



Forest
Service

Rocky
Mountain
Regional Office

740 Simms Street
Golden, CO 80401-4702
Voice: 303-275-5350
TDD: 303-275-5367

File Code: 2520-3/6520
Route To:

Date: September 2, 2009

Subject: Narraguinnep Fire, San Juan National Forest - Approval of Initial Request -
Burned Area Emergency Response Funding

To: Forest Supervisor, San Juan National Forest

We have received your August 27, 2009, initial request for Burned Area Emergency Response (BAER) funding for the Narraguinnep Fire on the San Juan National Forest. The standards for approving emergency actions are found in FSM 2523 and FSH 2509.13.

Your request is approved to \$228,953 in the following categories as described in Part VI of FS-2500-8.

TREATMENT	AUTHORIZATION
Land	\$198,648
Channel	\$ 16,130
Protection/Safety	\$ 7,000
BAER Evaluation	\$ 7,175
Total Approval	\$228,953

These projects meet the intent of the BAER program. This letter provides the assurance that funds are available and gives the Forest the authority to process funds availability certification. An emergency stabilization incident job code (H2E4R6) has been established for the implementation for this project. All treatments must be completed within one year of containment. The Forest is responsible for providing financial management oversight for this project. Any changes to this plan must be approved by the Regional Office. If there are any questions, please contact Tommy John, Regional BAER coordinator at 303-275-5583.

/s/ Sharon Friedman for
ANTOINE L. DIXON
Deputy Regional Forester, Resources

Enclosure



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Date of Report: 8/26/2009

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 DESCRIPTION

- A. Fire Name: Narraguinnep B. Fire Number: CO-SJF-147
C. State: Colorado D. County: Dolores
E. Region: 02 F. Forest: San Juan
G. District: Dolores H. Fire Incident Job Code: P2E4R6
I. Date Fire Started: 08/07/2009 J. Date Fire Contained: not yet contained
K. Suppression Cost: Approx \$2.4 million
L. Fire Suppression Damages Repaired with Suppression Funds
 1. Fireline waterbarred (miles): in progress, no estimate available (27 miles constructed)
 2. Fireline seeded (miles): in progress, no estimate available (27 miles constructed)
 3. Other (identify):
M. Watershed Number:
N. Total Acres Burned: 6,755
 [6,754] NFS Acres ☐ Other Federal ☒ State ☐ Private
O. Vegetation Types: Ponderosa Pine, Pinyon-Juniper woodland, Mountain shrub, mixed conifer, aspen

P. Dominant Soils: Argiustolls, Haplustalfs, Ustorthents, and rock outcrop

Q. Geologic Types: Geology is mixed sandstones and shales of the Mancos Shale, Morrison Formation, Dakota Sandstone, Burro Canyon Formation and alluvial gravels

R. Miles of Stream Channels by Order or Class: Order 1: 5.5 miles
Order 2: 5.0 miles
Order 3: 4.2 miles
Order 4: 4.6 miles
Order 5: 6.3 miles

S. Transportation System

Trails: 0 miles

Roads: 8.2 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1,085 (low) 3,176 (moderate) 2,245 (high)

B. Water-Repellent Soil (acres): 5,421

C. Soil Erosion Hazard Rating (acres): 1,214 (low) 1,910 (moderate) 3,631 (high)

D. Erosion Potential: 20 tons/acre

E. Sediment Potential: 30,000 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

B. Design Chance of Success, (percent): 62%

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

D. Design Storm Duration, (hours): 1.73

E. Design Storm Magnitude, (inches): 1.58

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

G. Estimated Reduction in Infiltration, (percent): 78%

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

PART V - SUMMARY OF ANALYSIS

For a more detailed description of the analysis see the Narraguinnep and Bradfield Fires Emergency Stabilization and Rehabilitation Plan.

- A. Describe Critical Values/Resources and Threats (narrative):** Approximately 5,421 acres (80%) of the Narraguinnep Fire experienced moderate to high soil burn severity. Approximately 3711 acres (55%) experienced high vegetation mortality (51-100% dominant overstory was killed) with most of those acres experiencing greater than 80% vegetation mortality. Watershed response is expected to include an initial flush of ash, some gully and rill erosion on steep slopes, sediment transport, and increased peak flows.

Vegetation types within the burned area are primarily ponderosa pine, pinyon-juniper woodland, mountain shrub, aspen and mixed conifer. The fire resulted in a majority of the pinyon-juniper woodland and roughly half of the other vegetation types experiencing high vegetation mortality (51-100% of the dominant overstory was killed). Areas of low vegetation mortality experienced beneficial under burns. The Narraguinnep Research Natural Area (RNA) was completely burned. This RNA was established in 1931 to protect an "outstanding example of undisturbed native plant and animal communities, typical of the canyon mesa country of southwestern Colorado".

The watersheds are not expected to recover for 3 to 5 years with some areas not recovering for another 10 years.

Populations of noxious weeds and other invasive non-native species are known to occur adjacent to or within the burned area. The Narraguinnep Fire has created a favorable seedbed to establish noxious weed populations, especially in severely burned areas. Noxious weeds will establish quickly in areas that will take native vegetation much longer to establish, taking advantage of the readily available soil nutrients and soil moisture with little competition.

B. Emergency Treatment Objectives (narrative): Seeding to reestablish desirable species and weed treatments are designed to reduce noxious and invasive weed invasions in areas that were severely burned. Trees posing an immediate hazard to the public traveling open Forest Service roads will be removed. Installation of public safety warning signs will warn the public of post-fire safety hazards present in the burn area. A temporary fence will be constructed to protect seeding treatments from livestock grazing. Known cultural sites that may be at risk of damage from increased erosion and runoff will be assessed. The Narraguinnep bridge abutments will be armored to protect the bridge from increased flows and debris.

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

Land 50% Channel 55% Roads/Trails NA Protection/Safety 85%

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	50%	75%	90%
Channel	55%	75%	90%
Roads/Trails			
Protection/Safety	85%	95%	95%

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

F. Cost of Selected Alternative (Including Loss):

G. Skills Represented on Burned-Area Survey Team:

☒ Hydrology ☒ Soils ☐ Geology ☒ Range
☒ Forestry ☒ Wildlife ☐ Fire Mgmt. ☐ Engineering
☐ Contracting ☒ Ecology ☐ Botany ☒ Archaeology
☒ Fisheries ☐ Research ☐ Landscape Arch ☒ GIS

Team Leader: Becca Smith

Email: rsmith@fs.fed.us

Phone: (970) 264-1521

FAX: (970) 264-1538

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:

Aerial Seeding – Seeding will serve as an immediate and long-term ground cover to help in the prevention and spread of non-native and noxious weed species, increase infiltration and decrease surface erosion. Local resource specialists including ecologists and range conservationists assisted with development of the seed prescription. Seed is being prescribed in areas where seed is likely to be successful (i.e. flatter slopes) and in areas of known noxious weed infestation. Quickguard Sterile Triticale is not expected to persist.

Seed Mix #1

Common Name	Species Name	PLS Pounds/Acre	Cost/PLS
Indian ricegrass	<i>Achnatherum hymenoides</i>	7.41	\$11.00
Blue grama	<i>Chondrosium gracile</i>	1.06	\$11.00
Mutton Grass	<i>Poa fendleriana</i>	0.2	\$41.00
Squirrel tail	<i>Elymus elymoides</i>	4.54	\$21.00
Quickguard Sterile Triticale	<i>Triticosecale rimpaui</i>	15	\$2.60

Seed Mix #2

Common Name	Species Name	PLS Pounds/Acre	Cost/PLS
Blue grama	<i>Chondrosum gracile</i>	0.4	\$11.00
Western wheatgrass	<i>Pascopyrum smithii</i>	7.9	\$3.50
Mutton Grass	<i>Poa fendleriana</i>	0.3	\$41.00
Junegrass	<i>Koeleria macrantha</i>	0.3	\$28.30
Squirrel tail	<i>Elymus elymoides</i>	1.8	\$21.00
Slender wheatgrass	<i>Elymus trachycaulus</i>	5.5	\$2.20
Utah Sweetvetch	<i>Hedysarum boreale</i>	0.6	\$50.00
Quickguard Sterile Triticale	<i>Triticosecale rimpaui</i>	10	\$2.60

Non-Native Invasive Plant Control – Areas with known noxious and invasive weed infestations and areas likely to be invaded by weeds (adjacent to known infestations and along road corridors) will be treated to prevent further spread.

Temporary Fence Construction to Protect Seeding Treatment – Fence will be constructed to exclude livestock from seeding treatment areas. Since fence construction is a ground disturbing activity, a cultural resource survey is required prior to construction.

Implementation Leader – The Implementation Leader will coordinate all aspects of approved emergency stabilization treatment activities.

Channel Treatments:

Armor Narraguinnep Bridge Abutments and Clear Channel – The abutments and wingwalls on the Narraguinnep Bridge will be armored to protect them from damage from high flows and debris. The stream channel in the vicinity of the bridge will be cleared to prevent debris (primarily burned trees carried down the stream channel) from accumulating into debris jams under and near the bridge.

Roads and Trail Treatments: None proposed

Protection/Safety Treatments:

Hazard Tree Removal – Severely burned and charred trees will lose root integrity and are more susceptible to blow down or snap off at mid bole. Public safety issues will be addressed by removing hazard trees within a tree's length of falling on open Forest Service system roads.

Public Safety Warning Signs – Signs will be placed where open roads enter or are near the burned area to advise road users of the presence of a burned area and associated safety issues, such as falling trees, rockfall, and flash floods.

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.)

Implementation monitoring will be conducted as part of the above treatments.

Part VI – Emergency Stabilization Treatments and Source of Funds

Interim #

			NFS Lands			Other Lands				All
		Unit	# of		Other	# of	Fed	# of	on Fe	Total
Line Items	Units	Cost	Units	BAER \$	\$	units	\$	Units	\$	\$
A. Land Treatments										
Aerial Seeding	acres	\$174	585	\$101,996	\$0		\$0		\$0	\$101,996
Non-Native Invasive Plant Control	acres	\$134	324	\$43,385	\$0		\$0		\$0	\$43,385
Temp Fence to Protect Seeding	miles	\$16,801	2.5	\$42,002	\$0		\$0		\$0	\$42,002
Cultural Survey for Temp Fence	miles	\$1,312	2.5	\$3,281	\$0		\$0		\$0	\$3,281
Implementation Leader	each	\$7,985	1	\$7,985	\$0		\$0		\$0	\$7,985
Subtotal Land Treatments				\$198,648	\$0		\$0		\$0	\$198,648
B. Channel Treatments										
Armor Bridge Abutments	site	\$16,130	1	\$16,130	\$0		\$0		\$0	\$16,130
Subtotal Channel Treat.				\$16,130	\$0		\$0		\$0	\$16,130
C. Road and Trails										
				\$0	\$0		\$0		\$0	\$0
Subtotal Road & Trails				\$0	\$0		\$0		\$0	\$0
D. Protection/Safety										
Hazard Tree Removal	miles	\$3,125	1.6	\$5,000	\$0		\$0		\$0	\$5,000
Public Safety Warning Signs	signs	\$333	6	\$2,000	\$0		\$0		\$0	\$2,000
Subtotal Structures				\$7,000	\$0		\$0		\$0	\$7,000
E. BAER Evaluation										
Cultural Site Assessment	sites	\$397	16	\$6,355	\$0		\$0		\$0	\$6,355
Native American Consultation	tribes	\$33	25	\$820	\$0		\$0		\$0	\$820
BAER Plan Preparation	plan	\$20,000	1	---			\$0		\$0	\$0
Subtotal Evaluation				\$7,175	\$0		\$0		\$0	\$7,175
F. Monitoring										
				\$0	\$0		\$0		\$0	\$0
Subtotal Monitoring				\$0	\$0		\$0		\$0	\$0
G. Totals				\$228,953	\$0		\$0		\$0	\$228,953
Previously approved										
Total for this request				\$228,953						

PART VII - APPROVALS

Submitted by:

Becca Smith
Becca Smith
BAER Team Leader (signature)

8/27/09
Date

Approval Recommended by:

Steven K. Beverlin
Steven K. Beverlin
District Ranger (signature)

8/27/09
Date

Approved by:

1. Mark W. Stiles
Mark W. Stiles
Forest Supervisor (signature)

8/27/09
Date

2. Sharon Lueder
for Regional Forester (signature)

8/9/02/09
Date