Forest Service
Rocky Mountain Regional Office
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Golden, CO 80401-4702
Voice: 303-275-5350
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File Code: 2520-3/6520
Route To:

Date: September 29, 2009

Subject: Tabeguache Fire - Grand Mesa, Uncompahgre, and Gunnison National Forests - Approval of Initial Request - Burned Area Emergency Response Funding

To: Forest Supervisor, Grand Mesa, Uncompahgre, and Gunnison National Forests

We have received your September 18, 2009, initial request for Burned Area Emergency Response (BAER) funding for the Tabeguache Fire on the Grand Mesa, Uncompahgre, and Gunnison National Forests. The standards for approving emergency actions are found in FSM 2523 and FSH 2509.13.

Your request is approved to $37,014 in the following categories as described in Part VI of FS-2500-8.

TREATMENT	AUTHORIZATION
Land	$26,414
Protection/Safety	$ 8,000
Monitoring	$ 2,600
Total Approval	$37,014

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 (H2E53X) 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/ Antoine L. Dixon
ANTOINE L. DIXON
Deputy Regional Forester, Resources

Enclosure

cc: Tommy John
Jason J Kuiken
John Almy
Judy Schutza

Date of Report: September 9, 2009

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: Tabeguache

B. Fire Number: COGMF428

C. State: Colorado

D. County: Montrose

E. Region: Rocky Mountain

F. Forest: GMUG NF

G. District: Norwood RD

H. Fire Incident Job Code: P2E53X

I. Date Fire Started: 8/30/2009

J. Date Fire Contained: 9/7/2009

K. Suppression Cost: $ 400,000

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): XXXX
2. Fireline seeded (miles): XXXX
3. Other (identify): Dozer Lines obiliterated and seeded, this includes trails and closed roads that were opened up and disturbed by dozer during suppression (planned) 3.2 miles

M. Watershed Number: 140300036701

N. Total Acres Burned:
[x] NFS Acres – 982 [ ] Other Federal [ ] State [ ] Private

O. Vegetation Types: Mountain Shrub (Primarily Gambel Oak) – 597 acres
Ponderosa Pine – 270 acres
Pinyon/Juniper – 62 acres
Non-veg – 41 acres
Grass/Forb – 8 acres
Aspen – 3 acres

P. Dominant Soils: The entire Tabeguache burn area lies with the Uncompahgre National Forest Area Soil Survey. Two soil map units (#13 - Chilson-Delson, moderately deep-Beenom families complex and #32 - Ustorthents-Ustochrepts-Rock outcrop complex) account for 60% of the total burn area. The #32 unit occupies slopes in excess of 40% while #13 lies on slopes of 25% or less. Two other map units (#12 Borolls-Boralfs-Rock outcrop complex and #30 Trampas-Delson, moderately deep families complex) account for an additional 32 % of the burn. Trace amounts of map units 15, 18, 22, and 25 also occur. These soils have loam to sandy loam surface horizons. Soils on steeper slopes are typically shallow (<= 18") and contain considerable amounts of coarse fragments (>= 25%). Soils occurring on more modest slopes are up to 40" deep, with fewer coarse fragments, and an may have sandy clay loam or clay loam subsurface horizons.

Q. Geologic Types: Prominent red sandstone cliffs of the Wingate formation and extreme (100% +) slopes of the Chinle conglomerate dominate the eastern flank of the fire. To the south the lower lying mid slopes and Round Mountain include pre-Cambrian granites, Entrada sandstone, and Salt Wash sandstone member of the Morrison. The southern half of the fire is the Brushy Basin shale member of the Morrison and Dakota sandstone.

R. Miles of Stream Channels by Order or Class: Within fire perimeter 1st order equals 2.39 miles; 2nd order equals .93 miles and 3rd order equals .95 miles

Miles of 47 Creek channel down to confluence with Tabeguache Creek: 3rd order equals .78 miles and 4th order equals 1.01miles.

S. Transportation System

Trails: 3.2 miles Roads: miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 214 (low) 347 (low to moderate) 303 (moderate)
117 (moderate to high)

B. Water-Repellent Soil (acres): None

C. Soil Erosion Hazard Rating (acres): 349 (low) 199 (moderate) 434 (high)

D. Erosion Potential: 5-15 tons/acre

E. **Sediment Potential: 2900 – 8700 cubic yards / square mile**

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years):	3-5
B. Design Chance of Success, (percent):	60
C. Equivalent Design Recurrence Interval, (years):	5
D. Design Storm Duration, (hours):	6
E. Design Storm Magnitude, (inches):	.95
F. Design Flow, (cubic feet / second/ square mile):	4
G. Estimated Reduction in Infiltration, (percent):	30
H. Adjusted Design Flow, (cfs per square mile):	40

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats (narrative):

The Tabeguache Fire was a lighting ingnited event which began on Sat. Sept. 29th. Nearly all the burned acreage occurred within the first two burning periods (8/29 and 8/30). Supression action was taken to protect structures on private land just west of the fire. In addition a timber sale area under contract was in the near vicinity. The fire burned into the Tabeguache Special Management Area (SMA). This area is to be managed as non-motorized. A request to contruct dozer lines in the SMA was approved by the Regional Office on the evening of 8/30. 1.3 miles of dozer line were constructed in the SMA. This fire burned into the 47 Fire which burned in 2002. A BAER evaluation was intiated on 9/2 with a visit to the fire by the Forest BAER team leader, Renewable Resources Staff Officer and the District Ranger. An overview of the fire was accomplished with a helicopter flight, an examination was made of the dozer line within the SMA, and interviews were conducted with the IC and Resource Advisor. On 9/3 the Forest Hydrologist and Forest Soil Scientist conducted a field evaluation of the fire to determine burn severity. This fire was a very rapidly moving high intensity fire. Approximately ½ of the Ponderosa Pine burned as a crown fire with 100% mortality expected. The remaining Ponderosa burned as a ground fire, with good survival expected. The upper 2/3 of the fire is almost all gambel oak and the land form is very steep near the top of the fire. This portion of the fire consumed almost all live vegetation. Most of the area which appeared to have the potential for high burn severity was examined for hydrophobicity. There was no evidence found that soils have been significantly altered by the fire. The fast moving fire did not heat the soil nor transmit organic soil sealants. It was concluded that none of the fire met the definition of high burn severity. An examiniation of the residual root crowns and root systems suggests that significant resprouting should occur. However, due to the complete consumption of all cover and charring of 50% of the litter layer there is a short term high erosion hazard that will result in mobilization of soil down the steep slopes.

The primary emergency is associated with the very high potential to expand the occupancy of invasive plant species into areas that burned. Cheatgrass is the species of greatest concern along with both Spotted and Russian knapweek. In addition several varieties of non native thistle are present in the area. The cheatgrass is already present in areas immediately adjacent to the fire and within the southeast portion of the fire. It was also found along a decommissed trail just to the east of the fire. Heavy infestations of Knapweed exist on the private lands adjacent to the Forest. Dozers that were used on the fire traversed these infestations and most certainly brought seed into the fire. Monitoring previous fire treatments has demonstrated that, while results are variable, seeding of fires has proven to be effective at reducing the infestation of cheatgrass (Johnston 2007). Getting seed applied as quickly as possible in order to take advance of a good seed bed is critical. The need for weed treatments is being considered. Even with rapid response by seeded vegetation new infestations of invasives is likely to occur. For this reason appropriate detection and treatment of newly established populations is warranted.

On approximately 60% of the fire all live above ground vegetation was consumed. There will be a significant risk of increased runoff and associated soil erosion in conjunction with the first significant (5yr-6hr) storm. The fire burned within the

Tabequache watershed, which is a high value stream, supporting many flow dependant values. In addition there are agricultural diversions on private land just below the Forest boundary. However, the realitively small acreage of this fire does not present a significant risk at the landscape scale to life or property damaging flooding or debris flow. It is expected that within 2 to 3 years resprouting of the mountain shrub communities and grasses that may survive the fire will greatly reduce the runoff that is expected in the short term.

B. Emergency Treatment Objectives (narrative): Principal objective will be to establish desireable ground cover as quickly as possible in areas that burned in areas of moderate or moderately high severity or in areas adjacent to established cheatgrass communities. In addition early detection and treatment of new invasives populations is an important treatment objective. The sterile wheatgrass prescribed should rapid germinate and provide a quick cover, while the native grass species will be more slow to establish. A secondary objective is to reduce soil erosion by reducing raindrop impact and providing quick establishment of root mass. The Forest is recommended seeding on 376 acres of the fire, not including the estimated 5.8 acres of seeding to be done on the dozer lines and reopened roads. Seeding will be applied from the air.

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

Land 80% **Channel** NA **Roads/Trails** 90% **Protection/Safety** NA

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	70	90	90
Channel	XXX	XXX	XXX
Roads/Trails	90	100	100
Protection/Safety	XXX	XXX	XXX

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

F. Cost of Selected Alternative (Including Loss): XXX

G. Skills Represented on Burned-Area Survey Team:

[x] Hydrology	[x] Soils	[ ] Geology	[x] Range
[ ] Forestry	[ ] Wildlife	[ ] Fire Mgmt.	[ ] Engineering
[ ] Contracting	[ ] Ecology	[ ] Botany	[ ] Archaeology
[ ] Fisheries	[ ] Research	[ ] Landscape Arch	[ ] GIS

Team Leader: John Almy

Email: jalmy@fs.fed.us **Phone**: 970-874-66565 **FAX**: 970-874-6698

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 is planned for areas within the fire perimeter that are not being done as a part of suppression seeding on dozer lines. Some supplemental hand seeding may be done in areas with the greatest risk, due to near proximity of cheatgrass. Seeding will be done as quickly as possible so long as seed bed remains loose. If soil crusting occurs then seeding will be postponed until a winter over snow application can be arranged. A supplemental request may be submitted if it is determined that noxious week treatments are warranted and feasible.

Prescribed Seed Mix

Species	PLS/lb	Application Rate PLS lbs/acre	$/lb	$/acre	% of mix	# seeds/ft^2
UP Sanberg Bluegrass	1,047,000	0.5	$14.50	$7.25	1.69	11
Bottlebrush Squirreltail	192,000	1	$16	$16.00	3.39	5
Slender Wheatgrass	159,000	3	$1.50	$4.50	10.17	12
QuickGuard (Sterile Wheatgrass)	13,000	25	$1.10	$27.50	84.75	7
Total		29.5		$55.25	100.00	35

Channel Treatments: None

Roads and Trail Treatments: All dozer lines and closed roads that were reopened will be obliterated using fire suppression funds (3.2 miles). It is planned for an excavator to do the line rehab. Seeding of dozer lines will be done concurrent with earth work using the same seed mix as what will be used on the fire. This work will be done as a part of suppression damage repair and no funds are being requested for this work.

Protection/Safety Treatments: None

I. Monitoring Narrative:

Several types of monitoring will be accomplished. Vegetative response to both seeding and natural recovery will be scheduled for the first three years beginning in fy10. Both vegetative transects, microplots and photo points will be established to determine both ground cover and species cover. It is proposed to construct two

10'x10' panel exclosures to aid in the post fire recovery monitoring. In addition detection surveys for invasive species will be scheduled in fy10. An evaluation will be made of supression damage rehab effectiveness in fy10 (this cost not part of request).

Part VI – Emergency Stabilization Treatments and Source of Funds **Interim #1**

			NFS Lands				Other Lands			All
		Unit	# of		Other	# of	Fed	# of	Non Fed	Total
Line Items	Units	Cost	Units	BAER $	$	units	$	Units	$	$
A. Land Treatments										
Seed Mix	acres	55.25	376	$20,774	$0		$0		$0	$20,774
Aerial Application	acres	15	376	$5,640	$0		$0		$0	$5,640
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Land Treatments				$26,414	$0		$0		$0	$26,414
B. Channel Treatments										
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
				$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										
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Road & Trails				$0	$0		$0		$0	$0
D. Protection/Safety										
Invasive Species Detection - fy10	days	300	10	$3,000	$0		$0		$0	$3,000
Weed Spraying (est)	acres	50	100	$5,000	$0		$0		$0	$5,000
				$0	$0		$0		$0	$0
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Structures				$8,000	$0		$0		$0	$8,000
E. BAER Evaluation										
Assessment				$4,000			$0		$0	$0
Insert new items above this line!				--	$0		$0		$0	$0
Subtotal Evaluation				$4,000	$0		$0		$0	$0
F. Monitoring										
Monitoring Cages	each	500	2	$1,000						
Vegetative Recovery - fy10	days	400	4	$1,600	$0		$0		$0	$1,600
Insert new items above this line!				$0	$0		$0		$0	$0
Subtotal Monitoring				$2,600	$0		$0		$0	$1,600
G. Totals				$37,014	$0		**$0**		**$0**	**$36,014**
Previously approved										

PART VII - APPROVALS

1. *Sherry Hazelhurst (for)* 09/18/2009
   Forest Supervisor (signature) Date

2. _____ _____
   Regional Forester (signature) Date