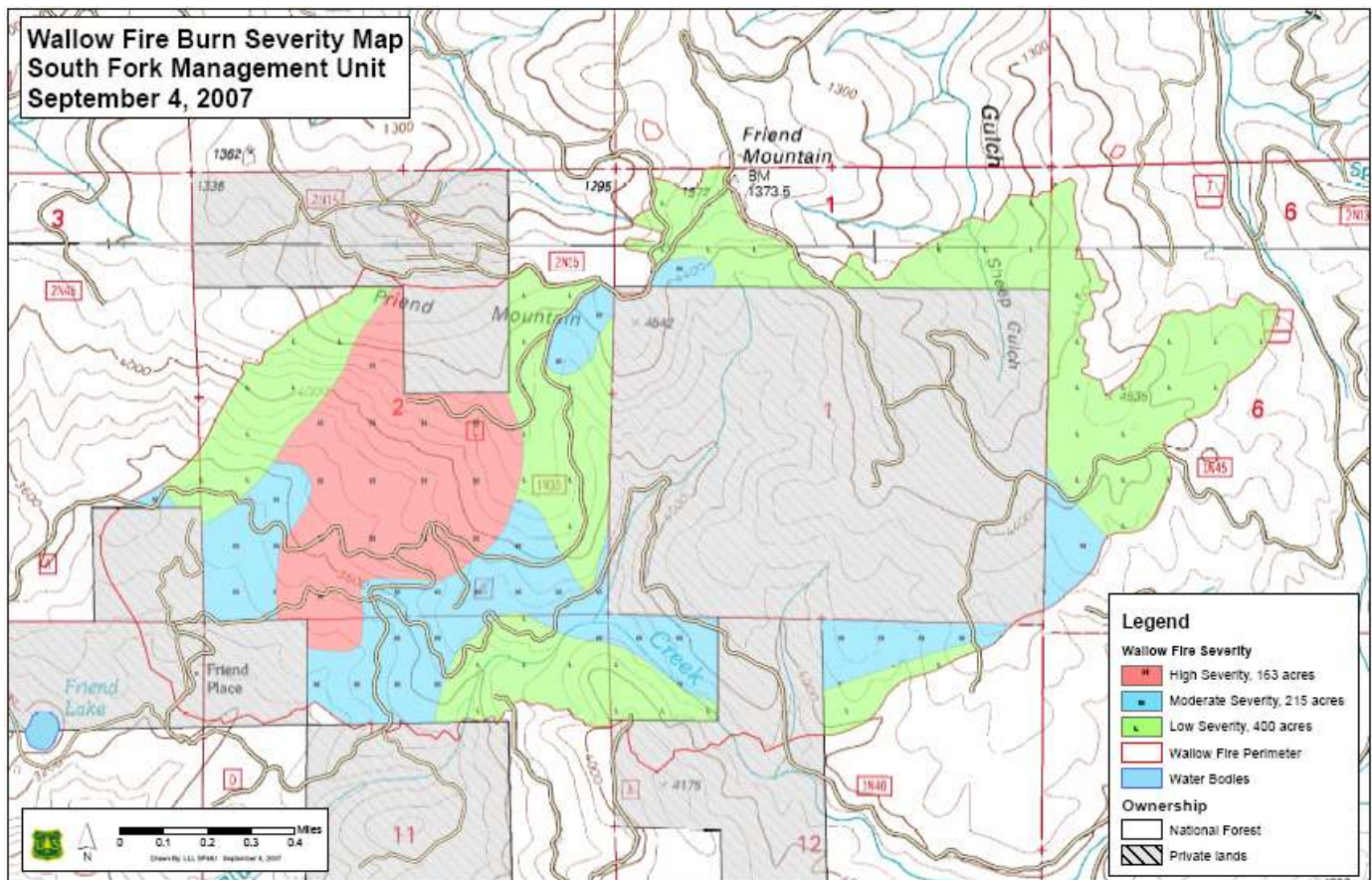


Date of Report: 9/09/07

BURNED-AREA REPORT (Reference FSH 2509.13)

PART I - TYPE OF REQUEST



A. Type of Report

- ☒ 1. Funding request for estimated WFSU-SULT funds
- ☐ 2. Accomplishment Report
- ☐ 3. No Treatment Recommendation

B. Type of Action

- ☒ 1. Initial Request (Best estimate of funds needed to complete eligible rehabilitation 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: Wallow B. Fire Number: CA-SHF-001882
- C. State: CA D. County: Trinity
- E. Region: 05 F. Forest: 14
- G. District: 52, Hayfork
- H. Date Fire Started: 08/29/07 I. Date Fire Contained: 09/02/07 @1800
- J. Suppression Cost: \$3,161,943 as of 9/05/07
- K. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 5.2 miles dozer, 11.3 handline
 2. Fireline seeded (miles): 0
 3. Other (identify): 1 spring rehabilitated
- L. Watershed Number: 1801021202
- M. Total Acres Burned: 1439
NFS Acres(778) Other Federal () State () Private (661)
- N. Vegetation Types: Douglas fir, pine, mixed conifer forest, plantations.
- O. Dominant Soils: Holland family deep 20 to 40 percent slopes, Neuns-Holland families complex, 20 to 40 percent slopes, Marpa-Holland, deep families complex, 0 to 20 percent slopes, Rock outcrop-Goulding family complex, 40 to 80 percent slopes, Neuns family, 40 to 60 percent slopes.
- P. Geologic Types: Klamath, metasediments, limestone, ultramafic, metavolcanics, basic intrusives, granitic intrusives.
- Q. Miles of Stream Channels by Order or Class:
- 1.3 miles ephemeral streams
0.7miles intermittent streams
0.3 miles perennial streams

R. Transportation System

Trails: 0 miles Roads: 10.2 miles

PART III - WATERSHED CONDITION

- A. Burn Severity (acres): 521 (low) 557 (moderate) 361 (high)
- B. Water-Repellent Soil (acres): None Observed
- C. Soil Erosion Hazard Rating (acres):
526 (low) 863 (moderate) 50 (high)
- D. Erosion Potential: 3 to 5 tons/acre

E. Average Sediment Potential: 2385 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

- A. Estimated Vegetative Recovery Period, (years): 10
- B. Design Chance of Success, (percent): 85
- C. Equivalent Design Recurrence Interval, (years): 10
- D. Design Storm Duration, (hours): 6
- E. Design Storm Magnitude, (inches): 2.8
- F. Design Flow, (cubic feet / second/ square mile): 198 (Wannanen & Crippen)
- G. Estimated Reduction in Infiltration, (percent): 10
- H. Adjusted Design Flow, (cfs per square mile): 217

PART V - SUMMARY OF ANALYSIS

- A. Describe Watershed Emergency: The Wallow Fire burned a total area of 1,439 acres, mostly within the Plummer Creek drainage that drains directly into the South Fork Trinity River. The area was rapidly assessed by a BAER Team consisting of a hydrologist, geologist, road manager, and forester over a period of two days. The team determined that a watershed emergency did exist in one large high severity burn area (163 acres of public land) on the south slopes of Friend Mountain. The entire area within the high severity burn is located on a large Pleistocene complex rotational landslide. The feature is characterized by steep upland slopes, benches and sag ponds. One private residence (Friend Place) is located at the bottom of both the slide feature and the high severity burn area. Two roads, 1N35A and 1N40 traverse the slide feature on public lands above the Friend residence. Many of the culverts that did appear to be sized properly prior to the fire may not be able to handle the increased sediment load and flow volume from the high severity burn area. The team believes that several of these culverts should be upsized to handle the increased flows and sediment due to four factors: 1) presence of high severity burn area over entire catchment, 2) presence of old landslide feature, 3) water quality and downstream anadromous critical fish habitat associated with Plummer Creek, 4) presence of private residence located beneath 1 and 2. The team took a conservative approach to the upsizing process, only identifying replacement sites for the most undersized pipes. The remainder of pipes as well as the new ones will be monitored (storm patrol) during the fall and winter rainy season and cleaned out if necessary in order to facilitate drainage within the high severity burn area.

In addition to the aforementioned work one low water ford and one plugged culvert tributary to the North Fork of Plummer Creek were identified as at risk to failure. It is recommended that additional rock be placed on the downslope side of the ford to prevent winter flows from downcutting through the road prism at this location. The second site should have the culvert replaced and a new CMP installed along with crushed rock to facilitate seepage through road prism.

Noxious weed introduction:

The large response from local, state, and federal units raises the possibility that noxious weeds were introduced in unwashed suppression equipment. Need to order up a noxious weed detection survey to insure no invasive weeds get established in fire perimeter and along dozer lines

No further emergency conditions were identified for the Wallow Fire area or vicinity. Field surveys of the drainages indicate that most of the streams are intermittent.

B. Emergency Treatment Objectives:

- 1) Protection of life and property.
- 2) Provide for rapid drainage of streams draining high severity burn area and slide feature.
- 3) Protect improvements (transportation system)
- 4) Prevent road-related water quality impacts to Plummer Creek and tributaries.
- 5) Prevention of noxious weed infestations in Plummer Creek drainage.

C. Probability of Completing Treatment Prior to First Major Damage-Producing Storm:

Land NA % Channel NA % Roads 80 % Other NA %

D. Probability of Treatment Success

Years after Treatment			
	1	3	5
Land	NA	NA	NA
Channel	NA	NA	NA
Roads	90	95	95
Other	95	95	90

E. Cost of No-Action (Including Loss): \$822,018

F. Cost of Selected Alternative (Including Loss): \$367,615

G. Skills Represented on Burned-Area Survey Team:

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

Team Leader: Annetta Mankins

Email: amankins@fs.fed.us

Phone: 530-628-1260

FAX: 628-5212

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: Allow natural regeneration due to the moderate soil burn severity that did not destroy the topsoil or the natural seedbed. Restoration will be rapid in spring due to lack of soil destruction from fire. No watershed emergency in regards to erosion, water quality, fish, wildlife, archeology.

Channel Treatments: NA

Roads and Trail Treatments:

New culverts will be installed at locations where culverts were determined to be undersized. One additional 18-inch culvert (salvaged from an undersized location) will be installed in a swale that currently contains no culvert. An additional low water on a tributary to the North Fork of Plummer Creek will be armored to prevent headcutting of the stream through the road prism. The intent of the culverts is to facilitate drainage from the high severity burn area and to provide for rapid dewatering of the landslide feature.

Sites where work is to be completed are bolded in the table below.

Wallow Fire Road Stream Crossing Inventory – High Intensity Burn Areas 9-6-07

Road	Site #	Description
1N40	1	Construct critical dip in prism to prevent diversion of flow down road. No culvert here, just need dip for drainage.
1N40	2	Intermittent channel, swale shape, existing 18-inch, 40 foot long CMP, not plugged, replace with 24-inch CMP
1N40	3	Small spring fed stream, existing 18-inch, 20 foot long CMP, not plugged, replace with 24-inch CMP.
1N40	4	At road 1N40 – 1N35 junction. Improve drainage at this intersection (1 rolling dip needed in 1N35 south of 1N40 to divert water off road prism.
1N40	5	Large intermittent channel, existing 24-inch, 60 foot long CMP. Not plugged. Evidence of past plugging, large piles of excavated plug material, small dam/berm above inlet to hold back ponded water. Approximately 8-foot fill on outlet side. Some flow observed in channel below pipe. Should size pipe. Recommend replacing pipe with a 42-inch CMP.
1N35	7	Intermittent channel, existing 18-inch, 50 foot long CMP, largest fill observed (approximately 20 feet deep on downhill side). Recommend replacing with a 36-inch CMP. Diversion potential here.
1N35	9	Existing 18-inch, 40 foot long CMP, replace with 24-inch CMP , storm patrol recommended.
1N35	12	Small swale with some evidence of flow. No existing pipe. Recommend adding pipe at this location. Use one of the 18-inch CMP's removed from adjacent area.
1N35	13	Existing 18-inch CMP. If an 18-inch pipe is not installed at site 12 consider upsizing site 13 pipe to 24-inches.
1N35	14	Existing 18-inch CMP, outlet partially plugged , clean out outlet and remove debris from inlet.
	16	Big intermittent or perennial stream currently flowing. Same channel as Site 5. Existing pipe is 36-inches diameter and appears to be sufficiently sized to carry all runoff.
		Minimum culverts needed

		3 24" x 40' 1 42" x 60' 1 36" x 60' One additional 18-inch pipe, estimated 30- 40' length if one of the 18-inch pipes being removed is not sufficient. Squash culverts would work best for sediment transport. As a general recommendation storm patrol of all pipes in the burn area should occur during the first rains of fall or early winter.
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Structures: NA

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.)

Monitoring of BAER treatments will occur during storm patrol. Storm patrollers will drive roads within the burn area during heavy fall and early winter rains and monitor culverts to ensure that they are not plugging. Monitors will note culverts that require maintenance (i.e. cleaning out) after each storm. The effectiveness of the new culverts and drainage installations will be evaluated by reviewing the cleaning logs of the storm patrollers following the winter season.

Noxious weed detection survey needs to be conducted in the Spring to determine if introduction of noxious weeds occurred from multi-agency response into a Ponerosa Pine-Buckbrush-Manzanita habitat. Three weeks of time for district botanist and assistant to monitor fire area esp. fire perimeter and 5.3 miles of dozer lines for noxious weeds. If noxious weeds are detected in the spring, weed locations will be GPS, hand pulled, put in plastic bags for disposal and monitored for eradication success. If further treatments are needed an Interim request will be submitted.

Part VI – Emergency Rehabilitation Treatments and Source of Funds by Land Ownership

Line Items	Units	Unit Cost	NFS Lands		Other \$	Other Lands				All Total \$
			# of Units	WFSU SULT \$		# of units	Fed \$	# of Units	Non Fed \$	
A. Land Treatments										
				\$0			\$0		\$0	\$0
				\$0			\$0			
				\$0			\$0		\$0	\$0
				\$0			\$0		\$0	\$0
<i>Subtotal Land Treatments</i>				<i>\$0</i>			<i>\$0</i>		<i>\$0</i>	<i>\$0</i>
B. Channel Treatments										
				\$0			\$0		\$0	\$0
				\$0			\$0		\$0	\$0
				\$0			\$0		\$0	\$0
				\$0			\$0		\$0	\$0
<i>Subtotal Channel Treat.</i>				<i>\$0</i>			<i>\$0</i>		<i>\$0</i>	<i>\$0</i>
C. Road and Trails										
Culverts	ea	1	\$14,000	\$14,000			\$0		\$0	\$14,000
Labor/Equipment	ea	1	\$42,000	\$42,000			\$0		\$0	\$42,000
Storm Patrol	ea	1	\$6,000	\$6,000			\$0		\$0	\$6,000
				\$0			\$0		\$0	\$0
<i>Subtotal Road & Trails</i>				<i>\$62,000</i>			<i>\$0</i>		<i>\$0</i>	<i>\$62,000</i>
D. Structures										
				\$0			\$0		\$0	\$0
				\$0			\$0		\$0	\$0
				\$0			\$0		\$0	\$0
				\$0			\$0		\$0	\$0
<i>Subtotal Structures</i>				<i>\$0</i>			<i>\$0</i>		<i>\$0</i>	<i>\$0</i>
E. BAER Evaluation										
	ea	1	11,200	\$11,200			\$0		\$0	\$11,200
				\$0			\$0		\$0	\$0
F. Monitoring				\$0			\$0		\$0	\$0
Nx Weeds	days	412	24	\$9,888	\$0		\$0		\$0	\$9,888
G. Totals				\$83,088			\$0		\$0	\$83,088

PART VII - APPROVALS

1. /s/ J. Sharon Heywood
J. SHARON HEYWOOD
Forest Supervisor

25 Sep 07
Date

2. /s/ Vicki A. Jackson (for)
Bernard Weingardt
Regional Forester

26 Sep 07
Date