

Date of Report:10-22-10

BURNED-AREA REPORT
(Reference FSH 2509.13)**PART I - TYPE OF REQUEST**

A. Type of Report

- ☒ 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 # _____
 ☐ 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 DESCRIPTIONA. Fire Name: Church's ParkB. Fire Number: CO-ARF-000677C. State: COD. County: GrandE. Region: R02F. Forest: Arapaho-RooseveltG. District: SulphurH. Fire Incident Job Code: 0210-P2FWQ3I. Date Fire Started: 10-03-2010J. Date Fire Contained: 10-19- 2010K. Suppression Cost: Approx. 1.5 Million

L. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): Approx. 1/3 mile of dozer line on ridge on north flank of fire
2. Fireline seeded (miles): Approx. 1/3 mile of dozer line on ridge on north flank of fire
3. Other (identify):

M. Watershed Number:

N. Total Acres Burned: 473

NFS Acres(437) Other Federal (36) State () Private ()

O. Vegetation Types: Mosaic of conifer forest, aspen and grass/herbaceous. Forested areas are either Lodgepole dominated or Spruce-Fir dominated. In most cases, Lodgepole trees were dead or dying due to the ongoing Mountain Pine Beetle epidemic in the area. However, dead/dying trees were not continuous/uniform across the burned area

P. Dominant Soils: Map unit 6101A is formed in undifferentiated parent material and occurs on alluvial fans at the base of gulches. Soils in map Unit 4501C are formed from colluvial material derived from sandstone. Soils in map unit 7501B are formed in residuum derived from sandstone. Map unit 4504B is formed in shale and occurs in the valley bottom in the lower eastern part of the burned area.

Summary Table: Geology, Soil and Soil Interpretations, and Vegetation

Soil Map Unit		Parent Material	Debris Flow Potential	EHR	Dominant Vegetation
4501C	Sandstone	Colluvium	Moderate	Severe	Lodgepole, shrubs
7501B	Sandstone	Residuum	Low	Moderate	Spruce, Fir, Lodgepole, Shrubs
6101A	Undifferentiated	Alluvium	Low	Low	Aspen, willow, grasses

Q. Geologic Types: The general lithology is sedimentary rock in the form of sandstone. The geologic formations are Tm (Middle Park Formation), Tt (Troublesome Formation), and a small area of Kp (Pierre Shale) in the lower eastern part of the burned area

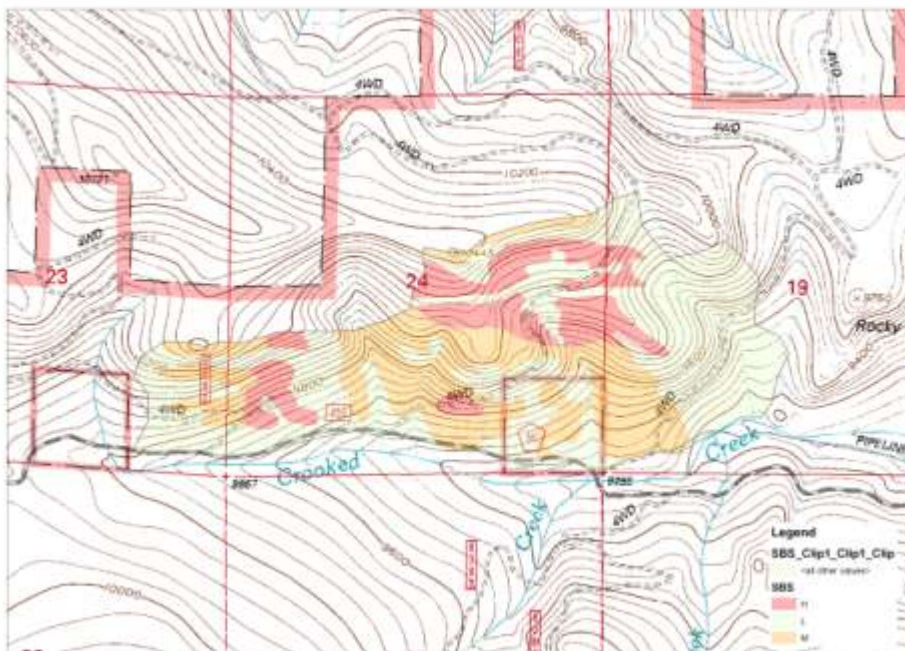
R. Miles of Stream Channels by Order or Class:

S. Transportation System

Trails: miles Roads: 3.3 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 251 (low) 143 (moderate) 79 (high)



B. Water-Repellent Soil (acres:

C. Soil Erosion Hazard Rating (acres):

63 (low) 149 (moderate) 259 (high)

D. Erosion Potential: _____ tons/acre

E. Sediment Potential: _____ cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

B. Design Chance of Success, (percent): _____

C. Equivalent Design Recurrence Interval, (years): _____

D. Design Storm Duration, (hours): _____

E. Design Storm Magnitude, (inches): _____

F. Design Flow, (cubic feet / second/ square mile): _____

G. Estimated Reduction in Infiltration, (percent): _____

H. Adjusted Design Flow, (cfs per square mile): _____

The precipitation event of highest concern is the high intensity thundershower. Increases in peak flows and sediment delivery and flashier timing is expected to occur in response to these precipitation events. Longer duration-moderate intensity storms may also cause flooding concerns.

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Life and Safety:

A threat to safety of Forest Users exists due to increased risk for dangerous road conditions or loss of access if post-fire runoff impacts the 880.1 and 880.2 roads (within burned area perimeter) or the 139 Road (Church Park Road), a throughfare on the southern flank of the burned area. Additionally, structurally compromised burned trees existing within the burned area, may pose a threat for Forest Users. This area is popular for recreational use throughout the year.

Property:

FS Roads 880.1 and 880.2 are native surface roads that contour through steep burned terrain. These roads were bladed to improve access to fire suppression vehicles. Waterbars and rolling dips will be installed as part of the suppression rehabilitation effort. However, increased post fire runoff coupled with vehicle traffic is likely to impact these roads. Runoff and sediment may impact the road surface, cut-slope, fill-slope, or road drainage features. Increased risk for dangerous road conditions or loss of access also exists.

FSR 139 (Church Park Road) forms the southern flank of the burned area perimeter and is located between Crooked Creek and the burned area. Several burned gulches drain to the road-side ditch and a series of 7 culverts serve as cross drainage. All but one of the culverts are 18 inches in diameter and post fire runoff/sediment is likely to cause the roadside ditch-culvert system to fail.

Natural Resources:

Increased risk for establishment and spread of noxious weeds exists within the burned area.

B. Emergency Treatment Objectives:

The objective of installing 4 gates to prevent access into the burned area is:

- To protect life/safety (road/forest users)
- To protect property (roads within the burned area)
- To provide for natural vegetative recovery and stabilization of the burned area

The objective of implementing the Storm Inspection and Response Treatment is:

- To protect property (County Road 50/Crooked Creek Road)
- To maintain throughfare
- To protect life/safety (road/forest users)

The objective of implementing Noxious Weed Detection Surveys and Treatments is:

- To provide for recovery of native vegetation by preventing the establishment and spread of noxious weeds in the recently burned area

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

Land ___ % Channel ___ % Roads/Trails ___ % Protection/Safety ___ %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	80	-	-
Channel	-	-	-
Roads/Trails	80	90	90
Protection/Safety	80	*	*

* Area Closure review annually

E. Cost of No-Action (Including Loss): see VAR Worksheet

F. Cost of Selected Alternative (Including Loss): See VAR Worksheet

G. Skills Represented on Burned-Area Survey Team:

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input type="checkbox"/> Range	<input type="checkbox"/>
<input type="checkbox"/> Forestry	<input checked="" type="checkbox"/> Wildlife	<input checked="" type="checkbox"/> Fire Mgmt.	<input checked="" type="checkbox"/> Engineering	<input type="checkbox"/>
<input type="checkbox"/> Contracting	<input type="checkbox"/> Ecology	<input checked="" type="checkbox"/> Botany	<input checked="" type="checkbox"/> Archaeology	<input type="checkbox"/>
<input checked="" type="checkbox"/> Fisheries	<input type="checkbox"/> Research	<input type="checkbox"/> Landscape Arch	<input type="checkbox"/> GIS	

Although a total of only 473 acres were burned, ARNF BAER personnel reviewed the burned area to determine if a need for BAER existed. Prior to going into the field, a preliminary review of maps and discussions with District and Forest personnel indicated that critical values at risk were likely to include property and natural resources.

On October 15th, Eric Schroder and Carl Chambers mapped burn severity and reviewed values at risk with SRD personnel in the field. Formal BAER Team meetings were not held but the following personnel were involved in the development of this BAER Plan:

Eric Schroder: Forest BAER Coordinator and Soil Scientist
Carl Chambers: Forest Hydrologist

Kevin Bayer: SRD Hydrologist
 Steve Popovich: Forest Botanist and Noxious Weeds Program Manager
 Doreen Sumerlin: SRD Wildlife Biologist and Noxious Weeds Program Manager
 Kelly Larkin: SRD Fisheries Biologist: Contacted to determine potential threats to aquatic resources
 Paul Alford: Zone Archeologist
 Mike Ricketts: SRD Recreation and Specila Uses
 Paul Mintier: SRD Fire Management Officer
 Jon Morrissey and Brad Orr: Acting District Rangers
 Richard Stowers: SRD Engineer

Team Leader: Eric Schroder

Email: eschroder@fs.fed.us

Phone: 303 819 4407

FAX: 303-541-2515

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: Noxious Weeds Detection and Treatment

Several known infestations of noxious weeds exist within the burned area (yellow toadflax and oxeye daisy) and several very large infestations (yellow toadflax) exist adjacent to the burned area. Detection surveys for additional weed infestations that could potentially establish within the burned area, and treatment of known and new infestations, and monitoring of treatment effectiveness would occur for up to three years following the fire. Invasive species detection, monitoring, treatment, re-treatment or maintenance beyond the first year must be funded with regular program funds.

Noxious Weeds Detection and Treatment in Year 1

Item	Unit	Cost
Detection in Year 1	GS-7 and GS-4 technician for 3 days	\$1,095
Treatment in Year 1	GS-7 and GS-4 technician for 3 days	\$1,095
Materials and Supplies		\$300
	Total	\$2,490

Channel Treatments: None proposed

Roads and Trail Treatments: Storm Inspection and Response

Storm inspection response is recommended to address increased risk for damage to FSR139, associated safety concerns and loss of throughfare. Several burned gulches drain to the road-side ditch and a series of 7 culverts serve as cross drainage. All but one of the culverts are 18 inches in diameter and post fire runoff/sediment is likely to cause the roadside ditch-culvert sysem to fail. Storm inspection costs are based on estimated need for 5 inspections. Storm response costs are based on 3 reponses with a backhoe and a crew.

Storm Inspection and Response treatment for Year 1

Item	Unit	Cost
Storm Inspection	5 Inspections	\$1,500
Storm Repsonse	3 Responses	\$6,000
	Total	\$7,500

Removal of the culverts and installation of rolling dips was discussed with District Engineering and Recreation Personnel. This treatment was not recommended because the road is used throughout the year by fast moving traffic and vehicles with large trailers.

Protection/Safety Treatments:

An area closure is recommended to protect life/safety (road/forest users, protect property (roads within the burned area) and to provide for natural vegetative recovery and stabilization of the burned area. Installation of 4 barricades, signs, and routine monitoring of closure effectiveness is recommended to reinforce closure order and would remain in place for the first year following the fire. The need for closure would be evaluated on an annual basis.

Closure Criteria Include:

- Increased potential for post-fire runoff and associated impacts to roads and road users
- Recovery of native vegetation (generally speaking, full recovery of watershed stability to pre-fire conditions is likely to take 3-5 years)
- Presence of hazardous trees (time period over which hazard exists is based on treatment and other natural variables)

Item	Unit	Cost
Closure Order (Rec. Staff)	3 days@\$376/day	\$1,128
Closure Order (NEPA. Spec.)	2 days@\$369/day	\$768
Closure Order (LEO Review)	1 day	\$400
Barricades	4 barricades	\$5,000
Signs	4 signs	\$1,200
	Total	\$8,496

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 effectiveness monitoring is recommended to observe and document treatment effectiveness and determine treatment repair or maintenance needs.

Treatment	Unit	Cost
Protection and Safety Treatments	GS-09 Rec. Personnel for 8 days	\$2,400
Road Treatments	Hydrologist or Engineer	\$600

[illegible]

1. _____
Forest Supervisor (signature) _____
Date _____
2. _____
Regional Forester (signature) _____
Date _____