Date of Report: 10/11/2018
Taylor Interim #1: 12/04/2018
Klondike Interim #1: 01/31/2019

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

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

[] 2. Interim Report # 1 – Taylor Fire
This Interim #1 addresses addional funding needed to complete retaining wall trail stabilization on the Taylor Fire.
[X] Updating the initial funding request based on more accurate site data or design analysis
[ ] Status of accomplishments to date

[X] 2. Interim Report # 1 – Klondike Fire
This Interim #1 addresses addional funding needed to complete noxious weed EDRR for burned area and suppression actions from increased burned area since the Initial funding request on the Klondike Fire, as well as a budget correction for armored critical/drain dips to correct a shortfall in funding.
[X] 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: Taylor
Klondike

B. Fire Number: OR-MED-000395
OR-RSF-000354

C. State: Oregon

D. County: Josephine/ Curry

E. Region: PNW (R6)

F. Forest: Rogue River- Siskiyou

G. District: Wild Rivers/ Gold Beach

H. Fire Incident Job Code: Taylor: PDL00118
Klondike: P6L00P18

I. Date Fire Started: 7/15/2018

J. Date Fire Contained: Taylor Fire: 10/11/2018
Klondike Fire: 11/28/2018

K. Suppression Cost: Klondike: $86,400,000 as of 10/7/2018
TaylorCreek: $41,000,000 as of 10/7/18

L. Fire Suppression Damages Repaired with Suppression Funds (as of November 3, 2018)
1) Line Completed (miles): ~~80~~ 355

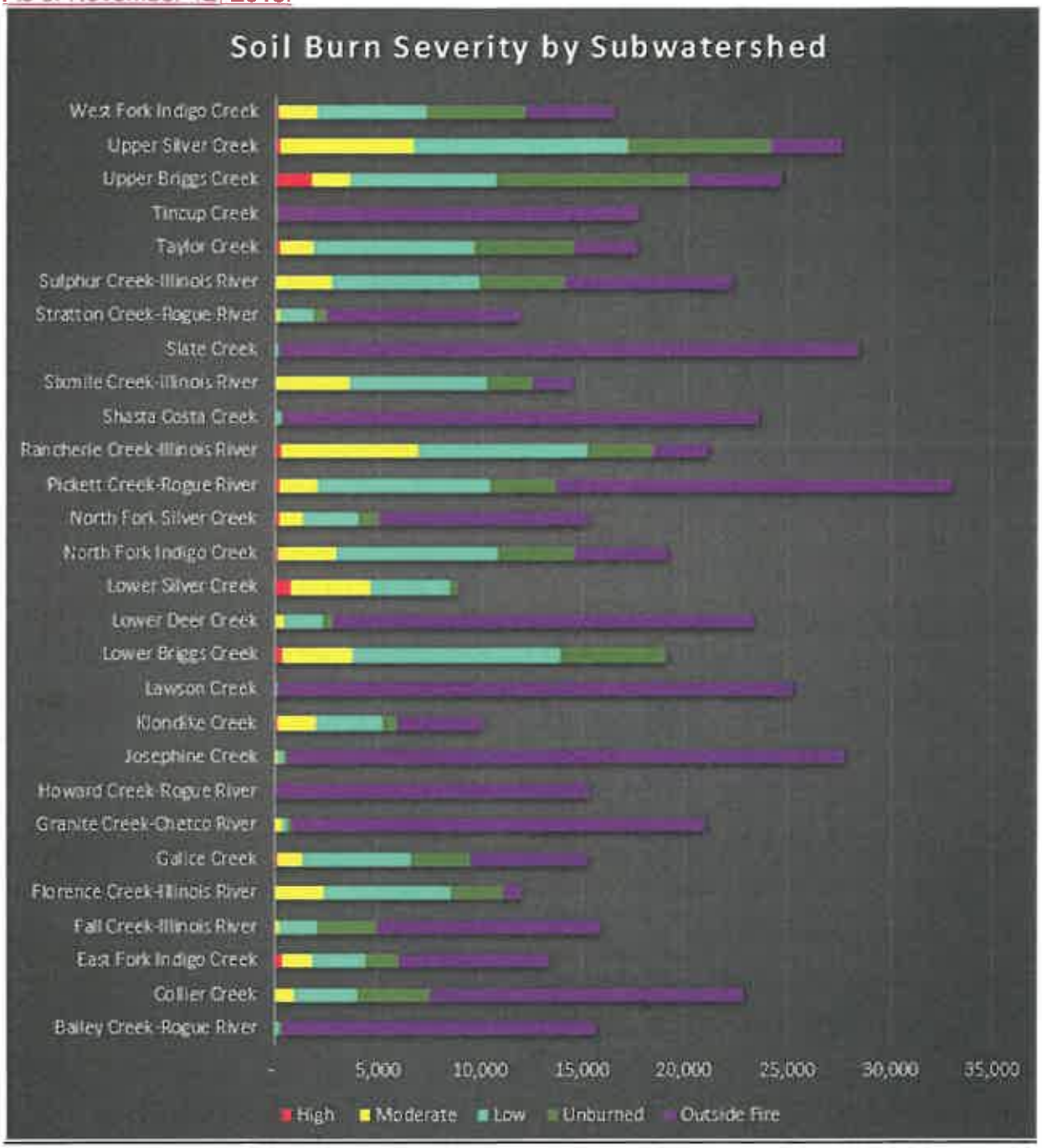
2) Repair Needed/In Progress (miles): ~~283~~ 25 (In Progress [~~69~~ 16 miles] and Repair Needed [~~214~~ 9 miles])
3) Other (identify): Repair on 1 drop point is completed. Repair is needed or in progress on 60 drop points, 25 helispots, 1 safety zone, 5 staging areas, and 2 water sources. 241 Points completed, 8 points in progress, 104 points repair needed.

M. Watershed Number:
As of November 12, 2018:

Soil Burn Severity by Subwatershed

Subwatershed Name	Total Subwatershed Acres (Percent Burned)	Soil Burn Severity			
		Unburned or Very Low Acres	Low Acres	Moderate Acres	High Acres
Bailey Creek-Rogue River	15,672 (2%)	172	144 (1%)	1 (0%)	
Collier Creek	22,891 (33%)	3,583	3,067 (13%)	892 (4%)	10 (0%)
East Fork Indigo Creek	13,310 (45%)	1,677	2,552 (19%)	1,465 (11%)	345 (3%)
Fall Creek-Illinois River	15,923 (31%)	2,921	1,884 (12%)	130 (1%)	1 (0%)
Florence Creek-Illinois River	11,908 (93%)	2,568	6,140 (52%)	2,362 (20%)	33 (0%)
Galice Creek	15,272 (62%)	2,982	5,258 (34%)	1,245 (8%)	54 (0%)
Granite Creek-Chetco River	21,069 (4%)	292	258 (1%)	286 (1%)	19 (0%)
Howard Creek-Rogue River	15,325 (0%)	7	2 (0%)	1 (0%)	(0%)
Josephine Creek	27,791 (2%)	128	332 (1%)	89 (0%)	(0%)
Klondike Creek	10,040 (59%)	677	3,235 (32%)	1,943 (19%)	50 (0%)
Lawson Creek	25,256 (0%)	29	56 (0%)	22 (0%)	0 (0%)
Lower Briggs Creek	19,113 (100%)	5,164	10,188 (53%)	3,367 (18%)	334 (2%)
Lower Deer Creek	23,301 (12%)	549	1,851 (8%)	395 (2%)	(0%)
Lower Silver Creek	8,881 (100%)	450	3,829 (43%)	3,849 (43%)	748 (8%)
North Fork Indigo Creek	19,194 (76%)	3,823	7,851 (41%)	2,836 (15%)	122 (1%)
North Fork Silver Creek	15,239 (33%)	995	2,697 (18%)	1,138 (7%)	182 (1%)
Pickett Creek-Rogue River	32,959 (42%)	3,298	8,333 (25%)	1,896 (6%)	162 (0%)
Rancherie Creek-Illinois River	21,153 (87%)	3,195	8,301 (39%)	6,682 (32%)	222 (1%)
Shasta Costa Creek	23,565 (1%)	79	222 (1%)	5 (0%)	(0%)
Sixmile Creek-Illinois River	14,488 (86%)	2,267	6,713 (46%)	3,521 (24%)	18 (0%)
Slate Creek	28,444 (1%)	28	85 (0%)	32 (0%)	(0%)
Stratton Creek-Rogue River	11,846 (20%)	601	1,658 (14%)	168 (1%)	0 (0%)
Sulphur Creek-Illinois River	22,264 (63%)	4,262	7,145 (32%)	2,644 (12%)	14 (0%)
Taylor Creek	17,654 (82%)	4,901	7,876 (45%)	1,572 (9%)	180 (1%)
Tincup Creek	17,748 (0%)	37	12 (0%)	0 (0%)	(0%)
Upper Briggs Creek	24,645 (81%)	9,423	7,034 (29%)	1,930 (8%)	1,684 (7%)
Upper Silver Creek	27,501 (87%)	6,897	10,436 (38%)	6,510 (24%)	171 (1%)
West Fork Indigo Creek	16,481 (73%)	4,890	5,247 (32%)	1,861 (11%)	102 (1%)
Grand Total	[illegible] (43%)	65,893	112,439 (21%)	46,844 (9%)	4,450 (1%)

As of November 12, 2018:



Initial 2500-8 Data:

Soil Burn Severity by Subwatershed							
Subwatershed Name	Total Subwatershed Acres (Percent Burned)		Soil Burn Severity				
			Unburned or Very Low Acres	Low Acres		Moderate Acres	High Acres
Bailey Creek-Rogue River	15,673	2.0%	178	142	(1%)	0 (0%)	(0%)
Collier Creek	22,891	32.4%	3,579	2,986	(13%)	838 (4%)	9 (0%)
East Fork Indigo Creek	13,310	28.9%	1,212	1,794	(13%)	690 (5%)	149 (1%)
Fall Creek-Illinois River	15,923	26.9%	2,680	1,529	(10%)	81 (1%)	0 (0%)
Florence Creek-Illinois River	11,908	92.7%	2,514	6,133	(52%)	2,358 (20%)	32 (0%)
Galice Creek	15,272	62.6%	2,981	5,290	(35%)	1,242 (8%)	54 (0%)
Granite Creek-Chetco River	21,069	4.0%	323	231	(1%)	275 (1%)	19 (0%)
Howard Creek-Rogue River	15,325	0.1%	7	3	(0%)	1 (0%)	(0%)
Josephine Creek	27,791	1.5%	98	243	(1%)	65 (0%)	(0%)
Klondike Creek	10,040	58.5%	655	3,226	(32%)	1,942 (19%)	51 (1%)
Lawson Creek	25,256	0.4%	31	54	(0%)	24 (0%)	0 (0%)
Lower Briggs Creek	19,113	99.7%	5,161	10,184	(53%)	3,371 (18%)	335 (2%)
Lower Deer Creek	23,301	11.9%	543	1,828	(8%)	392 (2%)	(0%)
Lower Silver Creek	8,881	100.0%	445	3,832	(43%)	3,854 (43%)	748 (8%)
North Fork Indigo Creek	19,194	45.1%	3,467	4,041	(21%)	1,033 (5%)	123 (1%)
North Fork Silver Creek	15,239	27.9%	866	2,266	(15%)	933 (6%)	182 (1%)
Pickett Creek-Rogue River	32,959	41.3%	3,293	8,287	(25%)	1,883 (6%)	161 (0%)
Rancherie Creek-Illinois River	21,153	83.1%	2,911	7,941	(38%)	6,494 (31%)	223 (1%)
Shasta Costa Creek	23,565	0.0%	1	0	(0%)	(0%)	(0%)
Sixmile Creek-Illinois River	14,488	86.3%	2,277	6,699	(46%)	3,509 (24%)	17 (0%)
Slate Creek	28,444	0.4%	26	68	(0%)	24 (0%)	(0%)
Stratton Creek-Rogue River	11,846	20.5%	610	1,662	(14%)	159 (1%)	0 (0%)
Sulphur Creek-Illinois River	22,284	62.8%	4,268	7,101	(32%)	2,619 (12%)	15 (0%)
Taylor Creek	17,654	82.4%	4,896	7,880	(45%)	1,584 (9%)	180 (1%)
Tincup Creek	17,748	0.3%	34	11	(0%)	0 (0%)	(0%)
Upper Briggs Creek	24,645	81.4%	9,460	7,007	(28%)	1,908 (8%)	1,679 (7%)
Upper Silver Creek	27,501	75.8%	6,550	9,239	(34%)	4,916 (18%)	130 (0%)
West Fork Indigo Creek	16,481	53.1%	3,519	3,662	(22%)	1,474 (9%)	99 (1%)
Grand Total	538,952	39.3%	62,584	103,340	(19%)	41,669 (8%)	4,209 (1%)

N. Total Acres Burned: ~~211,801~~ 229,627 total acres. Taylor: 52,839 acres; Klondike: 176,788 acres.
NFS Acres(~~191,821~~ 209,091) BLM (~~12,035~~ 12,560) State of Oregon (638) Private (~~7,308~~ 7,338)

O. Vegetation Types:
Habitats are varied within the Klondike and Taylor Creek Fire areas and range from oak woodland with Quercus garryana (white oak) and Quercus kelloggii (black oak) and Toxicodendron diversilobum (poison oak) as the dominant shrub cover at lower elevations, to mixed conifer forests: Pseudotsuga menziesii (Douglas-fir) and Lithocarpus densiflora (tanoak), Abies concolor (white fir) and Pseudotsuga menziesii or Abies magnifica (red fir) at the highest elevations. Significant numbers of Pinus lambertiana (sugar pine), Pinus ponderosa (Ponderosa pine), and Calocedrus decurrens (incense cedar) also occur with Quercus chrysolepis (canyon live oak), Umbellularia californica (California bay laurel), Arbutus menziesii (Pacific madrone), and Castanopsis chrysophylla (chinkapin). Common shrubs include Arctostaphylos spp. (manzanita), Quercus vacciniifolia (huckleberry oak), Rhamnus californica (coffeeberry), Notholithocarpus densiflorus var. echinoides (shrub form

tanoak), Rhododendron columbianum (labrador tea), and Rhododendron occidentale (western azalea). Open Pinus jeffreyi (Jeffrey pine) woodlands occur on the west and southwest facing serpentine slopes. Also on serpentine soils, mixtures of several conifers can be found: Chamaecyparis lawsoniana (Port Orford cedar) in riparian areas, Pinus monticola (western white pine), Pseudotsuga menziesii (Douglas-fir), Pinus attenuata (knobcone pine), and Picea breweriana (Brewer spruce) in isolated populations. Darlingtonia californica (California pitcher plant) occurs in localized seeps, streamsides, or across broad terraces and is associated with a number of sensitive or endemic plants including Gentiana setigera, Viola primilifolia var. occidentalis, Castilleja elata, Cypripedium californicum, Hastingsia alba, Hastingsia bracteosa var. bracteosa, and Lilium pardilinum ssp. vollmeri.

P. Dominant Soils:
The majority (about 66%) of the acreage is comprised of soil types that have only undergone a moderate degree of development, while the remainder are considered to be well developed (USDA 1979, 1983, and 2018). Soils that have developed from serpentine comprise about 13 percent of the burned area. Soil depth varies, but most (>70%) of the acreage is moderately deep (20 to 40") or shallow (<20"). About 80 percent of the soil acreage is dominated by loam and sandy-loam textures, followed by a lesser extent of clay loams. Silt loams are of minor extent. With the exception of the clay loams, most of the soil in the area exhibits low cohesion, and they are well drained. About 97 percent of the acreage is rocky to extremely rocky, with lithic or skeletal conditions and many patches of rock outcrops and talus. The soil temperature regime is mostly mesic, with frigid regimes at the higher elevations. The soil moisture regime is xeric (dry).

Q. Geologic Types:
The Taylor and Klondike Fires burned in the Klamath Mountains Geologic Province in southwest Oregon, which includes the Klamath and Siskiyou Mountains - rugged mountain ranges in northwestern California and southwestern Oregon. The ranges' climates are characterized by moderately cold winters with heavy snowfall and warm, dry summers with limited rainfall. The rocks of the province originated as island arcs and continental fragments from the Pacific Ocean. The island masses consisted of rifted fragments of pre-existing continents and volcanic island masses created over subduction zones. These island masses contain rocks as old as 500 million years, dating to the early Paleozoic Era. A succession of eight island terranes moved eastward on the ancient Farallon plate and collided with the North American plate between 260 and about 130 million years ago. Each accretion left a terrane of rock of a single age, which gets progressively older from west to east. During accretion, subduction of the plate metamorphosed overlying rock and produced magma which intruded the overlying rock as plutons. Serpentinite, produced by the metamorphism of basaltic oceanic rocks, and intrusive rocks of gabbroic to granodioritic composition are common rocks within the Klamath terranes. Subsequent lava flows from active volcanoes in the Cascade Range and the erosion of the Oregon Coast Range to the north partially covered these rocks with basalt and sediments.

R. Miles of Stream Channels by Order or Class:

Stream Type	Miles
Perennial Stream	~~1,002~~ 1,079
Intermittent Stream	~~100~~ 102
Ephemeral Stream	~~112~~ 114
Canal/Ditch	14
Grand Total	~~1,228~~ 1,309

S. Transportation System

Trails: ~~135~~ 136 miles **Wilderness:** 36 miles **Non-Wilderness:** ~~99~~ 100 miles

Roads:

Maintenance Level	Miles
1 - BASIC CUSTODIAL CARE (CLOSED)	~~70~~ 77
2 - HIGH CLEARANCE VEHICLES	~~315~~ 343
3 - SUITABLE FOR PASSENGER CARS	32
4 - MODERATE DEGREE OF USER COMFORT	22
Decommissioned	40
NON-FS ROADS	95
Grand Total	~~575.2~~ 610

PART III - WATERSHED CONDITION

A. **Burn Severity (acres):** Total: ~~62,583~~ 65,893 (unburned); ~~103,340~~ 112,439 (low); ~~41,669~~ 46,844 (moderate); ~~4,209~~ 4,450 (high)
NFS Land: ~~57,082~~ 60,326 (unburned); ~~91,486~~ 100,330 (low); ~~39,227~~ 44,157 (moderate); ~~4,026~~ 4,267 (high)

B. Water-Repellent Soil (acres): Indeterminate

C. Soil Erosion Hazard Rating (acres):
~~63,368~~ 66,750 **(low)** ~~105,234~~ 114,552 **(moderate)** ~~39,318~~ 44,226 **(high)** ~~3,881~~ 4,099 **(very high)**

D. Erosion Potential: 46 tons/acre (5-yr post-fire average for all modeled watersheds)

E. Sediment Potential: 21,029 cubic yards/square mile (conversion factor 1.4 tons per cu. Yd.)

F. Debris Flow Potential:

Drainage basins within the burned area were assessed for increased risk of the aforementioned mass wasting events through research of historical events, including local knowledge of pre and post-fire events, discussions with cooperators and other BAER team members, ground-based and aerial reconnaissance, and debris flow modelling provided by the U.S. Geological Survey (USGS). Field observations were made to evaluate the characteristics of surficial deposits and slope/drainage geometries. USGS modelling provided probabilities for debris flow occurrence for each drainage within the fire perimeter. Results indicate that 89% of drainages have a probability of less than 0.40 for debris flow occurrence, and 11% have a probability of 0.60-0.80 for debris flow occurrence. Drainages at highest risk for debris flow initiation include Silver, Lower Briggs, Fall, and Onion Creeks.

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period	1-3* years
B. Design Chance of Success	80 %
C. Equivalent Design Recurrence Interval	5 year (20% probability)
D. Design Storm Duration	24 hour
E. Design Storm Magnitude (inches)	3.7"-7.0"
F. Design Flow	17-181 cfs/mi^2
G. Estimated Reduction in Infiltration	See soils report
H. Adjusted Design Flow	31-332 cfs/mi^2

*1-3 years grass (achieve % effective ground cover), 5-15 years shrubs, 20-70 years conifers

PART V - SUMMARY OF ANALYSIS

Hydrologic Response

The Taylor and Klondike Fires burned primarily within the Illinois River watershed and in the watersheds of smaller tributaries to the Rogue and Chetco River. Watershed response in the burned area is expected to include an initial flush of ash and fine sediment, rill and gully erosion in drainages and on steep slopes within the burned area, as well as increased peak flows, channel scour, and sediment deposition. Due to the steepness of many drainages in the burned area, the amount of moderate-to-high burn severity, and the lack of canopy vegetation and groundcover after the fire, even modest rainfall events will likely increase surface runoff and erosion, swelling streams with sediment- and debris-laden flood waters. Elevated runoff response is expected to be greatest in the first year following the fire, and will become less prevalent as vegetation and groundcover become re-established over the next several years.

The primary hydrologic mechanisms of damage are bulked flood flows, debris flows, and debris jams. The BAER assessment team hydrologists identified Onion Creek, Store Gulch, Taylor Creek, and numerous named and unnamed tributaries to Taylor Creek and the Illinois River to be at higher risk for flooding and associated damage. The soil burn severity map, flow modeling, and field observations were used to assess the level of threat and risk to BAER critical values in and adjacent to the burned area, and to develop treatment recommendations.

Areas of moderate and high soil burn severity drove changes in modeled runoff response. Estimated post-fire runoff in many drainages suggested a two-to-threefold increase over pre-fire flow for the five-year storm or flow event. Increases in post-fire flood flows pose a potential threat to human life and safety at campgrounds and on trails and roads, as well as threats to road and trail infrastructure. Private residences downstream of the burned area may also be at risk of damage. Longer-duration (24 hour or longer) rainstorms that generally occur in the burned area from November through March are the precipitation events most likely to generate elevated post-fire runoff. Rain-on-snow-driven runoff events also have the potential to generate considerable post-fire floods. These events generally occur in March and April in the burned area.

Erosion Response

The change in erosion potential and sediment yield from pre- to post fire conditions was estimated using the Erosion Risk Management Tool (ERMiT, Robichaud et al., 2014) and WEPP for Windows (USDA-ARS, NSERL, and Purdue University, interface version September 2013). These tools are useful for comparing the relative difference between pre- and post-fire erosion potential, and provide estimates of the quantity of sediment yield that could be produced.

Averaged model estimates indicate that overall, there could be as much as a 60 percent increase in sediment yield on a per acre basis in the first year post-fire from ground where soil burn severity was moderate or high. On a subwatershed scale, there are only three drainages where the combined acres of moderate and high soil burn severity amount to more than 20 percent of the drainage (Lower Silver Ck, Rancherie-Illinois, and Sixmile-Illinois). With the exception of those three, the majority of subwatersheds were only lightly burned over, so a large-scale sediment response would not be expected from high probability precipitation events. Response would be more localized.

In patches of moderate and high soil burn severity, the estimated 5-year average of post fire sediment production for modeled subwatersheds was as high as 46 tons per acre. This value suggests that accelerated erosion could result in long-term reductions in soil productivity, and potentially have a negative effect on water quality during periods of heavy runoff. For example, it is estimated that a 2-year precipitation event (50% chance of occurrence in any given year) could yield 28 tons per acre within the first year post-fire, a projected

72 percent increase above an unburned condition. These model outputs support the likelihood that accelerated erosion initiated by rainfall in heavily burned over areas will result in sediment transport, which has the potential to impact critical values.

A final side note, fire-induced hydrophobicity was not factored into model simulations. This was due to commonly observed soil repellency encountered while sampling in the field. Three in five samples collected from unburned areas exhibited moderate to strong water repellency. Hence, differentiating background hydrophobicity from fire induced repellency was unpredictable, so it was not factored into erosion estimates.

Geologic Response

Modelling results generally support field observations that indicate there will be limited post-fire geologic response from a 10-year recurrence interval storm event. Only 11% of drainages have a probability greater than 0.40 for the occurrence of debris flows. Drainages at highest risk for debris flow initiation include Silver, Lower Briggs, Fall, and Onion Creeks.

The limited post-fire geologic response is due to a historic, repetitious fire regime that limits soil development, leading to regular and consistent soil erosion. The constant erosion of soil from steep slopes does not support development of deep-seated, large volume failures. This also precludes the accumulation of large volumes of material required to initiate large scale debris flows. Interviews with local staff from the RRSNF indicate that post-fire debris flows are typically small, but have sufficient volume to block culverts, which may ultimately lead to road damage and/or failure. This is most likely to occur where roads cross significant drainages below areas that experienced moderate to high soil burn severity. Areas of particular interest include where moderate to high soil burn severity overlaps past geologic instability. The most feasible mitigations for debris flows are storm proofing and storm inspection and response on roads to protect critical values.

Values Assessment:

The table below is Exhibit 02 from FSM 2523.1. This matrix was used to evaluate the risk level for each value identified during this BAER assessment. See FSM 2523.1 for additional information.

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**

	Invasive plant invasion due to suppression disturbance	**very likely:** adjacent to known populations of noxious weeds and exposed mineral soil	**moderate:** considerable long-term effects to native plant community	**Very High**	**L1b- Early Detection Rapid Response**	infestations. EDRR line, 17.75 miles o camps, 18 helispo an additional 3.6 treatment when k the Initial 2500-8. serpentine plant c diversity from the Alyssum murale (y
	Invasive plant invasion in areas with 50-100% basal area loss	**very likely:** adjacent to known populations of noxious weeds and exposed mineral soil, increased light to ground	**moderate:** considerable long-term effects to native plant community	**Very High**	**L1a- Early Detection Rapid Response**	Focus will be on a populations, mea with 50-100% bas populations nearb acres. There is an since the Klondike Initial 2500-8
r ns	Loss of critical habitat due to excess sedimentation and debris flow, increased turbidity, increase temperature and duration and magnitude of sediment load	**likely:** most of the fire was of moderate to low severity. There is a moderate change of high flooding with a small chance of increased debris flow.	**minor:** impacts do not exceed the resilience of the coho population to survive in the short term (within three years). Damage to critical is minimal and recoverable.	**Low**	**No Treatment** Although a low risk rating was determined, all fish species will benefit from road and trail treatments.	
e	Storm flows plugging culverts, possible small landslides or debris flows	**possible:** culvert currently plugged and site shows signs of past instability/repair.	**moderate:** other routes of ingress and egress, seasonal access	**Intermediate**	**No Treatment**	Located at three-s Creek. Culvert is a earth slumps up t
	accelerated erosion	**very likely**: due to a loss of effective ground cover that exposes soils to erosive forces	**Minor**: due to the major extent of low, very low, and unburned soil burn severity, where natural recovery would be expected in 2-5 years	**low**	**No Treatment**	
	illicit OHV use	**possible**: because some burned over areas may be more open	**moderate**: because of prevailing steep slopes	**intermediate**	**No Treatment**	
	Flooding causing entrapment of visitors	**likely: high and moderate burn** severity above road and road damage/wash-out likely during a storm event	**moderate:** injury to people trapped in area without ingress/egress	**High**	P2- Administrative Road Closure with gates	By closing these p reduce the potent visitors.
			major: a flood in an			

	causing injury to Forest users	Taylor Creek near the China Creek confluence	could result in loss of life	High	with signs and boulders during high flow season, Nov-March	
0- r	Flooding of the dispersed campsites causing injury to Forest users	**possible:** two campsites, one is located on the floodplain and the other is up on a terrace	**major:** a flood in an occupied campsite could result in loss of life	High	**P1b/P2-** Administratively close with signs and gate during high flow season, Nov-March	Used to be Tin Ca trail retaining wal
	Flooding of the dispersed campsites causing injury to Forest users	**possible:** Sites are located 5-8 ft above bankfull width, above broad floodplain.	**major:** a flood in an occupied campsite could result in loss of life.	High	**P1b-** Administratively close with signs during high flow season, Nov-March	There are two adj
	Flooding of the dispersed campsites causing injury to Forest users	**unlikely:** Sites are located 5-8 ft above bankfull width, above broad floodplain.	**major:** a flood in an occupied campsite could result in loss of life.	Intermediate	**P1b-** Post warning signs	There are two adj
ıd g	Flooding and debris flows/mass movement	**unlikely:** Sites are located above floodplain and away from drainages	**major:** a flood in an occupied campsite could result in loss of life.	Intermediate	**P1b-** Post warning signs	Sites include Store campgrounds.
ıd SR	Flooding of the dispersed campsites causing injury to Forest users	**unlikely:** Site is located on a bench, 6-8 ft above floodplain	**major:** a flood in an occupied campsite could result in loss of life.	Intermediate	**P1b-** Post warning signs	May have been hi Campground.
	Negative impacts to water quality due to excess sedimentation and debris flow, increased turbidity, and duration and magnitude of sediment load	**likely:** increased flow and highly erodible soils and steep slopes	**moderate:** poor water quality effects habitat, including critical habitat for listed species	High	**No Treatment** Where values overlap, treat roads and trails to minimize post-fire erosion and sedimentation of streams where multiple values benefit from such treatment	
v	Looting due to newly exposed features	**unlikely:** lack of features and/or artifacts	**minor:** minimal localized effects to value	Very Low	**No Treatment**	
	Increased river stage in main stem of Illinois River	**unlikely:** small percentage of entire Illinois River drainage burned	**minor:** minimal localized effects to value	Very Low	**No Treatment**	
	Increased river stage in main stem of	**unlikely:** small percentage of	**minor:** minimal	Very Low	**No Treatment**	

	Erosion, potential stream channel blockage upstream diverting sediment laden flow into structure	**possible:** site is susceptible to nuisance sediment flow	**moderate:** damage due to sediment would be moderate in property value	**Intermediate**	**P5-** Propane Tank Removal	listed on national block foundation, reinforced; electri running along exte water intake struc
t	Hazards including falling trees, rockfall, and unstable trail tread	**possible:** travelers along trail may experience additional hazards	**major:** hazards due to the fire have the potential to cause loss of life or injury to humans	**High**	**P1b-** Trail/Recreation Hazard Signs	Trailhead Hazard limited to: Onion Peak, Illinois River Cabin, Lawson Cre
	Hazard Trees falling on people and vehicles, travel on trial through burned area	**possible:** burnt trees near where people park/ congregate	**major:** falling trees with potential of loss of life	**High**	**P3a-** Assess and remove hazard trees **P1b-** Trail/Recreation Hazard Signs	Trailhead Hazard include but are nc Mile Post 3, China West Fork, Taylor Silver Creek, Taylc Phone, Swede Cre Chrome Ridge Roa Fishhook Peak, Ga Hardscrabble, Che Pass
s	Hazard Trees falling on people, vehicles, horses, horse corrals, picnic tables, and toilet buildings.	**likely:** burnt trees near where people park/ congregate	**major:** falling trees with potential of loss of life.	**Very High**	**P3a-** Assess and remove hazard trees	Hazard Tree Mitig but not limited to Shan Creek Overlc River Bench Camp Store Gulch Picnic Hole Picnic Site, M Campground, Gan
e	Hazard Trees falling on people and vehicles, travel on trial through burned area	**very likely:** burnt trees near where people park/ congregate	**major:** falling trees with potential of loss of life.	**Very High**	**P2-** Replace damaged gate to effectively close site. **P1b-** Trail/Recreation Hazard Signs **RT13-** Trail drainage **RT12-** Fill slope stabilization where timber retaining structures were burned (350').	Where timber reta trail tread is no lo washing away con be less expensive replace and stabil
	Hazard Trees falling on people and vehicles, travel on trial through burned area	**possible:** burnt trees near where people park/ congregate	**major:** falling trees with potential of loss of life	**High**	**P3a-** Assess and remove hazard trees **P1b-** Trail/Recreation Hazard Signs	
n	Falling trees, floating debris, and other hazards affecting the safe travel of recreationist on the Illinois River	**possible:** trees in High and Moderate Severity falling into the river	**major:** could result in loss of life or	**High**	**P1b-** Warning signs displaying expressing increased risks in post-fire environment while boating	Boat Put-Ins on th

	vehicles, toilet building, and people tripping and falling on exposed picnic table hardware. Falling through burned trail bridge decking into Briggs Creek, hiking through burned area on Illinois River Trail	**likely:** burnt trees near where people park/ congregate, and hardware (brackets, screws, nails), major trail bridge with decking burned out	**major:** falling trees with potential of loss of life, plummeting from trail bridge with potential loss of life	**Very High**	**P1b-** Trail/Recreation Hazard Signs **P7-** Infrastructure Removal **RT15 -** Replace burned wood decking in order to facilitate crews accessing Illinois River Trail to conduct BAER work	
)'	Loss of trail tread/public and administrative access, damage to natural resources (erosion/sedimentation)	**very likely**: trails travel through high severity burn or below areas of high severity burn on steep slopes.	**major**: total loss of trail tread	**Very High**	**RT13 -** Trail stabilization treatments as defined in BAER Rec report and spec sheets.	Trails affected: Du Red Dog #1143, T
)' ep	Loss of trail tread/public and administrative access, damage to natural resources (erosion/sedimentation)	**likely**: trails travel through moderate severity burn or below areas of moderate severity burn on steep slopes	**major**: total loss of trail tread	**Very High**	**RT13 -** Trail stabilization treatments as defined in BAER Rec report and spec sheets.	Trails affected: Co #1219B, Horse Sig Kalmiopsis Rim #1 Camp Way #1174, York Butte #1140, Creek #1130, Dee Fall Creek #1221, Lake #1169, Illinoi #1124, Little Silve Red Dog #1143, Sl #1134, Silver Peak Mountain Way #1 Creek #1142, Upp
ts	Tripping and falling over exposed concrete and rebar	**possible:** exposed trail bridge remnants along trails	**moderate:** potential to cause injury	**Intermediate**	**RT14 -** Remove exposed concrete and rebar.	Burned Timber Int #1142.
	Loss of trail tread/public and administrative access, damage to natural resources (erosion/sedimentation)	**very likely**: four by four foot fill x 700' will fail directly into Taylor Creek	**major:** loss of trail infrastructure investment	**Very High**	**RT12 -** Repair timber retaining wall	Taylor Creek #114
gh ep	Loss of trail tread/public and administrative access, damage to natural resources (erosion/sedimentation)	**unlikely:** trail not within or below moderate or high severity fire	**moderate:** potential loss of trail infrastructure limited	**Low**	**No Treatment**	Sam Brown Tie #1 Mine Jeep #1136, Horn Bend #1285, Bearcamp Ridge # Noble Way #1185 #1153, Pine Flat W Pine Sunshine Loo Snailback Falls #1 Silver Falls Overlo Pine Loop #1155b #1282, Swede Cre
					M5- Agency Coordination,	This is a potential engineering perso

	potential for falling snags and rocks, flooding, or other unforeseen hazards	**likely:** roads run through high SBS with many snags adjacent to road	**major:** transit in hazardous areas could result in severe injury or loss of life due	Very High	P2- maintain existing closure until hazard trees are mitigated	
e	potential for falling snags and rocks, flooding, or other unforeseen hazards	**likely:** roads within moderate/high burn severity with longer duration of travel due to potential delays	**major:** loss of life or injury	High	P1a- road hazard signs (12 Signs)	Signs include stan Water ford may b maintenance not 2516-675 Sign sho surface stops.
	Flooding causing entrapment of visitors	**Likely**- burn severity make this potential like to users entering these areas during a storm event	**Moderate:** Injury to people	High	P2- Administratively Road Closure with gates	By closing these p reduce the potent visitors.
	potential for concentrated flows to cause further loss of road fill in addition to traveling vehicles to fall into burned out cavities in road prism	**likely:** structurally compromised cavities exist immediately adjacent to travel way	**moderate:** vehicular accidents could result in injury	High	RT12- shoulder burn-out repair (7 Sites)	
s)	elevated runoff could gully road and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features (outsloped)	**likely:** road within moderate-high SBS areas	**moderate:** damage or loss of road prism and loss of surfacing	High	M5- Interagency Coordination	Josephine County and have a specia Request they com
s)	elevated runoff could gully road and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features (outsloped)	**likely:** road within moderate-high SBS areas	**moderate:** damage or loss of road prism	High	M5- Interagency Coordination	Josephine County and have a specia Request they com located mostly on miles "log" used a
s)	elevated runoff could gully road and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features (outsloped)	**possible:** road within low-moderate SBS with areas of unburned	**moderate:** damage or loss of road prism	**Intermediate**	**No Treatment**	Unable to access l blowdown. There culvert.
s)	elevated runoff could gully road and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features	**possible:** road within low-moderate SBS with areas of unburned	**minor:** damage or loss of road prism	**Low**	**No Treatment**	Only driven to MP

s)	divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features (outsloped)	**possible:** road within low-moderate SBS with areas of unburned	**minor:** damage or loss of road prism	**Low**	**No Treatment**	Unable to access l blowdown.
s)	elevated runoff and woody debris in draws could plug culverts and divert flow onto and damage roads; runoff from hillslopes could overwhelm existing drainage features	**likely**: drainages fluctuate between all ranges of SBS, with mid-slope sections of the road in moderate-high SBS areas	**major:** loss of road prism on primary administrative and public access road and loss of surfacing, detour to access Bear Camp	**Very High**	**RT1a**- culvert cleaning (8 each) **RT2**- storm inspection and response (6.0 miles) **RT3**- culvert removal (1 each) **RT4**- armored drain dips (4 each), armored critical dips (2 each) **RT12**- Shoulder Burn-out Repair (3 each)	One of two prima through the distri low - unburned to along Chrome Rid Creek TH and Dut
7	elevated runoff could plug culverts and divert flow onto and damage road, runoff from hillslopes could overwhelm existing drainage features	**likely**: drainages fluctuate between all ranges of SBS, with mid-slope sections of the road in moderate-high SBS areas	**major:** loss of primarily paved road prism on primary administrative and public access road. Loss of surfacing in ML 3 section of the road.	**Very High**	**RT1a**- culvert cleaning (9 each), Excavate catch basin (3) Slump Removal 20CY **RT2**- storm inspection and response (25.50 miles)	Main north-south through the fire a corridor. **DOD fib prior to excavatio**
)	elevated runoff could plug culverts and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features	**possible:** road within low-moderate SBS with areas of unburned	**moderate:** damage or loss of road prism and loss of surfacing	**Intermediate**	**No Treatment**	Road accesses mi beginning of road with separated las on forest represe
)	elevated runoff could plug culverts and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features	**likely**: road within moderate-high SBS areas	**minor:** damage or loss of road prism and loss of surfacing	**Intermediate**	**No Treatment**	Road needed for a forest priority bas Critical Values me
)	elevated runoff could plug culverts and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features	**possible:** road within low-moderate SBS with areas of unburned	**moderate:** damage or loss of road prism and loss of surfacing	**Intermediate**	**No Treatment**	Requested suppre blading creating o Existing inlets hav downslope of mo based on forest re meeting
)	elevated runoff and large woody debris in draws could plug culverts and divert flow onto and damage roads; runoff from hillslopes could overwhelm existing drainage features	**likely:** road runs mid-slope through high SBS for first mile	**moderate:** damage or loss of road prism and aggregate surfacing	**High**	**RT2**- storm inspection and response (1.03 miles)	provides access to area identified by near road with m road would need storm inspection

)	elevated runoff and large woody debris in draws could plug culverts and divert flow onto and damage roads; runoff from hillslopes could overwhelm existing drainage features	**likely:** road runs mid/low slope through high/moderate SBS	**moderate:** damage or loss of road prism and aggregate surfacing	**High**	**RT1a**- culvert cleaning, (12 each) ditch enhancement (1.24 miles) **RT2**- storm inspection and response (4.0 miles), **RT4**- armored critical dips (5), **RT12**- Shoulder burnout repair (1 each) 12CY	provides access to for post-fire salva surfaced road with culverts at stream Creek at end of ro imminent snags, r to implementing t
),)	elevated runoff could overwhelm drainage features diverting onto and damaging road prism	**unlikely:** low burn severity above roads	**minor:** damage to road prism	**Very Low**	**No Treatment**	native surfaced ro
s)	elevated runoff could bypass drainage features and damage road prism	**unlikely:** roads run through low/unburned SBS	**minor:** damage to road prism	**Very Low**	**No Treatment**	provides access to outsloped road wi
)	elevated runoff and existing suppression slash could plug culverts and divert flow onto and damage road	**possible:** road within compromised culverts below moderate-high SBS areas	**moderate:** damage or loss of road prism and loss of surfacing	**Intermediate**	**No Treatment**	Requested suppre blading creating o Existing inlets hav downslope of mo based on forest re meeting.
),),),)	elevated runoff could overwhelm drainage features diverting onto and damaging road prism	**likely:** roads run through high/moderate SBS	**minor:** damage to road prism	**Low**	**No Treatment**	roads are all close
s)	elevated runoff and large woody debris in draws could plug culverts and divert flow onto and damage roads; runoff from hillslopes could overwhelm existing drainage features	**likely:** road runs mid-slope through high/moderate SBS	**moderate:** damage or loss of road prism and aggregate surfacing	**High**	**RT1a**- culvert cleaning (13) ditch enhancement (0.1 miles), **RT2**- storm inspection and response (4.9 miles), **RT4**- armored critical dip (1) **RT12**- Shoulder burnout repair (1 each) 14CY	provides access to post-fire USFS salv snags near road; r to treatment impl
	elevated runoff could overwhelm	**possible:** road runs through	**moderate:** damage or			runs through old (

s)	drainage features diverting onto and damaging road prism	through moderate SBS and descends to mid-slope in low/unburned SBS	loss of road prism and aggregate surfacing	**Intermediate**	**No Treatment**	provides access to aggregate surface
)	elevated runoff could overwhelm culverts diverting flow onto and damaging road prism	**unlikely:** roads run through low SBS	**moderate:** damage or loss of road prism and aggregate surfacing	**Low**	**No Treatment**	provides access to aggregate surface was dozed by sup created routes
)	elevated runoff could overwhelm drainage features diverting onto and damaging road prism	**possible:** road runs mid-slope through mix of low/moderate SBS with multiple stream crossings	**moderate:** damage or loss of road prism and aggregate surfacing	**Intermediate**	**No Treatment**	dead end aggrega stream crossings functional ditchlin
s)	elevated runoff could overwhelm culverts diverting flow onto and damaging road prism	**possible:** road runs mid-slope through mostly low/unburned SBS with pockets of moderate SBS	**moderate:** damage or loss of road prism and aggregate surfacing	**Intermediate**	**No Treatment**	connects 250000 road with adequa
)	elevated runoff could plug culverts and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features	**likely:** midslope road within moderate SBS areas on western half, midslope road within low SBS areas on eastern half (division at Chrome Ridge - FSR 2402)	**moderate:** damage or loss of road prism and loss of surfacing	**High**	**RT1a-** culvert cleaning (17 each) and ditch enhancement (0.55 miles) **RT2-** storm inspection and response (8.1 miles) **RT5-** culvert risers (2 each)	Geology assessme on western half a 3.29 on the easte Butte TH and 251 the midpoint with
)	runoff from upper slopes of drainages could overwhelm existing drainage features	**unlikely:** road within low-unburned SBS with areas and upper drainage is low-unburned SBS	**minor:** damage or loss of road prism	**Low**	**No Treatment**	Route is a tie thro Mines. Existing c
s)	elevated runoff could gully road and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features	**likely**. road within moderate-high SBS areas	**moderate:** damage or loss of road prism and loss of surfacing	**High**	**RT4-** armored waterbars (20 each)	All culverts are cu installing armore ditchline will be d high SBS along en
)	elevated runoff could overwhelm culverts diverting flow onto and damaging road prism	**possible:** road runs mid-slope through low/unburned with two stream crossings	**moderate:** damage or loss of road prism and aggregate surfacing	**Intermediate**	**No Treatment**	provides access to brushy and blocke fully grown trees
)	elevated runoff could circumvent drainage features and damage road prism	**possible:** road runs mid-slope through moderate SBS	**moderate:** damage or loss of road prism and aggregate surfacing	**Intermediate**	**No Treatment**	provides access to bars; no cross dra
s)	elevated runoff could be diverted due to plugged culverts and damage road prism	**possible:** road runs through low/unburned SBS mid-slope then ascends to ridge	**moderate:** damage or loss of road prism and aggregate surfacing	**Intermediate**	**No Treatment**	provides critical a connects to trail b surfaced road wit

s)	due to plugged culverts and damage road prism	low/unburned near ridge for majority, enters moderate SBS mid-slope near end	loss of road prism and aggregate surfacing	**Intermediate**	**No Treatment**	to clogged culvert rutting in road du
s)	elevated runoff could overwhelm culverts diverting flow onto and damaging road prism	**very likely:** very steep segment of road runs through moderate SBS	**moderate:** damage or loss of road prism and aggregate surfacing	**Very High**	RT1a- culvert cleaning (17 Each), ditch enhancement, (0.88 mile) berm removal (1.3 miles) P1a- road hazard sign (1 sign)	only route connec area; road accesse Wilderness access road becomes slin at Briggs Creek; n surfacing
),)	elevated runoff could overwhelm culverts diverting flow onto and damaging road prism	**unlikely:** roads run through low/unburned SBS	**moderate:** damage or loss of road prism and aggregate surfacing	**Low**	**No Treatment**	provides access to aggregate surfacir
)	elevated runoff could plug culverts and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features	**possible:** road within low-moderate SBS with areas of unburned	**minor:** damage or loss of road prism and loss of surfacing	**Low**	**No Treatment**	Suppression rehal slash in ditchline. removed and culv work. Road is the Overlook, Shan Cr TH and the comm
)	elevated runoff could plug culverts and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features	**possible:** localized portion of road within moderate-high SBS	**major:** loss of primarily paved road prism on primary administrative and public access road. Loss of surfacing in ML 3 section of the road.	**High**	**No Treatment**	Suppression rehal slash in ditchline. removed and culv work. Road is the Overlook. Shan Cr TH and the comm
)	elevated runoff could plug culverts and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features	**possible:** road within mostly low SBS with areas of unburned	**minor:** damage or loss of road prism and loss of surfacing	**Low**	**No Treatment**	Identified work to mid-slope section paved section has near forest bound accesses Josephin at the ridge line w anticipated.
s)	elevated runoff could plug culverts and divert flow onto and damage road; runoff from hillslopes could overwhelm existing drainage features	**unlikely:** road within low-unburned SBS with areas and upper drainage is low-unburned SBS	**minor:** damage or loss of road prism and loss of surfacing	**Very Low**	**No Treatment**	MP 0.39 has a 48 timber with plent MP1.23 has a scou culvert. Road acce
s)	elevated runoff could plug culverts and divert flow onto and damage road; runoff from hillslopes could	**unlikely:** road within low-unburned SBS with areas and upper drainage is low-	**minor:** damage or loss of road prism and loss	**Very Low**	**No Treatment**	Road brushed in b

	elevated runoff and woody debris in draws could plug culverts and divert flow onto and damage roads; runoff from hillslopes could overwhelm existing drainage features	**likely**: road within low-moderate SBS areas directly upslope of road and with moderate-high SBS further up the drainages	**major:** loss of paved road prism on primary administrative and public access road and loss of surfacing	**Very High**	and ditch enhancement (1miles) **RT2**- storm inspection and response (10.2 miles) **RT4**- armored waterbars (8 each) **RT11**- Stream Crossing Protection (Store Gulch)	Primary paved acc along the Illinois F Ranch Boy Scout (mining claims and River; and Store G
)	elevated runoff could overwhelm existing drainage features in some segments of road and divert flow onto and damage roads	**very likely**: road within mostly moderate SBS areas with a few areas of low SBS	**major:** loss of road prism on administrative access to Pearsoll Lookout and public access to Chetco Pass TH	**Very High**	**RT1a**- culvert cleaning (1 each) and slump removal (5 cy) 2 inlet drop covers **RT2**- storm inspection and response (5.0 miles) **RT4**- armored critical dips (4 each); armored drain dips (3 each) **RT10**- Up-sized Culvert (150 ft x 18" dia); (34 ft x 24" dia); (68 ft x 36" dia); (34 ft x 48" dia)	Three (3) burned getting replaced u with transport Po protection of Dar system accessing wilderness trailhe
.)	elevated runoff could overwhelm existing drainage features and/or ponding in some segments of road and divert flow onto and damage roads	**likely**: midslope section of road within moderate-high SBS; ridgeline section within low-moderate SBS	**major:** loss of road prism on secondary public egress road for events along Illinois River. Loss of surfacing	**Very High**	**RT1a**- culvert cleaning (1 each) and berm removal (0.4 miles) **RT2**- Storm Patrol and Response (2.1 **RT4**- armored drain dips (4 each); armored waterbars (6 each)	Secondary public recreationalists al River. There is a m adjacent to road e slope stability. Co needed
	elevated runoff and woody debris in draws could plug culverts and divert flow onto and damage roads; runoff from hillslopes could overwhelm existing drainage feature	**likely**: midslope section of road within moderate-high SBS at northern end of road; midslope section of road within low-moderate SBS at southern end of road	**major:** loss of road prism on secondary administrative and public egress road	**Very High**	**RT1a**- culvert cleaning (6 each) and ditch enhancement (0.31 miles) **RT2**- storm inspection and response (14.08 miles) **RT4**- armored critical dips (6 each); armored drain dips (2 each) **RT12**- Shoulder Burn-out Repair	Main north-south end to the north e Chrome Ridge, mi ingress and egress
s)	elevated runoff could overwhelm existing drainage features and divert flow onto and damage roads	**possible:** road within low-moderate SBS	**minor:** damage or loss of road prism	**Low**	**No Treatment**	Carsonite marks i and/or Jeep Trail
s)	elevated runoff could overwhelm existing drainage features and divert flow onto and damage roads	**possible:** road within moderate-high SBS	**minor:** damage or loss of road prism	**Low**	**No Treatment**	Used by fire for su earthen berm

)	elevated runoff could overwhelm existing drainage features and divert flow onto and damage roads	SBS areas demonstrated by response to light rainfall on 10/2/2018	prism on primary administrative and public access road (FSR 4105)	Very High	RT4- armored waterbars (2 each)	primary road; FSR ft, blocked due to necessary.
s)	elevated runoff and large woody debris in draw could plug culverts and divert flow onto and damage roads	**possible:** road runs along perimeter of burn with pocket of intermediate above	**major:** loss of road prism on primary administrative and public access road	High	RT4- armored dip (1) 20 CY	provides access to comm site and mu surfaced road with stream crossing
s)	elevated runoff could overwhelm drainage features diverting onto and damaging road prism	**possible:** stream crossing with some moderate SBS above	**minor:** damage to road prism	Low	**No Treatment**	provides access to located at MP 0.5

B. Emergency Treatment Objectives:

The objectives of the emergency treatments proposed in this document are to manage identified unacceptable risks from "imminent post-wildfire threats to human life and safety, property, and critical natural resources on National Forest System lands" (FSM 2523.02). The timely application of the proposed treatments is expected to substantially reduce the probability of damage to the BAER critical values identified in the section A above. Recommended emergency treatment objectives include the following:

Land Treatments

1. Foster the recovery of native plant communities, including sensitive species, in the burned area by minimizing the proliferation of noxious weed populations **(L1a).**
2. Retard the spread of invasive weeds as a result of supression repair activities, mainly dozer lines. **(L1b)**

Channel Treatments

1. No channel treatments proposed

Road and Trail Treatments

1. Protect road and trail investments from becoming impassible and damaged due to increased post-fire run-off within and directly downstream and down slope of the moderate and high soil burn severity areas within the fires **(RT1a, RT2, RT3, RT4, RT5, RT10, RT11, RT12, RT13, RT14)**
2. Reduce erosion and transport of fine sediment into area streams degrading water quality (**RT1a, RT2, RT4, RT5, RT10, RT11, RT13**).

Protection and Safety Treatments

1. Protect human life and safety of forest visitors through raising awareness of the risks present in a post-fire forested mountain setting by installing informational and warning signs at trail and road portals into and adjacent to the burned area (**P1a, P1b**).
2. Maintain existing closure until hazard trees are mitigated along FSR 2200655, 2200680, 2500170, 2500224, 2500536, 2500700, 2512048, and 410308. Install physical gate closures on FSR 2500170 and FSR 2500224 (**P2**)
3. Protect human life and safety of administrative and public road users on FSR 2402000, 2500224, 2500243, 2500700, 2509056, 2800018, and 4105000 by repairing road shoulders damaged by burn-out trees and stumps (**RT14**).
4. Protect Forest Service infastructure and human life/safety in areas where we invite people to congregate **(P3a, P5, P7)**

Monitoring and Coordination

1. Facilitate partner agency efforts to protect road investments from becoming impassible and damaged due to increased post-fire run-off within and directly downstream and down slope of the moderate and high soil burn severity areas along FSR 2200655 and FSR 2200680. Work to be completed by Josephine County Forestry Department through the sale of their timber in this area (**M3, M5**).
2. Monitor the effectiveness of road and trail treatments and facilitate any needed maintenance of treatments during the first year following the fire. (**M5**)

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

Land 95 % Channel -- % Roads/Trails 75 % Protection/Safety 90 %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	80	75	70
Channel	NA	NA	NA
Roads/Trails	70	80	90
Protection/Safety	85	90	95

E. Cost of No-Action (Including Loss): **$3,650,000** (roads only—other losses not quantified)

F. Cost of Selected Alternative (Including Loss): **$719,200**

G. Skills Represented on Burned-Area Survey Team:

Hydrology: Dave Callery, Leah Tai (t), Kacey Largent (t)
Soils: Todd Reinwald, Ut Huynh (t)
Engineering: Peggy Fisher, Cait Woods, Hailu Gabriel (t), Robert Lee (t)
Trails/Recreation: Dave Sheehan, Kristin Ballard (t)
Botany: Kaily Clarno, Katherine Schneider (t)
Geology: Ryan Cole
Archaeology: Paul Claeyssen, Emily Engan (t)
Fisheries: JD Jones
GIS: Dorothy Thomas, David Keenum (t), Dolores Weisbaum (t)
PIO: Andy Lyon
Interagency Coordinator: Brad Siemens
Safety/ IMT Liason: Kris Green

Team Leader: Kyle Wright; Joni Brazier

Email: kylewright@fs.fed.us; jdbrazier@fs.fed.us/joni.brazier@usda.gov Phone: 458-292-6027; 541-471-6760

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:

L1a- Invasive Plant Early Detection Rapid Response: Known infestations of high priority non-native invasive plants within areas that experienced 50-100% basal area loss in the Klondike and Taylor Creek Fire area will be assessed for potential spread or expansion. Detection surveys will be focused at known sensitive plant populations, meadows and botanical areas within 400 feet of invasive plant infestations that burned with 50-100% basal area loss. Immediate treatment of infestations will be necessary to prevent spread and dispersal of invasive plants into newly burned and disturbed native plant communities where weeds were previously absent or present only in very minor amounts. Although moderately burned areas may have some intact vegetation or may experience needle fall, it is not sufficient to prohibit the spread and establishment of invasive plants, which will take advantage of the increase in sunlight and bare ground. Key species that will be targeted for survey and control are yellowtuft alyssum and Scotch broom, which are able to survive, establish and spread

exponentially even in the harsh serpentine soils where many of the Forest's sensitive plant populations and botanical areas are located, as well as knapweeds and thistles, which are a big concern in burned areas due to their wind dispersed seeds and ability to invade native meadow and oak savannah habitats and openings due to fire.

Location: See treatment map for specific locations to be surveyed.
EDRR will occur on approximately 3,227 acres.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
Invasives EDRR	Acres	$26.00	1,043	$27,118

Taylor Fire Total L1a request for $27,118

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Invasives EDRR	Acres	$26.00	2,184	$56,784
Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Invasives EDRR	Acres	$34.00	96.5	$3,281

Klondike Fire Total L1a request for $56,784 $60,065

L1b- Invasive Plant Early Detection Rapid Response – Suppression: Detection surveys will be focused in areas of increased probability of invasive plant infestation due to suppression disturbance including dozer lines, hand lines, helispots, safety zones, and fire camps within and adjacent to the fire area which were not previously infested with invasive plants. When assessment actions are initiated, personnel will be equipped to immediately treat infestations.

Location: See treatment map for specific locations of suppression activity to be surveyed.
EDRR will occur on approximately 253.3 acres.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
Invasives EDRR - Suppression	Acres	$110.00	86.8	$9,548

Taylor Fire Total L1a request for $9,548

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Invasives EDRR - Suppression	Acres	$110.00	166.5	$18,315
Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Invasives EDRR - Suppression	Acres	$164.00	4.4	$722

Klondike Fire Total L1b request for ~~$18,315~~ $19,037

Channel Treatments:

No channel treatments are prescribed.

Roads and Trail Treatments:

Only those FS roads and trails within or below areas burned at moderate or high SBS and have increased risk of damage due to post-fire conditions are recommended for emergency response. Proposed treatments

are designed to improve drainage at stream crossings and along adjacent slopes in order to remove higher levels of runoff from trails and roads before extensive damage or loss of infrastructure can occur. Roads and trails treatments were designed to be practical, economic treatments to mitigate risk to acceptable levels.

RT1a- Road Drainage (storm proofing existing drainage features): Storm proof drainage features identified for critical value roads that are susceptible to damage or failure due to increase post-fire flows. Activity will include cleaning culverts, enhancing ditches, catchment basin and lead-out ditch capacity where they exist, road berm or ditch slump removal, and replacement of burn-out drop inlet covers as necessary to handle post-fire flows, sediment and debris.

Taylor Creek Fire Treatment	Units	Unit Cost	# of Units	Total Cost
Clean CMP	Each	$220.00	25	$5,500.00
Excavate Catch Basin	Each	$2,365.00	3	$7,095.00
Lower Pond Outlet Elevation	Each	$198.00	1	$198.00
Slump Removal	Each	$550.00	1	$550.00

Taylor Creek Fire Total RT1a request for $13,343

Klondike Fire Treatment	Units	Unit Cost	# of Units	Total Cost
Clean CMP	Each	$220.00	66	$14,520.00
Ditch Enhancement	Mile	$4,125.00	3.2	$13,117.50
Berm Removal	Mile	$1,760.00	1.7	$2,992.00
Excavate Lead-out	Each	$227.70	2	$455.40
Replace Burned Drop Inlet Cover	Each	$110.00	2	$220.00
Slump Removal	Each	$550.00	1	$550.00

Klondike Fire Total RT1a request for $31,855

RT2- Storm Inspection and Response: Storm inspection and response will keep culvert and drainage features functional by cleaning sediment and debris from in and around features between or during storms. Increase the frequency of storm inspections and availability of equipment to clean out culvert inlets due to local weather events. Recommend installing "snow" poles or markers to help in locating the culvert inlets if they become plugged. This work will be accomplished through Forest Maintenance Contract, equipment rental, and general labor. Additional road segments when Klondike expanded to the west after the Initial 2500-8; roads were reviewed, and determined the most cost effective and highest chance for success to protect infrastructure at this time is to focus on storm inspection and response. Existing budget is expected to be able to absorb those additional miles at this time.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
Storm Inspection and Response	Mile	$1,597.20	31.5	$50,311.80

Taylor Creek Fire Total RT2 request for $50,312

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Storm Inspection and Response	Mile	$1,597.20	44.4	$70,915.68

Klondike Fire Total RT2 request for $70,916

RT3- Culvert Removal: Removal of this 24" culvert is recommended along the 052 spur 0.03 mile off the FSR 2402 which has a "stacked" inlet configuration. Removal increases the reliability of drainage for post-fire short-term increased storm runoff. The identified risk is for plugging and overtopping of the main arterial.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost	
Culvert Removal	Each	$ 550.00	1	$ 550.00	

Taylor Creek Fire Total RT3 request for $550

RT4 – Armored Critical/Drain Dip: Drain dips and waterbars are recommended for roads downslope or within the moderate-high SBS areas with inadequate drainage for post-fire short-term increased storm runoff. These have been identified to be at risk for gullying, loss of adequate water distribution, possible fill or ditch failure, and loss of surfacing. Critical dips are recommended in locations where the existing culvert is undersized for post-fire short-term increased runoff. These sites are at risk of plugging, overtopping and road prism failure. Installation of these features provide increased capacity and reduce the associated risk to road infrastructure. This request also includes felling of hazard trees along the portion of road to be worked on to mitigate safety concerns.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
Armored Critical/Drain Dip (10cy)	Each	$1,189.10	6	$7,134.60
Armored Critical/Drain Dip (20cy)	Each	$1,678.60	1	$1,678.60

Taylor Creek Fire Total RT4 request for $8,813

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Armored Critical/Drain Dip (5cy)	Each	$1,282.60	8	$10,260.80
Armored Critical/Drain Dip (10cy)	Each	$1,189.10	14	$16,647.40
Armored Critical/Drain Dip (20cy)	Each	$1,678.60	2	$3,357.20
Armored Critical/Drain Dip (30cy)	Each	$2,168.10	2	$4,336.20
Armored Critical/Drain Dip (40cy)	Each	$2,715.90	1	$2,715.90
Armored Critical/Drain Dip (60cy)	Each	$3,692.70	3	$11,078.10
Armored Waterbar (5cy)	Each	$968.00	27	$26,136.00
Armored Waterbar (10cy)	Each	$1,189.10	9	$10,701.90

Klondike Fire Total RT4 request for $85,234 **$85,234 was correct here in the Initial 2500-8, but was entered incorrectly in Part VI, creating a shortfall of $36,839 in the original approved funding.**

RT5- Riser Pipe: Installation of riser pipes on culverts to modify culverts to increase capacity to manage drainage in the case that the culvert inlet catch basins are filled with debris or cut-slope ravel.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
Riser Pipe	Each	$1,669.80	1	$1,669.80

Taylor Creek Fire Total RT5 request for $1,670

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Riser Pipe	Each	$1,669.80	2	$3,339.60

Klondike Fire Total RT5 request for $3,340

RT10- Up-sized Culvert: Storm inspection/response will keep culvert and drainage features functional by cleaning sediment and debris from in and around features between or during storms. This request also includes felling of hazard trees along the portion of road to be worked on to mitigate safety concerns. Plastic Culverts on the 4103087 road were burnt during the fire. Port Orford Root Disease (POC) protocol prevents converting these crossings into low-water armored fords thus making it necessary to replace them to prevent further damage and loss of road fill in elevated flows.

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
18" CMP	Lf	$42.90	150	$6,435.00
24" CMP	Lf	$61.60	34	$2,094.40
36" CMP	Lf	$63.80	68	$4,338.40

48" CMP	Lf	$94.60	34	$3,216.40

Klondike Fire Total RT10 request for $16,084

RT11- Stream Crossing Protection: Specific mitigation treatment at the Historic Store Gulch Guard Station between MP 9.03- MP 9.13. This treatment includes stream crossing protection (armor) at the outlet of the 60" diameter culvert in the main stem at MP 9.13,installing an armored 3-4ft flat bottom ditch between MP 9.03-MP 9.11, installation of a 36" relief culvert and outlet slope armor at MP 9.07 and cleaning the culverts at MP 9.03 and 9.11. Repave with cold-mix asphalt.

Treatment	Units	Unit Cost	# of Units	Total Cost
Stream Crossing Protection – Store Gulch	Each	$18,737.40	1	$18,737.40

Klondike Fire Total RT11 request for $18,737

RT12 – Fill Slope Protection - Culvert Outlet Armoring (Property): Armoring of culvert outlets are recommended in locations where the existing culverts are undersized for post-fire short-term increased runoff. These sites are at risk of plugging, overtopping and road prism failure. Installation of these features provide increased capacity and reduce the associated risk to road infrastructure.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
Fill Slope Protection (Culvert Outlet Armoring)	Each	$1,100.00	1	$1,100.00

Taylor Creek Fire Total RT12 request for $1,100

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Fill Slope Protection (Culvert Outlet Armoring)	Each	$1,100.00	3	$3,300.00

Klondike Fire Total RT12 request for $ 3,000

RT12- Shoulder Burn-out Repair (safety):** Restore public safety in specific locations where tree stumps/trees burned out creating localized road shoulder failures. Sites are difficult to see on steep, windy roads especially in the rain or at night. Sites are located along FSR 2402000, 2500224, 2500243, 2500700, 2509056, 2800018, and 4105000.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
Shoulder Burn-out Repair (safety)	Each	$2,200.00	6	$13,200.00

Taylor Creek Fire Total RT12 (safety) request for $ 13,200.00

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Shoulder Burn-out Repair	Each	$2,200.00	4	$8,800.00

Klondike Total RT12 (safety) request for $ 8,800.00

****Both funding requests were included in the Initial 2500-8 Part VI but the narrative here was inadvertently omitted.**

RT13- Trail Stabilization and Hazard Mitigation – Work will include installing drainage (rolling grade dips, grade reversals, nicks), water bars (only where necessary, and then only with rock), armoring drain crossings, restoring outsloping and tread, and snagging trees as appropriate for worker safety. This work is necessary

to protect trail infrastructure by diverting anticipated increases in surface run-off over and off of the trail. This request also includes felling of hazard trees as appropriate to mitigate danger to workers. Trail sections to be stabilized were identified through soil burn severity modeling and field verification by BAER team members. The trail sections determined to be at highest risk were those on steep slopes, within 100 feet of areas of high and moderate soil burn severity. It is assumed that trail segments within 100 feet of moderate soil burn severity will need treatment on approximately 50% their length, while segments within 100 feet of high soil burn severity will require treatment along their entire length.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
RT13-Trail Stabilization	miles	$5,134	2.3	$11,808

Taylor Creek Fire Total RT13 request for $1,100

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Trail Stabilization	miles	$5,134	16.9	$86,765

Klondike Fire Total RT13 request for $86,765

RT14- Taylor Creek and Minnow Creek Trail Retaining Walls

In addition to the standard mileage calculation shown above, 700 linear feet of timber retaining wall was destroyed on the Taylor Creek and Minnow Creek Trails. If this retaining wall is not replaced, both trails will fail, depositing over 200 cubic yards of fill material into Taylor Creek directly across from a popular dispersed use site and an active mining claim, constituting a threat to human life and safety. In addition, Taylor Creek is critical Coho habitat, a listed species. The cost to replace this retaining wall, including all materials, supplies, and a trail crew for three weeks is estimated at $27,702.

Original cost estimate for the Taylor Creek/Minnow Creek retaining walls was for $24,402; broken out as $9,000 for supplies (pressure-treated lumber and hardware) and $15,402 for a trail crew for 3 weeks. Closer examination and review of the sites with trail experts has determined the original estimate was underfunded. With work being immediately adjacent to Coho critical habitat, pressure treated lumber cannot be used, which was originally the cheaper alternative. Also, it has been determined that the existing fill will need to be removed and retained on site in order to access the foundation infrastructure (deadmans) for the retaining wall, which will require much more work than originally anticipated, adding on an additional 5 weeks of trail crew time.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
RT14-Taylor Ck/ Minnow Ck Retaining Walls	Lump	~~$12,201~~ $30,536	2	~~$24,402~~ $61,072
RT14- Big Pine C.G. Retaining Wall Repair	Lump	$3,000	1	$3,000

Taylor Creek Fire Total RT14 request for ~~$27,402~~ $64,072

Protection/Safety Treatments:

P1a (Road) and *P1b* (Trail) Hazard Warning Signs: Working, traveling, and recreating in burned areas poses an elevated risk to Human Life and Safety. The purpose of this treatment is to acknowledge and alert forest employees and visitors to the existing threats associated with traveling routes (roads and trails) within and downstream of burned areas.

P1a – Road Warning Signs: Signs will inform users of the dangers associated with entering and recreating within the burned area. Location of signs are shown on maps included in 2500-8 close-out packet.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
Warning Signs	Sign/Post	$429.00	7	$3,003.00

Taylor Creek Fire Total P1a request for $3,003

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Warning Signs	Sign/Post	$429.00	7	$3,003.00

Klondike Fire Total P1a request for $3,003

P1b-Recreation Hazard Signage - In addition to the initial installation, there will be a need to monitor and reinstall signage as it becomes worn or is otherwise damaged.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
Installation of Warning Signage	Sign/Post	$225	15	$3,375
Maintenance of Warning Signage for 12 Months	Reposting	$25	60	$1,500

Taylor Creek Fire Total P1b request for $4,875

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Installation of Warning Signage	Sign/Post	$225	31	$6,975
Maintenance of Warning Signage for 12 Months	Reposting	$25	124	$3,100

Klondike Fire Total P1b request for $10,075

P2- Dispersed Site Closures – This cost estimate is for the closure of dispersed sites that are at greater risk of flooding during winter storm events due to increased runoff. Work will include installing gates and boulders to reduce access to the endangered sites in order to protect public life and safety.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
Tin Can/ Big Pine	Gate Installation	$8,000	2	$16,000
Dispersed Site across from China Creek (FSR 25)	(10) Boulders + Installation Boulders $300 ea. + $1500 for excavator for one day.	$450	10	$4,500

Taylor Creek Fire Total P2 request for $20,000

P2 – Temporary Road Closure Gates: Gates will discourage public use of these areas due to the potential for flooding/road washout. Locate gates to prevent the public going around the closure. Closure is recommended for the 2500-224 road.

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
Road Closure Gates	Each	$2,500.00	2	$5,000.00

Klondike Fire Total P2 request for $5,000

P3a- Developed Recreation Sites Hazard Mitigation- Remove standing hazard trees that are likely to fail and hit valuable targets, including permanent infrastructure at recreation sites. Remove standing hazard trees for road property damage and stationary workers accomplishing BAER work.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
P3a-Hazard Tree Mitigation	Each	$80	80	$6,400

Taylor Creek Fire Total P3a request for $6,400

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
P3a-Hazard Tree Mitigation	Each	$80	453	$36,240

Klondike Fire Total P3a request for $36,240

P5- Propane Tank Removal- Propane tank should be removed that's adjacent to the creek near store gulch in order to not be delivered downstream.

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
P5-Tank Removal	Lump	$750	1	$750

Klondike Fire Total P5 request for $750

P7-Debris Removal and Decking Replacement- Mitigate (clean up) damage associated with the burning of signs, registration boxes, picnic tables, and trail bridge decking. Cost associated with trail bridge decking is considered the least necessary in order to allow safe passage for personel doing work up the trail; an additional benefit would be for the public not trying to unsafely go beyond the bridge even with closure.

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
P7-Clean-up of burned picnic table debris, Remove/Replace burned bridge decking	Each	$21,400	1	$21,400

Klondike Fire Total P7 request for $21,400

IMPLEMENTATION COSTS – Personnel

Taylor Creek Implementation	Units	Unit Cost	# of Units	Total Cost
GS-9	Day	$480.00	10	$4,800.00
GS-11	Day	$580.00	10	$5,800,00
Implementation Team – Per Diem	Day	$150.00	20	$3,000.00
Implementation Team – Airfare/Rental Car	LS	$2,000.00	1	$2,000.00

Taylor Creek Fire Total Implementation request for $ 15,600

Klondike Implementation	Units	Unit Cost	# of Units	Total Cost
GS-9	Day	$480.00	20	$9,600.00
GS-11	Day	$580.00	20	$11,600,00
Implementation Team – Per Diem	Day	$150.00	40	$6,000.00
Implementation Team – Airfare/Rental Car	LS	$3,000.00	1	$3,000.00

Klondike Fire Total Implementation request for $ 30,200

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.)

Treatment monitoring will occur as part of the treatments for weeds, roads, and trails. No additional funding is requested for monitoring.

M3- BAER S106 Compliance for other BAER Treatment where cultural resources are in the APE. This Cultural Resource BAER Land Treatment consists of expedited cultural resource S106 compliance using the Region 6 Programmatic Agreement where appropriate to address potential effects of other proposed BAER Treatments, such as Roads BAER Treatments (repair of culverts, relief ditches and drain dips) to assure the protection of this cultural resource sites by a qualified Archaeologist.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
S106 Compliance by GS 9/11 Archaeologist	days	$330.00	5	$1,650

Taylor Creek Fire Total Implementation request for $ 1,650

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
S106 Compliance by GS 9/11 Archaeologist	days	$330.00	5	$1,650

Klondike Fire Total Implementation request for $ 1,650

M5- Agency Coordination Continued distribution of public information is considered essential for public safety in conveying the risk within the burn. Ongoing interagency coordination for distributing public information is critical for coordinating public information for the Taylor and Klondike Fires is considered essential for keeping city, county, state, and other agencies informed and relaying the BAER assessment findings, particularly with affected Counties, private inholdings within the National Forest and McCaleb Ranch Boy Scout Camp.

Taylor Creek Treatment	Units	Unit Cost	# of Units	Total Cost
M5- Agency Coordination	days	$400.00	5	$2,000

Taylor Creek Fire Total Implementation request for $2,000

Klondike Treatment	Units	Unit Cost	# of Units	Total Cost
M5- Agency Coordination	days	$400.00	5	$2,000

Klondike Creek Fire Total Implementation request for $2,000

Taylor Creek Fire

Part VI – Emergency Stabilization Treatments and Source of Funds **Interim # 1**

			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										
L1a-BAER EDRR	acre	26	1043	$27,118	$0		$0		$0	$27,118
L1b- EDRR Supp.	acre	110	86.8	$9,548	$0		$0		$0	$9,548
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$36,666	$0		$0		$0	$36,666
B. Channel Treatments										
none proposed				$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										
RT1a Clean CMP	each	220	25	$5,500	$0					$5,500
RT1a Excavate Catch	each	2365	3	$7,095	$0					$7,095
RT1a Slump Remova	each	550	1	$550	$0					$550
RT1a Lower Pond Ou	each	198	1	$198	$0					$198
RT2 Storm Inspectior	mile	1597.2	31.5	$50,312	$0					$50,312
RT3 Culvert Removal	each	550	1	$550	$0					$550
RT4 Armored Critical	each	1189.1	6	$7,135	$0					$7,135
RT4 Armored Critical	each	1678.6	1	$1,679	$0					$1,679
RT5 Riser Pipe	each	1669.8	1	$1,670	$0		$0		$0	$1,670
RT12 Fill Slope Prote	each	1100	1	$1,100						$1,100
RT13 Trail Stabil.	miles	5134	2.3	$11,808						$11,808
RT14-Trail Wall	each	12201	2	$24,402						$24,402
RT-14 Trail Wall Addi	each	18335	2	$36,670						$36,670
RT-14 Big Pine Wall	each	3000	1	$3,000						$3,000
Implementation Team	LS	15600	1	$15,600	$0					$15,600
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$167,268	$0		$0		$0	$167,268
D. Protection/Safety										
P1a Warning Sign	each	429	7	$3,003	$0		$0		$0	$3,003
P1b Warning Signs	each	225	15	$3,375						$3,375
P1b Sign Maintenan	each	25	60	$1,500						$1,500
P2- Closure Gates	each	8000	2	$16,000						$16,000
P2- Closure Barriors	each	450	10	$4,500						$4,500
P3a- Hazard Trees	each	80	80	$6,400						$6,400
RT12 Shoulder Burn-	each	2200	6	$13,200	$0		$0		$0	$13,200
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Structures				$47,978	$0		$0		$0	$47,978
E. BAER Evaluation										
Qualfied Costs				$27,886			$0		$0	$0
trainee costs				$21,987	$0		$0		$0	$0
Subtotal Evaluation				$49,873	$0		$0		$0	$0
F. Monitoring										
M3- S 103	day	330	5	$1,650	$0		$0		$0	$1,650
M5-Agency Coordination	day	400	5	$2,000						
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$3,650	$0		$0		$0	$1,650
G. Totals				$255,562	$0		**$0**		**$0**	**$253,562**
Previously approved				$218,892						
Total for this request				**$36,670**						

Part VI – Emergency Stabilization Treatments and Source of Funds KLONDIKE Interim # 1

			NFS Lands		
Line Items	Units	Unit Cost	# of Units	BAER $	Other $
A. Land Treatments					
L1a-BAER EDRR	acre	26	2184	$56,784	$0
L1a-BAER EDRR	acre	34	96.5	$3,281	
L1b- EDRR Supp.	acre	110	166.6	$18,326	$0
L1b- EDRR Supp.	acre	164	4.4	$722	
Insert new items above this line!				$0	$0
Subtotal Land Treatments				$79,113	$0
B. Channel Treatments					
none proposed				$0	$0
Subtotal Channel Treat.				$0	$0
C. Road and Trails					
RT1a Clean CMP	each	220	66	$14,520	$0
RT1a Replace Burned D	each	110	2	$220	$0
RT1a Ditch Enhancemer	mile	4125	3.2	$13,200	$0
RT1a Berm Removal	mile	1760	1.7	$2,992	$0
RT1a Excavate Lead-out	each	228	2	$455	$0
RT1a Slump Removal	each	550	1	$550	$0
RT2 Storm Inspection a	mile	1597	44.4	$70,916	$0
RT4 Armored Critical/D	Lump	48395	1	$48,395	$0
RT4 Armored Critical/D	Lump	36839	1	$36,839	
RT6 Riser Pipe	each	1670	2	$3,340	$0
RT10 18" CMP	each	43	150	$6,435	$0
RT10 24" CMP	each	62	34	$2,094	$0
RT10 36" CMP	each	64	68	$4,338	$0
RT10 48" CMP	each	95	34	$3,216	$0
RT11 Store Gulch	each	18737	1	$18,737	$0
RT12 Fill Slope Protecti	each	1100	3	$3,300	$0
RT13- Trail Stab.	mile	5134	16.9	$86,765	
Imp. Team	LS	30200	1	$30,200	$0
Insert new items above this line!				$0	$0
Subtotal Road & Trails				$346,513	$0
D. Protection/Safety					
P1a Warning Sign	each	429	7	$3,003	$0
P1b Warning Sign	each	225	31	$6,975	
P1b Maintenance Sign	each	25	124	$3,100	
P2 Road Closure Device	each	2500	2	$5,000	$0
P3- Hazard Trees	each	80	453	$36,240	
P5-Tank Removal	lump	750	1	$750	
P7-Debris/ Decking	lump	21400	1	$21,400	
RT12 Shoulder Burn-ou	each	2200	4	$8,800	$0
Insert new items above this line!				$0	$0
Subtotal Structures				$85,268	$0
E. BAER Evaluation					
Qualfied Costs				$88,351	
Trainee Costs				$69,668	$0
Subtotal Evaluation				$158,019	$0
F. Monitoring					
M3- S106	day	330	5	$1,650	$0
M5-Agency Coordination	day	400	5	$2,000	
Insert new items above this line!				$0	$0
Subtotal Monitoring				$3,650	$0
G. Totals				$514,543	$0
Previously approved				$473,702	
Total for this request				$40,841	

PART VII - APPROVALS

1. _____ 2-1-19
Forest Supervisor (signature) Date

2. _____ 2/28/2019
Regional Forester (signature) Date