Date of Report: November 2, 2020

BURNED-AREA REPORT

PART I - TYPE OF REQUEST

A. Type of Report

☒ 1. Funding request for estimated emergency stabilization funds

☐ 2. No Treatment Recommendation

B. Type of Action

☒ 1. Initial Request (Best estimate of funds needed to complete eligible stabilization measures)

☐ 2. Interim Request #___

☐ Updating the initial funding request based on more accurate site data or design analysis

PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Porphyry

B. Fire Number: ID-PAF_000495

C. State: Idaho

D. County: Idaho

E. Region: 4

F. Forest: Payette

G. District: McCall and Krassel

H. Fire Incident Job Code: P4NH7C

I. Date Fire Started: August 25th, 2020

J. Date Fire Contained: Uncontained as of 11.02.2020

K. Suppression Cost: $550,000

L. Fire Suppression Damages Repaired with Suppression Funds (estimates):

1. **Fireline repaired (miles): N/A**
2. **Other (identify): N/A**

M. Watershed Numbers:

Table 1: Acres Burned (high, Moderate and low severity) by HUC 6th field Watershed

HUC #	Watershed Name	Total Acres	Acres Burned	% of Watershed Burned
170602080607	Porphyry Creek	22,043	5,412	25 %
170602060601	Beaver Creek	28,009	5,497	20 %
170602070301	Upper Chamberlain Creek	36898	2,271	6.2 %

N. Total Acres Burned: 14,739

O. Vegetation Types: The dominant vegetation group is warm, dry subalpine fir followed by persistent lodgepole pine and subalpine fir. White bark pine, a sensitive species to central Idaho exists within the fire area.

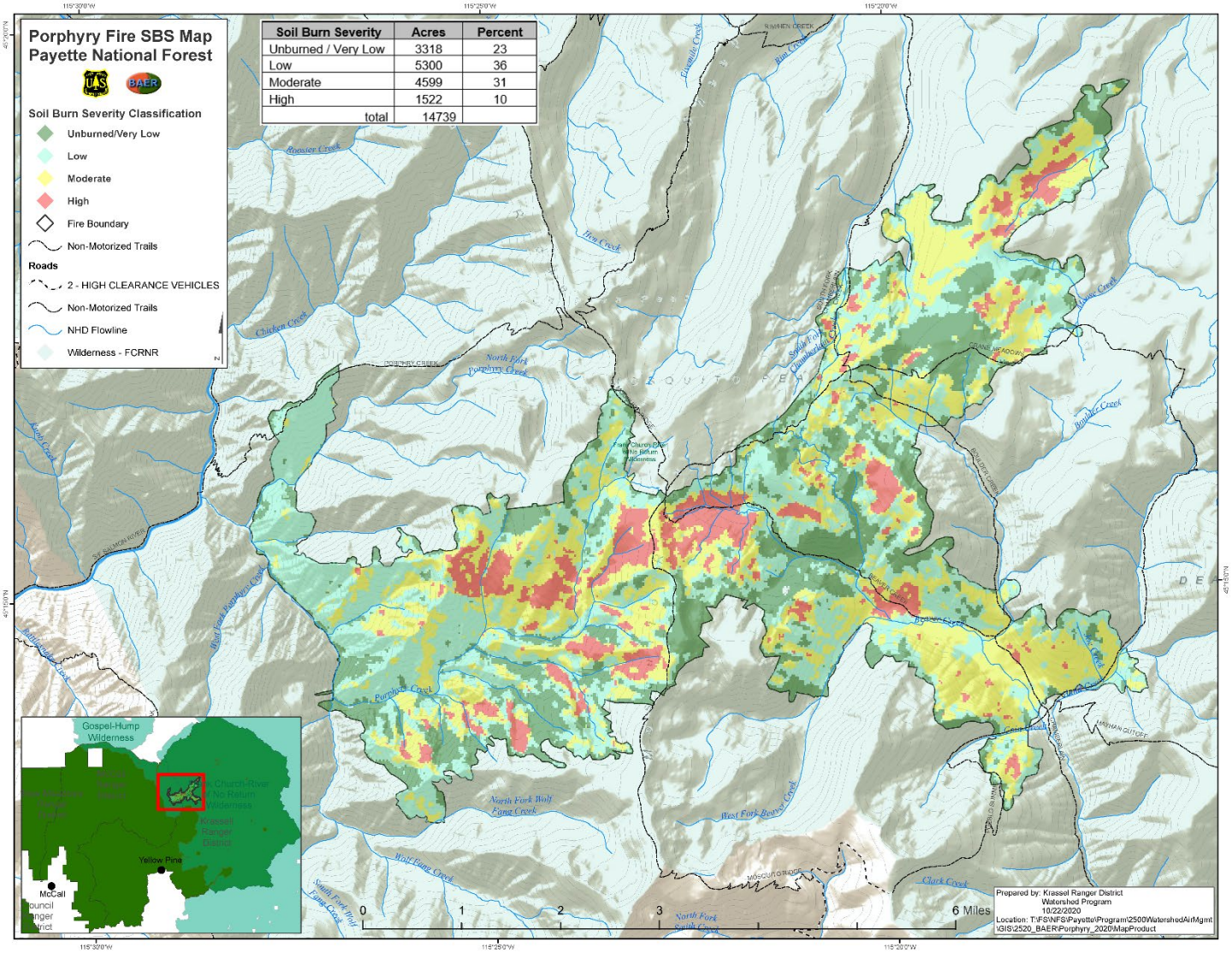
P. Dominant Soils: Entic Cryumbrepts, sandy mixed, Typic Cryopsamments, mixed, Typic Cryochrepts, coarse loamy, mixed

Q. **Geologic Types:** The surface geology is dominated by granites of the Idaho Batholith.

R. Miles of Stream Channels by Order or Class: Intermittent: 10 miles Perennial: 34 miles

S. Transportation System:
Trails: 17 miles Roads: 0 miles

Figure 1. Soil Burn Severity Map



PART III - WATERSHED CONDITION

A. Burn Severity (acres): 3,318 (23% unburned) 5,300 (36% low) 4,599 (31% moderate) 1,522 (10% high)

B. Water-Repellent Soil (acres): It is estimated that the high and moderate severity burn had some degree of water repellency and will influence erosion rates.

C. Soil Erosion Hazard Rating: Low (4,036 acres) Moderate (8,945 acres) High (1,678 acres)

D. Erosion Potential: 1.7 tons/acre

E. Sediment Potential: 806 cubic yards / square mile (first year post-fire**)**

F. Estimated Vegetative Recovery Period (years): Three to five years for understory recovery

G. Estimated Hydrologic Response (brief description): Predicted hydrologic response due to fire conditions would be from small scale localized convection storms that typically occur in the summer. These are short duration storms that can result in .75 inches/hr. Due to the spatial distribution of the fire across three HUC 6 watersheds and the relatively small overall acreage of high and moderate burn severity within each of these watersheds, a hydrologic response at a watershed scale is not expected**.** No treatments have been proposed that required analysis of a design storm to estimate success.

PART V - SUMMARY OF ANALYSIS

Introduction/Background

The Porphyry Fire started by lightnig on the McCall Ranger District on August 25th, 2020 and is entirely within the Frank Church River of No Return Wilderness. The fire was managed as a suppression fire with no direct suppression actions taken. The fire is currently 14,739 acres in size and is uncontained.

Trail infrastructure is the sole value at risk identified from post-fire effects due to the Porphyry Fire. Important trail routes within the Frank Church River of No Return Wilderness have been negativley impacted by the fire (See attached Maps: Porphyry Fire 2020 Affected NFS Trails: Burn Severity).

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

Table 1: Critical Value Matrix

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**

1. Human Life and Safety:

Potential threats to visitors/recreating public and Forest Service employees are from rock fall, debris slides and falling trees. These threats exist along trails, particularly in areas with a high or moderate soil burn severity. **Intermediate risk** (Probability of damage or loss is unlikely; magnitude of

consequences is major) to forest visitors and Forest Service employees recreating and working on trails and at trail heads within the burned area. No treatments proposed.

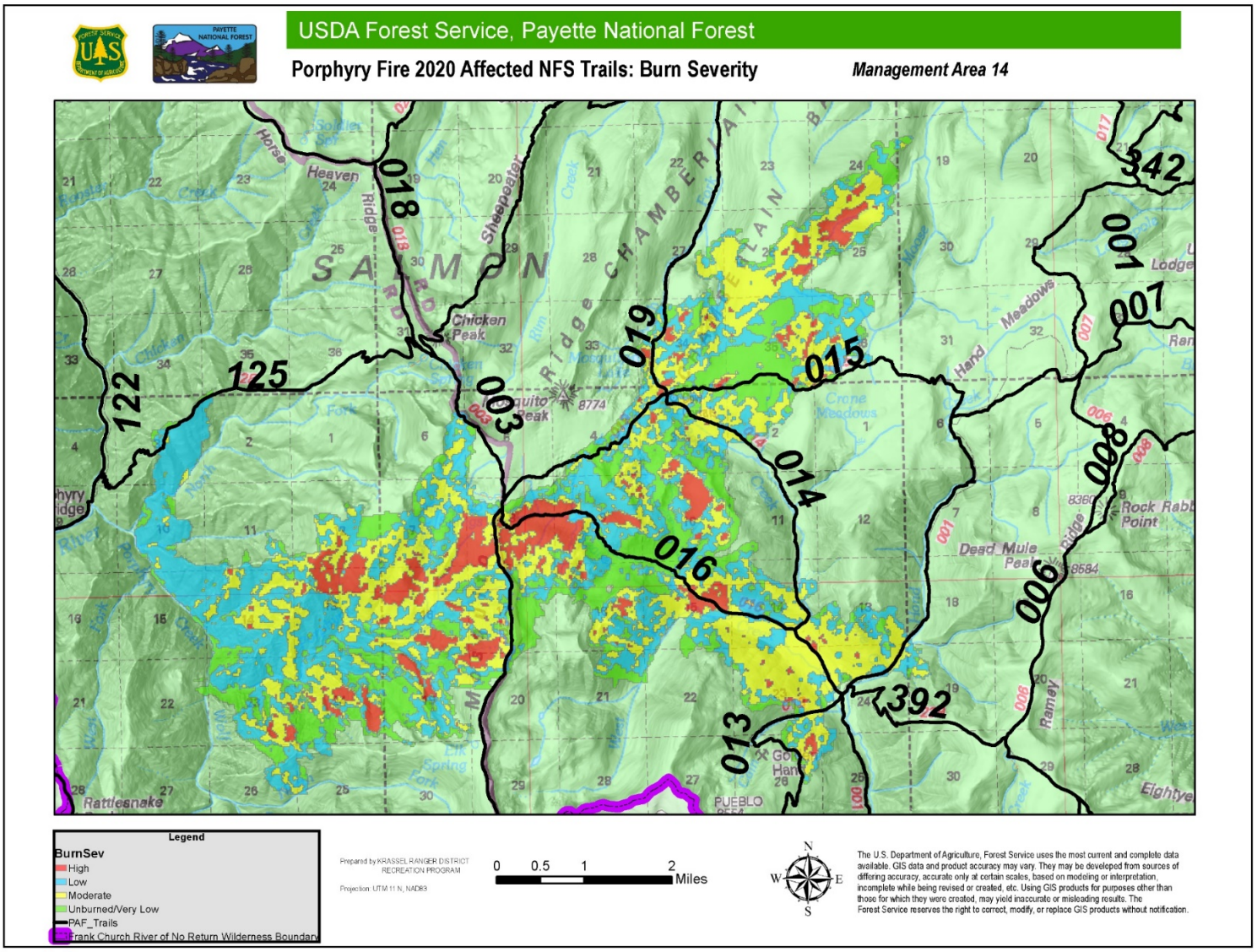
2. Property

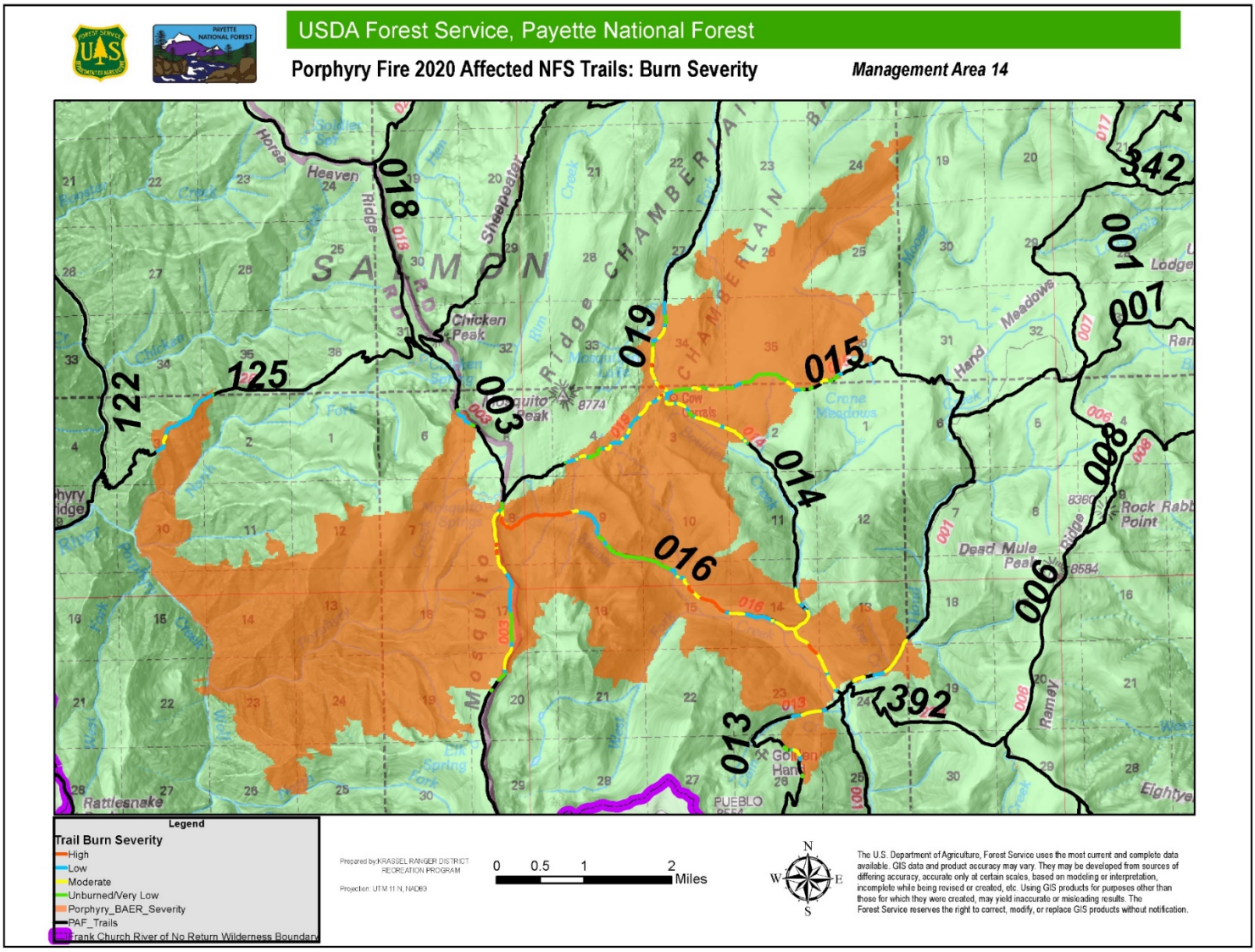
Trail Infrastructure:

Approximately 16.4 miles of NFS Trails were impacted by the Porphyry Fire; ~5 miles of the Beaver Creek Trail #006, .7 miles of the Chamberlain Trail #001, 2.5 miles of the Mosquito Ridge Trail #003, 2.0 miles of the Crane Meadows Trail #015, 1 mile of the Porphyry Trail #125, 1.7 miles of the Boulder Creek Trail #014, .6 miles of the Pueblo Summit Trail #012, and 2.8 miles of the South Fork Chamberlain Creek Trail #019 were impacted by the Porphyry Fire (**See Maps**; Affected NFS Trails: Burn Severity). Overall, 1.5 miles were in High-Severity, 5.7 miles were in Moderate severity, 4 miles in Low Severity and 4.3 miles were unburned or very low severity. Post-fire hydrology driven by high and moderate burn severity will increase risk of damage to the trail prism and waterbars. The fire has created conditions that potentially threaten the stability and integrity of these sections of trail, predominantly along the Beaver Creek, Chamberlain, South Fork Chamberlain Creek trails. There is a **Very High Risk** (Probability fo damage or loss is **likely**, magniture of consequences is **major**) to trail infrastructure from increased runoff and accelerated erosion. Proposed Trail treatments RT-01.

Field assessments revealed significant hazards along the portion of the Beaver Creek trail within the fire perimeter. Some sections of trail were simply blocked by downfall. Other sections of trail experienced damage to the tread. In some cases, log water diversion structures (water bars) were burned which will also increase potential for erosion damage to the trail. It is anticipated that problems with gully and erosion will worsen with the impaired trail condition as a result of the fire. There is a potential for further damage to the trail system due to runoff erosion, and there would be opportunities to limit the extent with fall and early spring trail maintenance work.

The Beaver Creek trail links with the Mosquito Ridge and the Chamberlain trails provide critical access to the Sheepeater Lookout and Chamberlain Basin Guard Station from the Big Creek area. The Porphyry Creek Trail also provides some of the only access into the Frank Church River of No Return Wilderness from the South Fork Salmon River.


USDA Forest Service, Payette National Forest
Porphyry Fire 2020 Affected NFS Trails: Burn Severity
Management Area 14
Legend
BurnSev
High
Low
Moderate
Unburned/Very Low
PAF_Trails
Frank Church River of No Return Wilderness Boundary
Prepared by KRASSEL RANGER DISTRICT RECREATION PROGRAM
Projection: UTM 11 N, NAD83
0 0.5 1 2 Miles
N
W
E
S
The U.S. Department of Agriculture, Forest Service uses the most current and complete data available. GIS data and product accuracy may vary. They may be developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation, incomplete while being revised or created, etc. Using GIS products for purposes other than those for which they were created, may yield inaccurate or misleading results. The Forest Service reserves the right to correct, modify, or replace GIS products without notification.



3. **Natural Resources**

   Native Plant Communities: Intermediate Risk (Probability of damage or loss is possible; magnitude of consequences is moderate) to **native and naturalized plant communities**. No known noxious weeds occure within the fire perimetere. No treatments proposed.

4. **Cultural and Heritage Resources**
   Unlikely Risk (Probability of damage or loss is unlikely; magnitude of consequences is moderate) to **critical Cultural and Heritage Resources** within the burn perimeter. No known sites located within the fire perimeter. No treatments proposed.

B. Emergency Treatment Objectives:

Trail Infrastructure - Re-establish proper drainage and water management structures to prevent further loss to the Wilderness transportation infrastructure and clear post-fire down trees from trail right of way. Emergency trail work will be accomplished next spring and early summer prior to mid and late summer thunderstorms.

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

Land - NA
Channel - NA
Roads/Trails – 80%
Protection/Safety – NA

D. Probability of Treatment Success

Table 2: Probability of Treatment Success

	1 year after treatment	*3 years after treatment*	*5 years after treatment*
Land	NA		
Channel	NA		
Roads/Trails	80	90	90
Protection/Safety*	NA		

E. Cost of No-Action (Including Loss): $175,000

F. Cost of Selected Alternative (Including Loss): $17,250

G. Skills Represented on Burned-Area Survey Team:

☒ Soils ☒ Hydrology ☒ Archaeology
☒ Weeds ☒ Recreation ☒ Fisheries
☐ Other:

Team Leader:
Email: John Dixon **Phone(s)**208.634.0639

Team Members:*Table 3: BAER Team Members by Skill*

Skill	*Team Member Name*
Team Lead(s)	John Dixon
Soils	John Dixon
Hydrology	Cameron Carsley(T)
Archaeology	Morgan Zedalis
Recreation and Weeds	Joshua Simpson
Other	Fisheries: Caleb Zurstadt

H. Treatment Narrative:

Trail Infrastructure Treatments:

RT-01 : Work conducted will be in line with typical maintenance standards. All drainage structures will be evaluated for fire damage and replaced/repaired if they sustained damage. Drainage structures will receive heavy maintenance in order to adequately drain the trail tread as designed. Trail tread will be re-dug where necessary to address any slumping or tread failures associated with fire impacts. All rocks and other materials that have rolled out on to the trail or within the trail prism will be removed. All downed trees within the trail prism will be cut-out to current cut-back standards of 8' wide to accommodate stock users.

- Provide clear and safe passage for crews and stock along the system trails effected by the Porphyry Fire. Clear trails impacted by fire of trees and rocks, repair drainage, and reconstruct tread where needed to access emergency treatment sites.
- Replace and install water diversions structures to accommodate runoff and reduce potential for trail washouts prior to the spring runoff.
- Remove debris slides where potential exists to wash out more trail.
- Remove debris accumulated behind bridge structures to prevent bank erosion and sedimentation.
- Reconstruct trail as necessary.

Trial Treatment Cost Estimate

Item	UOM	Unit Cost	# of Units	Total Cost
Trail Infrastructure Treatments	Miles	$2,396	7.2	$17,250

I. Monitoring Narrative:
N/A

PART VI – EMERGENCY STABILIZATION TREATMENTS AND SOURCE OF FUNDS

			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										
None				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Subtotal Land Treatments				$0	$0		$0		$0	$0
B. Channel Treatments										
None				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Subtotal Channel Treatments				$0	$0		$0		$0	$0
C. Road and Trails										
Trail Maintenance	Miles	2,396	7	$17,250	$0		$0		$0	$17,250
							$0		$0	$0
				$17,250	$0		$0		$0	$17,250
Insert new items above this line!										
Subtotal Road and Trails				$0	$0		$0		$0	$0
D. Protection/Safety					$0		$0		$0	$0
				$0	$0		$0		$0	$0
Subtotal Protection/Safety				$0	$0		$0		$0	$0
Insert new items above this line!										
				---	$0		$0		$0	$0
E. BAER Evaluation					$0		$0		$0	$0
Initial Assessment	Report				$0	1	$1,500		$0	$1,500
Coordination & Consultation	lump sum			$0	$0		$0		$0	$0
Subtotal Evaluation				$0	$0					$1,500
Insert new items above this line!				$0	$0		$0		$0	$0
F. Monitoring				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring										
G. Totals				$17,250	$0		**$0**		**$0**	**$18,750**
Previously approved										
Total for this request				**$17,250**						

PART VII - APPROVALS

LINDA JACKSON

Digitally signed by LINDA JACKSON
Date: 2020.11.10 13:04:20 -07'00'

Forest Supervisor (signature) Date