

Date of Report: 07/20/07

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:** Inyo Complex**B. Fire Number:** CA-INF784**C. State:** CA**D. County:** Inyo**E. Region:** 05**F. Forest:** Inyo**G. District:** White Mnt**H. Fire Incident Job Code:** P5DNJ3**I. Date Fire Started:** 7/06/07**J. Date Fire Contained:** 7/16/2007**K. Suppression Cost:** 3.2M**L. Fire Suppression Damages Repaired with Suppression Funds**

1. Fireline waterbarred (miles):
2. Fireline seeded (miles):
3. Other (identify): 10 miles of dozer and hand line rehabilitated by pulling the berm back and scattering cut vegetation.

M. Watershed Number: 1809010301 (HUC 5)**N. Total Acres Burned:** 35,151

NFS Acres(23,523) Other Federal (6,696) State (.8) Private (622) LADWP (4,310)

O. Vegetation Types: Sage and bitterbrush, Oak woodland, pinyon, Riparian (willow, cottonwood, water birch) Jeffery Pine**P. Dominant Soils:** Waterman, Sur, Wrango, Torriorthentic Haploxerolls, Kiona families

Q. Geologic Types: Granite and quartz monzonite with minor volcanic, metasedimentary and metavolcanic rock, glacial moraines and alluvial fan deposits derived from local bedrock

R. Miles of Stream Channels by Order or Class: Perennial: 38.4, Intermittent: 70.9, Ephemeral, 129.7

S. Transportation System

Trails: 5.0 miles Roads: 88.4 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): 20,073 (low) 12,365 (moderate) 1,968 (high) 849 (unburned)

B. Water-Repellent Soil (acres): 3,500

C. Soil Erosion Hazard Rating (acres):
12,500 (low) 9,651 (moderate) 13,000 (high)

D. Erosion Potential: 7.18 tons/acre (2 yrs) (wind erosion was observed and will continue until vegetation has stabilized the site)

E. Sediment Potential: 4,595 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

B. Design Chance of Success, (percent): 90

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

D. Design Storm Duration, (hours): .5

E. Design Storm Magnitude, (inches): 1.23

F. Design Flow, (cubic feet / second/ square mile): 3.8

G. Estimated Reduction in Infiltration, (percent): 30

H. Adjusted Design Flow, (cfs per square mile): 4.9

PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

Background: The Inyo Complex fires (Sage and Sevenoak started from lightning on July 6th, 2007. These two fires burned approximately 35,151 acres with the Sevenoak fire burning 28,708 and the Sage Fire burning 6,546 acres. These fire are geographically separate but have the same fire number therefore we will submit one 2500-8. The fires will be split in the narrative (threats) for ease of communication and to clearly display the different values at risk and proposed treatments for each fire of the complex.

The BAER Team worked closely with the NRCS and Inyo County roads department to determine values at risk and extent of the post-fire risk.

Threats to life and property

Sage Fire:

- Arc Road (Baker Creek) (County): There is a risk of this culvert plugging and overtopping Arc road. This road is maintained by Inyo county, however it goes through the Forest and Forest lands are accessed by this road.
- Los Angeles Department of Water And Power (LADWP) Infrastructure: The Forest is working with LADWP to identify all the structures that were impacted by the fire. The BAER identified several structures that need attention at this time.
 1. The Baker Creek Gauging station head gate burned. During peak flow periods water would flow down the channel with the burned headgate and onto the Forest possibly leading to unwanted gullyng on the National Forest and adjacent downstream Bureau of Land Management lands(BLM). In addition, the structure could trap wood and debris compromising the capability of the structure, to accurately gauge discharge and diverting flow onto the National Forest.
 2. Baker Creek Campground: This campground is on LADWP lands but is operated by Inyo County. There are several ponds in and adjacent to this campground that will capture ash and sediment from Baker Creek. LADWP may need to perform extra maintainence after storm events to ensure the integrity of the ponds.
- Forest Roads 9S107,9S108 and 9S111: There are approximately 3.5 miles of road that is steep and traverses through high and moderate burn areas. These segments could experience road tread degradation and concentrate flood flows leading to increased downslope erosion due to increased runoff onto the roads. These roads are native surface and experience a high amount of OHV as part of the Coyote OHV management area, use including 4x4 vehicles, ATV'S and motorcycles.

Seven Oak Fire:

- County Roads:
 1. North Fork Oak Creek: There is a culvert just below the Oak Creek Campground that is at risk of plugging. There is also a slight increase in rock fall hazard on the western section of the road near the Baxter pass trailhead.
 2. South Fork Oak Creek: There is a culvert on the North Fork Oak Creek Road just after the split with the South Fork Oak Creek road that is at risk of plugging.
 3. Onion Valley Road: There is a risk of rock fall within the burned area. There are several culverts that are at risk of plugging including where the road crosses independence Creek and a culvert approximately 200 feet west of the Seven Pines road. The Seven Pines Recreational Residences tract access road also has a culvert that is at risk of plugging.
 4. Old Highway 395 where Sawmill Creek crosses it. This culvert could plug during a storm event sending ash and sediment on the road. This road receives light traffic.
- LADWP Infrastructure: The Seven Oak fire includes many LADWP gauging stations, and water diversions. The Forest is working with LADWP to identify all the infrastructure and determine post-fire risks to those properties. These properties will need extra maintainence post fire to preserve integrity of the structures and ensure water does not divert to unwanted areas on the National Forest.

Known properties include:

1. 4 diversions on Oak Creek. Several of these are used to spead water on the national Forest.
2. 4 gauging stations: 1 on North Fork Oak Creek, 1 on South Fork Oak Creek and 1 on Thibaut Creek and 1 on Independence Creek.

- Department of Fish and Game Fish Hatchery: There is a diversion on Oak Creek east of the National Forest that diverts water to the Hatchery. The Oak Creek through passage is narrow and can plug with wood and debris during a flood flow. The Hatchery plans allowing the first flood flows to pass through oak creek without diversion. Team Leader Ellsworth contacted the hatchery manager and told him to expect increases in ash and sediment throughout the winter during storm events and during peak flow snow melt next spring and summer.
- Private lands. There are 3 parcels located with structures within or immediately downstream of the fire area that could experience adverse affects from peak flows and/or ash and sediment. We are working with NRCS to determine risks. The NRCS will work with the property owners.
- Forest Road 13S101: This road is at risk of tread loss from increased runoff due to the fire. This road is native surface and traverses through moderate burn areas. The road could experience road tread degradation and concentrate flood flows leading to increased downslope erosion due to increased runoff onto the roads. This road receives a moderate amount of use. Approximately 1 mile of this road is at risk.

Threats to Water Quality

- Seven Pines Recreation Residences: The recreation residence tract owners use the water from Independence creek for domestic supply. The BAER team observed a large white plastic pipe with a mesh screen in the creek as one area water is taken from the creek and piped to the residences. In this case 3-4 residences use the water from this pipe. The Team also observed several residences have pump houses and presumability a filtration system. There is a high risk of ash and sediment plugging the intacts in the creek and/or impacting the filtration systems. The riparian vegetation burned directly above this tract leaving little area for ash and sediment to settle out before reaching the tract.
- Department of Fish and Game Hatchery: As stated above the Hatchery can expect a large increase in ash and sediment. They plan on not diverting water the during the first runoff producing storm, however they can expect an increase in ash and sediment throughout the first winter and next spring and summer snowmelt peak flows.

Threats to Ecosystem Stability/Soil Productivity

Noxious/Invasive weeds, Illegal OHV and Livestock grazing pose risks to Ecosystem stability and soil productivity. In addition, these risks can prolong the increased watershed response expected from this fire. The risk from livestock grazing is unknown at this point. The Forest is working with the BLM and LADWP to address this issue.

• Noxious Weeds

Reducing the introduction and spread of non-native invasive species has been identified as a Forest Service Strategic Goal for 2003-2008. Red brome (*Bromus madritensis*), cheatgrass (*Bromus tectorum*), bull thistle (*Cirsium vulgare*), storksbill (*Erodium cicutarium*), perennial pepperweed (*Lepidium perfoliatum*), sweet clover (*Melilotus alba/officinalis*), rabbitsfoot grass (*Polypogon monspeliensis*), black locust (*Robinia pseudoacacia*), Russian thistle (*Salsola tragus*), and tumble mustard (*Sisymbrium* sp.) are known to occur within the burn area and along access routes to the burn. In addition, perennial sweet pea (*Lathyrus latifolius*) and saltcedar (*Tamarix ramosissima*) are known from locations less than a half a mile away from the burn perimeter. Several plant vectors such as roads, trails, wind, and waterways occur within the fire area. In addition, seed could have been transported into the burn on suppression equipment and supplies. Fire is known to enhance the establishment of all weed species present.

• OHV Incursions – Sage Fire

The BAER assessment Team observed OHV activity in the Sage fire area immediately after the fire was contained. This area contains multiple access points with roads originating on BLM and LADWP and Forest lands. The team also observed off-road incursions throughout the fire area. The Heritage Resource Specialist identified three heritage sites in the Sage fire that are close to roads where incursions have already taken place. While these sites are not eligible for the National Register, site integrity may be compromised with illegal OHV activity. Many areas are flat making it easy to create illegal trails. This area is a popular due to the ability to make long loops into the Coyote Flat area. This area is part of the Coyote OHV management area. Illegal OHV activity can adversely affect native vegetation recovery, spread noxious/invasive weeds, negatively affect soil productivity and prolong watershed recovery.

B. Emergency Treatment Objectives:

- Stabilize roads and trails and reduce the risk to downstream road/channel crossings
- Reduce the risk of degradation to ecosystem function and soil productivity; provide for rapid watershed response.
- Continue to work with the community to ensure threats to life and property and natural resources is minimized.

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

Land 90 % Channel 90 % Roads/Trails 90 % Protection/Safety 90 %

D. Probability of Treatment Success

	Years after Treatment		
	1	3	5
Land	85	90	100
Channel	90	95	100
Roads/Trails	80	90	100
Protection/Safety	85	95	100

E. Cost of No-Action (Including Loss): \$125,000

F. Cost of Selected Alternative (Including Loss): \$113,721

G. Skills Represented on Burned-Area Survey Team:

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input checked="" 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 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 type="checkbox"/> Landscape Arch	<input checked="" type="checkbox"/> GIS	

Team Leader: Todd Ellsworth

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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:

1. *Noxious weed Detection survey*

Objectives:

To determine if the fire and associated ground disturbing activities have promoted the establishment and spread of noxious weeds to the extent that eradication efforts are necessary. Early detection dramatically increases the likelihood of successful treatment. If weeds are detected, a supplemental request for BAER funds will be made for eradication.

Methods:

Surveys will begin in 2008 during the flowering periods of weed species. Because of differences in flowering times for all potential species, two visits may be required during the growing season. Completion of surveys in riparian areas, dozerlines, and known invasive and sensitive plant populations will be the first priority. The second survey priorities will be along roads, handlines, drop points, and staging areas. Surveys of general habitats in the burned area will be the lowest priority. All locations of weed species will be documented and mapped using GPS equipment. Surveys will be completed using the NRIS protocol available at the national website: <http://fsweb.ftcol.wo.fs.fed.us/frs/rangelands/index.shtml>. Results will be entered into the NRIS database.

2. *Special Use permit – emergency maintenance clearances*

Objectives:

The Forest is working with LADWP to determine structures impacted by the fire on the Forest and to determine what emergency maintenance is needed. This treatment would expedite botanical and heritage clearances to needed post-fire maintenance can be completed in a timely manner.

Methods

The Forest Botanist and Heritage resource specialist would evaluate the proposed maintenance work and provide clearances to LADWP to complete the work. Currently the permits do not contain language on emergency post-fire maintenance work. It is likely that undesirable impacts, such as accelerated bank and hillslope erosion, to the Forest would occur if timely maintenance is not completed.

3. *Erosion Control in Oak Creek Campground*

Objectives

The fire burned within the Oak Creek Campground creating a situation where accelerated runoff can occur off the parking lot and other compacted areas. This treatment would retard accelerated erosion from the campground into Oak Creek.

Methods:

Place 10, 30 foot fiber rolls (wattles) in strategic places in and around the parking areas of the campground to ensure accelerated erosion is diverted away from Oak Creek. The treatment cost is for labor only. The Forest has fiber rolls in stock that can be utilized for this project.

Channel Treatments:

1. *Remove woody debris in Baker Creek*

Objective: Remove floatable debris that could plug the culvert at Baker Creek.

Methods: Crew to cut and remove woody debris from Baker Creek up to 60 feet upstream from the culvert. The cut debris would be scattered above the floodplain.

2. *Trim vegetation above culverts on South and North Forks of Oak Creek.*

Objective: Remove debris overhanging in the creek that could plug the culvert.

Methods: Crew to cut and remove overhanging vegetation 30 feet upstream from the culvert. Cut vegetation would be scattered above the floodplain. The County has maintenance responsibility on these roads and agreed that this treatment would help maintain the integrity of the culverts and roads during a storm event.

3. *Remove Oak above culvert on Onion Valley Road*

Objective and methods

There is a cut oak above a culvert 200 feet west of the turn off to Seven Pines Recreation Residences. The oak needs to be removed so it does not block the culvert. Cost is included with the above channel treatments.

Roads and Trail Treatments:

1. *Road stabilization:*

Objective:

Control flow of water, preserve integrity of road prism and retard off-site hillslope erosion to facilitate native plant recovery.

Methods:

There are approximately 4.5 miles of National Forest Roads (9S08, 9S09 and 9S11) that require erosion control structures such as rolling dips and/or water bars. The watershed staff will mark specific areas of concern prior to implementation. In addition, we propose to rock the lead off ditches with crushed rock. The Forest has OHV Trail Maintenance monies that can be used to supplement the requested BAER funding.

2. *Culvert Maintenance*

Objective:

Allow passage of storm flows through a culvert in the Oak Creek Campground.

Methods:

Clean the culvert by removing wood and debris after runoff producing storm events throughout the fall and winter. This work can be completed with a shovel.

3. *Baxter Pass Trail:*

Objective

Upgrade and supplement existing erosion control structures on the Baxter Pass Trail to facilitate proper water drainage off the trail and preserve the trail tread.

Method

Place tread retaining structures and waterbars in critical points along the trail in the moderate and high burn severity areas. Approximately 1 mile of the trail is in high and moderate burn severity areas that need

treatment. Based on the initial field visit and photo interpretation the Team concluded that the trail needed approximately 20 waterbars, 30 rock tread retaining structures, 1 stream crossing stabilization and 3-4 logs and/ or hazard trees needed removing for safety to implement emergency stabilization.

Protection/Safety Treatments:

1. OHV Patrol

Objective

Additional patrol will help deter potential off-road use into the burned area. The patroller can rake out new tracks and repair resource damage in a timely manner. They will provide the public with post-fire conservation information and a field presence.

Methods

Provide additional OHV patrols for a total of 20 days, emphasizing high use time such as holiday weekends and hunting season. This area receives a high amount of OHV use, especially throughout the year as the trails make a popular loop option into the Coyote area. This area is part of the coyote OHV management area on the Forest. The Forest will work with the local BLM office as the routes go through BLM lands before entering the Forest and adjacent BLM lands were also burned, making it easy to go off road on both FS and BLM lands. The technician will also provide the public with information regarding post-fire recovery and the importance of staying on existing roads throughout the fire area. The Forest has an OHV technician that can perform this work. The technician will document if incursions occur and take corrective action.

2. Advisory Signs

Objective and Methods

This treatment is preventative. Signs will be placed in approximately 2 access points on the Arc (Baker Creek) Road encouraging visitors to stay on main roads to facilitate native plant recovery, decrease noxious/invasive weed vectors and protect soil productivity. Two signs would be placed on the Baker Creek Road. One advisory sign at the beginning of the Baxter Pass trail and one at the beginning of the Sardine Lake Trail head. Signs will be durable in nature, have two wooden posts.

3. Carsonite Signs

Objective and Methods

Signing will notify the public to stay on existing roads in sensitive areas such as on Arc (Baker Creek Road) and throughout the Sage fire area on roads 9S07, 9S08 and 9S11 Carsonite signs will be placed at strategic locations. Visibility will also be used to determine appropriate sign locations. The Forest has carsonite signs in stock. This request is to supplement the Forest's supply.

4. *Advisory Letters*

Objective:

Advise downstream users of the presence of a burned watershed and associated safety and flooding issues.

Methods:

A letter will be written to the Los Angeles Department of Water and Power discussing the risk of flooding to their infrastructure and potential damage to or reduced effectiveness of their gauging stations. Letters will also be written to the Seven Pines Recreation Residences discussing risks to their water intakes and systems. A letter to the Ft. Independence tribe regarding risk of ash and sediment in Oak Creek flowing through the reservation. The letters are a follow-up to the initial contact made to them discussing risks. This is an effective, low cost treatment.

5. *Interagency coordination*

Objective:

Continue the interagency coordination started by the BAER assessment team. The BAER Team made initial contacts with LADWP, NRCS, and Inyo County. The BAER team has had difficulty making initial contact with the Ft. Independence tribe which is on Oak Creek, one of the areas of high concern for downstream ash and sediment. The NRCS has requested additional assistance from members of the BAER Team in the next few weeks to help assess impacts to private lands. In addition, the large number of LADWP structures on National Forest lands need maintenance and repair to meet post-fire recovery objectives. This will likely take coordination from the Forest. The Forest Line team has indicated that they would like presentations to the community regarding post-fire recovery and the BAER plan after final approval. The interagency coordinator would make those presentations. Grazing allotments on LADWP and BLM are adjacent to the national Forest. It is unclear at this time what these agencies and permittees are going to do post fire. The interagency coordinator would assist the BLM with completion of their Emergency Stabilization and Rehabilitation report, and ensure the OHV road treatments are complementary with the BAER treatments. Continue coordination between the Forest and Natural Resources Conservation Service is critical to ensure assessment and treatment of private lands is addressed.

Methods

A journey level specialist familiar with the local agencies and the BAER process would continue coordination with local, state and federal agencies as other agencies finish their fire area assessments through the implementation phase.

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.) **See Appendix A below**

Part VI – Emergency Stabilization Treatments and Source of Funds

Interim #

			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											
DWP SUP evaluation	ea	1000	7	\$7,000	\$0			\$0		\$0	\$7,000
NX weed detection	days	537	6	\$3,222	\$0			\$0		\$0	\$3,222
Fiber Rolls	ea	150	10	\$1,500	\$0			\$0		\$0	\$1,500
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Land Treatments				\$11,722	\$0			\$0		\$0	\$11,722
B. Channel Treatments											
Baker Creek Channel	day	3000	1	\$3,000	\$0			\$0		\$0	\$3,000
Oak Creek Veg. trimm	day	3000	2	\$6,000	\$0			\$0		\$0	\$6,000
				\$0	\$0			\$0		\$0	\$0
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Channel Treat.				\$9,000	\$0			\$0		\$0	\$9,000
C. Road and Trails											
Forest Roads	mi	2300	4.5	\$10,350	\$3,000			\$0		\$0	\$13,350
Baxter pass trail	mi	7000	1.5	\$10,500	\$0			\$0		\$0	\$10,500
culvert cleaning	ea	350	5	\$1,750	\$0			\$0		\$0	\$1,750
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Road & Trails				\$22,600	\$3,000			\$0		\$0	\$25,600
D. Protection/Safety											
OHV Patrol	days	300	20	\$6,000	\$0			\$0		\$0	\$6,000
Interagency Coord	days	350	10	\$3,500	\$0			\$0		\$0	\$3,500
Advisory Signs	ea	500	4	\$2,000	\$0			\$0		\$0	\$2,000
Advisory letters	ea	200	5	\$1,000							\$1,000
Carsonite Signs	ea	40	10	\$400							\$400
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Structures				\$12,900	\$0			\$0		\$0	\$12,900
E. BAER Evaluation											
Team costs	days	8	3462	\$27,703				\$0		\$0	\$27,703
Insert new items above this line!				---	\$0			\$0		\$0	\$0
Subtotal Evaluation				\$27,703	\$0			\$0		\$0	\$27,703
F. Monitoring											
Forest Roads	ea	350	4	\$1,400	\$0			\$0		\$0	\$1,400
Baxter pass trail	ea	300	2	\$600							\$600
Insert new items above this line!				\$0	\$0			\$0		\$0	\$0
Subtotal Monitoring				\$2,000	\$0			\$0		\$0	\$2,000
G. Totals				\$85,925	\$3,000			\$0		\$0	\$88,925
Previously approved											
Total for this request				\$85,925							\$85,925

PART VII - APPROVALS

 1. /s/Marlene Finley
 Forest Supervisor (signature)

07/24/2007
 Date

2. /s/ James M. Peña (for)
Regional Forester (signature)

07/31/2007
Date

Appendix A

Inyo Complex Fire Road Effectiveness Monitoring

The 2500-8 report requests funds to monitor the effectiveness of road treatments on 4 Forest Roads.

1. Monitoring Questions
 - a. Is the road tread stable?
 - b. Is the road leading to concentrating runoff leading to unacceptable off-site consequences?
2. Measurable Indicators
 - a. Rills and/or gullies forming of the road
 - b. Loss of road bed.
3. Data Collection Techniques
 - c. Photo documentation of site
 - d. Inspection Checklist (attached)
4. Analysis, evaluation, and reporting techniques
 - Monitoring will be conducted after storm events. If the monitoring shows the treatment to be ineffective at stabilizing road and there is extensive loss of road bed or infrastructure an interim report will be submitted. A several page report would be completed after the site visit. The report would include photographs and a recommendation on whether additional treatments are necessary.

Road Inspection Checklist

Date: _____
Time: _____

Inspector _____
Forest Road _____

Describe locations reviewed during inspection: _____

Was there road damage?

Was Culvert plugged? _____.

GPS) _____

Describe damage and cost to repair? (GPS) _____

Photo taken of road damage _____

Recommended actions to repair: _____

Baxter Pass Trail Monitoring

1. Monitoring questions: Were the trail treatments proposed for the Baxter Pass Trail effective in retaining trail tread and retarding erosion.?
2. Measurable indicators:
 - Integrity of trail tread
 - Evidence of off-site rill or gully erosion.
3. Data Collection Techniques
 - Photo Inspection (Before and after photographs would be taken to observe and document changes in trail condition. In addition, the monitoring would document effectiveness of specific treatments in specific areas to fine tune future prescriptions.)
 - Trail Inspection Checklist (see below)
4. Analysis, evaluation and reporting technique
 - Monitoring will be conducted after storm events. If the monitoring shows the treatment to be ineffective at stabilizing the trail and there is extensive loss of trail bed or infrastructure an interim report will be submitted.
 - A several page report would be completed after the site visit. The report would include photographs and a recommendation on whether additional treatments are necessary.

Trail Inspection Checklist

Date: _____
Time: _____

Inspector _____
Forest Trail _____

Describe locations reviewed during inspection: _____

Was there trail damage? _____.
(GPS) _____

Describe damage and cost to repair? (GPS) _____

Photo taken of trail damage _____

Recommended actions to repair: _____