**Date of Report:** 10/20/2021

# 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:** Cougar Peak Fire

**B. Fire Number:** OR-FWF-210452

**C. State:** Oregon

**D. County:** Lake

**E. Region:** Pacific Northwest (06)

**F. Forest:** Freemont-Winema

**G. District(s):** Lakeview and Paisley Districts

**H. Fire Incident Job Code:** P6N9MG - 0602

**I. Date Fire Started:** Sept. 7th, 2021

**J. Date Fire Contained:** Expected Oct. 5th, 2021

**K. Suppression Cost:** $26 million

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

1. **Fireline repaired (miles):** 89 miles of dozer and hand line
2. **Other (identify):**

**M. Watershed Numbers:**

*Table 1: Acres Burned by 12th-Field Hydrologic Unit (Subwatershed)*

| | | | | Soil Burn Severity | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Subwatershed | | Subwatershed Outside the Fire | Unburned or Very Low | | Low | | Moderate | | High | |
| Subwatershed Name | Acres | % Burned | Acres | Acres | % | Acres | % | Acres | % | Acres | % |
| Auger Creek-Camp Creek | 19,318 | 73% | 5,204 | 610 | 3% | 5,071 | 26% | 8,364 | 43% | 70 | 0% |
| Bauers Creek | 15,446 | 63% | 5,721 | 109 | 1% | 4,001 | 26% | 5,547 | 36% | 68 | 0% |
| Ben Young Creek | 10,295 | 58% | 4,334 | 366 | 4% | 2,007 | 19% | 3,565 | 35% | 23 | 0% |
| Lower Chewaucan Marsh | 33,869 | 8% | 31,155 | 39 | 0% | 2,676 | 8% | | 0% | | 0% |
| Lower Willow Creek | 22,187 | 53% | 10,370 | 153 | 1% | 6,934 | 31% | 4,536 | 20% | 195 | 1% |
| Moss Creek | 20,492 | 7% | 18,960 | 185 | 1% | 849 | 4% | 499 | 2% | | 0% |
| South Creek | 27,698 | 17% | 22,865 | 249 | 1% | 1,534 | 6% | 2,986 | 11% | 63 | 0% |
| Swamp Creek-Chewaucan River | 23,815 | 26% | 17,567 | 255 | 1% | 3,759 | 16% | 2,193 | 9% | 40 | 0% |
| Upper Cottonwood Creek | 22,139 | 38% | 13,677 | 800 | 4% | 3,861 | 17% | 3,633 | 16% | 167 | 1% |
| Upper Cox Creek | 11,958 | 52% | 5,743 | 168 | 1% | 2,221 | 19% | 3,526 | 29% | 300 | 3% |
| Upper Thomas Creek | 21,730 | 51% | 10,585 | 696 | 3% | 4,990 | 23% | 5,325 | 25% | 134 | 1% |
| Upper Willow Creek | 12,163 | 74% | 3,184 | 115 | 1% | 3,545 | 29% | 5,053 | 42% | 266 | 2% |
| **Grand Total** | **241,111** | | **149,365** | **3,746** | | **41,448** | | **45,227** | | **1,326** | |

## N. Total Acres Burned:

*Table 2: Total Acres Burned by Ownership*

| OWNERSHIP | ACRES |
|---|---|
| **NFS** | 53,169 |
| **OTHER FEDERAL (LIST AGENCY AND ACRES)** | 5,867 (BLM) |
| **STATE** | |
| **PRIVATE** | 32,710 |
| **TOTAL** | 91,746 |

O. **Vegetation Types:** Within the Cougar Peak fire there are a variety of vegetation types.

At lower elevations (generally below 5,000 ft) juniper shrub step is dominant. Ponderosa pine types are found within the juniper step community depending on site conditions and generally extend to approximately 5,500 ft depending on slope and aspect. Lodgepole types are found on sandy soils and cold air drainages throughout the affected area. Dry mixed conifer occupies an elevation range of approximately 5,000-6,500 ft and is the most common vegetation type on the forest. At higher elevations moist mixed conifer and fir types are found. On ridge tops, typically over 7,000 ft white bark pine is the dominant conifer.

*Table 3. Plant Community Types and Abundance within the fire perimeter*

| Community Type | Percent of area | Description |
|---|---|---|
| Non forested types | 25 | Shrub and grass lands dominated by big sage, bitter brush, Idaho fescue and blue bunch wheatgrass, includes meadows and riparian vegetation |
| Juniper Step | 15 | Juniper, Mt. mahogany, bitterbrush, big sagebrush along with native forbs and grasses |
| Ponderosa pine | 10 | Ponderosa pine with scattered juniper and white fir, bitterbrush, sagebrush along with native grasses |
| Dry mixed conifer | 20 | Ponderosa pine/white fir/lodgepole/sugar pine and occasional western white pine, various shrubs including ceanothus, manzanita, snowberry, serviceberry, and bitter cherry |
| Lodgepole | 10 | Lodgepole pine with scattered ponderosa pine and white fir, shrubs and grasses include gooseberry (current), bitterbrush, bearberry, needle grass and bottlebrush squirrel tail |

| | | |
|---|---|---|
| Moist Mixed Conifer | 19 | White fir/ponderosa pine/sugar pine/western white pine/lodgepole, shrubs include manzanita, ceanothus and chinquapin |
| White bark pine | 1 | White-bark pine, sometimes mixed with white fir and lodgepole, elk sedge typically dominant in understory |

**P. Dominant Soils:** Soils are mostly considered to have developed in-situ as residuum. These are mainly fine loamy and loamy textures with a dark topsoil. Some of these soils exhibit clayey textures, and some others are more sandy-like. Pumice and volcanic ash are mixed in with or dominate the surface horizons. Nearly all the soils are rocky or very rocky. Depths vary widely from shallow to thick. Deeper soils can support a dense cover of forest and are considered moderately resilient to disturbance. On shallower and skeletal soils tree cover is typically sparser and the sites less resilient.

Q. **Geologic Types:** Known regionally as the Early Winema volcanic field and locally as the Brattain District, the bedrock underlying the area is a thick complex of igneous formations comprised of alternating extruded layers of lava and air-lain pyroclastic flows. Faulting in this thick sequence of igneous layers is extensive. Uprising lava intruded from below through faults as domes, dikes, and sills into the thick igneous layers. Sedimentary rocks interfinger into the igneous layers or underlie them. Thin deposits of much younger volcanic ash and pumice blanketed the area. Surrounding are ancient lake sediments. More recently colluvium, windborne volcanic ash, large landslide deposits, alluvial deposition, and erosion continue to shape the current terrain.

**R. Miles of Stream Channels by Order or Class:** Total miles within fire perimeter = 257

*Table 4: Miles of Stream Channels by Order or Class within the Fire*

| STREAM TYPE | MILES OF STREAM |
|---|---|
| **PERENNIAL** | 95 |
| **INTERMITTENT** | 116 |
| **EPHEMERAL** | 45 |
| **OTHER (DEFINE)** | 1 |

S. **Transportation System:**
**Trails:** *National Forest (miles):* 15 *Other (miles):* 5 (OHV)
**Roads:** *National Forest (miles):* 376 *Other (miles):*

*Table 5: Forest Service Road Miles by Operational Maintenance level*

| Miles of NFS Roads Within the Fire Boundary by Maintenance Level | |
|---|---|
| **Maintenance Level** | **Miles** |
| 1 - BASIC CUSTODIAL CARE (CLOSED) | 237 |
| 2 - HIGH CLEARANCE VEHICLES | 119 |
| 3 - SUITABLE FOR PASSENGER CARS | 12 |
| 4 - MODERATE DEGREE OF USER COMFORT | 8 |
| **TOTAL** | **376** |

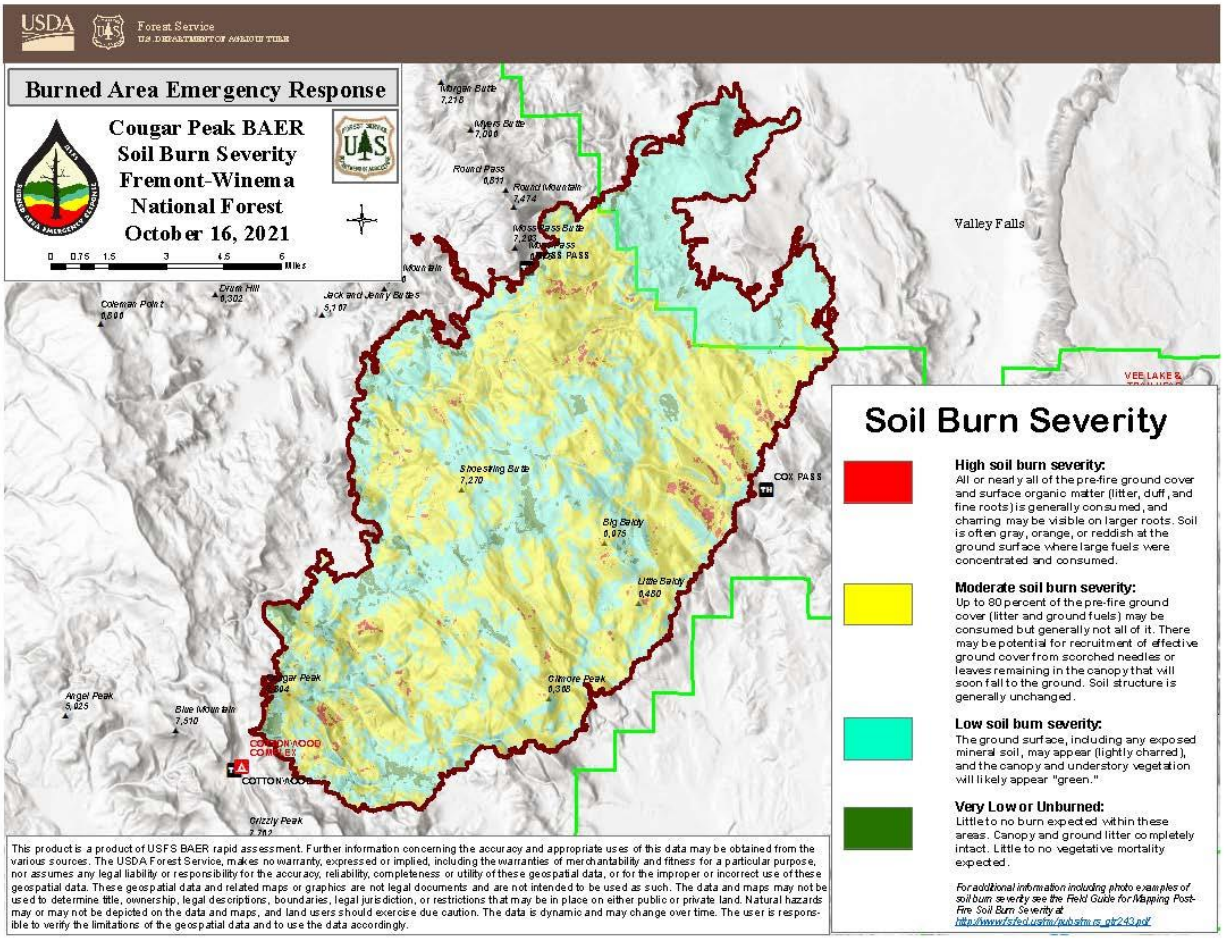
## PART III - WATERSHED CONDITION

## A. Burn Severity (acres):

*Table 5: Burn Severity Acres by Ownership*

| Soil Burn Severity | USDA Forest Service | Non-Forest Service | Grand Total | Soil Burn Severity % |
|---|---|---|---|---|
| High Soil Burn Severity | 1,213 | 113 | 1,326 | 1.4% |
| Moderate Soil Burn Severity | 30,596 | 14,631 | 45,227 | 49.3% |
| Low Soil Burn Severity | 19,264 | 22,184 | 41,448 | 45.2% |
| Unburned or Underburned | 2,095 | 1,651 | 3,746 | 4.1% |
| **Grand Total** | **53,168** | **38,578** | **91,746** | |
| **Ownership %** | **58%** | **42%** | | |

*Figure 1. Soil Burn Severity Map*




## B. Water-Repellent Soil (acres):

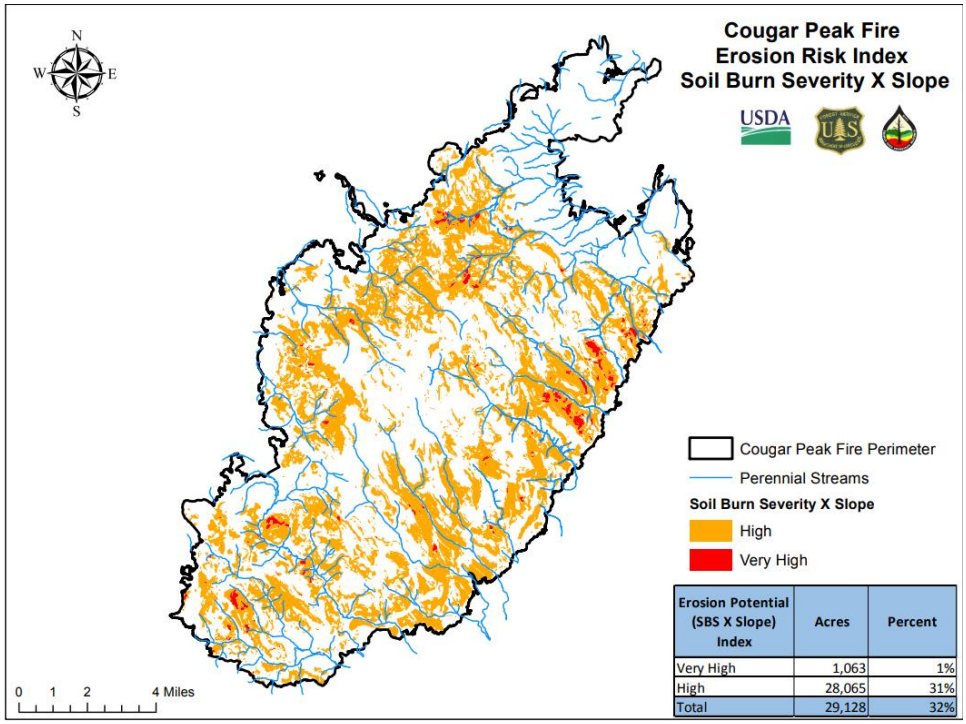
An estimate of the percentage of each soil burn severity (SBS) rating is identified as hydrophobic (water repellent). Hydrophobic acres of each rating represent the landscape surface area affected by 1,000-hour fuels that were consumed. These areas resulted in orange colored soil, alteration of surface soil structure, consuming of roots in the upper soil profile, and charging of soil particles in the immediate area all increasing soil water repellency. In general, the hydrophobicity ranges from slight to strong repellency in these areas. Most hydrophobic changes in the burn area are small scale and disconnected from other hydrophobic areas by moderate or low SBS.

*Table 6: Burn Severity Acres by Ownership*

| SBS | USFS Acres | Hydrophobic Acres |
|---|---|---|
| Unburned | 2,095 | 0 |
| Low | 19,264 | 963 |
| Moderate | 30,596 | 4,589 |
| High | 1,213 | 242 |
| **Total** | **53,168** | **5,794** |

C. **Soil Erosion Hazard Rating:**
A map is provided showing areas of increased risk for soil erosion. Slope breaks of 0 to 5 percent in all SBS ratings have little risk of soil erosion. Slope breaks 6 to 20 percent and greater than 20 percent on moderate and high SBS areas are presented in the map, “Erosion Risk Index, Soil Burn Severity X Slope”. Areas less than 5 percent slope, no matter the SBS rating, are considered similar to background soil erosion potential.

*Figure 2. Soil Erosion Index Map*




D. **Erosion Potential:**
High SBS areas have a high to very high potential for erosion to occur and are influenced by increasing slope, lack of surface rock fragments, and presence of large or fine wood. Soil structure and surface roots has been altered for the most part in high SBS areas but is found as a mosaic among moderate and low SBS areas. Long uninterrupted mountain backslopes lacking surface roughness either by rock fragments or surface features have the greatest potential to connect high SBS areas by riling or sheet erosion. Moderate SBS areas have a similar rating as high SBS because of the lack of needle cast or canopy protection common in this fire that protects the soil from rain fall. Although soil structure and roots in the soil surface of moderate SBS soils are more resistant to erosion forces than high SBS soils, concentrated

sheet flow from these areas will result in riling and sheet flow erosion of some degree when surface texture is lacking, or rock fragments are less than 35 percent on the landscape surface.

E.

Low SBS areas with canopy and understory cover are considered similar to background erosion potentials. Areas where canopy and understory cover has been consumed have an increased risk of soil erosion. Soil features associated with low SBS require greater flow energies to break down intact soil structure and dislodge soil from intact root structures. Erosion from low SBS areas increases in high sloping areas lacking rock fragments and rough surface features. Erosion potential is also expected to increase in all SBS areas lacking vegetative cover where livestock use is common.

Specific observed areas of concern are where high and moderate SBS is above hazard/danger tree removal sites adjacent to roads. The disturbed soil by mechanical equipment disrupted soil structure and scorched roots almost guaranteeing soil erosion in the area from water movement from upslope and through the area.

**F. Sediment Potential:**

The potential for sediment delivery to streams is highly dependent on the erosion potential as previously described by proximity to stream channels, and riparian characteristics and condition. Areas with steep, long, and concave slopes adjacent to streams, with little surface roughness have the highest inherent sediment delivery potential, with increased potential as SBS increase from low to high. Riparian areas with high surface roughness, wide valley bottoms, lower angle slopes, and intact vegetation have higher effective sediment buffering potential compared to narrower and steeper valley bottoms with sparce vegetation. Riparian areas with high and moderate SBS decrease the riparian vegetation effectiveness to varying extents due to the loss of soil cover and consumption of some of the surface roughness provided by downed wood and other organic material.

Sediment potential increases in all areas where livestock use is common and vegetative cover is lacking. Overall, the entire fire has a high risk for sedimentation to the stream system within the first year as a result of loose volcanic ash and very friable structure common to most topsoil in the area. As soils stabilize with recovering vegetation and increased needle cast in areas, sediment potential diminshes to background levels.

G. **Estimated Vegetative Recovery Period (years):** Overall, unimpeded natural recovery is expected to take about 2-5 years before an effective ground cover of at least 60% has reestablished depending on the plant association group, soil type, aspect, and soil burn severity. Areas that burned at low severity will generally recover within the first two years. Areas that burned with moderate soil severity may recover in 3-5 years with canopy formation occurring much later. For sites with high soil burn severity and full vegetative stand-replacement, recovery may take many decades, with the effects of climate change some stands may convert to juniper shrub step with conifers not able to re-establish.

**H. Estimated Hydrologic Response (brief description):** The Cougar Peak Fire burned with a mosaic of low, moderate, and high burn severity within twelve HUC12 subwatersheds contributing to the Thomas Creek, Lower Chewaucan River, and Upper Chewaucan River HUC10 Watersheds. A peak flow analysis was conducted at eight pour points representing BAER critical values, using regression equations calibrated to rural, unregulated basins in Eastern Oregon (Cooper, 2006). Model outputs are expected to mimic peak flows primarily caused by snowmelt or rain-on-snow events from January – May. The Q2, or the peak flow event with a 50% chance of occurring annually, was estimated for pre-fire and post-fire conditions. Model predictions indicate that peak flows at modelled poursheds may increase 1.5 – 2.5 times the pre-fire condition. The highest increases are expected in small and mid-sized poursheds with higher proportions of high and moderate burn severity. In addition to increased peak flows, the watershed response will likely include an initial flush of ash and burned materials, rill and gully erosion in drainages on

steeper slopes in the burned area, increased sediment transport and deposition, and higher potential for debris-laden flows.

Peak flow and watershed responses are highly dependent on storm occurrence and are at greatest risk in the first year or two after the fire, with emphasis on initial storm events. Disturbances will become less evident as vegetation is re-established, providing ground cover that reduces erosion and increases surface roughness to slow flow accumulation and increase infiltration. These processes will attenuate over time and should recover to pre-fire rates over the next 2-5 years.

## PART V - SUMMARY OF ANALYSIS

### Introduction/Background

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

Only the Values-at-Risk (VAR) that warranted treatments as determined using the Critical Value Matrix are represented in this 2500-8. See the Project Record for the full listing of all the VARs that the team evaluated.

*Table 7: 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): Trails & Roads

| Life/ Property/ Resources | Value at Risk | Threat to Value | Probability of Damage or Loss | Rationale for Probability | Magnitude of Consequence | Rationale for Magnitude | Risk | Treatment Options Considered | Recommended Treatment |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| Life and Safety | Cottonwood Creek Trail #127 | Falling Trees | Unlikely | High mortality due to post-fire conditions | Major | Loss of life or injury to humans | intermediate | Closure of trails at trailheads, trail hazard signs @ Trailheads | **S1b**. Trail/Recreation Hazard Signs (in combination with trailhead signage) |
| Life and Safety | Cottonwood Creek Trailhead | Hazard Trees | Unlikely | High mortality due to post-fire conditions | Major | Loss of life or injury to humans | Intermediate | Closure of area around Trailhead at spur road | **S2a.** Physical Closure Device - Powder River Style Gate |
| Life and Safety | National Recreation Trail #160 | Falling Trees, Rocks, unstable ground, trail prism failures | Possible | High mortality due to post-fire conditions, unstable soils | Major | Loss of life or injury to humans | High | Closure of trail, trail hazard signage at road crossings and trailheads | **S1b**. Trail/Recreation Hazard Signs (in combination with trailhead signage) |
| | | | | | | | | | |
| Life and Safety | Forest Service Roads within fire boundary | Fire-killed trees, falling rocks, erosion, runoff | Very Likely | Heavy concentrations and overall high amount of fire-killed trees, lack of vegetation/roots to stabilize soil & rock, increased surface runoff | Major | Potential for loss of life or injury to humans | Very High | **S1a-1**. Road Hazard Signs - Warnings | **S1a-1**. Road Hazard Signs - Warning |

### 2. **Property (P):** Trails & Roads

| Property | Value at Risk | Threat to Value | Probability of Damage or Loss | Rationale for Probability | Magnitude of Consequence | Rationale for Magnitude | Risk | Treatment Options Considered | Recommended Treatment |
|---|---|---|---|---|---|---|---|---|---|
| **Recreation** | | | | | | | | | |
| Property - Trails | National Recreation Trail #160 | Increased flow causing trail prism failures | Possible | Increase in surface runoff due to post-fire flows | Major | Loss of trail tread resulting in infrastructure impacts | High | Trail crew, directional falling, stabilization | **T1.** Trail drainage/stabilization |
| **Roads** | | | | | | | | | |
| Property - Roads | FSR 3510 | erosion, runoff, and flooding | Likely | Increased surface runoff due to moderate soil burn severity and steep slopes, increased sediment delivery to the ditch line | Major | Substantial property damage to road prism | Very High | **R1**. Storm Proofing **R3**. Storm Inspection and Response | **R1**. Storm Proofing **R3**. Storm Inspection and Response |
| Property - Roads | FSR 28, 3510, 3613, 3724, 3870 | erosion, runoff, and flooding | Likely | Increased surface runoff due to moderate and high soil burn severity and steep slopes, increased sediment delivery to the ditch line | Moderate | Localized damage to road prism | High | **R3**. Storm Inspection and Response | **R3**. Storm Inspection and Response |

### 3. **Natural Resources (NR):** Native Plants/Vegetation

| Life/ Property/ Resources | Value at Risk | Threat to Value | Probability of Damage or Loss | Rationale for Probability | Magnitude of Consequence | Rationale for Magnitude | Risk | Treatment Options Considered | Recommended Treatment |
|---|---|---|---|---|---|---|---|---|---|
| Natural Resources - Native Plants | Native plant communities, burned at moderate or high intensity | Moderate to high soil burn severity, invasive species, habitat degradation | Likely | Native plant communities that were consumed by the fire are susceptible to invasion by adjacent noxious weed infestations | Moderate | There are many high priority noxious weeds within the fire perimeter that have a high likelihood of spreading into freshly burned plant communities, cattle grazing on freshly burned soils also poses threats to native communities | High | EDRR, treatments to minimize spread of invasive plants | **P1a. Invasives EDRR** |
| Natural Resources - Native Plants | Native plant communities, Suppression effects related category | Dozer lines, safety zones, drop points, spike camps all susceptible to invasion of high priority invasive weeds due to ground disturbing activities from fire suppression | Very Likely | Disturbed ground is highly susceptible to invasion by adjacent noxious weed infestations and heavy equipment and supression vehicles likely introduced invasive plants from outside the area | Moderate | Dozer lines and other disturbances are readily colonized by noxious weeds before native plants have a chance to recover or reestablish | Very High | EDRR, treatments to minimize spread of invasive plants | **P1b. Invasives EDRR - Suppression related** |

### 4. **Cultural and Heritage Resources:** No Treatments Prescribed

## B. Emergency Treatment Objectives:

<u>Proposed Land Treatments</u>
The objective of the land treatments are to:

1. Promote and protect native and naturalized vegetative recovery by reducing the spread of known populations of noxious weeds (L1a).
2. Retard the spread of invasive weeds as a result of suppression activities (L1b).

**Note -** No active land treatments are recommended for long-term soil productivity and hydrologic function. Allowing for natural recovery is the recommended course of action.

<u>Proposed Road & Trail Treatments:</u>
The objective of road treatments are to:

1. Protect road investments from damage or loss due to increased post-fire runoff and erosion by monitoring and maintaining ditchline and culvert inlet capacities (R1 & R3).
2. Protect trail select trail segments using stabilization treatments to construct and enhance drainage features/structures (T1).

<u>Proposed Protection/Safety Treatments:</u>

The objective of the protection/safety treatments are to:

1. Protect human life and safety by raising awareness through posting hazard warning signs along roads and trails entering the burned area to warn users of potential hazards resulting from post-fire conditions (S1a & S1b).
2. Protect human life and safety by closing trailhead parking area with a gate due to hazard trees surrounding it (S2a).

**C. Probability of Completing Treatment Prior to Damaging Storm or Event:**
**Land**: NA- EDRR not necessarily influenced by damaging storm or event
**Channel:** NA
**Roads/Trails:** Probable
**Protection/Safety:** Probable

**D. Probability of Treatment Success**

*Table 8: Probability of Treatment Success*

| | *1 year after treatment* | *3 years after treatment* | *5 years after treatment* |
|---|---|---|---|
| ***Land*** | Likely | | |
| ***Channel*** | NA | | |
| ***Roads/Trails*** | Likely | | |
| ***Protection/Safety*** | Likely | | |

**E. Cost of No-Action (Including Loss):** NA

**F. Cost of Selected Alternative (Including Loss):** $138,931

**G. Skills Represented on Burned-Area Survey Team:**

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

**Team Leader:** Todd Reinwald
**Email:** todd.reinwald@usda.gov **Phone(s):** 971-325-5153 (cell), 503-668-1769 (offc)

**Forest BAER Coordinator:** Robert (Mike) Reed
**Email:** robert.m.reed@usda.gov **Phone(s):** 530-398-5795

**Team Members:***Table 9: BAER Team Members by Skill*

| **Skill** | **Team Member Name** |
|---|---|
| *Team Lead(s)* | Todd Reinwald (MTH) |
| *Soils* | Brien Park (UMA) |
| *Hydrology* | Hazel Wood & Sam Spengler (MAL) |
| *Engineering* | Terry Orton (FRE-WIN) |
| *GIS* | Robin Harris (DRM) |
| *Archaeology* | Steven Highland (FRE-WIN) |
| *Weeds* | Jeannette Wilson & Nicholas Nguyen (FRE-WIN) |
| *Recreation* | Nathan Crabtree (FRE-WIN) |
| *Other* | |

**H. Treatment Narrative:**

**Land Treatments:** Invasive Plants: Conduct EDRR where vectors for the expansion of invasive species have been increased or enhanced to ameliorate the risk to native plant communities. These

include areas where suppression activities disturbed documented sites where invasive plants grow, and areas where moderate and high SBS are adjacent to uninfested native vegetation. Existing treatment contracts and agreements with local county and SWCD or other entities to be utilized.

**Channel Treatments:** NA

**Roads and Trail Treatments:** Stabilize segments of trails identified for high risk of damage from accelerated erosion, heightened runoff, flooding, and fire-killed trees. Storm inspection and response. Patrol roads after storms and wet weather to detect the need for ditch or culvert clean-out where post-fire erosion and runoff has impeded drainage.

**Protection/Safety Treatments:** Install warning signs for future public use at select trail and road locations to provide notice of fire related hazards. Temporarily close the parking and entrance to a specified trailhead (Cottonwood Ck #127) to public access until imminent hazards of fire-killed trees are ameliorated by the local unit.

Sign costs include the shipping, posts, hardware, and installation/labor. Gate costs include fabrication, shipping, hardware, concrete, gate signs, and installation/labor.

**I. Monitoring Narrative:** Post-fire monitoring would occur the following year to identify threats from invasive species by conducting early detection and initiating a rapid response. Post-treatment monitoring could be expected to evaluate invasive treatment effectiveness too.

Monitoring for erosion and runoff impacts to road drainage structures would take place during or after storms and heavy rains to identify any needed clean-out.

## 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** | | | | | | | | | | | |
| P1a. EDRR Invasive Treatm | acre | $ 200.00 | 275 | $55,000 | $0 | | | $0 | | $0 | $55,000 |
| P1a. EDRR Invasive Detecti | acre | $ 10.00 | 1,677 | $16,770 | | | | | | | $16,770 |
| P1b. EDRR Invasive Detecti | acre | $ 10.00 | 326 | $3,261 | | | | | | | $3,261 |
| | | | | $0 | $0 | | | $0 | | $0 | $0 |
| *Insert new items above this line!* | | | | $0 | $0 | | | $0 | | $0 | $0 |
| *Subtotal Land Treatments* | | | | $75,031 | $0 | | | $0 | | $0 | $75,031 |
| **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** | | | | | | | | | | | |
| R1. Storm Proofing | miles | $ 2,100.00 | 5 | $10,500 | $0 | | | | | | $10,500 |
| R3. Storm Inspection & Response | | | | | | | | | | | $0 |
| | days | $ 3,140.00 | 10 | $31,400 | $0 | | | | | | $31,400 |
| S1a. Road Hazard Signs | each | $ 500.00 | 11 | $5,500 | $0 | | | $0 | | $0 | $5,500 |
| S1b. Trail Hazard Signs | each | $ 300.00 | 7 | $2,100 | $0 | | | | | | $2,100 |
| S2a. Trailhead Gate | each | $ 1,500.00 | 1 | $1,500 | $0 | | | | | | $1,500 |
| T1. Trail Stabilization | miles | $ 2,580.00 | 5 | $12,900 | $0 | | | $0 | | $0 | $12,900 |
| *Insert new items above this line!* | | | | $0 | $0 | | | $0 | | $0 | $0 |
| *Subtotal Road and Trails* | | | | $63,900 | $0 | | | $0 | | $0 | $63,900 |
| **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 | | | --- | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | $0 | | | $0 | | $0 | $0 |
| *Insert new items above this line!* | | | | --- | $0 | | | $0 | | $0 | $0 |
| *Subtotal Evaluation* | | | | $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* | | | | $0 | $0 | | | $0 | | $0 | $0 |
| | | | | | | | | | | | |
| **G. Totals** | | | | $138,931 | $0 | | | **$0** | | **$0** | **$138,931** |
| Previously approved | | | | | | | | | | | |
| Total for this request | | | | **$138,931** | | | | | | | |

## PART VII - APPROVALS

1. BARRY IMLER Digitally signed by BARRY IMLER Date: 2021.10.22 09:20:11 -07'00'

Forest Supervisor Date