Round Fire

Inyo National Forest

2500-8 BAER Assessment Report

February 18, 2015

Photo of Round Fire Swall Meadows Fan. Road in foreground is Forest Road 4S54.

Round Fire
Inyo National Forest
2500-8 BAER Assessment Report
February 18, 2015

Executive Summary

On February 6, 2015, a wild fire occurred on the White Mountain Ranger District, within the communities of Swalls Meadow and Paradise. The fire burnt, approximately 6,535 acres of mixed vegetation types including sagebrush and bitterbrush scrub, desert scrub, pinyon, East side pine (Jeffrey pine dominated), montane chaparral, aspen, and some meadow habitat. Wheeler Ridge on the west side of the fire is very rocky. The southern part of the burn borders on irrigated rangeland. The fire resulted in 37 (.6%) acres of unburned, 4,927 (75%) acres of low burn severity, 1571 (24%) acres of moderate burn severity, and 0 acres of high burn severity.

A Burn Area Emergency Response (BAER) Assessement was conducted in the fire area to determine values at risk, make an emergency determination on those values at risk and and make recommendations on reducing the risk to those values.

All values at risk were evaluated and assessed in the fire area. The values at risk that were determinined to be an emergency include: 1) threats to property including 1.3 miles of forest system road and 1.2 miles of motorized trails; 2) threats to air quality from blowing dust from the fire area potentially affecting the community in Swall Meadows, Paradise, Lower Rock Creek Road, Birchim Lane, and State Highway 395; 3) threats to the Rock Creek Trail from uncontrolled runoff and loss of water control 3) threats to Critical Natural and Cultural Resources from Off Highway Vehicles (OHV's) threating natural vegetative recovery, soil productivity, heritage resource sites and invasion of noxious weeds spreading into the fire area; and.

The Initial BAER Assessment Report recommends **$62,512** in costs including the initial BAER assessment and includes: work on the Forest System Roads and trails to control water; coordination and communication with the several agencies that are involved in post fire recovery, prevention of OHV incursions from damaging critical values along Forest Road 04S54, patrol and immediate treatment to the Rock Creek trail from uncontrolled runoff and loss of water control, and early detection and eradication of noxious weeds on 4.5 miles of Forest System Roads and 1.23 miles of motorized trails and staging areas.

USDA-FOREST SERVICE

FS-2500-8 (6/06)

February 18, 2015

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: Round Fire

B. Fire Number: CA-BDU-001662

C. State: CA

D. County: Mono/Inyo

E. Region: 05

F. Forest: Inyo NF

G. District: White Mountain RD

H. Fire Incident Job Code: PHJH7X (1502)

I. Date Fire Started: 02/6/2015

J. Date Fire Contained: 02/12/2015

K. Suppression Cost: 2.5M

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): 3.0 miles
2. Fireline seeded (miles): 0.0
3. Other (identify): None

M. Watershed Number: Rock Creek - #180901020303

N. Total Acres Burned: 6,535
NFS Acres (2577) Other Federal (1167) State (162) Private (2629)

O. Vegetation Types: There are a variety of habitat types in the fire perimeter, including sagebrush and bitterbrush scrub, desert scrub, pinyon, East side pine (Jeffrey pine dominated), montane chaparral, aspen, and some meadow habitat. Wheeler Ridge on the west side of the fire is very rocky. The southern part of the burn borders on irrigated rangeland.

P. Dominant Soils: Dominate soils within the burn are: Lithic Cryorthents, Nanamkin, and Ulymeyer soils, all are sandy soils with rock fragments ranging from 30 to 65 percent.

Q. Geologic Types: The dominant geology in the fire area is Younger alluvial fan deposits (Qyf) in the southern end of the fire. The Bishop Tuff (Qba) is located in the eastern side of the fire. The Quartz Monzonite (Kwqm) of Wheeler Crest and a Quaternary Talus (Qt) deposit is located on the western side of the fire on National Forest System lands. Steep fault escarpments on the east side of Wheeler Ridge and coalescing alluvial fans known as bajadas dominate the landscape.

R. Miles of Stream Channels by Order or Class: Perennial: 10.7
Intermittent: 24.4 miles
Ephemeral: 4.5 miles

Totol: 39.6

S. Transportation System

Trails: 1.2 miles Roads: 1.3 miles

PART III - WATERSHED CONDITION

A. Burn Severity (acres): Unburned – 37 (.6%); low – 4,927 (75%); moderate – 1571 (24%); high - 0 (0%)

B. Water-Repellent Soil (acres): 628 (40% of Moderate Burn Severity Acres)

C. Soil Erosion Hazard Rating (acres):
68 (very low); 637 (low); 5260 (moderate); 571 (high)

D. Erosion Potential: 1.0 tons/acre; Background Erosion: .3 - .4 tons/acre

E. Sediment Potential: 26-34 cubic yards / square mile

PART IV - HYDROLOGIC DESIGN FACTORS

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

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

C. Equivalent Design Recurrence Interval, (years): 5

D. Design Storm Duration, (hours): 2

E. Design Storm Magnitude, (inches): .797

F. Design Flow, (cubic feet / second/ square mile): Witch Creek 94

G. Estimated Reduction in Infiltration, (percent): 20

H. Adjusted Design Flow, (cfs per square mile): N/A See Table 1 below

PART V - SUMMARY OF ANALYSIS

Introduction

The Round Fire was first reported Friday afternoon, February 6, 2015 at about 14:00. The fire started near the small town of Paradise at the foot of the Sherwin Grade and raced up a drainage toward Swall Meadow, gaining speed as the grade increased. One home and one outbuilding were destroyed early in the fire, and the communities of Paradise and Swall Meadow, north of the fire were quickly evacuated. Strong and shifting winds made containment a challenge for personnel on the ground, and conditions were too windy to use fixed or rotary wing aircraft to fight the blaze. The fire was moving faster than firefighters could keep up with by the time it approached Swall Meadow, forcing rapid and repeated withdrawals. Growing largely unchecked and fueled by strong winds, the fire grew to an estimated 7,000 acres with approximately 40 structures believed to be lost by Friday evening. It was not until roughly 2am on Saturday morning that significant rain finally stopped the forward rate of the fire and made it safe for ground forces to move in.

Soils

Due to early season moist soil conditions with dry fuels, very limited soil damage occurred except for the removal of soil cover due to a rapid fire spread caused by high winds (sustained winds of 50 mph) and the lack of residence time due to low quantities of downed fuel. Approximately 24% of the fire area burned at moderate soil burn severity (see Figure 1). The rest of the fire (76%) was either low or very low soil burn severity.

The soil burn severity map shows multiple areas that a have the majority of low and moderate soil burn severity (89%) and the rest as very low to unburned (11%). The main areas of intense burning was the Witcher creek sub-watershed, Sky Meadows sub-watershed, and Swall Meadow sub-watershed being at risk due to flooding and sedimentation affecting water quality, roads, and private residents below.

Satelite imagery was not available at the time of this assessment due to smoke, later cloud coverage and problems with the satelite systems. Imagery is ordered and will be available at a later date. Soil burn severity was hand mapped visiting various burn intensities throughout the fire. Taking field data on soil burn severity along with using photos taken from a helicopter and on the ground field review a soil burn severity map was created. At a later date this field created soil burn severity map will be adjusted and refined using satelite imagery. See the soils report for a more detailed discussion on the soil burn severity.

Hydrology

The fire occurred within the Rock Creek watershed. Rock Creek is a perennial tributary of the Owens River which is a source of domestic water supply to the City of Los Angeles via the Los Angeles Aqueduct. The fire burned mostly within small ephemeral and intermittently flowing tributary watersheds that merge and enter Rock Creek from the west in upper Round Valley, and within tributary perennial streams Witcher/Birch Creek on the northern area of the fire. The watersheds in the fire area were delineated 1- 7 for geographical reference and hydrologic modeling during the BAER assessment. Most of the watersheds extend above the fire area (see Figure 3).

Rock Creek, at the eastern edge of the fire, has a regulated flow regime. Los Angeles Department of Water and Power diverts water from Rock Creek to Crowley Lake shortly upstream from the fire area. The flow in Lower Rock Creek below the diversion ranges from about 15-20 cubic feet per second (cfs) all year. Thus, the flow in this small perennial stream is steady. The remaining streams in the fire area have an unimpaired flow regime. Birch Creek and Witcher Creek, at the northern edge of the fire, originate from spring sources at the base of Wheeler Ridge. Birch Creek has a base flow of about 0.5 cfs and Witcher Creek about half of that (USDA Forest Service 2002). Several small streams fed by springs in Swall Meadow and along the base of Wheeler Ridge flow for short distances and infiltrate in sandy soils or are used by landowners.

Hydrologic modeling was conducted for the fire area and all the watersheds modeled have an expected increase in the Q5 discharge of 25% or less compared to pre-fire conditions with the exception of Witcher Creek. Witcher Creek is expected to increase its Q5 discharge by 43% more than the pre-fire conditions. This

is due to the 149 acres (28%) of moderate soil burn severity in the watershed. See Table 1 for the results of the hydrologic modeling.

Table 1 - Results of Hydrologic Modeling for the 5 year, Design Flow Storm for (South Lahontan/Colorado Desert Region)

		Soil Burn Severity (acres)			In Cubic Feet per Second (cfs)					
HU_12 Drainage	Drainage Acres	Unburned	Low	Moderate	Pre-fire Q5	Q from unburned	Q from low	Q from moderate	Post-fire Total Q5	Change in Q5 Flow
Pour Point 1 Old Sherwin Grade Crossing	668	528	86	54	61	48	8	12	69	12%
Pour Point 2 Swall Meadows Road Crossing	364	112	200	52	45	14	25	16	55	22%
Pour Point 3 Valley View Road Crossing	334	176	112	46	43	23	14	15	52	21%
Pour Point 4 Rim Rock Road Crossing	357	38	261	58	45	5	33	18	56	25%
Pour Point 5 Ainsley Spring Road Crossing	2034	533	1206	295	108	28	64	39	131	22%
Pour Point 6 North Round Valley Road	9980	5089	3514	1377	241	123	85	84	291	21%
Pour Point 7 Rock Creek Confluence	37076	30579	4745	1752	468	386	60	56	501	7%
Lower Rock Creek HU 12 (180901020303)	38927	32430	4745	1752	480	400	58	54	512	7%
Witcher Creek	529	222	158	149	54	23	16	39	78	43%

From: Methods for Determining Magnitude and Frequency of Floods in California, Based on Data through Water Year 2006 by Anthony J. Gotvald, Nancy A. Barth, Andrea G. Veilleux, and Charles Parrett, 2012.

Witcher Creek, a small watershed of 529 acres is a tributary to Birch Creek which drains into Rock Creek, within ¼ mile of the confluence. Only a very small portion of the Birch Creek watershed, above the confluence of Witcher Creek burned in the fire. A large portion of the Birch Creek watershed burned in the 2002 Birch Fire. Most of the riparian vegetation along Witcher Creek was burned, exposing soils to erosion. Fine sediment is available to move into the channel when large storm events occur. Post-fire storm runoff will deliver ash and fine sediment from the Witcher Creek and Birch Creek watersheds into Rock Creek and eventually into Pleasant Valley Reservoir where water quality and aquatic habitat will be moderately impacted for short-term periods of 1-2 days during and after storm events. Longer term impacts will result in moderate increases in sediment deposition into pools and low gradient reaches along Rock Creek below the fire adding to the effects of the 2002 Birch Fire. Stream flow in Rock Creek is regulated by LADWP upstream of the fire and does not have peak flows large enough to create channel maintaining flushing flows. Therefore, sediment loads tend to remain in pools and low gradient stream reaches reducing the quality of the existing non-native fishery habitat and overall stream channel desired conditions.

The Sand Canyon Road is a heavily used motorized trail that follows the stream course after a stream crossing (within 10-30 feet) upslope along steep burned slopes in the drainage for approximately 1 mile. The road does not have adequate drainage features to control increased runoff expected from the fire and it is likely that incision will occur on the trail tread as a result of large storm events. There is a high probability of trail damage to render the road impassable to motorized vehicles that would require expensive road repairs. Additionally, with loss of water control on the road and tread incision, sediment yields will increase that will add to excess sedimentation to Witcher Creek as a result of the fire. Another concern with the road and slope conditions is off highway vehicles (OHV) create off-road routes to bypass eroded sections of road, causing addition soil impacts

and adversely affect vegetative recovery. Where the road crosses Witcher Creek lower in the watershed, the crossing is currently in a degraded condition. With expected increases in stream flow and sediment delivery to Witcher Creek post-fire, it is expected additional degradation at the crossing could occur and water quality impacts will result in addition to motorized vehicle impacts at the crossing.

Downstream private residences in the communities of Swalls Meadow and Rim Rock were evaluated for potential flood hazards. The Swall Meadows and Rim Rock area subdivisions are mostly located on alluvial fan deposits and terraces at the base of Wheeler Ridge. The local hydrology consists of numerous, small braided ephemeral stream channels and a few spring fed channels with short reaches of perennial surface water. On alluvial fans, higher flows and sediment can move from one channel to another and can be unpredictable, and this potential increases with post- fire watershed conditions. The effects of the fire and lack of ground cover and stabilizing vegetation indicate there will likely be an increase in sediment yields and stream flow during large storm events. There is a potential that the loss of water control may create minor impacts to roads and private residences.

Private lands belong to LA DWP and other private lands were reviewed, below National Forest lands, during the BAER assessment to evaluate downstream values at risk. There is an increased threat of flooding and heavy sedimentation to these private lands, as a result of post-fire conditions, if a large storm event occurs over the watershed. Loss of water control could damage irrigation system infrastructure and gages.

A. Describe Critical Values/Resources and Threats:

Threats to Life and Property

Forest Service Roads: There are approximately 2.5 miles of system roads and motorized trails within the Fire boundary. Approximately 1.2 miles are motorized trails with 1.3 miles of a system road. Roads within the fire are maintenance level (ML) 2 with the motorized trails also managed at a maintenance level 2. These roads are native surface on decomposed granite which is very susceptible to erosion. Uncontrolled runoff can result in off-site damage and potential negative impacts to the transportation system.

The surrounding hillslopes burned at moderate and low soil burn severity. Forest Road 4S54 and the motorized trails in the Witcher Creek watershed are managed for high-clearance vehicles and receive periodic maintenance of existing drainage structures. The Sand Canyon motorized trail (30E302) contains road gradients of 10 to 15% with pitches over 20%. Motorized trail 30E302A contains road gradients of 25 to 30% slope. Post-fire conditions and predicted watershed response indicate increased runoff, excessive sedimentation, and limited rockfall will occur onto the transportation system impacting existing roadway drainage features, such as roadway dips and lead-off ditches. We expect a high watershed response from the steep, adjacent hillslopes and the easily transportable sediment in Witcher Creek. Once these drainage features become impacted and overwhelmed, their function fails, allowing uncontrolled water to divert, resulting in damage to the road and invested road improvements, loss of road function, and limiting access along some of the road segments. A secondary consequence of post-fire runoff to the transportation system is increase adverse effect of storm water runoff and decreased control of storm water runoff delivering high volumes of sediment into adjacent stream channels. In some cases, roads can become "hydrologically connected" to stream channels creating an efficient mechanism for delivering excessive sediment to the stream channels.

Emergency Determination:

Imminent hazards to the road system vary from minor sloughing and rilling to overwhelming the existing erosion control structures leading to a partial or total loss of the road template.

Probability of Damage or Loss: Likely

Magnitude of consequences: Moderate

Risk Level: High

Road/motorized trail #	Assessment	Risk	Treatment
04S54 (1.3 miles)	Areas of low and moderate soil burn severity. Expected high watershed response, drainages blocked by outside berm. Witcher Creek crossing is unstable	High	Restore drainage function and harden stream crossing.
30E302 and 30E302A (1.2 miles)	Areas of low and moderate soil burn severity on steep slopes. Expected high watershed response. Existing drainage structures need upgrading with other areas lacking proper drainage structures	High	Restore drainage function through upgrading and installing new drainage features.

Threats to Air Quality and Life

Approximately 5,831 acres of the Round Fire burned at low and moderate soil burn severity with surface and ground fuels mostly consumed leaving a layer of ash underneath the canopy of the burned shrubs and trees. In addition, burned structures and houses in the communities of Swall Meadows and Paradise contain ash, some of which could contain hazardous materials. High winds in the spring (March/April) are typical for the fire area. Burned soils are susceptible to particle entrainment by wind because fire consumes protective ground cover, soil organic matter, and soil-stabilizing root networks, destroys naturally occurring soil crusts, can induce water repellency and decrease aggregate stability (Wagenbrenner, et.al). Blowing dust and ash from burned areas can impact visibility, air quality, soil productivity and nutrient transport among other things (Wagenbrenner, Et.Al.) With cover removed by this fire, large contiguous areas are vulnerable to wind erosion, dust storms and potential hazardous material transport.

Vulnerable areas include: Swall meadows, Paradise, Lower Rock Creek Road, Birchim Lane, and State Highway 395. After the 2007 Inyo Complex fire between Big Pine and Independence, California dust storms were common and affected Highway 395.

Emergency Determination:

Probability of Damage or Loss: Likely

Magnitude of consequences: Moderate

Risk Level: High

Threats to Critical Natural and Cultural Resources

Off Highway Vehicles (OHV's) are a threat to natural recovery from invasion if noxious weed spreading into the fire area, reduction in soil productivity, and damage to heritage sites from Off-Highway Vehicle incursion. OHV's can cause erosion, compaction and alter hydrologic function which precludes or reduces vegetation re-

establishment after a fire. OHV's can act as a vector for invasive species introduction when seeds are attached to tires and deposited on bare ground. Heritage resources can be negatively affected by OHV's through mechanical disturbance in the site.

Vegetative recovery, soil productive and a heritage resource site are at risk from OHV incursion along the 04S54 road where natural vegetative barriers burned. The area of greatest incursion potential burned at low and moderate soil burn severity, with all the vegetation consumed and a low gradient making it easily traversed by an OHV. Suppression vehicles went off-road on portions of the road creating highly visible tracks. These tracks were raked and disguised during suppression rehabilitation. However, the disturbance is still highly visible.

Emergency Determination:

Probability of damage or loss: Likely

Magnitude of Consequences: Moderate

Risk Level: High

Threats to Trails

The Lower Rock Creek Trail is a highly popular multi-use trail utilized year-round. Approximately ¼ of a mile of the trail is within the fire area. The fire consumed vegetation above and below the trail. This trail is at risk from increased runoff which could lead to degrading the trail tread and comprising trail stability. A secondary consequence of post-fire runoff to the trail is increased adverse effect of storm water runoff and decreased control of storm water runoff delivering high volumes of sediment into Rock Creek. The BAER Team determined an ***intermediate risk*** to the trail template, hydrologic function and water quality from effects of the fire.

Threats to Ecosystem Stability

There is a hign risk that invasive weeds could get established in the Sagebrush-bitterbrush, pinyon, or desert shrub habitats and in the Riparian stream habitat and meadow habitat. Fire vehicles were not washed before entry to the fire area. Several invasive species are known from the forest, including cheatgrass and Russian thistle, which are scattered throughout the shrub vegetation, denser near roads. They will likely spread into the recovering shrub vegetation in the fire area, but there is no effective control for these species, so no treatment is proposed. Vegetation monitoring in the overlapping Birch fire area has shown that native species (average native species diversity of about 10 species/plot (~30m square) are able to grow along with the cheatgrass even with cover percentages ranging from 13-43%.

The California Invasive Plant Council has published a list of species not currently known in the fire area, but with a high risk of invasion (CalIPC , 2011). Because the fire vehicles and equipment were not washed before entering Forest Service land, these species could possibly invade: Russian knapweed, musk thistle, diffuse knapweed, spotted knapweed, yellow starthistle, rush skeletonweed, Scotch thistle, Dyer's woad, Dalmatian toadflax, and yellow toadflax. Seeds of invasive species known from at least one garden on the private land may be carried by wind or washed onto public land by winter storms and are undetectable until spring or summer germination. Also, new species of weeds may have been introduced by unwashed fire suppression vehicles, but these will not be evident for at least several months when the seeds germinate.

Emergency Determination:

Probability of damage or loss: Likely

Magnitude of Consequences: Moderate

Risk Level: High

Other Values at Risk (VAR) Evaluated

Heritage, archaeoology and wildlife resources were evaluated and determined not be be a BAER emergency. Reports are available in the project reord.

B. Emergency Treatment Objectives:

1. **Threats to Life and Property**
   Protect route infrastructure by minimizing erosion of the road surface, provide for water control and reduce excessive flooding and sediment delivery into Witcher, Birch and Rock Creeks on Forest Road 04S54 (1.3 miles) and Forest Trails 30E302 and 30E302A (1.2 miles).

2. **Threats to Air Quality and Life**

   Continue to the high level of coordination and communication that occurred during the assessment phase, especially in areas where life and property are potentially at risk from post-fire conditions.

3. **Threats to Critical Natural and Cultural Resources**

   To prevent OHV incursions from damaging critical values along 04S54 and provide for native vegetative recovery.

4. **Threats to Trails**

   The objective is to determine if excessive erosion events are occurring from concentrated trail runoff.

5. **Threats to Ecosystem Stability**

   Determine if new invasive species have been introduced due to suppression activities or escape from local gardens and eradicate small infestations.

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

Land __ % Channel __ % Roads/Trails 90 % Protection/Safety 100 %

D. Probability of Treatment Success

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

E. Cost of No-Action (Including Loss): **$82,000** (see VAR Worksheet in Appendix A)

F. Cost of Selected Alternative (Including Loss): **$26,000**

G. Skills Represented on Burned-Area Survey Team:

[x] Hydrology [x] Soils [ ] Geology [ ] Range [ ]

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

Team Leader: Alan J. Gallegos – Todd Ellsworth (Forest BAER Coordinator

Email: ajgallegos@fs.fed.us tellsworth@fs.fed.us Phone: 559-297-0706 ext 4862 Cell: 559-905-6846
Todd's Cell: 760-937-2033 FAX: 760-873-2458

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: Survey 4.5 miles of Inyo NF roads plus 1.23 miles of motorized trails, the stream crossings at Witcher and Birch Creeks, and other disturbed areas (4 known small off road parking, <0.4 acres) in the fire area for species listed above and eradicate small infestations by pulling the weeds by hand.

BLM lands will be surveyed and any identified noxious weed will be manually pulled. Surveys will take place on 3 miles of dozer lines and near a large garden on Ridge View Dr. The cost to do the survey and eradication on BLM lands is not included in the cost sheet below.

Channel Treatments: N/A

Roads and Trail Treatments: Restore drainage function and harden the stream crossing at Witcher Creek. Drainage function will be restored through upgrading and installing new drainage features (waterbars and rolling dips) on Forest Road 04S54 (1.3 miles) and Forest Trails 30E302 and 30E302A (1.2 miles). Detailed cost breakdown contained below:

Road	Risk	Treatments	Estimated Cost
04S54	High	Restore drainage function, remove outside berm in critical areas, stabilize and harden crossing at Witcher Creek	$11,000
30E302 and 30E302A	High	Maintain existing rolling dips and lead-off ditches, install new rolling dips and lead-off ditches, remove outside berm in designated areas.	$4000
Total			**$15,000**

Lower Rock Creek Trail Post-storm inspection and response: Post-storm inspection and response is proposed in lieu of structural treatments such as rolling dips. Post-storm inspections are used to identify hillslope erosion that may be causing damage to the trail and mitigating the effects immediately. The BAER Team considers this treatment to be the minimum necessary to achieve a reduction in risk to critical values and is less expensive than installing rolling dips or reconstructing the trail.

Protection/Safety Treatments:

OHV incursion on 04S54 will be reduced by providing for increased OHV patrol in this area, especially on high use weekend. Contacts with the public will emphasize the need to stay on existing roads and motorized trails to facilitate fire recovery. Plant bitterbrush and appropriate native bunch grasses in areas of high incursion potential. The Forest will acquire plant stock from the White Mountain Research Station nursery (donated; in-kind cost) and utilize Vexar tubing with bamboo sticks to protect the plants. This treatment is considered a "soft" barrier and is highly effective on the Forest. The Forest considers the "soft barrier" treatment to fit within BAER policy as it's an alternative to fencing and is not meant for long-term habitat or native plant community recovery. The Forest expects to use volunteers for planting. The BAER Team considers this treatment to be the minimum necessary to achieve a reduction in risk to critical values and is less expensive and intrusive than installing fencing.

There is a need to continue the interagency coordination initiated during the BAER assessment. This involves communication and coordination with other federal, state and local agencies with jurisdiction over lands where life and property are at risk from post-fire conditions. Actions include but are not limited to cooperating with other agencies on hazard notification systems, exchanging information and coordinating the BAER implementation plan as needed when subsequent recovery plans are developed by other agencies. The Round fire burned in five (5) different jurisdictions: Inyo National Forest, Bishop Field Office Bureau of Land Management (BLM), California Fish and Wildlife, Los Angeles Department of Water and Power (LADWP) and Private Lands. Follow-up field trips and meetings are already scheduled with the Natural Resources Conservation Service (NRCS) and LADWP in the coming weeks. The following letters will have to be sent the the aforementioned agencies.

1. Mono County Public Health Department encouraging them to expedite clean-up of hazardous waste on Private Lands. There is a risk of hazardous materials migrating to National Forest Lands during storm events.
2. Mono County Public Works (Roads) communicating the need to keep road/channel crossings functioning in the Swall Meadows and Rim Rock areas to ensure that estimated increased flows in the drainages are able to move through the culverts in the roads.

3. Develop a letter to LADWP informing them of our assessment and potential for sediment into their irrigation and water conveyance infrastructure and Pleasant Valley Reservoir and the potential for damage to cultural/historical resources.

4. Post-fire air quality is a concern both from fugitive dust impacting home owners and impacting visibility to nearby roadways and blowing hazardous dust and ash from burned home sites. The Forest BAER coordinator will coordinate with affected interested entities, including Mono County, the Great Basin Unified Air Pollution Control Board and Caltrans in developing a press release outlining potential risks.

5. The Forest BAER coordinator also will discuss potential air quality impacts, and opportunities for modelling and monitoring with Dr. Pete Robichaud, Rocky Mountain Research Station.

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.)

Forest personnel will conduct a Level 1 Effectiveness monitoring of the road treatments to check that treatments are present and functioning properly. The purpose is to ensure the action is meeting site-specific objectives or if there is a need for follow-up or re-treatment. Monitoring will be conducted after storm events. The report would include photographs and a recommendation on whether additional treatments are necessary. If the monitoring shows the treatment to be ineffective at stabilizing the road and there is extensive loss of road bed or infrastructure an interim report will be submitted. A several page monitoring report would be completed after the site visit.

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										
Invasive Species Early Detection and Rapid Response (4.5 miles road and 1.23 miles motorize							$0		$0	$0
GS-9	Day	4	311	$1,244	$0		$0		$0	$1,244
GS-7	Day	3	196	$588	$0		$0		$0	$588
Vehicle	Mileage	0.38	100	$38						$38
Misc expenses	Lump	130	1	$130						$130
Subtotal Land Treatments				$2,000	$0		$0		$0	$2,000
C. Road and Trails										
Roads (1.3 mi) & Motorized Trails (1.2 mi) - Restore Control of Water					$0		$0		$0	$0
Acct Road Crew & Equip.	Day	2750	4	$11,000						$11,000
Armour stream crossings	EA	4000	1	$4,000	$0		$0		$0	$4,000
Lower Rock Creek Trail Post-storm inspection and response										
Trail Crew and Vehicle Mi	EA	307	1	$307						
Subtotal Road & Trails				$15,307	$0		$0		$0	$15,000
D. Protection/Safety										
Prevention of OHV Incursion into NFS Lands							$0		$0	$0
OHV Patrol	Day	206	10	$2,060	$0		$0		$0	$2,060
Botanist	Day	311	3	$933						
Install Soft Barriers	EA	500	1	$500	$0		$0		$0	$500
Vehicle Mileage	Mile	0.35	200	$70						
Subtotal Structures				$3,563	$0		$0		$0	$2,560
E. BAER Evaluation										
Initial BAER Assessment				$35,000			$0		$0	$0
BAER Implementaion Admi	Day	431	11	$4,741						
Vehicle Mileage	Mile	0.35	200	$70						
Misc Exp	EA			$485						
Insert new items above this line!					$0		$0		$0	$0
Subtotal Evaluation				$40,296	$0		$0		$0	$0
F. Monitoring										
Road/Trail Treatement Effe	Day	431	3	$1,293	$0		$0		$0	$1,293
Vehicle Mileage	Mile	0.35	150	$53						
Subtotal Monitoring				$1,346	$0		$0		$0	$1,293
G. Totals				$62,512	$0		#REF!		#REF!	#REF!
Previously approved										
Total for this request				$62,512						

PART VII - APPROVALS

1. _____ 2/20/15
Forest Supervisor (signature) Date

2. Barnie T. Grant 2/25/2015
Regional Forester (signature) Date

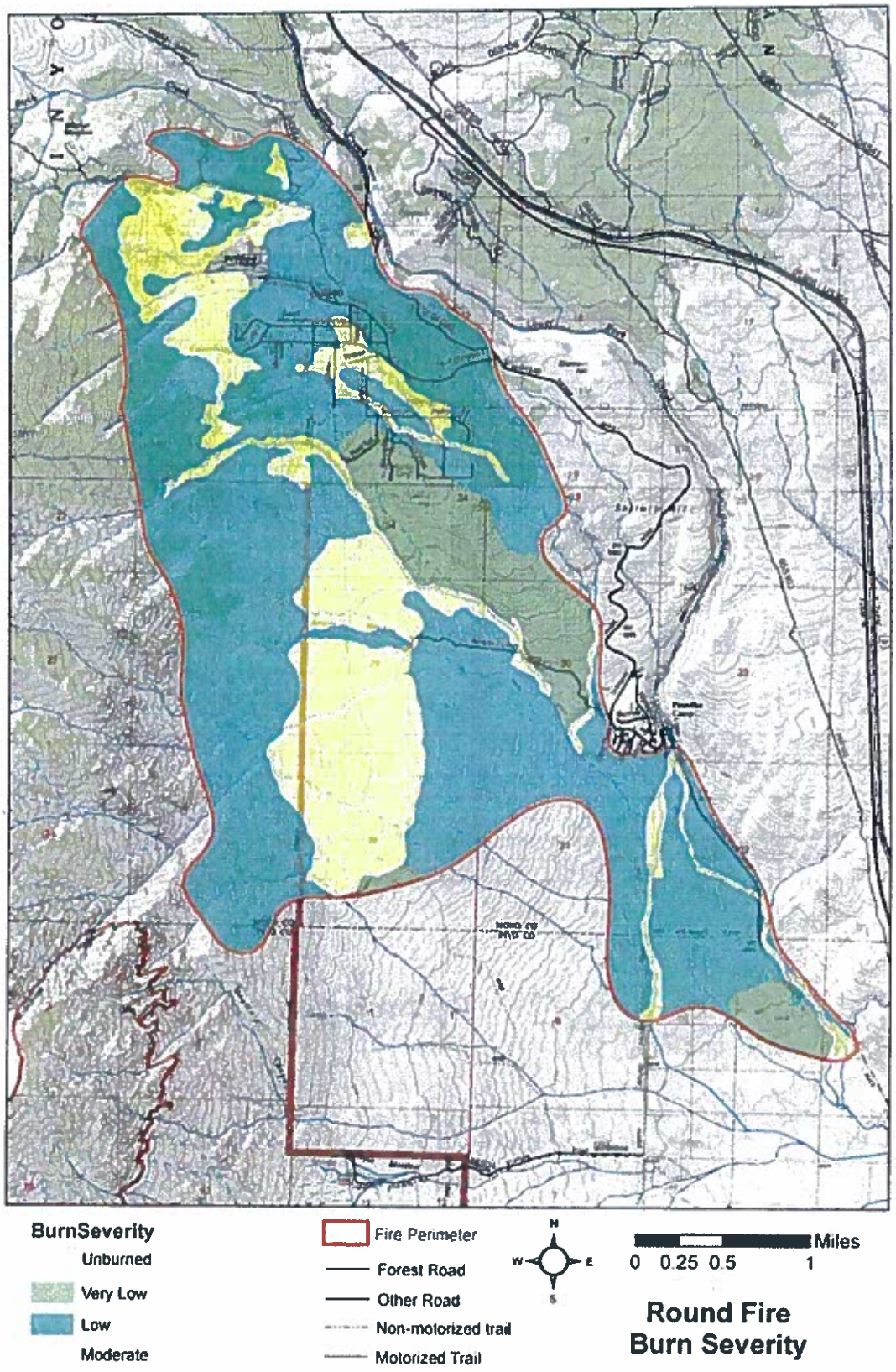

Figure 1 Soil Burn Severity Map for the Round Fire

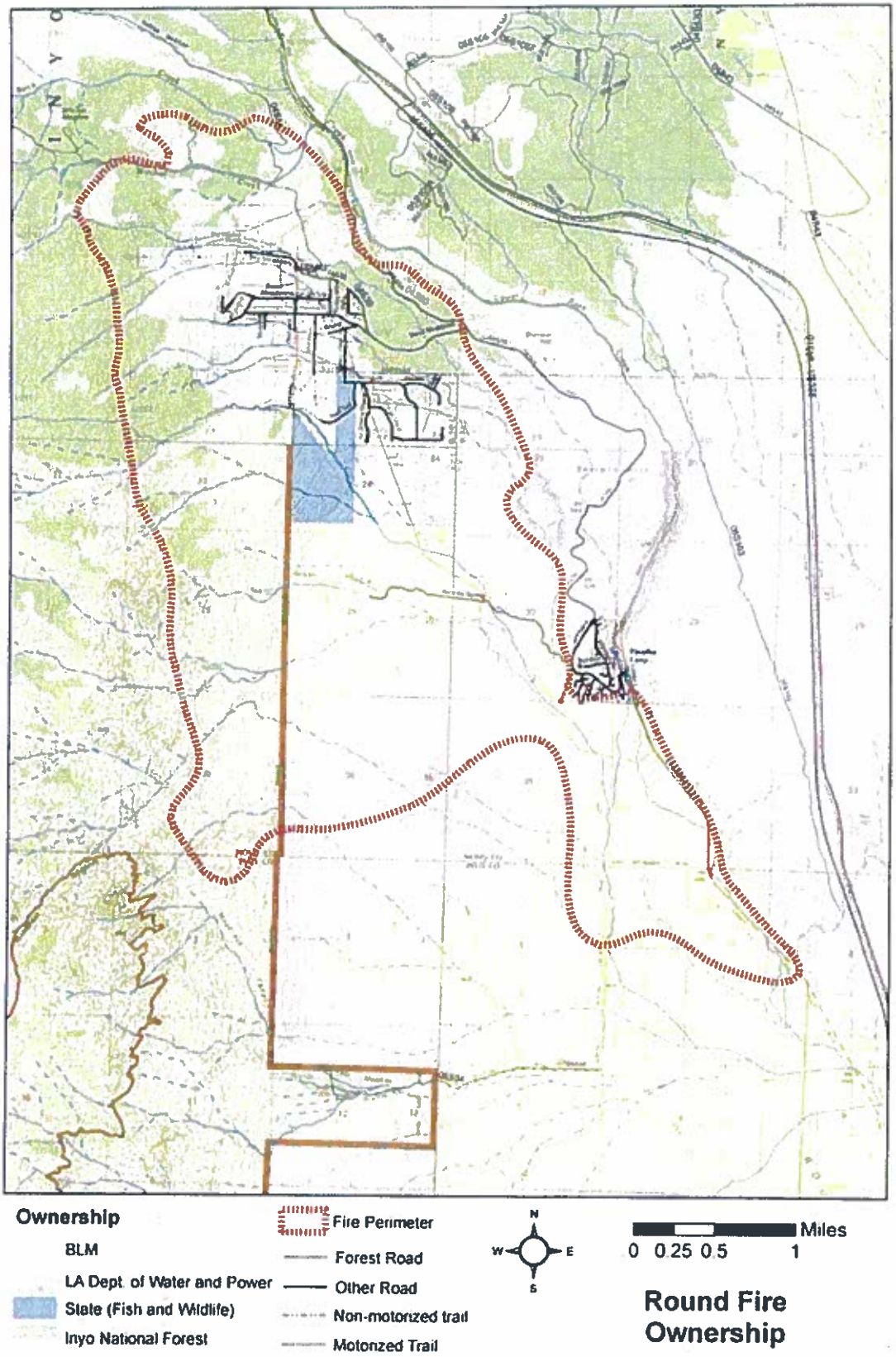

Figure 2 - Ownership Map for the Round Fire

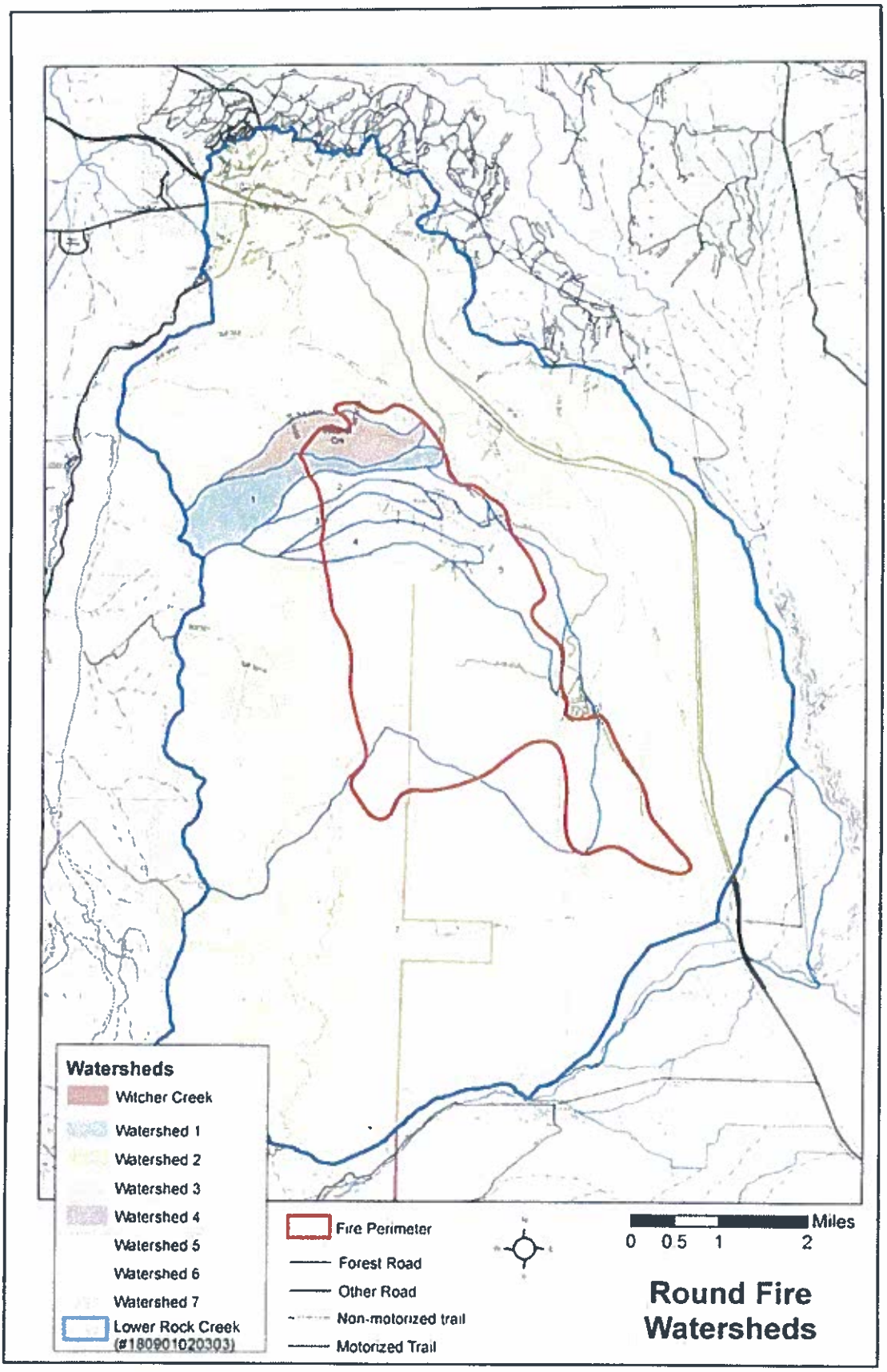

Figure 3 - Subwatershed Map of the Round Fire Area