. The ephemeral stream channel within Clark Canyon is charged with sediment and rocks. An initial assessment indicates with the steep slopes and loss of groundcover, an above normal runoff event will mobilize material in the charged channel and likely result in a mud flow and

deposit material on the 1S47C road potentially going down the road degrading the road bed and restricting access.

the risk for mud flow occurrence in East Fork Clark Canyon as a result of the fire is considered to be **High** two years following the fire and will decrease in year three.

A. Describe Critical Values/Resources and Threats:

*The risk matrix below, Exhibit 2 of Interim Directive No.: **2520-2010-1** 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**

Threats to Life/safety and Property

National Forest Roads: There are approximately 8.5 miles of maintenance level (ML) 2 within the fire area. Approximately 2.1 miles of the roads go through moderate severity and .5 miles go through high burn severity. High and moderate burn severity occurred above the roads also. These roads are native surface on decomposed granite and ashy/pumiceous soils which are very susceptible to erosion. Uncontrolled runoff can result in off-site damage and potential negative impacts to the transportation system. A secondary consequence of post-fire runoff to the transportation system is increase adverse effect of storm water runoff and decreased control of storm water runoff delivering high volumes of water and sediment onto adjacent hillslopes. Forest roads 1N47C, 1N47D and 1N47L are routes in moderate and high burn severity areas.

Forest Road 1N47H has an ephemeral stream crossings that drains East Fork Clark Canyon which due the moderate and high burn severity in the area, is expected to produce increased runoff and enhanced watershed response (see Table 2).

Clark Canyon (1N47C) Climbing area

This area experienced high and moderate burn severity and is a popular rock climbing area. Approximately .5 miles of this road traverses high burn severity. Post-fire conditions and predicted watershed response indicate increased runoff, excessive sedimentation, will occur on this road impacting existing roadway function and potentially impact recreationists utilizing this area.

Emergency Determination:

Imminent hazards to the road system vary from nuisance sediment to sediment and debris overwhelming the road and incision on the stream crossing and low spots, leading to a partial or total loss of the road template.

Probability of Damage or Loss: Likely

Magnitude of consequences: moderate

Risk Level: High

Threats to Natural and Cultural Resources

Off Highway Vehicles (OHV's) are a threat to natural recovery from invasion if noxious weed spreading into the fire area, reduction in soil productivity, from Off-Highway Vehicle incursion. Five (5) unauthorized routes were blocked and disguised within the fire area. One unauthorized route was naturally disguised by shrubs is now exposed. Three (3) barriers burned along with some of the horizontal and veritcal mulching exposing the roads. Many of these routes enter the Indiana Summit RNA.

OHV's can cause erosion, compaction and alter hydrologic function which precludes or reduces vegetation re-establishment after a fire. OHV's can act as a vector for invasive species introduction when seeds are attached to tires and deposited on bare ground.

Vegetative recovery, and soil productivity are at risk from OHV incursion along the the Forest system roads, especially where natural vegetative barriers burned. Suppression operations created dozer lines and pull offs off-road creating highly visible areas of disturbance, including dozer lines on the flank of and coming off of Bald Mountain. These areas are currently being repaired as part of suppression repair. However, the disturbance will be highly visible for several years even after repair.

Emergency Determination:

Probability of damage or loss: Likely

Magnitude of Consequences: Moderate

Risk Level: High

Greater Sage-Grouse: (*Centrocercus urophasianus*) _ The southern portion of the fire consumed approximately 390 acres of potentially suitable sage-grouse habitat. The habitat was likely of marginal quality due to several previous wildfires and the presence of cheatgrass and some conifer encroachment at the norther edge. The lack of concentrated grouse use, as evidenced by earlier telemetry studies tends to confirm this assumption. Approximately two miles of dozer and hand line were constructed within potentially suitable habitat. The fire burned at moderate intensity in the area, removing virtually all surface vegetation.

Emergency Determination:

Probability of damage or loss: Likely

Magnitude of Consequences: Moderate

Risk Level: High

Northern Goshawk: The northeastern portion of the fire burned approximately 100 acres within a northern goshawk PAC (PAC #R05F04D52T06). This represents approximately 46 percent of the area within the PAC. No containment lines were constructed within the PAC. The fire in this area burned at relatively low intensity, removing some, but not all litter and forest floor debris.

Emergency Determination:

Probability of damage or loss: Unlikely

Magnitude of Consequences: Minor

Risk Level: Very Low

Ecosystem Stability and Vegetation Recovery

Ecosystem Stability and Vegetation Recovery

Invasive weeds:

Inventory: Botanical survey data is lacking in the area impacted by the Clark Fire. The fire overlaps two botanical surveys, one from 2005 that barely intersects the fire footprint (less than 0.2 acres), and one from 2008 that surveyed 0.5 miles of road at the south end of the fire. The 2008 survey mapped *Bromus tectorum* (cheatgrass) along 0.25 miles of the surveyed road. This road serves as access to a mine, which has not been surveyed and where there is a high probability of invasive species due to repeated disturbance and the proximity of the cheatgrass occurrence. Two surveys located approximately 1.5 miles south of the Clark Fire perimeter also recorded cheatgrass. No invasive species were recorded for several additional botanical surveys conducted within 2.5 miles of the fire perimeter.

The fire burned primarily in Jeffrey pine, lodgepole pine, and sagebrush. Inclusions of white fir and antelope bitterbrush are present. In general, lower elevation areas and areas with higher fire severity are more vulnerable to invasion by nonnative plants. The majority of the Clark Fire burned above 8000 feet. 155 acres were mapped as high fire severity.

41% of the total area burned by the Clark Fire is located within the Indiana Summit Natural Research Area, which burned nearly in its entirety. Less than 1% of the RNA is located outside the fire perimeter.

Several roads run through portions of the Clark Fire and could serve as weed corridors for cheatgrass and other weed species. Approximately 2.3 miles of dozer lines were constructed and should be surveyed after germination next spring. As it is unlikely that equipment used in the fire was cleaned before use, weed species not present prior to fire suppression activities could have been introduced.

Emergency Determination:

Probability of damage or loss: Likely

Magnitude of Consequences: Moderate

Risk Level: High

No TES or sensitive plant species are found in the fire area therefore additional analysis or treatments are not needed.

Cultural Resources:

No threat to cultural resources exists due to the post-fire environment though some artifacts are more exposed in the Clark Canyon area. Potential impacts to cultural resources will be evaluated during project implementation.

B. Emergency Treatment Objectives:

Threats to Life and Property
Protect route infrastructure by minimizing erosion of the road surface, provide for water control and reduce

Threats to Critical Natural and Cultural Resources

To prevent OHV incursions from damaging critical values along Forest Roads and provide for native vegetative recovery.

Threats to Ecosystem Stability

Determine if new invasive species have been introduced due to suppression activities

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

Land **80** % Channel ___ % Roads/Trails **80** % Protection/Safety **85** %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	80	80	90
Channel			
Roads/Trails	80	90	95
Protection/Safety	85	95	100

E. Cost of No-Action (Including Loss): 48,000
F. Cost of Selected Alternative (Including Loss): 28,000

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Todd Ellsworth

Email: tellsworth@fs.fed.us Phone: 760-937-2033 FAX:

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/invasive weed early detection and rapid response: At minimum, survey 2.3 miles of dozer line, 6 miles of access roads, 4 drop points, safety zones, and the drainage around the mine at the south end of the fire where the known occurrence of cheatgrass is located (~30 acres). Small infestations will be eradicated by hand pulling and disposing of plants in garbage bags taken off site. A Forest-wide Weed EA is currently under development which would allow a broader range of treatment activities, including herbicide methods.

Weed Surveys and Rapid Response Costs				
Item	**Unit**	**Unit Cost**	**# of Units**	**Cost**
1 GS-11 botanist	Days	$355	5	$1775
1 GS-7 weed technicians	Days	$196	5	$980
Supplies	Each	$500	1	$500
Vehicle gas mileage	Miles	$0.50	350	$175
Total Cost				**$3,430**

Channel Treatments:

N/a

Roads and Trail Treatments:

Improve drainage by installing rolling dips along 1N47C, 1N47D and 1N47L–. Remove outside berm in several locations. The Forest will likely use small backhoe already on the Forest to complete this work. Forest watershed specialists will work with Heritage Resources during project layout to ensure heritage resources are protected.

Roads	Risk	Treatment	Cost
1N47C, 1N47D and 1N47L	High	Restore drainage function, remove outside berm in critical areas,	$5,500 (includes Heritage clearances, this area is rich in historical features)
Total Cost			**$5,500**

Note: The Forest Hydrology intern will assist the backhoe operator during implementation. This position is already paid for.

Protection/Safety Treatments:

Unauthorized Road disguising and block replacement: Replace blocks (3) and reapply mulch to disguise approximately eight (8) unauthorized roads. Strategic placement of carsonsite closed area signs will help keep motorized traffic on system routes.

Unauthorized road disguising, barriers and Carsonite signs				
Item	**Unit**	**Unit Cost**	**# of Units**	**Cost**
1 GS-9 Hydro. Tech	Days	$280	1	$280
Carsonsite closed area signs	Each	$30	6	$180
Barriers	Each	$250	3	$750
Vehicle gas mileage	Miles	$0.50	200	$100
Total Cost				**$1,310**

Note: The Forest has a contract crew that is already paid for and can implement this project

OHV patrol: OHV incursion on unauthorized roads and along systems roads such as 1S47, 1S47C and 1S47N will be reduced by providing for increased OHV patrol in this area, especially on high use weekend the rest of the summer and fall. Contacts with the public will emphasize the need to stay on existing roads and motorized trails to facilitate fire recovery. Additional partols are emphasized in Clark Canyon due to high concentration of heritage sites. Strategic placement of carsonsite closed area signs will help keep motorized traffic on system routes.

OHV Patrol				
Item	**Unit**	**Unit Cost**	**# of Units**	**Cost**
1 GS-5 Tech	Days	$150	5	$650
1 GS-9 OHV technician	Days	$285	2	$530
Vehicle gas mileage	Miles	$0.50	200	$100
Total Cost				**$1,280**

Hazard notification in Clark Canyon:

Place a Small Kiosk at or near the fire boundary on 1N47H or 1N47C to advise climbers and other recreationist of the potential post-fire hazards within the area. As stated above this is a very popular climbing area. There is the potential for flooding, hazard trees and increased rock fall potential.

Hazard notification				
Item	**Unit**	**Unit Cost**	**# of Units**	**Cost**
1 GS-05 Tech	Days	$150	2	$300
1 GS-09 OHV Technician	Days	$285	3	$855

Materials	each	$1,500	1	$1,500
Vehicle gas mileage	miles	$.5	100	$50
Total Cost				**$2,705**

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.)

Forest personnel will conduct a Level 1 Effectiveness monitoring of the road treatments to check that treatments are present and functioning properly. The purpose is to ensure the action is meeting site-specific objectives or if there is a need for follow-up or re-treatment. Monitoring will be conducted after storm events. The report would include photographs and a recommendation on whether additional treatments are necessary. If the monitoring shows the treatment to be ineffective at stabilizing the road and there is extensive loss of road bed or infrastructure an interim report will be submitted. A several page monitoring report would be completed after the site visit.

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

			NFS Lands				Other Lands				All
Line Items	Units	Unit Cost	# of Units	BAER $	Other $	# of units	Fed $	# of Units	Non Fed $	Total $
A. Land Treatments										
Weed detection	days	686	5	$3,430	$0		$0		$0	$3,430
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$3,430	$0		$0		$0	$3,430
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										
storm proofing roads	Mi	2750	2	$5,500	$0		$0		$0	$5,500
Disguising roads	each	163	8	$1,304	$0		$0		$0	$1,304
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$6,804	$0		$0		$0	$6,804
D. Protection/Safety										
OHV Patrol	day	640	2	$1,280	$0		$0		$0	$1,280
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Structures				$1,280	$0		$0		$0	$1,280
E. BAER Evaluation										
BAER Team	ea	4000	1	$4,000			$0		$0	$0
BAER implementation	day	400	2	$800						$800
Insert new items above this line!				—	$0		$0		$0	$0
Subtotal Evaluation				$800	$0		$0		$0	$800
F. Monitoring										
Road	day	500	2	$1,000	$0		$0		$0	$1,000
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$1,000	$0		$0		$0	$1,000
G. Totals				$13,314	$0		$0		$0	$13,314
Previously approved										
Total for this request				$13,314						

PART VII - APPROVALS

1. Forest Supervisor (signature) — Date: 8/22/16

2. Bonnie J. Grant
Regional Forester (signature) — Date: 8/31/2016