

Date of Report: July 19th, 2002

USDA - FOREST SERVICE / BURNED - AREA REPORT

(Reference FSH 2509.13)

Interim Report January 27, 2005 (fuchsia color, asterisk, bold, italic, underlined)

PART 1 ... TYPE of REQUEST

A. Type of Report

- (X) 1. Funding request for estimated WFSU - SULT funds
- () 2. Accomplishment Report
- () 3. No Treatment Recommendation

B. Type of Action

- (X) 1. Initial Request
(Best estimate of funds needed to complete eligible rehabilitation measures)
- * (X) 2. Interim Report
- * (X) Updating the initial funding request based on more accurate site data and design analysis
- () Status of accomplishments to date
- () 3. Final Report - following completion of the emergency work

PART 2 ... BURNED - AREA DESCRIPTION and FIRE LOCATION

A. **Fire Name:** Mustang

B. **Fire Number:** P41075 / UT - ASF –
41075

C. **State:** Utah

D. **County:** Daggett ... # 009

E. **Region:** R4 / Intermountain

F. **Forest:** Ashley ... # 0401

G. District: D1 / Flaming Gorge

H. Date Fire Started: 06-30-2002

I. Date Fire Contained: 07-10-2002

J. Date Fire Controlled: 07-17-2002

K. Suppression Costs: \$ 3,277,640 (estimated final cost) ... taken from the ICS - 209 dated 7-10-2002

L. Fire Suppression Damages Repaired with EFFFs – PF12 Funds:

- ◆ Fireline Waterbarred ~ 20 miles of hand lines and 12.5 of dozer lines (miles)
- ◆ Fireline Re-seeded (miles) ~ 20 miles of hand lines and 12.5 of dozer lines
- ◆ Other Damages... Roads located N of Dutch John will be looked at (identify) with the District Staff and Daggett County officials for additional treatments

M. Watershed Number: 14040106 ... Upper Green River / Flaming Gorge Reservoir

N. NFS Acres Burned: 14,595 **Total Acres Burned:** 19,861

Other Land Ownerships ... list as follows (acres):

(X) Private -	(X) State of Utah -	(X) BLM -	() DWR - 567
2,399	926	1,374	

O. Vegetation Types:	Pinyon (<i>Pinus edulis</i>) - Utah juniper (<i>Juniperus osteosperma</i>) was the dominant vegetation type throughout the area of the Mustang Fire. At the higher elevations of the fire, on Goslin Mountain, mountain big sagebrush (<i>Artemisia tridentata</i> var. <i>vaseyana</i>) / bitterbrush (<i>Purshia tridentata</i>) / grass communities are common. Wyoming big sagebrush (<i>Artemisia tridentata</i> var. <i>wyomingensis</i>) / grass communities are common on the valley fill soils around Dutch John, Dripping Springs and Mustang Junction. Basin big sagebrush (<i>Artemisia tridentata</i> var. <i>tridentata</i>) communities are found in a few valley bottoms on deep alluvial soil such as in Rifle Canyon. There are minor areas of fringed sagebrush (<i>Artemisia frigida</i>) on wind-swept exposures on Goslin Mountain. Alder-leaf mountain –mahogany (<i>Cercocarpus montanus</i>) / bluebunch wheatgrass (<i>Elymus spicatus</i>) are common on northerly aspects within the pinyon-juniper belt. These are clearly seral to pinyon - juniper. Ponderosa pine (<i>Pinus ponderosa</i>) communities were mostly confined to the southwest end of the fire near Flaming Gorge Dam. Seeded plant communities of mostly grasses and
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	forbs have been established on 3,570 acres in prescribed burns.
P. Dominant Soils:	Dominant soils of the Structural Grain Landtype Association on gentle to steep uplands and valley fill areas include loamy-skeletal, mixed, frigid, Typic Haploborolls, fine-loamy, mixed, frigid, Lithic Ustochrepts, fine-loamy, mixed, Frigid, Haplocalcic Ustochrepts, and fine-loamy, mixed, frigid, Typic Haplustalfs. Dominant Soils for the Red Canyon Landtype Association on almost vertical massive cliffs and less steep and rocky slopes include loamy-skeletal, mixed, frigid, Lithic Ustochrepts, sandy-skeletal, siliceous, Lithic Ustochrepts, and sandy-skeletal, mixed, frigid Haplocalcic Ustochrepts.
Q. Geologic Types:	The majority of the burned-area has soils formed in the Uinta Mountain Group consisting of mainly quartzite and shales.

R. Miles of Stream Channels by Order: (Strahler 1952 method, within the fire perimeter)

Zero: 19.0 1st: 39.2 2nd: 10.9 3rd: 3.5 4th: -0- 6th: 1.9

S. Transportation Systems: (occurring within the fire perimeter)

Trails ... 3.6 miles (USDA - Forest Service)	Roads ... 19.4 miles (USDA - Forest Service)
Trails ... 0.5 miles (Private Ownership)	Roads ... 15.1 miles (Private Ownership)
Trails ... 0.2 miles (BLM Lands)	Roads 3.0 miles (BLM)
	Roads 2.8 miles (State of Utah)
	Roads 1.6 miles (UDWR - Wildlife Reserves)
Total Trails ... 4.3 miles	
	Total Roads ... 41.9 miles

PART 3 ... WATERSHED CONDITION / NFS PROBLEM INVENTORY

A1. Mapping of the Burn Severity Zones: (19,861 total acres occur within the perimeter of the Mustang Fire)

7,472 High (38 %) 6,876 Moderate (35 %) 5,513 Low / Unburned (27 %)

A2. Mapping of the Burn Severity Zones: (NFS lands ... 14,595 acres)

5,879 High (40 %) 5,275 Moderate (36 %) 3,441 Low / Unburned (24 %)

B. Estimation of Water-Repellent soils occurring within the different Burn Severity Zones:

(NFS lands ... acres)

<u>2,939</u> High (50 %)	<u>1,319</u> Moderate (25 %)	<u>172</u> Low / Unburned (5%)
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Overall Total = 4,430 acres

C. Rating Soils for Potential Erosion Hazards within the Fire Perimeter: NFS lands ... acres)

High	Moderate	Low
<u>4,086</u> (28 %)	<u>6,714</u> (46 %)	<u>3,795</u> (26 %)

D. Potential for Accelerated Erosion Losses without applying emergency rehabilitation treatments:

<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>	<u>4th Year</u>
29 tons/acre/year	27 tons/acre/year	24 tons/acre/year	22 tons/acre/year

Overall Total = 283,021 tons
(additional erosion over a 48 month period)

(Source) – Disturbed WEPP model ... <http://www.forest.moscowfs1.wsu.edu/fswepp/>

E. Total Sediment Potential: 13,034 tons / mile ² ... according to the Disturbed WEPP Model

**PART 4 ... HYDROLOGIC DESIGN FACTORS with
CALCULATED RISK and CLIMATE EVALUATIONS**

Refer to initial & previous Interim 2500-8

PART 5 ... SUMMARY OF SURVEY & ANALYSIS

Refer to initial & previous Interim 2500-8

**PART 6 ... EMERGENCY REHABILITATION
TREATMENTS
& SOURCE OF FUNDS BY LAND OWNERSHIP(s)**

***D. Early Warning System / Remote Automated Weather Station (RAW) and
Protection of known Archeological Sites (18)***

Protection of 18 Archeological Sites									
Roll	\$	7	\$ 302.40					\$	302.40
CFO72RR / 8 x 67.5 ' Erosion Blankets	Box	1	\$ 26					\$	26
6 to 8 '' Metal Staples	Each	44	\$ 633.60					\$	633.60
Straw Wattles - 12 ' size	Each	150	\$ 37.50					\$	37.50
24 '' wood stakes	Each	4	\$ 60					\$	37.50
4 # Hammers	Truck	1	\$ 300					\$	60
Freight for Delivery of Blankets and Wattles to Dutch John, Utah	Acre	1	\$ 383					\$	300
HydroMulching and Seeding with Mix # 1	Acre	1	\$ 33					\$	383
Hand Seeding using Seed Mix # 1								\$	33
Implementation of Arch.	Hour	80	\$ 2,040	---	---	---	---	\$	2,040

Treatments Install blankets, wattles and conduct hand seeding on 18 Archeological Sites using 2 / GS-5 seasonal employees									
Line Items	Unit Type	Unit Cost \$	Number of Units	WFSU-SULT \$	Number of Units	State of Utah \$	UDWR \$	BLM or County \$	Total \$
Case File Documentation Document a Historic Structure on Mann's Bench consumed during the burn	Day	\$ 127	1	\$ 127					\$ 127
Early Warning System for FS / Little Hole Recreational Site (1 RAWs station – installed and linked with the National Weather Service in Salt Lake City, UT)	Unit	\$ 17,500	1	\$ 17,500					\$ 17,500
The National Weather Service in Salt Lake City, Utah should be contacted at (800) – 909 – 5132 and asked if they want to participate with the installation of the temporary RAWs station.									
Subtotal for Section D	---	---	---	\$ 21,442	---	---	---	---	\$ 21,442

E2. Implementation and Effectiveness Monitoring Activities

(Forest Service ... Implementation and Effectiveness Monitoring - Year 1 of 3)									
NOTE ... if necessary, additional monitoring dollars can be acquired by the FS during Years 2 and 3 using and Interim type BAER Report to request and secure the appropriate funding; the individual to contact at the Intermountain Regional Office is Jeff Bruggink -- R4 / Soil Scientist and BAER Coordinator at (801) - 625 - 5357									
1) Soil & Water¹	3rd Year	\$ 2,850	1	\$ 2,850					\$ 2,850
2) RAWS Station annual maintenance²	3rd Year maintenance, 1 RAWS Station (Goslin)	\$ 800	1 Unit	\$ 800					\$ 800
Subtotal for Section E2	---	---	---	\$ 3,650	---	---	---	---	\$ 3,650
* F. TOTALS	---	---	---	\$ 849,470	---	\$ 18,931	\$ 19,908	\$ 114,374	* \$ 1,002,683 1,067,683

¹ Refer to Hydrology Monitoring Report 2003-2004, R.Helzner, 10/7/04 for report on monitoring to date. Additional funds are requested for continued monitoring of some key Mustang Fire areas that have not yet stabilized and concerns supporting further monitoring (**Helzner costs; \$900 field time, \$750 office time**):

Dripping Springs Campground (1 day field, 1 day office) - \$600

Culverts on Campground Road – ability to hold increased flows from culverts above

Culverts on Little Hole Road – ability of banks to hold under increased flows

Channel south of East Loop – recovery of *Nicotiana attenuate*-dominated banks

West of Dripping Springs Campground (1/2 day field, 1/2 day office) - \$300

Monitor brush filters by power lines which have coalesced into a single 30-ft filter; watch for blowout damage.

North of Dripping Springs Campground – costs included in #1 & #2 above

“S”-curve panorama, culvert across from campground for potential bank damage on downstream side following installation of new culverts.

Goslin Creek (1 day field, 1 day office) - \$600

Middle Goslin –vegetative recovery off the riparian; much bare ground remains; potential erosion.

Ford crossing – monitor for stability in high flows; maintenance needs of honeycomb fill.

Mustang Road (1/2 day field; office time included above) - \$150

Areas around new culverts need continued monitoring to ensure stability and establishment of soil-holding vegetation.

Additional funds are requested to scan photos, enter information into soil & water monitoring database (WARM), and prepare a power point presentation of before/after photos. While 2 weeks are likely needed for these tasks, **\$1200** is requested from BAER.

² The RAWS station continues to be used for early warning and public evacuation or communication relative to the Mustang Fire. The cost for maintaining the portable weather station located on Goslin Mountain (Mustang Fire, part of original 2500-8) would be \$800.00. This is a standard fee that the Boise RAWS Depot charges for replacing timed out or damaged sensors, batteries and solar panels. At a minimum, yearly preventive maintenance is performed on the weather station. This would include replacing the Wind-speed/Wind Direction sensor, the Relative Humidity/Air Temperature sensor, and the Fuel Moisture/Fuel Temperature sensor. These sensors are then returned to Boise for repair. This is less expensive than a full ride contract which would cost \$2500 each year for one station. A full ride contract is where the Technicians from Boise would be responsible for any maintenance needed on the station.

**Mustang Fire / Fund Code for Implementing Authorized BAER Treatments
... H41075**

PART 7 ... APPROVALS

1. **Forest Supervisor:**
____/s/ George A. Weldon

Date:
/s/ 2-4-05

2. **Regional Forester:** ____/s/ William P.
LeVere for

Date:
_____02/23/2005_____