Date of Report: 10/16/2020

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: Two Four Two Fire (or 242)

B. Fire Number: OR-FWF-200404

C. State: Oregon

D. County: Klamath

E. Region: R6 Pacific Northwest

F. Forest: Fremont-Winema National Forest

G. District: Chiloquin Ranger District

H. Fire Incident Job Code: P6NKJ8 (0602)

I. Date Fire Started: 9/7/2020

J. Date Fire Contained: expected 10/10/2020

K. Suppression Cost: $ 7,800,000

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

1. **Fireline repaired (miles):** 30 miles dozer line (16.4 Federal / 13.6 private); 1 mile hand line
2. **Other (identify):** 1 safety zones, 12 drop points, 2 parking/staging areas, 2 helispots

M. Watershed Numbers:

Table 1: Acres Burned by Watershed

HUC #	Watershed Name	Total Acres	Acres Burned	% of Watershed Burned
180102010604	Larkin Creek-Williamson River	23,901	1,824	8
180102010603	Spring Creek	16,537	6,743	41
180102010605	Lobert Draw-Williamson River	29,391	150	1
180102030105	Crooked Creek-Wood River	61,958	4,937	8
180102030309	Upper Klamath Lake	86,443	813	1

N. Total Acres Burned:

Table 2: Total Acres Burned by Ownership

OWNERSHIP	ACRES
NFS	9,056
OTHER FEDERAL (BIA)	1

OWNERSHIP	ACRES
STATE	522
PRIVATE	4,841
TOTAL	14,419

O. Vegetation Types:
The Two Four Two fire area consists primarily of dry ponderosa pine forest with areas of ponderosa pine plantations in the footprint of the 1979 Agency fire. Higher elevations consist of dry mixed conifer containing ponderosa pine, Douglas fir, white fir, incense cedar and some sugar pine with bitterbrush and wax currant as the dominant shrubs in the understory. Riparian areas and areas with high soil moisture consist mainly of dense lodgepole pine and areas of aspen stands.

P. Dominant Soils: Soils are dominated by paragravelly ashy sandy to coarse sandy loam associated primarily with the Steiger, Shukash, Shanahan, and La Pine series. These deep to very deep soils formed in air-fall deposited pumiceous ash or pumice, or ash over colluvium, and blanket lava plains and plateaus, terraces, hills, escarpments, and tablelands. Drainage in these deep to very deep soils is generally excessive with rapid to very rapid permeability in the ash mantle and is moderately rapid over buried loamy material. The climate is characterized by cold wet winters and hot, dry summers.

Q. Geologic Types: Much of the landscape within the 242 Fire perimeter has been influenced by a series of eruptions and subsequent faulting of predominantly basaltic and andesitic lava flows. Faults are primarily north-south trending and can often be associated with escarpments that created localized bands of steep rims to the west, north, and in the center of the fire perimeter. Mixed-grained sedimentary deposits are present in the west-central part while volcaniclastic tuffs dominate the southern tip. Unconsolidated rocks of mixed lithologies, sediment, and fluvial deposits are present in the relatively flat eastern part around the Spring Creek drainage and the Williamson River. Influencing much of the fire and older parent material is a blanket of more recent Mazama (Crater Lake) pumice and ash deposits.

R. Miles of Stream Channels by Order or Class:

Table 3: Miles of Stream Channels by Order or Class

STREAM TYPE	MILES OF STREAM
PERRENIAL	6.6
INTERMITTENT	10.1
EPHEMERAL	0.4
OTHER (CANAL/DITCH)	1.7

S. **Transportation System:**
Trails: *National Forest (miles):* 0.7 *Other (miles):* approx 0.5
Roads: *National Forest (miles):* 72.5 *Other (miles):* 11

PART III - WATERSHED CONDITION

A. Burn Severity (acres):

Table 4: Burn Severity Acres by Ownership

Soil Burn Severity	NFS	BIA	State	Private	Total	% within the Fire Perimeter
Unburned	100	0	63	249	412	3
Low	2,054	1	310	1,826	4,191	29
Moderate	5,195	0	137	2,565	7,898	55
High	1,706	0	201	201	1,919	13
Total	9,055	1	522	4,841	14,420	

C. Water-Repellent Soil (acres): Measurement of water-repellent soils during verification of soil burn severity found soils to be minimally inhibited.

D. Soil Erosion Hazard Rating: Acres of burned area (FS only) by soil erosion hazard rating are 4,679 ac (not rated; 35%); 6,198 ac (slight; 46%), 2,479 ac (moderate; 19%), and 27 ac (severe; <1%).

E. Erosion Potential: Most soils within the fire perimeter are labeled as having slight to moderate erosion potential**.** Loss of surface soil by runoff, however, may occur in localized areas, especially along steeper rim sections, but is expected to be retained due to the relatively gentle undulating terrain that makes up much of the burned area.

F. Sediment Potential: Sedimentation of waterways is of minor concern since all stream courses in the interior are ephemeral or intermittent. Along the northeastern periphery, sections of the Williamson River and Spring Creek are adjacent to burned banks that could experience initial short-term movement of ash.

G. Estimated Vegetative Recovery Period (years): Understory vegetation recovery is expected within 1 to 5 years and overstory recovery is expected with 10 – 30 years**,** depending on burn severity.

H. Estimated Hydrologic Response (brief description): The primary watershed responses are expected to include an initial flush of ash followed by a low to moderate potential for increased peak flows and sediment deposition. The rapid infiltration associated with the coarse pumice soils and the lack of significant water-repellent soils will likely mitigate the response in areas with low to moderate slopes. There is the potential for post-fire flows to lead to plugged culverts and erosion and deposition along road surfaces and relief ditches in areas with moderate to high burn severity in combination with greater slope values. These responses are expected to be most evident during initial storm events immediately after the fire. Thereafter, responses are expected to become less evident as vegetation is reestablished, providing ground cover, increasing surface roughness, and stabilizing and improving the infiltration capacity of the soils.

USGS models estimate a low level of debris-flow hazard in most of the area burned by the 242 Fire. A few small watersheds and stream reaches above Crooked Creek have a moderate level of debris flow hazard. Most of the burn area has a greater than 50% likelihood of producing debris flows at 15-minute rainfall rates between 32 and 40 mmhr-1 or greater than 40 mmhr-1. A few higher hazard basins require more modest 15-minute rainfall intensities between 20 and 28 mmhr-1 to exceed a 50% likelihood of debris flow occurrence. Most watersheds are estimated to produce volumes between 1,000 – 10,000 m3, which results in a low to moderate combined debris-flow hazard for most of the burn area. The model-estimated thresholds (segment-scale) are as follows:

15-minute: 34 mm/h, or 0.3 inches in 15 minutes
30-minute: 27 mm/h, or 0.5 inches in 30 minutes
60-minute: 24 mm/h, or 1.0 inches in 60 minutes

PART V - SUMMARY OF ANALYSIS

Introduction/Background

The fire was discovered on the evening September 7, 2020 and quickly grew as a result of strong winds moving south-southwest towards the Chiloquin area and resulted in evacuations over several days. By mid-morning on September 8th the fire began moving north-northwest. Land affected included National Forest lands, Collier State Park and private lands. Approximately 48 structures were damaged or destroyed, including 8 homes. The cause of the fire is still under investigation.

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):**
   a. Hazard Trees Spring Creek Day Use and Williamson River Trail
   There are hazard trees located within the Spring Creek Day Use area and the trail along the edge of Spring Creek. There are also hazard trees located along a portion of the Williamson River Trail. These hazard trees pose a risk to human life and safety from falling limbs and trees. With the current level of use of the Spring Creek Day Use area and trail, the risk of injury is **possible** with the magnitude of consequence of **major**. This results in a **High Risk** for this critical value.
   b. General Area within the Fire perimeter
   Hazards such as hazard trees, falling rock and debris pose threat to human life within the fire perimeter. The risk of injury is **possible** with the magnitude of consequence **major**. This results in a **High Risk** for this critical value.

2. **Property (P):**
   a. Recreation Facilities and Trails
   The Two Four Two fire burned around the Spring Creek Day use area and trail and portions of the Williamson River Trail. Damage to trails and facilities were minimal. Most of the burned area along the Williamson River Trail is flat and located in an old roadbed. The probability of damage or loss to the trail from post-fire erosion is **unlikely** and the magnitude of consequences is **moderate**. This results in a **Low risk** for this critical value.
   b. Forest Roads
   The USFS road 6210, 6214 and 9732 are the main access roads into the fire area with additional traffic along 9730 for access to the area east of the fire. The area is popular with hunters and firewood collectors and is also regularly used by local residents. There are three areas of concern where higher burn severity in combination with steeper slopes are at risk to a variety of post-fire impacts. These include increased runoff, sedimentation, flooding, rock fall, and hazard trees. These include FSR 9732 were it enters the fire perimeter, the junction of FSR 6210 with 6214 and 6215, and FSR 6210-040. The probability of damage or loss to these roads from post-fire effects is **possible** with a magnitude of consequence of **major**. This results in a **High risk** to these critical values.

3. **Natural Resources (NR):**
   a. Invasive Plants/Sensitive Plants
   The Two Four Two fire area consists of natural plant communities, free from invasive plants with less than 0.25 acres of existing invasive plant sites – two of these sites were only detected in 2020 – one during the fire. Three invasive plant species occur on forest managed land and two other species have been identified on private land in or adjacent to the fire perimeter. These species include Canada thistle, spotted knapweed, St. Johnswort, starthistle and ventenata. Currently, federal lands in this area have no starthistle and only minimal spotted knapweed. Ventenata, starthistle and spotted knapweed all have the high potential to spread into areas with high to moderate burn severity. No weed washing was established during the fire. Vehicle and crew traffic as well as heavy equipment activity in and around known weed infestations is a concern for spreading within and outside the fire area on USFS and non-FS lands. In addition, hazard tree mitigation during suppression repair increased disturbed soils along major roads. Probability of damage or loss regarding spread of invasive plants is **likely** with a magnitude of consequence of **moderate**. This results in a **High Risk** for this critical value.
   b. Sensitive Aquatic Species
   Redband trout is a Region 6 regional forester sensitive species that occurs in Spring Creek and the Williamson River within the fire boundary and upstream/downstream of the fire boundary. Potential impacts to habitats used by this species include increased post-fire erosion/ sedimentation and streamflow. These potential impacts are a concern and coincide with spawning and rearing habitat for redband trout. Spawning occurs within Spring Creek and also occurs from the Larkin Creek confluence upstream to the springs with spawning areas at multiple locations in the river in between. There is a higher risk of negative impacts in the Spring Creek system with the lack of flow being able to facilitate the movement of the potential increase

in sediments. The probability of damage or loss to habitat and species resulting from increased post-fire area generated sediment and streamflows is **possible** depending on what type of flow events are immediately encountered post fire. The magnitude of consequence of **moderate** as it is likely some sort of increase of sedimentation will occur. This results in an **Intermediate Risk** for this critical value.

c. Soils

Thirty-five soil map units are present within the fire perimeter and are labeled as having slight to moderate erosion potential. Infiltration in the primarily coarse sandy pumice soils showed to be minimally inhibited during verification of soil burn severity. Loss of surface soil by runoff, however, may occur in localized areas, especially along steeper rim sections, but is expected to be retained due to the relatively gentle undulating terrain that makes up much of the burned area. Wind erosion will occur, especially over the short-term. Sedimentation of waterways is of minor concern since all stream courses in the interior are ephemeral or intermittent. Along the northeastern periphery, sections of the Williamson and Spring Rivers are adjacent to burned banks that could experience initial short-term movement of ash. The probability of damage or loss to soil productivity and soil hydrologic function is **likely** with a magnitude of consequence of **moderate**. This results in a **High risk** for this critical value. While post-fire impacts to soil productivity and hydrologic function are expected, they are not out of the ordinary or in locations that would result in increased risk to life and property, other natural resources, or warrant soil specific treatments.

4. Cultural and Heritage Resources:

There are 80 known cultural resources on Forest managed land within the fire perimeter. This number does not include the network of historic railroad logging grades. The grades were converted to roads long ago and thus lack historical integrity. Of the 80 known cultural resource sites within the 242 Fire, 36% of the sites are historic and 64% of the sites are prehistoric. Of the historic sites, the majority are can scatters associated with logging. The prehistoric sites are comprised of rock feature and culturally modified trees (Cambium trees). The area falls within the traditional territory of the Klamath Tribes. The 242 Fire removed ground vegetation and removed woody material and duff. The lack of vegetation, duff and woody material could result in increased erosion in the form of overland runoff. Increased erosion can lead to damage of site integrity as artifacts are displacement. However, the fire covered an area of mild terrain. Slope averages less then 35%. Due to the lack of significant slope, the potential for significant increase in erosion is low. Although the probability of damage due to erosion is **possible**, the magnitude of consequences is **minor**, thus the **risk** to the cultural resource critical value is **low**.

B. **Emergency Treatment Objectives:**

The primary objective of this Burned Area Emergency Response Report is to recommend prompt actions deemed reasonable and necessary to effectively protect, reduce, or minimize significant threats to human life, safety, and property as well as prevent unacceptable risks to critical natural and cultural resources. The application of these BAER treatments is expected to minimize on-site and downstream impacts to the identified values at risk previously mentioned.

Proposed Land Treatments

The objective of the land treatments is to:

1. Promote and protect native and naturalized vegetative recovery by reducing the spread of noxious weeds/invasive species (**Treatment #: L1**).

Proposed Road and Trail Treatments

The objective of the road and trail treatments is to:

1. Protect road and trail investments from becoming impassable and damaged from increased post-fire runoff and erosion (**Treatment #'s: R1**).

Proposed Protection and Safety Treatments

The objective of the protection and safety treatments is to:

1. Protect human life and safety by raising awareness through posting of hazard warning signs at recreation sites, trailheads, and main travel routes into the fire area (**Treatment #'s: PS1, PS2**).

C. Probability of Completing Treatment Prior to Damaging Storm or Event:
Land: NA, only treatment is for Invasive plants/weeds
Channel: NA, no treatments
Roads/Trails: 75%
Protection/Safety: 85%

D. Probability of Treatment Success

Table 6: Probability of Treatment Success

	1 year after treatment	*3 years after treatment*	*5 years after treatment*
Land	70	75	85
Channel	NA	NA	NA
Roads/Trails	90	90	90
Protection/Safety	85	85	85

E. Cost of No-Action (Including Loss): $20,000

F. Cost of Selected Alternative (Including Loss): $7,996

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Erin Rentz
Email: erin.rentz@usda.gov **Phone(s):** (541)-885-3444 (Desk); (530) 643-2545 (cell)

Forest BAER Coordinator: Gina Rone
Email: gina.rone@usda.gov **Phone(s): (**541)947-6213 (Desk); (509) 398-3907 (cell)

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

Skill	**Team Member Name**
Team Lead(s)	Erin Rentz
Soils	Gina Rone
Hydrology	
Engineering	Terry Orton
GIS	Nick Pullan
Archaeology	Michelle Durant
Weeds	Kerrie Johnston/ Erin Rentz
Recreation	Anthony Benedetti
Other	Kyle Gomez (fish biologist)

H. Treatment Narrative:

Land Treatments: The following treatments for Lands fall under the BAER treatment categories of L1a & L1b (Suppression disturbances and Invasives EDRR).

<u>L1a – Threats related to suppression disturbances (suppression repair)</u>

Invasive plant detection is needed in areas where suppression actions and suppression repair activities created major ground disturbance that is highly vulnerable to invasive species. Suppression actions include dozerline construction, safety zone and helispot and drop points. Suppression repair disturbance includes those roads where hazard tree removal created disturbance for 50 – 100 feet on either side of the road.

Locations: Suppression actions locations (approximately 17 miles of dozer line, 1 safety zone, 8 drop points, 2 helispots, and 1.0 miles of hand line); and areas of suppression repair actions along primary access roads (17 miles of high use roads where hazard tree removal occurred: 6210, 6214, 6215, 6210-400, 6210-430, 9732-300, and 6426) and in areas where suppression activities created bare ground adjacent to private.

L1b – Post fire threats not related to suppression

Invasive plant detection will include areas adjacent to known invasive plant sites, and any newly discovered invasive plant sites to prevent spread and dispersal of invasives into newly burned and disturbed areas. All known invasive plant infestations regardless of soil burn severity will be targeted for treatment. Detection will focus on locations adjacent to known invasive plant sites, newly discovered invasive plant sites, areas adjacent to private lands, riparian habitats and primary access roads without major impacts from suppression disturbances.

Treatment and detection will reduce the potential for invasive plant species to seed and spread. Treatment is most effective when infestations are small and it is critical to treat the infestations before seed is produced. Early Detection Rapid Response (EDRR) is covered under the Fremont-Winema National Forest Invasive Plant Treatment Record of Decision (2011) with a range of treatment options including use of herbicides.

Locations: Primary Access Roads not included in suppression repair detection: 9730, 9700-400,33, 3315, 3360, 3510-018 (ML 3). In addition, surveys will occur in select areas of high vulnerability to annual invasive grasses, spotted knapweed and star thistle, such as areas adjacent to known infestations located on other landowners. Survey work will encompass approximately 100 acres.

Treatment	Units	Unit Cost	# of Units	Total Cost
Suppression Disturbance Surveys	Acre	$6.00	250	$1,500
Invasive Plant Surveys/Detection	Acre	$6.00	100	$600
			Total Amount Requested:	**$2,100**

Channel Treatments: None

Roads and Trail Treatments: The following treatments for Roads and Trails fall under the BAER treatment category of RT2 (Storm Inspection and Response).

R1 - Storm Inspection and Response**:** Storm inspection of critical roads and response to any problems found will keep culvert and drainage features functional by cleaning sediment and debris from in and around features between or during storms. This work will be accomplished through use of FS employees and a road maintenance contractor.

Locations: FSR 6210000 (from 6210040 to 6210330 – 2.9 miles); FSR 6214000 (from 6210 to 6214120-1.4 miles); FSR 6215000 (from 6210 to 6215110-1.3 miles) FSR 6210040 (entire road-1.3 miles); FSR 9732000 (within fire perimeter- 0.5 miles); 9732300 (from 6210 to 9732390-0.8): Total of 8.2 miles

Treatment	Units	Unit Cost	# of Units	Total Cost *
Storm Inspection	miles	$494	8.2	$4,050.80

(8.2 miles ditch maintenance @ $306/mile; GS 7 Engineering Technician with vehicle plus mileage @ $500/day – 2 day, plus 1 COR/coordination day)*

Protection/Safety Treatments: The following treatments for Protection/Safety fall under the BAER treatment categories of P1a (Road Hazard Signs) and P1b (Trail/Recreation Hazard Signs).

PS1 – Road Hazard Signs: Signs will inform users of the dangers associated with entering and recreating within the burned area. Four locations have been identified:

Locations: 1) FSR 6210000 at the junction with State Hwy 62; 2) North end of FSR 6210000 near Oux Kanee overlook; 3) FSR 9730000 east of Hwy 97 4) FSR 6215000 near northern end of fire perimeter

Treatment	Units	Unit Cost	# of Units	Total Cost *
Installation of warning signs	Each	$205	4	$820

(4 - 30" x 48" signs @ $50 ea, 4 - 8' long 4"x4" posts @ $25 each, hardware @ $20 lump sum, 1 day – GS 7 Engineering Technician with vehicle plus mileage @ $500/day)*

PS2 – Spring Creek Day Use and Williamson River Trail Hazard Signs: Warning signs will be placed along burned section of trail and at trailheads. Location: Signs will be placed at trail entry points to the fire perimeter, at Williamson River Campground, and Spring Creek Day Use area.

Treatment	Units	Unit Cost	# of Units	Total Cost
Install Hazard Signs	Each	$205	5	$1025

I. Monitoring Narrative:

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											
Surveys & Detection	acre	6	100	$600	$0			$0		$0	$600
Supression Related Surveys	acre	6	250	$1,500	$0			$0		$0	$1,500
Insert new items above this line!				$0	$0			$0		$0	$0
Subtotal Land Treatments				$2,100	$0			$0		$0	$2,100
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											
Trail Hazard Signs	each	205	5	$1,025	$0			$0		$0	$1,025
Road Hazard Signs	each	205	4	$820	$0			$0		$0	$820
Road Inspection and Respo	miles	494	8	$4,051	$0			$0		$0	$4,051
				$0	$0			$0		$0	$0
Insert new items above this line!				$0	$0			$0		$0	$0
Subtotal Road and Trails				$5,896	$0			$0		$0	$5,896
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	$2,445	1	$2,445	$0			$0		$0	$0
				$0	$0			$0		$0	$0
Insert new items above this line!				---	$0			$0		$0	$0
Subtotal Evaluation				$2,445	$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				$7,996	$0			**$0**		**$0**	**$7,996**

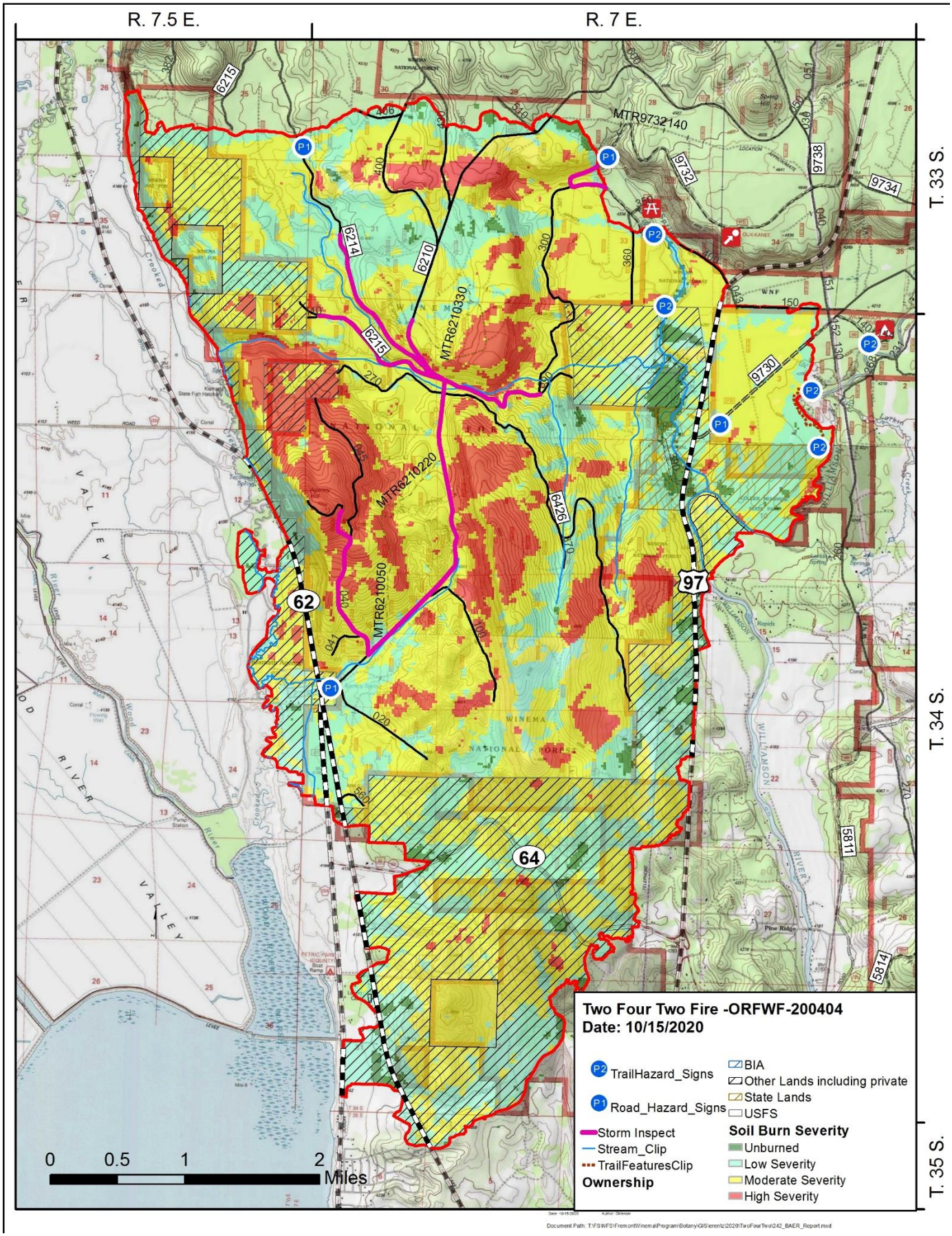
PART VII - APPROVALS

BARRY IMLER

Digitally signed by BARRY IMLER
Date: 2020.10.16 10:21:43 -07'00'

Forest Supervisor Date

Attachment A – Severity map and Treatment Locations



Attachment B – Values at Risk Table

242 BAER - FS Critical Value Table	**Click "Enable Content" in the upper left where it says, "SECURITY WARNING Macros have been disabled"** or this spreadsheet will not work correctly. **Instructions:** Make sure to include enough information to be able to track logic and rationale for determinations of probability and magnitude in the risk assessment process. If needed, see the risk assessment matrix tab. Additional columns can be added at the end but do not delete columns. ***Do not include a risk rating for non-NFS values or NFS values outside of BAER Critical Values - please track on additional tabs.***

Value	Life/ Property/ Resources	Critical Value	Threat to Value	Probability of Damage or Loss	Rationale for Probability	Magnitude of Consequence	Rationale for Magnitude	Risk	Treatment Options Considered	Recommended Treatment
BAER critical value	Natural Resources - Native Plants	Native and Sensitive Plant Communities	Introduction and spread of invasive plant species	Likely	Multiple invasive species are present in or adjacent to burned areas, primarily on travel routes and on private lands. These infestations are within or adjacent to burned areas.	Moderate	The damage of invasive plant infestation would have considerable long-term effects with eventual displacement of native plants, including sensitive plant species	High		Detection will focus on locations next to known invasive plant sites, newly discovered sites, along primary access roads, and in areas where suppression activities created bare ground
BAER critical value	Property - Trails	Trails and Associated Facilities	Damage or loss from post-fire erosion	Unlikely	Flat terrain, well established old roadbeds and sites	Moderate	Damage or loss of trail/site	Low		No treatment recommended
BAER critical value	Life and Safety	Rec Facilities and Trails	Potential risk due to proximity to burned areas	Possible	Proximity of hazards	Major	Possible loss of life due to falling trees and limbs in well used rec area	High	Fall hazard trees	Install warning signs along burned section of trail, trailheads, and Rec areas
BAER critical value	Life and Safety	Open road system within fire perimeter	Roadside hazard trees	Possible	Potential for falling snags, limbs, road hazards	Major	Road locations within fire perimeter	High	Fall hazard trees	Install warning signs along major entry points to burned area
BAER critical value	Property - Roads	USFS Roads 6210, 6214, 6215, 6210-040, 9732, 9732-300	Increased runoff, sediment and debris on roads	Possible	Increased potential for runoff, sediment, debris impacting roads	Major	Damage or loss of road prism on major access routes in areas associated with high burn severity and localized steeper slopes	High		Storm patrol/inspection and response
BAER critical value	Natural Resources - Other	Redband trout	Impacts to habitat from post-fire sedimentation and erosion	Possible	Proximity of habitat to post-fire hillslope erosion	Moderate	The amount of habitat impacted by post fire precipitation and flow event	Intermediate	Straw wattles, mulching	No treatment recommended
BAER critical value	Natural Resources - Soil and Water	Soil Productivity and Hydrologic Function	Loss of surface soil from post-fire wind and water erosion, short term localized decreases in infiltration	Likely	Increased post-fire susceptibility to erosion due to loss of cover	Moderate	Low to Moderate erosion potentials	High	Straw wattles, mulching	No treatment recommended

BAER critical value	Cultural Resoures	Historic Structures, Historic Artifact Scatters, Prehistoric Lithic Scatter and Rock Stacks	Impacts to cultural values from post-fire erosion	Possible	Proximity of resources to erosion-prone hillsides	Minor	Location of resources in relation to erosion-prone slopes	Low		No treatment recommended