Date of Report: 10.13.2022

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: Tenmile Fire

B. Fire Number: ID-PAF-005567

C. State: Idaho

D. County: Idaho

E. Region: 4

F. Forest: Payette

G. District: McCall

H. Fire Incident Job Code: P4P1Y8

I. Date Fire Started: 09.07.2022

J. Date Fire Contained: Uncontained

K. Suppression Cost: 7.8 million

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

1. **Fireline repaired (miles):** 1.5 miles of saw line, 0.75 miles of handline and 37 miles of contingent fire line along roads.
2. **Other (identify):** Incident base camp, spike camps, drop points and sling sites were rehabilitated. Contingency fire lines were constructed along existing roads where fuels reduction treatments included snag and down tree removal, limbing of live trees and chipping slash.

M. Watershed Numbers:

Table 1: Acres Burned by Watershed

HUC #	Watershed Name	Total Acres	Acres Burned	% of Watershed Burned
170602080502	Summit Creek-Secesh River	27711	1518	5.5%
170602080501	Headwaters Secesh River	29379	582	1.98%

N. Total Acres Burned:

Table 2: Total Acres Burned by Ownership

OWNERSHIP	ACRES
NFS	2100
OTHER FEDERAL (LIST AGENCY AND ACRES)	N/A
STATE	N/A
PRIVATE	N/A
TOTAL	2100

O. Vegetation Types: Vegetation types in the fire perimeter are dominated by coniferous forest consisting of Ponderosa pine and Douglas fir at lower elevations, transitioning to Engelmann spruce, lodgepole pine, subalpine fir, and White bark pine at higher elevations. Aspen also occurs in the area but is not a dominant vegetation type. Non-forested habitats are intermixed throughout the burn area and consist of sagebrush and meadow habitat.

P. **Dominant Soils:** Typic Cryochrepts, coarse loamy to loamy skeletal, mixed. Soils have loam to fine gravelly loam surfaces over sandy loam to fine gravelly loam subsoils.

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

R. Miles of Stream Channels by Order or Class:

Table 3: Miles of Stream Channels by Order or Class

STREAM TYPE	MILES OF STREAM
PERENNIAL	3.85
INTERMITTENT	0.7
EPHEMERAL	0
OTHER (DEFINE)	N/A

S. **Transportation System:**
Trails: *National Forest (miles):* 1.5 *Other (miles):* N/A
Roads: *National Forest (miles):* N/A *Other (miles):* N/A

PART III - WATERSHED CONDITION

A. Burn Severity (acres):

Table 4: Burn Severity Acres by Ownership

Soil Burn Severity	NFS	Other Federal (List Agency)	State	Private	Total	% within the Fire Perimeter
Unburned	220	N/A	N/A	N/A	220	11
Low	952	N/A	N/A	N/A	952	45
Moderate	846	N/A	N/A	N/A	846	40
High	82	N/A	N/A	N/A	82	4
Total	2100				2100	100

B. **Water-Repellent Soil (acres):** Soils that burned at a high to moderate severity had a strong to moderate hydrophobic layer present at a depth of 3 inches.

C. Soil Erosion Hazard Rating: Soil erosion hazard ratings are based on soils having no cover and is applicable to areas that burnt at a high Soil Burn Severity (SBS) and to a lesser extent Moderate SBS. Soil Erosion Hazard Ratings within the fire area are: Low 143 acres (7%), Moderate 1,909 acres (91%), High 48 (2%).

D. Erosion Potential: WEPPcloud predicted substantial increases in hillslope erosion post-fire, modeled to increase by ~3000% on average.

E. **Sediment Potential:** WEPPcloud predicted substantial sediment increases for a tributary to Grouse Creek post-fire, with a modeled 290% increase in sediment yield for the 10-year storm.

F. **Estimated Vegetative Recovery Period (years):** 3-5 years

G. Estimated Hydrologic Response (brief description): The modeled hydrologic response predicts an increase in runoff from watersheds affected by moderate to high soil burn severity. Wildcat5 and WEPPcloud models predict discharge from a 10-year event to increase by 30-70% post-fire in two unnamed tributaries to Grouse Creek.

PART V - SUMMARY OF ANALYSIS

Introduction/Background

The Tenmile Fire started on September 7th, 2022, from a weather event that produced multiple lightning strikes on the McCall Ranger District of the Payette National Forest. The fire was managed using a modified strategy of indirect and direct tactics with point protection. As part of fire suppression activities, surrounding roads were used as indirect fire lines.

The BAER assessment team began field reconnaissance of the fire on September 30, 2022, using a BAER assessment perimeter of 2,003 acres. The fire is currently 2,157 acres at 65% containment and has grown 154 acres since the BAER assessment was started when containment was at 30%.

The primary values at risk identified from post-fire effects due to the Tenmile Fire are: human life and safety, transporation infrastruction (roads, trails and culverts), noxious weeds, soil productivity, hydrological function, ESA critical habitat, site integrity of cultural resources, and native vegetation communities.

Critical values and resources identified for emergency treatments include posting of warning signs to protect human life and safety and for Early Detection and Rapid Response (EDRR) of noxious weed infestations within the fire perimeter and at fire suppression locations such as base camp, helispots,drop points and fire lines.

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

Table 5: 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 (HLS):** Potential threats to visitors/recreating public and Forest Service employees traveling on the Grouse Creek and Burgdorf roads and FS trail #140 from flooding, tree fall and rock fall. This threat is elevated in watersheds having a high or moderate soil burn severity. Risk is increased with higher probability in places having greater access and more frequent concentrations of people. Routes with increased risk include FS Trail #140 that is designated as a single track motorized trail, the Grouse Creek Road and Three Mile Road.

   High risk (possible, Major) to **forest visitors and Forest Service employees** recreating and working on trails within the burned area. (Public Safety Treatments, PS-01 Warning Signs)

   Low risk (unlikely, Moderat) to **forest visitors and Forest Service employees** traveling on Forest system roads adjacent to the burned area - FS 50325 (Grouse Creek Road) due to the

increased threat of flash floods from within the burned area. Existing road-stream crossings are predicted to pass post-fire flows. No treatments proposed.

2. **Property (P): N/A**
3. **Natural Resources (NR):**
   Soil Productivity: There is a high risk (likely, moderate) to soil productivity associated with post-fire threats from accelerated hillslope and sheet erosion, riling, and gullying in moderate and high burn severity areas. Soil productivity could be affected in localized areas of high and moderate SBS due to the loss of protective soil cover and nutrient-rich organic matter in the short-term (3 to 10 years) and is within the natural range of variability for burned areas. No treatments proposed.

   Noxious Weeds (EDDR): There is a very high risk (very likely, moderate) to native and naturalized plant communities including riparian zones and rangelands with naturally low vegetation cover, and areas that had disturbances caused by suppression activities such as camps, fire lines and drop points are at risk due to spread of noxious weeds and invasive plant species. Invasive weed species that exist adjacent to the fire area that may impact native plant communities include: Spotted knapweed, Rush skeleton weed, Canada thistle, Yellow Toadflax, Common Tansy, and Sulphur Cinquefoil. Land Treatment: L-01 Early Detection and Rapid Response.

   Hydrologic Response: There is a low risk (unlikely, moderate) of modeled post-fire increased flows impacting existing road crossing stream structures (i.e. Property). Expected increased runoff from a 10-year storm design is not expected to threaten recently upgraded natural bottom culverts on the Grouse Cr. Road.

4. **Cultural and Heritage Resources:** N/A

B. Emergency Treatment Objectives:

Public Safety Objectives (*PS-01 Warning Signs).* The overall purpose of this treatment is to reduce risks to human life and safety by warning recreationists and/or Forest visitors of existing threats such as treefall while traveling within the burned area.

Noxious Weeds (EDDR): Prevent the establishment and spread of noxious weeds and non-native invasive species into the burned area and within disturbed areas as a result of suppression efforts.

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

Land: N/A
Channel: High
Roads/Trails: N/A
Protection/Safety: High

D. Probability of Treatment Success

Table 6: Probability of Treatment Success

	1 year after treatment	***3 years after treatment***	***5 years after treatment***
Land	80	70	70
Channel			
Roads/Trails			
Protection/Safety	90	80	70

E. Skills Represented on Burned-Area Survey Team:

☒ Soils ☒ Hydrology ☐ Engineering ☒ GIS ☒ Archaeology
☒ Weeds ☒ Recreation ☒ Fisheries ☐ Wildlife
☐ Other:

Team Leader: John Dixon (208-634-0639), Kelly Owens (307-739-5598)
Email: jdixon@usda.gov kelly.owens@usda.gov
Forest BAER Coordinator: Kelly Owens
Email: kelly.owens@usda.gov **Phone(s):** (307-739-5598)

Team Members: *Table 7: BAER Team Members by Skill*

Skill	Team Member Name
Team Lead(s)	John Dixon, Kelly Owens (T)
Soils	John Dixon
Hydrology	Cameron Carsley, Lawrence Iodko (T)
Engineering	
GIS	Mike Tari
Archaeology	Molly Eimers
Weeds	Brian McMorris
Recreation	Mike Beach
Other	Botany: Kristen Williams, Fish: C. Zurstadt

E. Cost of No-Action (Including Loss): $6,625 (HLS- warning signs are not a cost)

F. Cost of Selected Alternative (Including Loss): $13,250

A. Treatment Narrative:

Land Treatments:

L-01 EDRR (Early Detection and Rapid Response): EDRR is necessary to prevent the establishment and spread of noxious weeds and non-native invasive species into the burned area. EDRR will be used to prevent new noxious weed infestations and ensure the natural recovery of native perennial grasses and forbs is not affected by the establishment of noxious weeds or invasive species. This treatment will also ensure the ecological indicators (soil stability, hydrologic function, and biotic integrity) are functioning properly during the natural recovery period on lands administered by the FS. Chemical treatment of new and existing noxious weed infestations will reduce the likelihood of their spread to disturbed areas and help to re-establish high quality wildlife habitat within the burn.

Fire is a disturbance that provides a receptive avenue for the spread of noxious weeds and/or invasive species. Noxious weeds and non-native invasive species are a concern for biodiversity. Weed invasion is a potentially threatening process leading to competition and habitat modification. Plant communities and native species likely to be at greatest risk from weed invasion are those which occupy weed-prone habitats, such as riparian zones, rangelands with naturally low vegetation cover, and disturbed areas adjacent to and near existing weed infestations. On the Tenmile Fire disturbances caused by suppression forces (fire lines, drop points, etc.) and transportation routes (roads and trails) are the main vectors for noxious weed invasion. This treatment mitigates this risk by allowing for an early means of detecting new noxious weed occurrences and a quick response for control.

Critical areas for this treatment include riparian habitat, roads, fire lines, pit reservoirs, ephemeral drainages and burned areas where suppression vehicles and equipment traveled through known noxious weed/non-native invasive plant species populations. Disturbed areas within and along the fire perimeter, such as fire lines, staging areas, helispots, and safety zones will also be prioritized for monitoring. The 84 priority acres for EDRR are as follows:

EDRR Suppression – 84 acres. Drop Points – 11 acres, Helispots - 9 acres, Sling Sites - 1 acres, Saw line – 2 acres, Road as line - 54.78 acres, Complete handline - .25 acres, camp – 5 acres, Repeater prep 1 acer. EDRR BAER - 0 acres of highly susceptible burned area where noxious weeds are absent or in low abundance.

EDRR Cost Estimate

Item	UOM	Unit Cost	# of Units	Total Cost
EDRR Suppression	Acres	$79	84	$6,636
EDRR BAER	Acres	$0	0	$0

Channel Treatments: N/A

Roads and Trail Treatments: N/A

Protection/Safety Treatments:
PS-01 Warning Signs: The purpose of this treatment is to reduce risks to human life and safety by warning Forest visitors and USFS personnel of existing threats while traveling within the burned area. "Entering Burned Area" signs are needed to alert the public of possible threats to their life and safety that exist within or downstream of a burned area.
Warning Signs Cost Estimate.

Item	UOM	Unit cost	# of units	Total Cost
Warning Roadside & Trailhead Signs two each: "Burned Area Ahead" and "Burned Area Fallen Trees Rocks and Debris".	Number of signs	$500	4	$2,000

I. Monitoring Narrative: N/A

PART VI – EMERGENCY STABILIZATION TREATMENTS AND SOURCE OF FUNDS

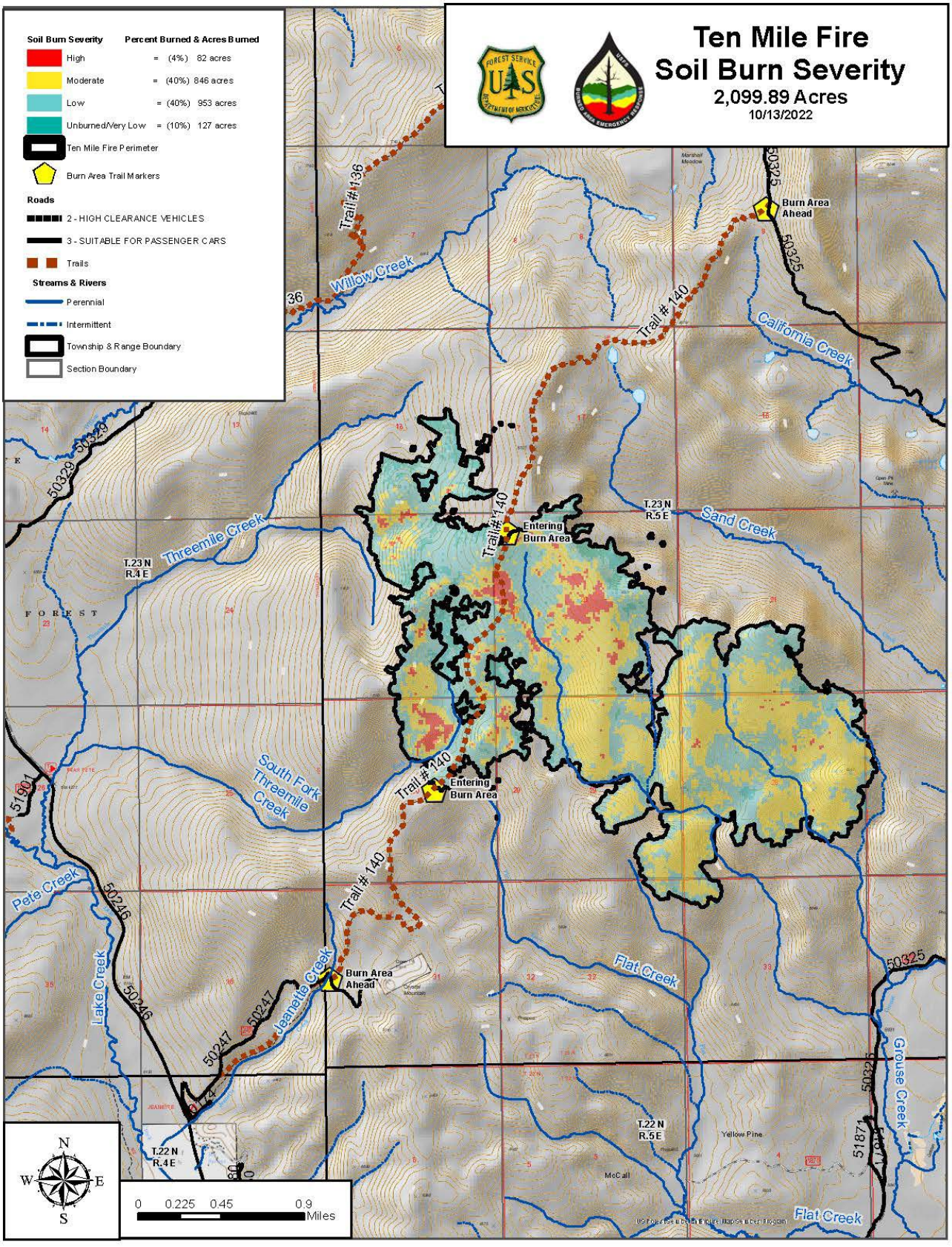
			NFS Lands				Other Lands			All
		Unit	# of		Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER $	$	units	$	Units	$	$
A. Land Treatments										
L-01 EDRR Suppression	acres	79	84	$6,636	$0		$0		$0	$6,636
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$6,636	$0		$0		$0	$6,636
B. Channel Treatments										
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Channel Treatments				$0	$0		$0		$0	$0
C. Road and Trails										
PS-01 Warning Signs).	ea	500	4	$2,000	$0		$0		$0	$2,000
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road and Trails				$2,000	$0		$0		$0	$2,000
D. Protection/Safety										
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Protection/Safety				$0	$0		$0		$0	$0
E. BAER Evaluation										
Initial Assessment	Report			$4,000	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				---	$0		$0		$0	$0
Subtotal Evaluation				$4,000	$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				$0	$0		$0		$0	$0
G. Totals				$8,636	$0		**$0**		**$0**	**$8,636**
Previously approved										
Total for this request				**$8,636**						

PART VII - APPROVALS

1. LINDA JACKSON Digitally signed by LINDA JACKSON Date: 2022.10.20 21:43:23 -06'00'

Forest Supervisor Date

Tenmile_Dismal_BARC_USGSTopo2_202210(


Ten Mile Fire
Soil Burn Severity
2,099.89 Acres
10/13/2022
Soil Burn Severity
Percent Burned & Acres Burned
High = (4%) 82 acres
Moderate = (40%) 846 acres
Low = (40%) 953 acres
Unburned/Very Low = (10%) 127 acres
Ten Mile Fire Perimeter
Burn Area Trail Markers
Roads
2 - HIGH CLEARANCE VEHICLES
3 - SUITABLE FOR PASSENGER CARS
Trails
Streams & Rivers
Perennial
Intermittent
Township & Range Boundary
Section Boundary
Trail #136
Willow Creek
Trail #140
California Creek
Burn Area Ahead
50325
50329
Threemile Creek
T.23 N R.4 E
Entering Burn Area
T.23 N R.5 E
Sand Creek
South Fork Threemile Creek
51901
Pete Creek
50246
Lake Creek
50247
Jeanette Creek
Flat Creek
Grouse Creek
51871
T.22 N R.4 E
T.22 N R.5 E
Yellow Pine
McCall
N
W
E
S
0 0.225 0.45 0.9 Miles