

Date of Report: 05/26/2011

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: Mayhill

B. Fire Number: NM-N5S-000290

C. State:NM

D. County:Otero and Chavez

E. Region: 3

F. Forest:Lincoln

G. District: Sacramento

H. Fire Incident Job Code:PNF3M6

I. Date Fire Started:05/09/2011

J. Date Fire Contained 98% contained as of 05/26/11

K. Suppression Cost: (As of 5/26/2011) \$4,200,000

L. Fire Suppression Damages Repaired with Suppression Funds

1. Fireline waterbarred (miles): 16
2. Fireline seeded (miles): 16
3. Other (identify):

M. Watershed Number:1306001005, 1306001001, 1306001003

N. Total Acres Burned: 31,941

NFS Acres(18,087) Other Federal (1,497) State (1,760) Private (7,996) Tribal (2,601)

O. Vegetation Types:Pinyon Juniper, Ponderosa Pine, Mixed Conifer

P. Dominant Soils: Lithic Haplustalfs, Lithic Argiustolls, Typic Argiustolls, Pachic Udic Argiustolls

Q. Geologic Types Limestone

R. Miles of Stream Channels by Order or Class: Stream Order Miles

<u>1</u>	<u>111</u>
<u>2</u>	<u>49</u>
<u>3</u>	<u>27</u>
<u>4</u>	<u>15</u>
<u>5</u>	<u>16</u>
<u>6</u>	<u>3</u>

S. Transportation System

Trails: 0 miles Roads: 24 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 29,294 (low) 2,494 (moderate) 153 (high)

B. Water-Repellent Soil (acres): 2486 acres Low
131 acres Moderate & High
2617 total acres

C. Soil Erosion Hazard Rating (acres):
6,449 (low) 7,435 (moderate) 4,217 (high)

D. Erosion Potential: 1.1 tons/acre

E. Sediment Potential: 83.41 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 1-5 years

B. Design Chance of Success, (percent): 85%

C. Equivalent Design Recurrence Interval, (years): 25 yrs

D. Design Storm Duration, (hours): 1 hour

E. Design Storm Magnitude, (inches): 2.2 inches

F. Design Flow, (cubic feet / second/ square mile): 421

G. Estimated Reduction in Infiltration, (percent): 15

H. Adjusted Design Flow, (cfs per square mile): 232

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

The Mayhill Fire originated on private property near the community of Mayhill on May 9, 2011. It quickly spread on private property and onto National Forest system lands of the Sacramento Ranger District, located on the Lincoln National Forest. Fuel types within primarily pinyon/juniper woodland with smaller amounts of ponderosa pine and mixed conifer. Elevations range from approximately 6,400 to 7,500 feet. Annual precipitation at the Mayhill weather station is 19 inches and the precipitation pattern is bi-modal with 70 percent of the precipitation coming during the summer months and the remaining 30 percent coming during the winter months. Those areas within the burn that experienced moderate to high severity burn pose the potential for accelerated erosion and loss of control of water. This is especially true of the ponderosa pine and mixed conifer vegetation types that burned during the fire.

Little to no vegetative ground cover remains in the moderate and high severity burn areas of the mixed conifer and ponderosa pine vegetation types within the burned area. Grass root collars remain intact within a majority of the moderate and low burn severity areas of the pinyon/juniper vegetation type and these areas are expected to green up with the onset of the monsoon season. The burned area will experience higher than normal erosion and overland flow due to loss of vegetative cover combined with steep slopes until vegetative cover becomes reestablished. Post-fire conditions will impact the values at risks listed below. It has been determined from the BAER assessment and modeling that there are risks to public safety, property, natural and cultural resources. The following are values at risk, which potentially includes a public safety risk.

1. McGee Canyon & Parker Dam

McGee canyon contains high and moderate burn severity, with a potential for sedimentation onto Hwy 82 and private agricultural lands below. Flash flows were modeled to increase by 80%, with increased potential for erosion, debris torrents, loss of control of water and loss of soil productivity. McGee Canyon drains 880 acres, with prefire flows at 386 cfs and post-fire flows predicted for 688 cfs. McGee Canyon contains a special use dam constructed on NFS lands. Heavy maintenance is required on Parker Dam in order to maintain the structure and to prevent possible large scale breached hydrology. This is a large dam built by the SCS in the 1970's on Forest Service lands. Little to no maintenance of this structure has occurred in many years. Assessment of the dam by the BAER hydrologist and engineer revealed the spillway is eroding away, there is undercutting at the downstream side of the spillway, and that the riser drain in the dam is non functional. Threats to life and property are very high from this dam breaching as a result of post fire peak flows. Recent inspection of the dam in 2007 by Regional Dam inspector Ron Luehring showed the dam to be in ill repair with spillway issues and non functional drain riser in the dam. The tank has caught a tremendous amount of sediment over the years and needs to be cleaned to increase sediment holding capacity to accommodate post fire sedimentation. The post flow is expected to generate about 49 acre feet of water. The dam's current capacity can hold 10 acre feet. Highway 82, which is the road to the hospital, is at very high risk if attention is not given to the dam.

2. Mayhill Administrative Site and CCC Structures

The Mayhill Administrative site contains a prehistoric pit house village site, and part of a larger Civilian Conservation Corps (CCC) camp, buildings and road infrastructure. There are a total of five C.C.C. buildings built from 1933-1939, which are listed on the National Register. In 1943 the structures were utilized as part of a World War II prisoner of war camp. There is an additional cultural heritage site associated with at least three historic occupations and includes artifacts from German POW camp.

The Mayhill Administrative site is located on a toe-slope between the outlets of Cherry and McGee Canyons, and contains several administrative buildings, bunkhouses, equipment storage buildings, and horse facilities. The local uplands surrounding the area contain moderate severity burn. Post fire conditions will contribute to overland flow, concentrating flow on the McGee road and diverting water directly into two of the CCC buildings.

There is an undersized culvert leading from the administrative site under Highway 82 and drains directly into a private residence. This portion of Highway 82 has been known to flood, a situation that will be complicated by the presence of a blind curve, presenting risks to public safety.

3. FSR 174 (McGee Road) and CCC culverts

The McGee canyon watershed experienced moderate and severe burn from the fire. McGee road crosses many upper level draws that are responsible for serious headcutting into the road, compromising the integrity of the road, posing a safety hazard and loss of site productivity. Post fire conditions will lead to further erosion and deterioration of the road. Many of the culverts in the road are CCC stone and mortar masonry structures which are eligible for listing with the Natural Register of Historic Places. One side drainage further up the road has deposited a lot of sediment on the road. All the sites need culvert cleaning and bank stabilization necessary to protect cultural heritage site integrity and Forest Service road infrastructure. There is a potential that the predicted increase in post-fire flow of the McGee watershed could result in a failure of these structures.

4. Highway 82

The stretch of Hwy 82 alongside the Mayhill burn contains thirty-six (36) large culverts which provide drainage of the larger draws and canyons. Many of these culverts are undersized, so if flows increase by as little as 25%, there is danger of compromising the culverts and overtopping the road. Culverts could become plugged with floatable debris, causing failure and leading to risk of infrastructure as well as human health and safety. During a storm event, the loss of a low water crossing or part of the road could cause loss of human life or safety/injury. Additional flash flood hazard signs will be installed before and after the McGee crossing.

5. Forest Service Roads: FSR 607, 607A, 607D, 9655D

These are major Forest Service roads located throughout the burned area that will be impacted by increased post-fire flows and sedimentation. There are two places where guard rails need to be replaced due to burned posts, and if left untreated will pose a serious public safety issue. There are a number of culverts which need cleaning to be in operational condition in order to meet expected increased flows. A few unstable banks need armoring and are at risk of increased cutting from post-fire conditions. A low water crossing and some rolling dips will be installed to handle post fire flows, reducing damage to infrastructure and loss of site productivity. Hazard trees were identified in areas where these roads cross into moderate severity burn; these are hazards to public safety and will be removed.

One road provides access to private lands which is a one-way road, and poses hazards due to the road being subject to post fire flash floods, boulder movement, and potential entrapment. To address safety issues, this road will be administratively closed and gated. Another road has existing severe erosion issues, including safety concerns with channel and bank sloughing off making the road basically impassable. Issues will be intensified by post fire conditions, so the road will be closed with a sign and a berm.

6. Watersheds

Throughout the fire several watersheds experienced high to moderate severity burns.

Loss of soil productivity and hydrologic function due to little or no vegetative ground cover remaining in the high and moderate severity burn areas within the fire. This is especially true of the high and moderate severity burn in the ponderosa pine and mixed conifer vegetation types. The areas of moderate burn severity in the pinyon/juniper vegetation type will experience increased erosion and overland flow though not to the extent of the pine and mixed conifer vegetation types. In the low and unburned pinyon/juniper vegetation type there is an

existing grass component and herbaceous cover that will green up with the onset of the monsoons, providing vegetative ground cover. During the assessment, it was found that root collars and surface roots were intact, providing a basis for natural recovery. There will be short-term increase in erosion and peak flows until natural recovery of the low/unburned burn severity areas found within the burned area occurs.

There is potential for increased flows and sedimentation onto Highway 82 and into private residences and agricultural lands on the south side. An area around an existing stock tank is at risk of additional headcutting, loss of site productivity and loss of the improvement if no treatment is provided.

7. Rio Penasco

The Rio Penasco is a New Mexico state listed 303d impaired stream, due to sedimentation from a variety of causes. All of the Mayhill Fire drains into this impaired stream. Post fire conditions will contribute excessive sediment and ash into the Rio Penasco, increasing turbidity and resulting in impacts to aquatic life. There are agricultural lands along the Rio Penasco. Approximately 16 miles downstream of the burned area are some privately owned put-and-take fisheries. Treatments implemented on the burned areas above will reduce post-fire impacts Rio Penasco.

8. James Canyon Campground and Canyon

There is a large continuous moderate severity burn on the upslope side of the canyon adjacent to Highway 82 and James Canyon Campground. The fire burned across both the highway and campground, leaving little to no needle cast or herbaceous ground cover. Due to loss of vegetative ground cover and steep slopes, there is a high probability of increased overland flow and sedimentation. There are undersized culverts on the highway and post-burn flows may overtop the highway.

The James Canyon Campground had structures damaged due to the burn. A pedestrian bridge was inspected by a structural engineer for structural integrity and it was determined to be unsalvageable, due to structural damage to the south end. Other structures need to be inspected for safety and structural integrity. The James Canyon campground CXT Toilet placement is located directly in line with a Highway 82 culvert, and its outlet is less than 30 feet from the toilet. Directly across from the culvert is a berm next to the CXT toilet. This berm should be armored to protect the structural integrity of the infrastructure.

9. Cultural Heritage Sites.

One site is a natural rock shelter with an associated lithic, ceramic, and groundstone artifacts. This ceramic assemblage is consistent with the traditions of the Jornada Mogollon with the exception of the Los Lunas Smudged. The additional cultural heritage sites possess attributes that make them eligible for listing with the National Register of Historic Places. Due to these being located in moderate burn severity, increased sedimentation and overland flow will threaten the integrity of the cultural heritage sites.

Critical Values Identified

Critical Values were identified (FSM 2523.1 Exhibit 01) during the BAER assesment are: human life and safety, property, natural resources and cultural/heritage resources. The BAER team evaluated the risk to those critical values using the BAER Risk Assessment (FSM 23235.1 Exhibit 02)

The risk matrix below, Exhibit 2 of Interim Directive No.: **2520-2010-1**, was used to evaluate the Risk Level for each value at risk identified during Assessment:

Probability of Damage or Loss	Magnitude of Consequences		
	Major	Moderate	Minor
	Loss of life or injury to humans; substantial property damage; irreversible damage to critical natural or cultural resources.	– Injury or illness to humans; moderate property damage; damage to critical natural or cultural resources resulting in considerable or long term effects	Property damage is limited in economic value and/or to few investments; damage to natural or cultural resources resulting in minimal, recoverable or localized effects
	RISK		
Very Likely (>90%)	Very High	Very High	Low
Likely (>50% to <90%)	Very High	High	Low
Possible (>10% to <50%)	High	Intermediate	Low
Unlikely (<10%)	Intermediate	Low	Very Low

The Very High and High Risk are unacceptable risk levels due to threats to human life, property, infrastructure and resources, therefore treatments should be applied. For an Intermediate Risk, this could be unacceptable if human life or safety is the critical value and treatments may be needed.

Little to no vegetative ground cover remains in the high and moderate burn severity areas in the pine and mixed conifer sites in the burned area. This is also true of some of the moderate burn severity found within the pinyon/juniper vegetation types but not to the degree in most areas as that of the pine and mixed conifer. The lack of vegetative cover, combined with steep slopes within the burned area are predicted to contribute to accelerated erosion, sedimentation, and loss of control of water. There is pre-fire evidence that the watersheds within the burned area tended to be flashy prior to the burn and post fire watershed conditions are expected to intensify these pre fire watershed conditions. These inherent conditions, modified by post-burn factors, will impact values at risk.

Values were identified at risk from post fire conditions due to increased peak flows, debris torrents and sedimentation. Peak flows are predicted to increase over several areas of the burned area. Soil erosion rates were modeled to increase in the high and moderate burned areas of the fire. The area in and around McGee Canyon is of particular concern with the risks to life, public safety, property, cultural and natural resources associated with this burned area of the fire. There are risks of breached hydrology associated with Parker dam, if it were to breach it could damage or potentially take out Highway 82. There is also risk to irrigated agricultural fields if Parker dam were breach. Another area of concern is associated with a large continuous moderate burn on a steep burned slope area adjacent to Highway 82 and the James Canyon campground. Risks associated with this area are public safety along Highway 82 and further damage to the campground facilities and CXT toilets. There are risks to FS infrastructure throughout the burned area associated with the high and

moderate burn severity areas. These are related to roads and associated drainage features. Severe damage to several guardrails pose a risk to public safety. Site productivity is also at risk throughout the burned area in the high and moderate burn severity areas within the fire. Several cultural resource sites are at a high risk of damage and potential vandalism, due to loss of vegetative ground cover and associated overland flow and erosion resulting from the fire. All of the burned area drains into the Rio Penasco which is a State of New Mexico 303d listed stream which is non attainment due to sedimentation. The Rio Penasco will see increased sedimentation and ash flow resulting from the fire.

Values at risk were determined from field surveys, observations, input from district personnel and specialists, and further evaluated through the risk matrix. The values below rated at a high to a very high risk to human health or safety, risk to infrastructure or to natural or cultural resources. These are itemized with a description and recommended BAER treatment.

Summary of Threats and Risk Matrix Values

(Risk Matrix Rating is the Likelihood of Occurrence/Magnitude = Risk Value)

Human life and safety on or in close proximity to burned NFS lands.

- McGee Canyon & Parker Dam: The probability of a damaging post fire event is very likely (>90%) and the magnitude of the consequences is major because the risk associated with breached hydrology very high due to the potential risk to life and property and potential damage to Highway 82.
- FSR 174 (McGee Road) and CCC culverts have the probability that a damaging post fire event is very likely (90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential of threats to infrastructure and cultural resources.
- Highway 82. The probability of a damaging post fire event is very likely (90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential loss of life, public safety and loss of infrastructure.
- Watersheds: The probability of a damaging post fire event is very likely (90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential risks to life, property and infrastructure.

Property on or in close proximity to the burned NFS lands

- McGee Canyon & Parker Dam: The probability of a damaging post fire event is very likely (>90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential risk to life and property and potential damage to Highway 82.
- Mayhill Administrative Site and CCC Structures: The probability of a damaging post fire event is very likely (90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential loss of property, infrastructure, natural and cultural resources.
- FSR 174 (McGee Road) and CCC culverts: The probability of a damaging post fire event is very likely (90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential of threats to infrastructure and cultural resources.
- Highway 82: The probability of a damaging post fire event is very likely (90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential loss of life, public safety and loss of infrastructure.

- Forest Service Roads: FSR 607, 607A, 607D, 9655D: The probability of a damaging post fire event is very likely (>90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential loss of infrastructure and public safety.
- Watersheds: The probability of a damaging post fire event is very likely (>90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential risks to life, property and infrastructure.
- James Canyon Campground and Canyon: The probability of a damaging post fire event is very likely (>90%) and the magnitude of the consequences is moderate with the risk associated with this being high due to the potential threats to human health and safety, Forest Service property and infrastructure.

Cultural and Heritage Resources

- Cultural Heritage Sites have a risk to site integrity. The probability of a damaging post fire event is very likely (>90%) and the magnitude of the consequences is moderate with the risk associated with this being high due to the potential of loss of cultural resources.
- Mayhill Administrative Site and CCC Structures: The probability of a damaging post fire event is very likely (>90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential loss of infrastructure, natural and cultural resources.
- FSR 174 (McGee Road) and CCC culverts: The probability of a damaging post fire event is very likely (>90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential of threats to infrastructure and cultural resources.

Natural Resources

- Loss of soil productivity and hydrologic function due to little or no vegetative ground cover remaining in the high and moderate severity burn areas within the fire. The probability of a damaging post fire event is likely (>50 to <90%) and magnitude of the consequences is moderate, resulting in a High risk.
- Watersheds: The probability of a damaging post fire event is very likely (>90%) and the magnitude of the consequences is major with the risk associated with this being very high due to the potential risks to life, property and infrastructure.
- Rio Penasco: The probability of a damaging post fire event is very likely (>90%) and the magnitude of the consequences is moderate with the risk associated with this being high due to the potential of increased flows as well as excessive ash and sedimentation.

B. Emergency Treatment Objectives:

1. For site stabilization and to prevent loss of site productivity, aerial Seed approximately 621 acres of high and moderate burn severity with a non persistent annual grass with a small portion of native grasses mix. Aerial Mulch approximately 70 acres of moderate burn severity with a certified weed-free straw, at an application rate of 1 ton per acre to reduce risks to public safety on Highway 82 and to protect the Forest Service infrastructure at James Canyon Campground.
2. Stabilize soils and reduce the risk of erosion and loss of integrity to the Cultural Heritage Sites. Hand seed the cultural resources sites eligible for National Register of Historic Places listing. Place a double line of wattles above 3 sites, and place post & wire checkdam below 1 site.
3. Repair Parker Dam in order to maintain the dam and to prevent possible large scale breached hydrology. Repairs are necessary to prevent a breach of the structure, which would pose a threat to public safety and private

property. Additionally, this structure will serve as a sediment catchment, reducing the amount of sedimentation entering the 303d listed Rio Penasco.

4. These are channel treatments, to prevent the loss of natural resources, loss of site productivity and to reduce the effects of erosion and loss of control of water due to post fire conditions on infrastructure. Install Log Erosion Barriers into McGee Canyon to reduce sedimentation and to act as grade control structures. Install Post & Wire Checkdam structures in a small drainage just above the Mayhill administrative site. Install a steel pipe trash rack in the lower portion of McGee Canyon, below the Log Erosion Barriers and above Parker Dam. Clean out existing silted-in sediment catchment located at the head of Bridge Canyon.

5. To reduce damage to existing Forest Service infrastructure and threats to public safety, harden crossings on roads and stabilize road banks. Cleanout culverts, install culvert extensions, and rolling dips, repair fire damaged guardrails and install a low water crossing. Conduct storm patrols after large rain events during the monsoon season.

6. Due to threats to public safety and infrastructure, the campground and two roads will be closed. Specifically, close the James Canyon Campground; close, sign and gate FSR 607D; close, sign and berm FSR 9655D. Post flash flood warning signs where McGee crosses Highway 82. Pump out the CXT Toilets at the James Canyon Campground.

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

Land 95 % Channel 95 % Roads/Trails 95 % Protection/Safety 95 %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	90	95	95
Channel	80	85	90
Roads/Trails	90	95	95
Protection/Safety	90	95	95

E. Cost of No-Action (Including Loss): \$2,479,376.00

F. Cost of Selected Alternative (Including Loss): \$532,326.00

G. Skills Represented on Burned-Area Survey Team:

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input checked="" type="checkbox"/> Range	<input type="checkbox"/>
<input type="checkbox"/> Forestry	<input checked="" 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 checked="" type="checkbox"/> Botany	<input checked="" type="checkbox"/> Archaeology	<input type="checkbox"/>
<input type="checkbox"/> Fisheries	<input type="checkbox"/> Research	<input checked="" type="checkbox"/> Arch	<input checked="" type="checkbox"/> GIS	

Team Leader: Michael Natharius Email: mnatharius@fs.fed.us Phone: 575-388-8246

H. Treatment Narrative:

Land Treatments:

1. Aerial Seed 621 acres of moderate burn severity with a non persistent annual cereal grass and a small percent of native grasses mix to give the burned area a jumpstart in native vegetative recovery. The seed mix has a high percentage of annual barley in it, which is a quick growing non-persistent annual intended to provide protective ground cover in a short period of time. The seed mix is comprised of:

Western Wheatgrass	(<i>Pascopyrum smithii</i>)	4 seeds/square foot
Sideoats Grama	(<i>Bouteloua curtipendula</i>)	3 seeds/square foot
Blue Grama	(<i>Bouteloua gracilis</i>)	3 seeds/square foot
Annual Barley	(<i>Hordeum vulgare</i>)	15 seeds/square foot
Total:		25 seeds/square foot

2. Aerial Mulch 70 acres of moderate burn severity where there is little potential for needle cast with a certified weed-free straw, at an application rate of 1 ton per acre. Straw mulching will occur in a critical location on a slope adjacent to Highway 82. This treatment is intended to stabilize slopes thus maintaining site productivity and reducing accelerated erosion which could greatly impact Highway 82 and the James Canyon .

3. Hand seed cultural resources sites eligible for National Register of Historic Places listing. Seed mix to be the same mix as described above.

Channel Treatments:

1. Repair Parker Dam in order to maintain the dam and to prevent possible large scale breached hydrology. Excavate to increase the sediment holding ability. Install 36" riser and larger culverts. Repair and harden the spillway.

2. Log Erosion Barriers are recommended within the McGee Canyon to reduce sedimentation and to act as grade control structures. These are to be placed in drainages located within and directly below the high severity burned areas within McGee Canyon. Placement and anchoring are to be a priority in order to retain the structures in place.

3. Install Post & Wire Checkdam structures in a small drainage just above the Mayhill administrative site to preserve the infrastructure, cultural resource site integrity and public safety.

4. Install a steel pipe trash rack in the lower portion of McGee Canyon, below the Log Erosion Barriers and above Parker Dam, to catch large floatable debris. This will protect the integrity of Parker Dam, and keep large debris from potentially breaching the structure.

5. Clean out an existing silted-in sediment catchment located at the head of Bridge Canyon, located in a moderate severe burn area. This is needed to increase the sediment holding capacity of the catchment.

Roads and Trail Treatments:

1. Road treatments are designed to protect the infrastructure of the areas. These include hardening of crossings, culvert cleanout, culvert extension, installation of rolling dips, repair fire damaged guardrails and install a low water crossing.
2. Storm patrols implemented to check the Parker Dam and trash rack for removal of large floatable debris. Storm patrols will also check for culvert blockage and remove floatable debris that could clog the culverts on FSR 174 and FSR 607 after large precipitation events during the monsoon season. These are designed for the protection of forest infrastructure, as well as visitor and employee safety.

Protection/Safety Treatments:

1. Implementation of administrative closure order for the James Canyon Campground, to remain in effect until the structures can be inspected to safety and structural integrity, and repairs can be made.
2. Implementation of administrative closure orders for FSR 607D and FSR 9655D and installation of a gate, due to safety concerns and unstable road conditions, especially during the monsoonal season.
3. Post hazard warning signs and road closure signs at road sites identified as subject to a greater risk of flooding due to post-fire conditions.
4. Pump out the CXT Toilets at the James Canyon Campground since it will remain closed, and retention of human waste will pose a threat to public health.

I. Monitoring Narrative:

Mayhill Fire BAER treatments will be monitored to determine 1) if treatments were effective (effective ground cover, sediment catchment retention, resources protection, road damage minimization) and 2) if treatments resulted in undesirable results (i.e., introduction of noxious weeds). Final summaries will be provided annually.

1) Treatment effectiveness

Monitoring treatment effectiveness will consist of monitoring the seeding and mulching, sediment structures and erosion protection treatments following contract completion to ensure effectiveness. Initial plots for repeatable photo points will be established before the contracts commence, to provide baseline data. The monitoring efforts will be completed in September of each year. In addition, storm patrols will be scheduled for immediate monitoring after significant rain events targeting sediment structures, affected roads and low water crossings for debris and sediment removal.

2) Monitoring undesirable results

Monitoring for undesirable outcomes (i.e., noxious weed populations) will be done on the Mayhill Fire along the perimeter of areas of aerial seeding. Noxious weeds have been identified by the Chief of the Forest Service as one of the top four threats to National Forest System lands. Monitoring of noxious weeds will be conducted at the end of monsoon season.

Part VI – Emergency Stabilization Treatments and Source of Funds

Interim #

Line Items	Units	Unit Cost	NFS Lands		Other \$	Other Lands			All Total \$
			# of Units	BAER \$		# of units	Fed \$	# of Units Non Fed \$	
A. Land Treatments									
Aerial Seeding	acres	70	621	\$43,470	\$0		\$0	\$0	\$43,470
Aerial Mulching	acres	650	70	\$45,500	\$0		\$0	\$0	\$45,500
Hand Seeding	acres	240	5	\$1,200	\$0		\$0	\$0	\$1,200
Insert new items above this line!				\$0	\$0		\$0	\$0	\$0
Subtotal Land Treatments				\$90,170	\$0		\$0	\$0	\$90,170
B. Channel Treatments									
Parker Dam Repair	ea	167000	1	\$167,000	\$0		\$0	\$0	\$167,000
Log Erosion Barriers	ea	700	50	\$35,000	\$0		\$0	\$0	\$35,000
Post & Wire Checkdam	ea	724	17	\$12,300	\$0		\$0	\$0	\$12,300
Steel Pipe Trashrack	ea	10,000	1	\$10,000	\$0		\$0	\$0	\$10,000
Catchment Cleaning	ea	5,000	1	\$5,000	\$0		\$0	\$0	\$5,000
Insert new items above this line!				\$0	\$0		\$0	\$0	\$0
Subtotal Channel Treat.				\$229,300	\$0		\$0	\$0	\$229,300
C. Road and Trails									
Road Treatments				\$62,700	\$0		\$0	\$0	\$62,700
Storm Patrols				\$3,600	\$0		\$0	\$0	\$3,600
				\$0	\$0		\$0	\$0	\$0
Insert new items above this line!				\$0	\$0		\$0	\$0	\$0
Subtotal Road & Trails				\$66,300	\$0		\$0	\$0	\$66,300
D. Protection/Safety									
Warning Signs	ea	180	5	\$900	\$0		\$0	\$0	\$900
Pump CXT Toilet	ea	500	1	\$500	\$0		\$0	\$0	\$500
Road Closure Gate	ea	2500	1	\$2,500	\$0		\$0	\$0	\$2,500
Insert new items above this line!				\$0	\$0		\$0	\$0	\$0
Subtotal Structures				\$3,900	\$0		\$0	\$0	\$3,900
E. BAER Evaluation									
	1			---	\$54,863		\$0	\$0	\$54,863
Insert new items above this line!				---	\$0		\$0	\$0	\$0
Subtotal Evaluation				---	\$54,863		\$0	\$0	\$54,863
F. Monitoring									
Treatment Effectiveness				\$4,800	\$0				
Monitoring Nox Weeds				\$1,600	\$0				
Insert new items above this line!				\$0	\$0		\$0	\$0	\$0
Subtotal Monitoring				\$6,400	\$0			\$0	\$0
G. Totals				\$396,070	\$54,863			\$0	\$444,533
Previously approved									
Total for this request				\$396,070					

PART VII - APPROVALS

 1. /s/ Robert G. Trujillo
 Forest Supervisor (signature)

6/2/2011
 Date

 2. /s/ Clifford J. Dilts
 Regional Forester (signature)

6/3/2011
 Date