USDA-FOREST SERVICE FS-2500-8 (6/06)

Date of Report: 9/17/2018

**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

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

[ ] 2. Interim Report #____
[ ] 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: Donnell Fire

B. Fire Number: CA-STF-001702

C. State: CA

D. County: Tuolumne & Alpine

E. Region: 05 (Pacific Southwest)

F. Forest: Stanislaus (16)

G. District: Summit & Calaveras

H. Fire Incident Job Code: P5L2FY

I. Date Fire Started: August 1, 2018

J. Date Fire Contained: Expected: 10/31/2018

K. Suppression Cost: 33.6 Million

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 16.9
2. Fireline seeded (miles): 0
3. Other (identify): 1.7 (handline repaired); 22 miles Repair still needed; 55 miles unknown status

M. Watershed Number:

| 6th-Field HUC 12 Watershed Name | HUC 12 Watershed Number | Total Acres | Acres Burned (L, M, H)* |
|---|---|---|---|
| Douglas Creek-Middle Fork Stanislaus River | 180400100205 | 22,667 | 11,022 |
| Eagle Creek | 180400100204 | 12,446 | 2,152 |
| Highland Creek | 180400100302 | 39,393 | 2,351 |
| Lower Clark Fork | 180400100102 | 22,583 | 11,573 |
| Niagara Creek-Middle Fork Stanislaus River | 180400100401 | 27,255 | 5,978 |
| Upper Clark Fork | 180400100101 | 21,218 | 3,030 |

N. Total Acres Burned: 36,450
NFS Acres (36,425 **[99%]**) Other Federal ( ) State () Private ( 25 [<**1%**] )
Note: Total acres burned varies slightly in this report and specialist reports due to acreage changing daily toward the end of the BAER assessment

O. Vegetation Types: Sierran Mixed Conifer, Red Fir, Mountain Chaparral

P. Dominant Soils:

| Soil Map Unit | Soil Name | Hydrologic Soil Group | Texture | Acres | Rock Content (%) | % of Fire Area |
|---|---|---|---|---|---|---|
| 122 | Gerle family, moderately deep | B | Gravelly sandy loam | 5583.0 | 0-5 | 15.37% |
| 174 | Lithic Xerumbrepts | D | loamy sand, sandy loam | 4901.9 | 0 | 13.50% |
| 125 | Gerle family, moderately deep | B | Gravelly sandy loam | 4253.8 | 0-5 | 11.71% |
| 123 | Gerle family, moderately deep | B | Gravelly sandy loam | 4178.1 | 0-5 | 11.50% |
| 183 | Rock outcrop | rock outcrop | rock outcrop | 3396.9 | rock outcrop | 9.35% |

**Q. Geologic Types:**
Bedrock within the Donnell Fire burned area mainly consists of two rock groups: Mesozoic granitic rocks of the Sierra Nevada batholith, and overlying Tertiary rocks, chiefly of volcanoclastic origin. The batholith was intruded as a group of plutons that are probably all of Cretaceous age and are predominantly granodiorite in composition (Huber, 1983). Other portions within the burned area contains volcanic flows of Relief Peak Formation (Trp) an andesite lahar including minor clasts of plutonic basement rocks and metamorphic roof pendant rocks and smaller lithic fragments (Giusso, 1981 and USGS, 2005). In addition, glacial deposits (Qg) consisting of moraines of late Pleistocene and alluvium (Qal) are present in the burn area (Gallegos, 2017).

**R. Miles of Stream Channels by Order or Class:**
Within the Donnell Fire perimeter, the NHD GIS data show 72 miles of perennial streams, 65 miles of intermittent streams, and 363 miles of ephemeral streams.

**S. Transportation System**

Trails: 26 miles (24 Hiking/Non-motorized; 2 OHV trails) Roads: 54 miles (37 Stanislaus, 8 State Highway, 8 County, 1 private)

## PART III - WATERSHED CONDITION

A. Burn Severity (acres): 9,155 [25%] (Unburned / Very low) 13,232 [37%] (Low) 11,728 [32%] (moderate) 1,991 [6%] (high) **Acres are BAER analyzed soil burn severity perimeter (from date of final BARC flight) the fire has grown since the BAER assessment started.**

B. Water-Repellent Soil (acres): 5,886 Acres
Overall, 50 to 70% of high burn and 30 to 50% of moderate burn areas are expected to show runoff inducing levels of hydrophobic conditions.

C. Soil Erosion Hazard Rating (acres):
___ (low) ___ (moderate) ___ (high) EHR was not calculated for the Donnell Fire, See ERMiT results for erosion potential.

D. Erosion Potential: 10.6 tons/acre

E. Sediment Potential: 4,793 cubic yards / square mile

## PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 3-5

B. Design Chance of Success, (percent): 80%

C. Equivalent Design Recurrence Interval, (years): 2, 5, and 10

D. Design Storm Duration, (hours): 6

E. Design Storm Magnitude, (inches): 1.82

F. Design Flow, range for pour points (cubic feet / second/ square mile): 16.3 – 47.8

G. Estimated Reduction in Infiltration, (percent): 25%

H. Adjusted Design Flow, (cfs per square mile): 18.3 – 109.3

## PART V - SUMMARY OF ANALYSIS

The Donnell Fire started on August 1, 2018 near Donnell Reservoir on the Stanislaus National Forest. On August 4, 2018, the fire crossed from the north to the south side of the Middle Fork Stanislaus River and jumped over Highway 108. On August 5th, the fire raced up the Highway 108 corridor and Clark Fork road destroying recreation residences in the Wagner Recreation Residence Tract, Buena Vista Recreation Residence Tract, Brightman Recreation Residence Tract, and Dardanelle Resort. Bone Spring Recreation Residence Tract lost one structure. The NRHP historic Dardanelle Bridge was also destroyed. A total of 54 major structures were destroyed by the fire. An additional 81 minor structures, such as sheds and outbuildings, were also burned. This fire has resulted in the largest number of destroyed special use permit structures to date in Region 5.

The Donnell Fire encompasses one of the most heavily used recreation areas within the Stanislaus National Forest. In addition to the features listed above, there are numerous campgrounds, hiking trails, fishing opportunities and trailheads to the Carson-Iceberg and Emigrant wildernesses. The area is very scenic and attracts forest users from both in and out of California.

The majority of the fire area is between 5000 and 8500 feet in elevation within the Clark Fork and the Middle Fork Stanislaus River watersheds in steep, rugged terrain. The vast amount of precipitation in the area occurs from November through April, with the bulk coming from December through March. Snowfall occurs in elevations above 5000 feet. Winter rain on snow storms can occur between elevations 5000 and 8000 feet. This area is also subject to frequent summer thunderstorms.

The Donnell Fire BAER team assessment is summarized in items A-I below. Details related to each BAER critical value at risk are available in the 10 specialist reports prepared by the BAER team. In addition, the BAER Value at Risk (VAR) spreadsheet, which identified 143 values at risk, and other supporting information is filed in the following Pinyon folder: https://usfs.box.com/s/0zb1pjzr6cro0ch7lmiouhr025b0l2m3 (Internal FS Use Only).

A. Describe Critical Values/Resources and Threats:

**Human Life and Safety**

This primary BAER critical value is associated with 92 of the 143 values at risk that were identified in the BAER assessment. Within the Donnell Fire, human life and safety and property values are closely linked since the latter is related to buildings, roads, trails and recreation sites that people occupy or are concentrated at most frequently. Post-fire threats to human life and safety caused by the fire include flooding, hazard trees, debris flows, sedimentation and other such threats that may compromise life and safety. Snow avalanches are known to occur in some portions of the fire area. Fire-removed vegetation in avalanche areas may elevate risk to over-snow vehicle users.

**Property**
Numerous BAER critical property values were assessed within the fire perimeter. These include Forest Service recreation sites such as campgrounds, water systems, a guard station, an interpretive site, two federally owned heritage facilities, a historic bridge burned in the fire, and national forest system roads and trails. Threats to these values include flooding, sedimentation, rockfall, debris flows, and hazard trees. In addition, numerous recreation residences, three organization camps and a resort, all under special use permits, exist within the fire perimeter and are subject to the same threats as the other sites listed above.

**Natural Resources**
Botany - Though pre-fire weed plant populations were moderate across much of the Donnell fire, extensive fire suppression activities – about 131 miles of fire lines plus additional event sites – threaten to introduce new weed species. Most of the firefighting equipment was not cleaned prior to arrival at the fire. In addition to the fire suppression activity threats, two existing invasive thistle species (Canada and Bull Thistle) are present and subject to rapid expansion in the burned area.

Hydrology - Beneficial uses of water in the Middle Fork Stanislaus are threatened by hazardous material contamination from residue within the remains of 62 structures burned in the fire as well as remains of a burned historic bridge now partly in the river. Hydrologic function is threatened in Montgomery meadow from anticipated increases in post-fire streamflow that would further degrade head cuts in and above the meadow. Forest Service facilities (described in property section above), special use recreational residences, organization camps and a resort are threatened by flooding. This is also a threat to human life and safety.

Soil Productivity - Soil productivity is threatened by anticipated increases in post-fire hillslope erosion in mapped moderate and high soil burn severity within the fire perimeter. The amount of erosion varies firewide due to soil type, slope steepness, vegetation and other erosion factors.

Threatened or Endangered Species - There is suitable occupied habitat for one federally listed aquatic species within the Donnell Fire perimeter and one other species at the margins of some portions of the fire. No federally listed plant species exist within the fire perimeter. Threats to the aquatic species include flooding, erosion and debris flows and fire suppression activities.

**Cultural Resources**
Heritage - There are 83 known heritage resources at risk within the Donnell Fire boundary, including numerous NRHP eligible features, a Historic American Engineering Record bridge, numerous historic recreational residences, a historic resort, and at least one traditional Native American use area. Threats to these values include erosion, debris flows and hazard trees.

B. Emergency Treatment Objectives:

Land Treatments
- **Heritage** - Protect sites from hazard trees, increased hillslope erosion and looting.
- **Weeds** - Reduce the risk of introduction of invasive weeds and expansion of known invasive weeds within the fire perimeter.
- **Hydrology** – Maintain hydrologic function in Montgomery meadow by stabilizing existing headcuts
- **Hazardous Materials** – Contain burned structure materials and remove materials from burned historic bridge.

Road and Trail Treatments
- **Roads and Trails** – Stabilize national forest system roads and trails at risk of damage.

Protection and Safety
- **Agency liaison/coordinator** – Insure internal/external coordination in accomplishing BAER life and safety treatments with emphasis on administrative closures, advisories and evacuation planning and implementation.

- **Road Gates and Road and Trail Warning Signs** – Mitigate risk to human life and safety via closures and warning signs.

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

Land **75** % Channel **na** % Roads/Trails **80** % Protection/Safety **80** %

D. Probability of Treatment Success

| | Years after Treatment | | |
|---|---|---|---|
| | 1 | 3 | 5 |
| Land | 80 | 85 | 90 |
| Channel | n/a | n/a | n/a |
| Roads/Trails | 80 | 90 | 100 |
| Protection/Safety | 100 | 100 | 100 |

E. Cost of No-Action (Including Loss): $481,500

F. Cost of Selected Alternative (Including Loss): $136,370

G. Skills Represented on Burned-Area Survey Team:

| | | | |
|---|---|---|---|
| [X] Hydrology | [**X**] Soils | [X] Geology | [X ] Recreation / Trails |
| [ ] Forestry | [ ] Wildlife | [ ] Fire Mgmt. | [X] Engineering |
| [ ] Contracting | [ ] Ecology | [**X**] Botany | [X] Archaeology |
| [X] Fisheries | [ ] Research | [X ] Hazmat | [X] GIS |

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Donnell BAER Team Members

- Team Leader – Jim Frazier (AD- STF)
- Aquatic Biology – Steve Holdeman (STF)
- Archaeology – Kathy Strain (STF)
- Archaeology – Allison Stevenot (**Trainee**- STF)
- Archaeology – Dayne Crosby (**Trainee** STF)
- Archaeology – Shoshana Rosenberg (**Trainee** STF)
- Archaeology – Zackary Moskowitz (**Trainee** STF)
- Botany – Carly Gibson (STF)
- Engineering – Rusty LeBlanc (AD – STF)
- Engineering – Tim Hughes (**Trainee** – STF)
- Geology – Jonathan (Yonni) Schwartz (Los Padres)
- GIS – Jim Schmidt (AD – STF)
- Hydrology – Andy Stone (Sequoia NF)
- Hydrology – Tracy Weddle (STF)
- Hazmat – Casey Shannon (Inyo NF)
- Hazmat/Hydrology – Mike Wiese (**Trainee** Inyo NF)
- Soil Science – Alex Janicki (AD – STF)
- Soil Science – Curtis Kvamme (STF)
- Trails/Recreation – Albert Desrosiers (STF)
- Trails/Recreation – Erich Huebner (STF)

H. **Treatment Narrative:**

Land Treatments:

Heritage
A total of 83 prehistoric and historic sites were identified for focused BAER assessments within the moderate and high soil burn severity. Archeologists propose dropping hazard trees away from 9 sites. Controlled hazard tree felling could prevent them from tipping or disturbing heritage sites as they fall naturally. One archeological site was identified as vulnerable from unauthorized collections and erosion (10-20 tons/ac ERMiT modeled erosion rate). Dropping trees perpendicular to the slopes will help keep artifacts from moving off-site, and lopping and scattering the branches will cover the artifact concentrations easily visible from a campground. Prescriptions for historic trail erosion are found in the Trails section. Prescriptions for historic structures at risk from debris flows are found in the Geology section.

Botany (EDRR)
Early detection and rapid response (EDRR) noxious weed treatments are proposed for 131 miles of fireline used for suppressing the Donnell Fire (25 miles dozer line, 92 miles hand line, 14 miles of road grading & mastication), and 220 acres of suppression activity areas (including drop points, helispots, water sources, and locations of heavy equipment hazard tree work). Treatment Description: walk all suppression activity areas listed in the Botany report (Tables 2 and 3) and hand treat new populations of noxious weeds. Large, established populations of noxious weeds present prior to the Donnell Fire (mostly Bull Thistle) will not be targeted for treatment, but small isolated populations at risk of rapid spread due to the fire would be targeted (Canada Thistle).

Montgomery Meadow Stabilization
Headcut stabilization in and upstream of Montgomery Meadow is recommended to protect hydrologic function of the meadow and the stream channel upstream of the meadow. Heavy equipment would be needed to stabilize both headcuts. Work would include: 1) fall hazard trees along access routes, 2) install ground protection mats to protect meadow surface, 3) stockpile sod & vegetation for replanting, 4) place rock and soil fill into gully & headcuts to connect the stable upstream channel elevations with the incised downstream segments, 5) place in-channel log jams to slow flow and trap post-fire sediment, 6) replant stockpiled vegetation, 7) block and camouflage access routes.

Hazmat
At 59 burned recreation residences and adjacent structures with moderate and high priority, silt fencing along with chemical absorbent socks will be installed to capture and contain contaminated sediment to protect surface and ground water. For 26 of the burned structures, where runoff potential upslope is likely, sandbag diversions are needed to divert water away from the contaminated refuse sites. Lastly, 15 residences and structures were determined to be an exceptionally high priority due to their proximity to waterbodies and potential for contamination; hydro-mulch should be applied to add extra protection against material from mobilizing offsite.

Historic Dardanelle Bridge - Remove the burned Dardanelle Bridge from the Middle Fork Stanislaus River. Portions of the burned bridge are on the river banks and in the river. This will protect beneficial uses of water by removing material which modifies the stream channel and chemically treated material that could contaminate the river. Heavy equipment would be used to demolish, remove from the river, and haul material to a suitable disposal site.

Threatened and Endangered Aquatic Species
There are no treatments since the BAER risk is low. See specialist report.

Soil Productivity
There are no proposed treatments. BAER risk is intermediate and there are no feasible cost-effective methods to mitigate soil productivity in the high and moderate soil burn severity areas of the fire. This is due to steep slopes, wind and other factors that render application of ground cover such as aerial heli-mulching ineffective. The BAER response strategy is natural recovery; that is, regrowth of native vegetation

in the montane chaparral areas and needle cast from moderately burned timber areas. Regrowth of the mountain chaparral from the adjacent 2017 McCormick fire is already occurring.

Channel Treatments:

None proposed

Roads and Trail Treatments:

Roads
Restore drainage function by cleaning and flushing culverts, construct roadway relief dips down grade of culvert crossings, reconstruct drivable water bars, install flared metal end sections on culvert inlets, and provide fill slope protection by installing rip/rap rock. These treatments will help stormproof and prepare the roads for the winter season. Storm inspection and response will be conducted on accomplished road treatments to assure access. This work is proposed along NFS Roads 6N06 Fence Creek, 6N75Y Corral, and 6N36Y Dardanelle.

Trails
Clean existing rolling dips, install new dips in anticipation of post-fire increased runoff; remove trail berms to increase outboard drainage where possible, and armor key ephemeral drainages to prevent undercutting and loss of trail tread. This will require the placement of rock in a rip-rap fashion below drainages to dissipate the energy of off trail water flows and decrease the possibility of down bank erosion. All trail runoff work would be focused on midslope trails in areas of moderate to high burn intensity. Storm inspection and response will be done following winter season or before opening to public use to correct post-fire damages that may occur. This work is proposed on segments of ten national forest system non-motorized trail and on one segment of motorized trail, as described in the Trails specialist report.

Protection/Safety Treatments:

Administrative Closures, Advisories and Evacuation Plans
The Donnell Fire area is a life and safety threat from flooding, rockfall, debris flows, hazard trees and other such changes caused by fire. Area closures are a cost-effective and reliable method of reducing the risk of unacceptable consequences. Advisories to persons who have permission to frequent the area also reduces the risk. In the case of this fire, an evacuation plan will be developed to reduce risk during specific times and conditions, such as intense storms, when there is an elevated risk to life and safety from the threats described above.

BAER funding is requested for the forest to support continued interagency liaison efforts to reduce risk. Funds would be used to coordinate administrative closures, advisories and evacuations with county, state and other partners as needed.

Road Gates & Warning Signs
The main treatment to mitigate road use risks to life and safety is administrative closure. Install closure gates, install road and area closure signs, and install BAER warning and information signs at main entry points of the fire area. As soon as possible, close existing gates and post closure signs on NFSR roads 6N06 Fence Creek, 6N82Y Fence Creek campground, 6N34Y Double Dome, 6N36Y Dardanelle, and 6N40Y. Install and close new stockyard gates (Powder River) on both ends of 6N75Y Corral and 6N25Y non-motorized. Inspect roads in the spring before opening, and respond accordingly to road damage and public safety concerns. When roads are reopened, install and maintain BAER Warning and Information signs in place at main entry points for two post fire seasons.

Trails
The main treatment to mitigate trail use risks to life and safety is administrative closure. Trail closures in the Donnell Fire will be automatically implemented when road and area closures are in effect since trailheads are within such areas. The trail system should be closed for the first winter following the fire. Conditions following the first winter should be evaluated to judge if additional time is needed to provide for

user safety. After road closures are lifted, warning signs will be placed at each trail access point stating post-fire trail hazards.

Burned Bridge Safety Barriers and Signs
Safety barriers and hazard warning signs will be installed on both abutments of the historic bridge that was destroyed by the Donnell Fire. Life and safety are at risk since the bridge spanned near-vertical 50 foot rock cliffs down to both sides of the Middle Fork Stanislaus River. Streamflow is often fast and treacherous at times when people are likely to be present in this area.

I. **Monitoring Narrative:**

A monitoring plan for the Montgomery Meadow treatment is available in a separate document, posted on Pinyon here: https://usfs.box.com/s/u5mbllszzx0k2bt8tubj4nviztqt3a4i No other monitoring needs are proposed.

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

| | | | NFS Lands | | | | Other Lands | | | | All |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Line Items | Units | Unit Cost | # of Units | BAER $ | Other $ | | | | | | Total $ |
| | | | | | | | No Treatments | | | | |
| **A. Land Treatments** | | | | | | | on other lands | | | | |
| Heritage Site Protection | | | | | | | | | | | |
| Hazard Tree Removal | Each | 700 | 5 | $3,500 | $0 | | $0 | | $0 | | $3,500 |
| HT Special Equipment | Each | 2,400 | 2 | $4,800 | $0 | | $0 | | $0 | | $4,800 |
| HT Removal/Erosion/Looting | Each | 1,400 | 1 | $1,400 | $0 | | $0 | | $0 | | $1,400 |
| Botany | | | | | | | | | | | |
| 1 GS-9 (hire, train, treat, reporting) | Days | 330 | 20 | $6,600 | $0 | | $0 | | $0 | | $6,600 |
| 1 GS-7 Bio Tech (crew lead) | Days | 160 | 55 | $8,800 | $0 | | $0 | | $0 | | $8,800 |
| 2 GS-5 Bio Tech (crew members) | Days | 260 | 110 | $28,600 | $0 | | $0 | | $0 | | $28,600 |
| Vehicle Mileage | Use Rate | 1 | 1000 | $550 | $0 | | $0 | | $0 | | $550 |
| Misc. (M&IE in wilderness, supplies) | Lump Sum | 1 | 2460 | $2,460 | $0 | | $0 | | $0 | | $2,460 |
| Hydrology | | | | | | | | | | | |
| Equipment Contract Costs | Headcut Stabilized | 20,925 | 2 | $41,850 | $0 | | $0 | | $0 | | $41,850 |
| GS-11 Hydro (Contract prep/ tour) | Hours | 50 | 82 | $4,100 | $0 | | $0 | | $0 | | $4,100 |
| GS-11 Hydro (Implement & OT) | Hours | 60 | 91 | $5,460 | $0 | | $0 | | $0 | | $5,460 |
| GS-9 COR (Contract prep/ tour) | Hours | 42 | 16 | $672 | $0 | | $0 | | $0 | | $672 |
| 2 GS-9s COR (Implement & OT) | Hours | 50 | 63 | $3,150 | $0 | | $0 | | $0 | | $3,150 |
| Electric Fence Supplies | Lump Sum | 300 | 1 | $300 | $0 | | $0 | | $0 | | $300 |
| Vehicle Mileage | Use Rate | 0 | 1700 | $680 | $0 | | $0 | | $0 | | $680 |
| | | | | $0 | $0 | | $0 | | $0 | | $0 |
| Hazmat | | | | | | | | | | | |
| Stabilization Contract Costs (see report for breakdown) | Lump Sum | 86,178 | 1 | $86,178 | $0 | | $0 | | $0 | | $86,178 |
| Stabilization FS Costs (admin, mileage) | Lump Sum | 14,800 | 1 | $14,800 | $0 | | $0 | | $0 | | $14,800 |
| Chemically Treated Wood Removal | Days | 1,500 | 2 | $3,000 | $0 | | $0 | | $0 | | $3,000 |
| Chemically Treated Wood Disposal | Lump Sum | 600 | 1 | $600 | $0 | | $0 | | $0 | | $600 |
| Burned Bridge Removal | Lump Sum | 164,460 | 1 | $164,460 | $0 | | $0 | | $0 | | $164,460 |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | | $0 |
| *Subtotal Land Treatments* | | | | $381,960 | $0 | | $0 | | $0 | | $381,960 |
| **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** | | | | | | | | | | | |
| Storm Proofing | Total | 35,267 | 1 | $35,267 | $0 | | $0 | | $0 | | $35,267 |
| Storm Inspection & Response(2 times | Per Mile | 1,200 | 8.6 | $10,320 | $0 | | $0 | | $0 | | $10,320 |
| Trails | | | | | | | | | | | |
| Trail Labor(5 person crew ~22 days) | LS | 33,118 | 1 | $33,118 | $0 | | $0 | | $0 | | $33,118 |
| Hazard Trees | Miles | 125 | 25 | $3,125 | $0 | | $0 | | $0 | | $3,125 |
| Inspection | per Trail | 750 | 10 | $7,500 | $0 | | $0 | | $0 | | $7,500 |
| *Insert new items above this line!* | | | | $0 | $0 | | $0 | | $0 | | $0 |
| *Subtotal Road & Trails* | | | | $89,330 | $0 | | $0 | | $0 | | $89,330 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **D. Protection/Safety** | | | | | | | | | | | |
| Burned Bridge Barrier | LS | 2,620 | 1 | $2,620 | $0 | | | $0 | | $0 | $2,620 |
| Roads | | | | | | | | | | | |
| Warning & Info Signs | Each | 350 | 9 | $3,150 | $0 | | | $0 | | $0 | $3,150 |
| Road Closure Signs | Each | 250 | 10 | $2,500 | $0 | | | $0 | | $0 | $2,500 |
| Install new Gates & Signs | each | 2,000 | 3 | $6,000 | $0 | | | $0 | | $0 | $6,000 |
| Re-sign existing gate & repair | each | 275 | 6 | $1,650 | $0 | | | $0 | | $0 | $1,650 |
| Trails | | | | | | | | | | | |
| Gates & Signs | LS | 1,352 | 1 | $1,352 | $0 | | | $0 | | $0 | $1,352 |
| Interagency Liaison | | | | $0 | $0 | | | $0 | | $0 | $0 |
| Coordinator / Liaison | LS | 4,890 | 1 | $4,890 | $0 | | | $0 | | $0 | $4,890 |
| *Insert new items above this line!* | | | | $0 | $0 | | | $0 | | $0 | $0 |
| *Subtotal Structures* | | | | $22,162 | $0 | | | $0 | | $0 | $22,162 |
| **E. BAER Evaluation** | | | | | | | | | | | |
| Qualified Expenses | LS | 103,206 | 1 | | | | | | | | $103,206 |
| BAER Trainee Expenses | LS | 29,702 | 1 | --- | | | | $0 | | $0 | $29,702 |
| *Insert new items above this line!* | | | | --- | $0 | | | $0 | | $0 | $0 |
| *Subtotal Evaluation* | | | | --- | $0 | | | $0 | | $0 | $132,909 |
| **F. Monitoring** | | | | | | | | | | | |
| Meadow treatment Monitoring(GS-11) | Hours | 50 | 32 | $1,600 | $0 | | | $0 | | $0 | $1,600 |
| *Insert new items above this line!* | | | | $0 | $0 | | | $0 | | $0 | $0 |
| *Subtotal Monitoring* | | | | $1,600 | $0 | | | $0 | | $0 | $1,600 |
| | | | | | | | | | | | |
| **G. Totals** | | | | $495,052 | $0 | | | **$0** | | **$0** | **$627,960** |
| Previously approved | | | | | | | | ***Including Assessment** | | | |
| Total for this request | (Excluding Assessment Cost) | | | **$495,052** | | | | | | | |

## PART VII - APPROVALS

1. _____ 9/17/18
Forest Supervisor (signature) Date

2. Bonnie T. Grant 9/20/18
Regional Forester (signature) Date