

Little Valley Fire Restoration Efforts BAER (Burn Area Emergency Response) November 15, 2016





Little Valley Fire from Bellevue Road

Burned Area Emergency Response (BAER)



Objectives for the Organization

- Safety of the Public and Personnel
- Evaluate actual and potential short and long-term post fire impacts to critical cultural and natural resources and identify those areas unlikely to recover naturally from severe wildfire damage.
- To develop and implement cost-effective plans to establish a healthy, stable ecosystem consistent with land managers objectives.
- To repair or replace minor facilities damaged by wildland fire.



Priorities:

- **Public Safety – Hazards**
- **Water Quality**
- **Storm Water Runoff**
- **Erosion Risk**

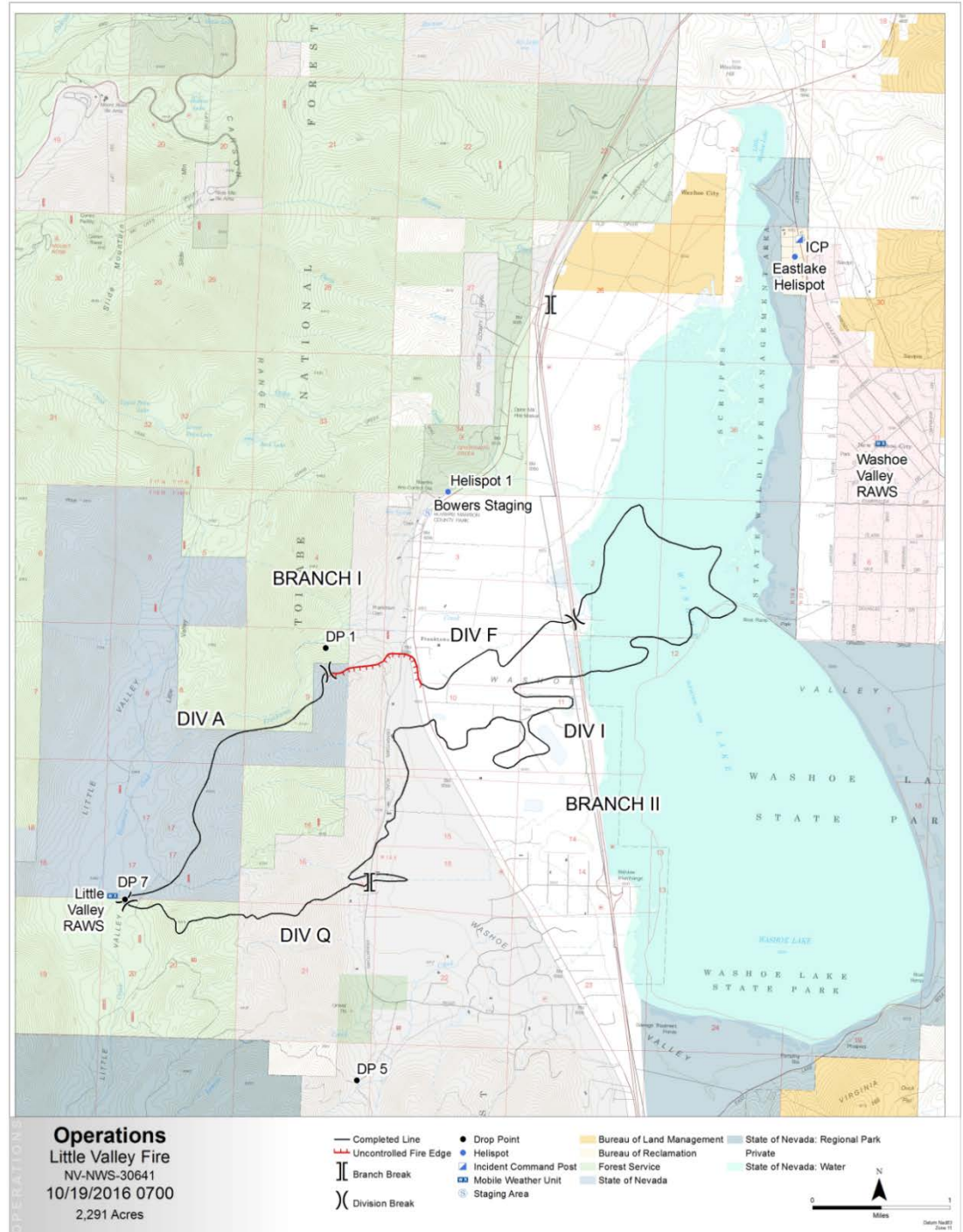
October 14th, 2016

2291 acres

924 acres – State

357 acres – USFS

1,010 acres - Private



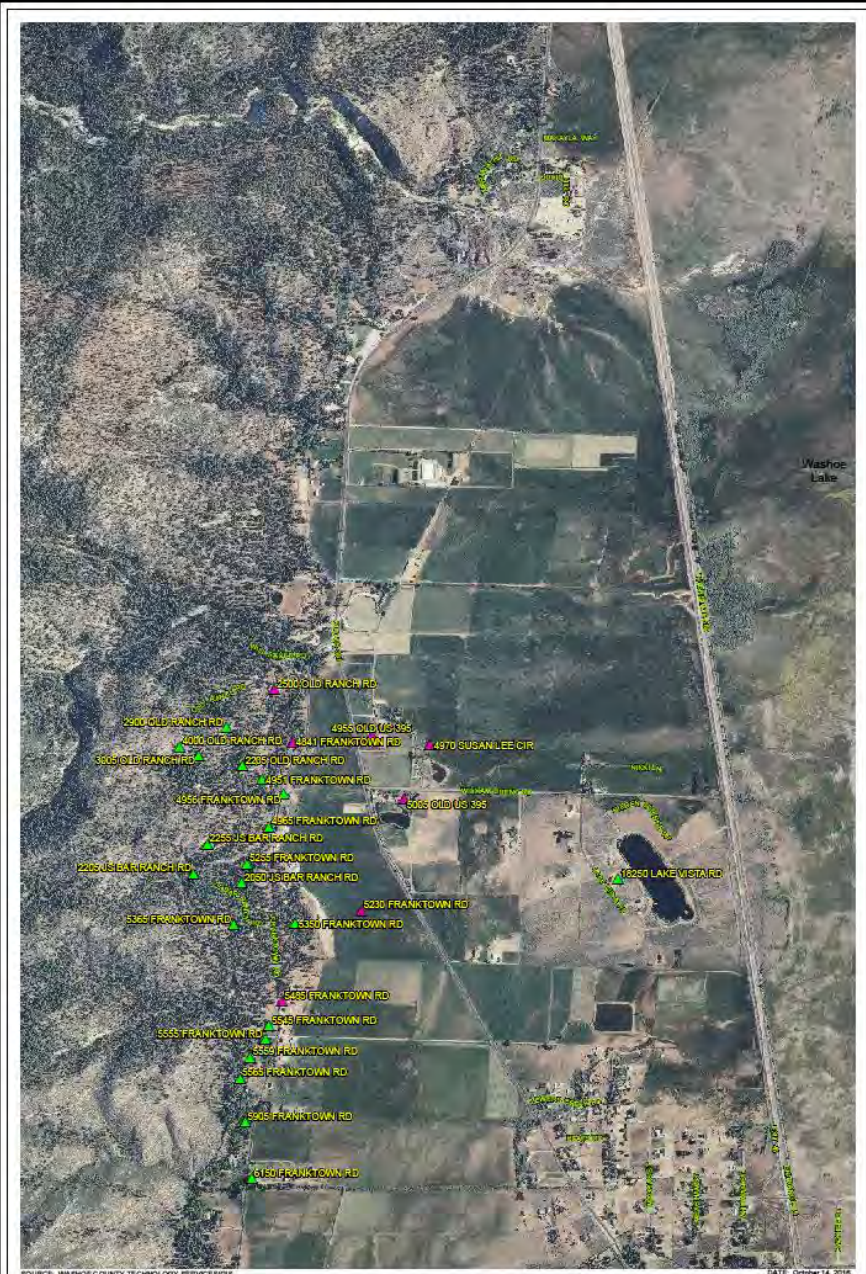
STRUCTURES

23 homes destroyed

1 home damaged

17 outbuildings destroyed

Remaining structures are threatened from Franktown Ditch breaches and overflows as well as natural drainage overland flows that have been dramatically increased due to loss of vegetation.



SOURCE: WASHOE COUNTY TECHNOLOGY SERVICES/GIS DATE: October 14, 2016

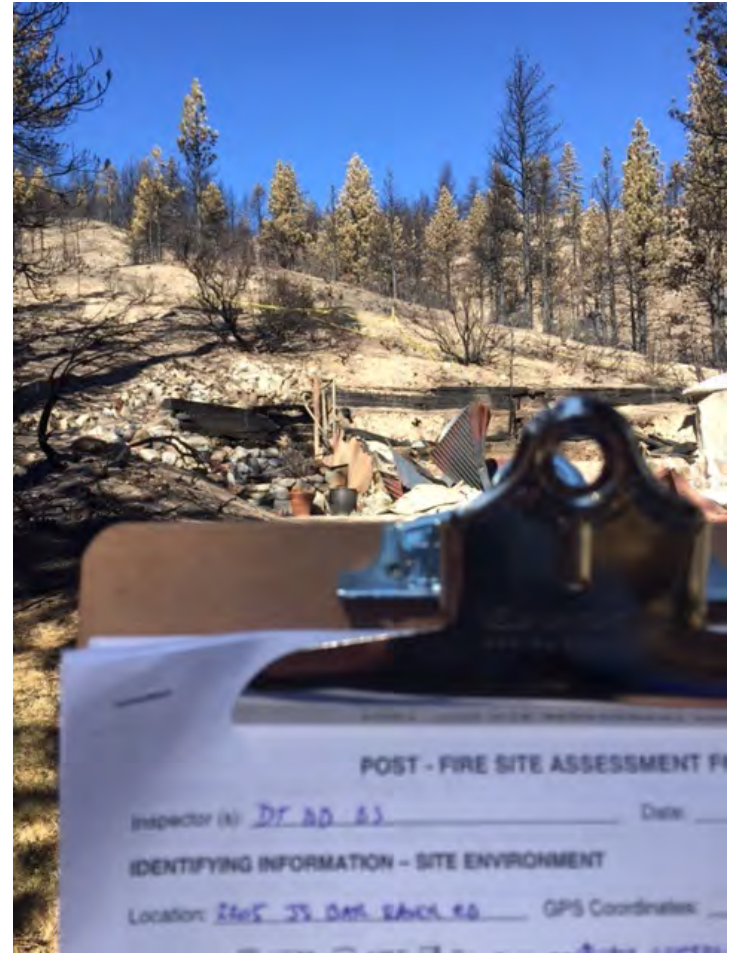
<p>Little Valley Fire Damaged Structures</p> <p>October 15, 2016 5:00 PM</p>	<p>STRUCTURE TYPE</p> <ul style="list-style-type: none">HOME (Green Triangle)OUT BUILDING (Pink Triangle) <p>Washoe County Emergency Manager Mark R. Davidson (775) 337-6888 Voice (775) 337-8867 Fax Administrator@washocounty.nv</p> <p>REGIONAL EMERGENCY MANAGEMENT</p>	<p>NOTE: THE SCALE AND COMPLETENESS OF ALL INFORMATION SHOWN HEREON ARE APPROXIMATE ONLY AND ARE NOT INTENDED AS A GUIDE FOR DESIGN OR BUDGET WORK. REPRODUCTION IS NOT PERMITTED WITHOUT PRIOR WRITTEN PERMISSION FROM THE WASHOE COUNTY TECHNOLOGY SERVICES DEPARTMENT.</p> <p>0 500 1,000 Feet</p>
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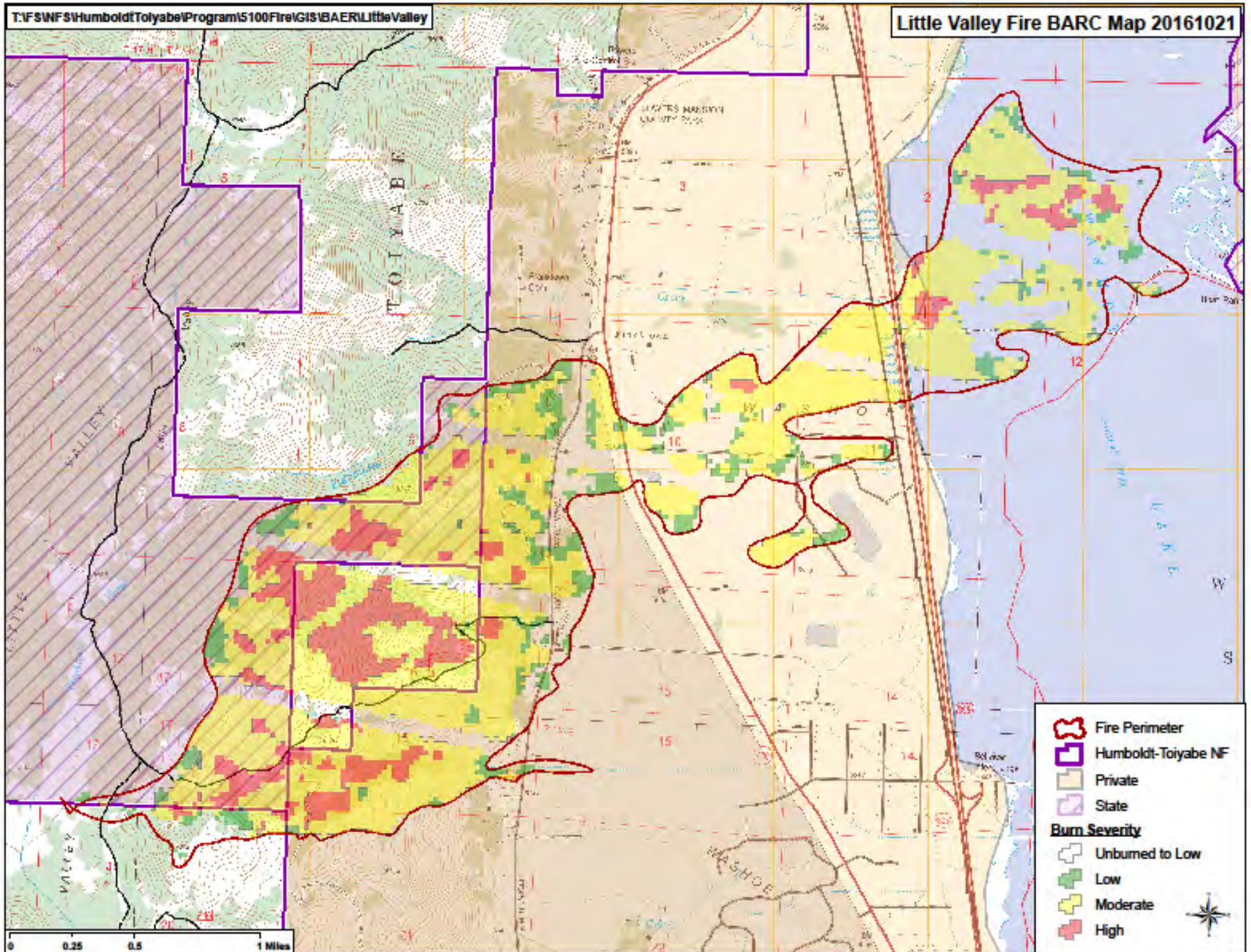
Right-of Entry Permits

_____, Washoe County, Truckee Meadows Fire Protection District and Nevada Land Trust Permission to Restore and Mutual Release & Hold Harmless Agreement

1. For value and consideration received, Bowen Family Trust (LANDOWNER), located at 4455 Old U.S. Hwy 395 N. Washoe gives a right of entry and its permission to Washoe County, Truckee Meadows Fire Protection District, Nevada Land Trust and their respective officers, employees, agents, representatives, volunteers, successors and assigns to conduct fire restoration, fuels management, modification, and fire/flood reduction work on its property, which property is described in Attachment B, a true and correct copy of which is attached hereto.
2. LANDOWNER hereby agrees to fully indemnify and hold harmless Washoe County, Truckee Meadows Fire Protection District, and Nevada Land Trust, together with their respective officers, employees, agents, representatives, volunteers, successors and assigns (collectively referred to herein for ease of reference as LAND RESTORER or RESTORER) from any claim, liability, loss, damage, or suit arising from or incurred in connection with or relating to vegetation pruning, cutting, thinning, removal of any other combustibles from the aforementioned property, and any actions described in Attachment A. (Scope of Work), which is caused by the negligent or intentional act of LANDOWNER or its employees. This includes any damage related to property damage, personal injury, or other claim or damages whatsoever that may occur as a result of or in conjunction with the intentional or negligent acts or omissions of LANDOWNER or its employees.
3. LAND RESTORER hereby agrees to fully indemnify and hold harmless LANDOWNER and its employees together with their agents, representatives, members, and volunteers and their successors and assigns from any claim, liability, loss, damage, or suit arising from or incurred in connection with or relating to vegetation pruning, cutting, thinning, removal or any other combustibles from the aforementioned property, and any actions described in Attachment A. (Scope of Work), which is caused by the negligent or intentional act of RESTORER or its agents, representatives, members, volunteers, successors or assigns. However, the parties will not waive and intend to assert any available any NRS chapter 41 liability limitations in all cases. Notwithstanding any other provision herein, the contract liability of both parties shall not be subject to punitive damages.
4. In the event of any asserted claim, RESTORER and/or LANDOWNER, as the case may be, shall provide LANDOWNER or RESTORER, as the case may be, reasonably timely written notice of same, and thereafter the party with the duty to indemnify shall defend, protect, indemnify and hold harmless the other party against said claim of any loss, liability, action, attachment or judgment thereafter.
5. In the further event the party with the duty to indemnify shall so fail to defend and/or indemnify and hold harmless the other party, then in such instance the other party shall have the full right to defend, pay or settle claims against them on their own behalf without written notice to the other party, but with full rights or recourse against said other party for all fees, costs and expenses incurred in said party's defense.
6. It is understood and agreed upon, by and between the parties, that this agreement is entered into without undue influence, fraud, coercion, or misrepresentation for any reason not herein stated. Each party acknowledges that they have read this agreement and that it is entered into voluntarily.

Assessment Teams





- Fire Perimeter
- Humboldt-Toiyabe NF
- Private
- State
- Burn Severity**
- Unburned to Low
- Low
- Moderate
- High

POST - FIRE SITE ASSESSMENT FORM

Inspector (s): Anna Higgins / Chris Savaustio Date: 11/2/16

IDENTIFYING INFORMATION - SITE ENVIRONMENT

Location: 5000 Old Ranch RD Above To Bar Ranch RD GPS Coordinates: 119° 51' 00.14" W ~ 5500
39° 15' 47.40" N
 Ownership: USFS NDF Private (owner) Whiston
 Slope (%): ~~35%~~ 38%* Aspect: SE *did not get on site due to no ROE*

SITE BURN

Site burned Yes No

% of site burned: 100 subsurface ? % ground surface 100 % aerial NA %

- Low (duff partially consumed, none to little ladder fuel burned, no canopy burned)
 Moderate (duff consumed, ladder fuels burned, isolated crown burn or torching)
 Severe (duff, ladder and crown completely consumed)

Is ash present on the site? Yes No (see soil burn severity assessment sheet)

% by ash color: black % gray % white % red %

Depth of ash (cm): at deepest point est. average ash depth

FIRE EFFECTS AT SITE

	Y	N	
Stump/root holes.....	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Wood or organics burned.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Erosion from multiple sl ran into drainage which then potentially caused breach of Franktown Ditch</i>
Loss of structural features.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Hazard trees on site.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Loss of vegetative cover.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Loss of soil from erosion.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Comments: Killing / complete loss of vegetation

SUPPRESSION IMPACTS TO SITE: Yes No

- Handline Dozer Line Mop-up Tree Felling Vegetation Removal Vehicle

Comments: _____

EROSIONAL THREATS TO SITE: Yes No Duff absent: Yes No

On site slope threat (ex. Rockfall, flooding, sediment loss) sediment loss

Slopes above site threat sediment loss

Upstream watershed threat sediment loss

Erosion threat: Flooding Landslides Debris Flows Rockfall

Stump holes/ burned logs erosion: no

Hydrophobic soils: no

NOXIOUS WEEDS PREVIOUSLY PRESENT: Yes No (See Noxious Weed Sheet) ?

KNOWN CULTURAL OR HISTORICAL SITES: Yes No (See Archeological Sheet)

RECOMMENDED PRESERVATION TREATMENT

- No Treatment Recommended
 Monitor
 Treatment Recommended

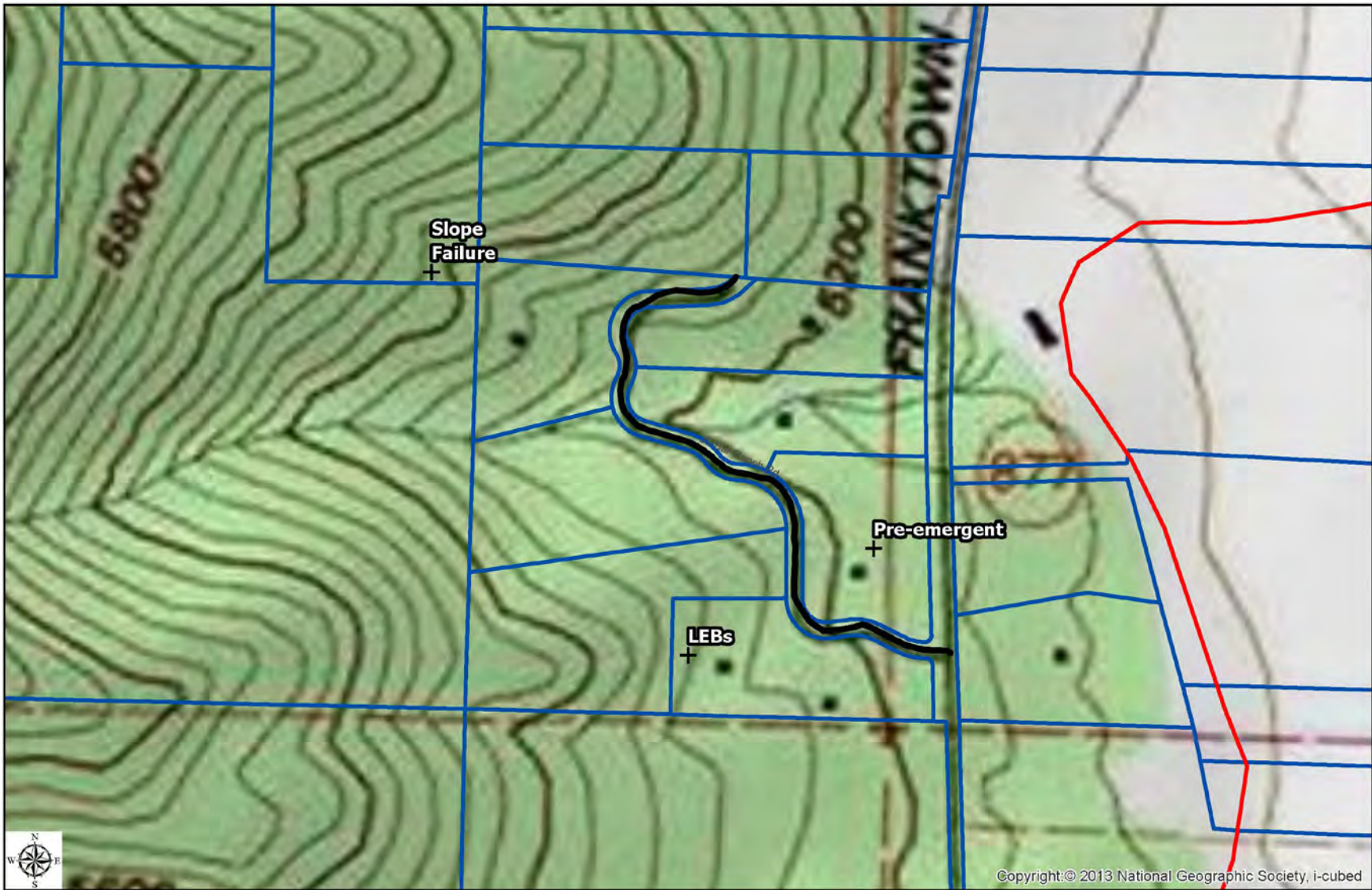
LAND TREATMENTS: (list quantities if known)

- | | |
|---|---|
| <input type="checkbox"/> Log terraces | <input checked="" type="checkbox"/> Seeding |
| <input checked="" type="checkbox"/> Straw wattles | <input type="checkbox"/> Planting |
| <input type="checkbox"/> Straw mulch | <input type="checkbox"/> Mechanical earthwork |
| <input type="checkbox"/> Herbicide | <input type="checkbox"/> Temporary fencing |
| <input type="checkbox"/> Road closures | <input type="checkbox"/> Trail Closures |
| <input type="checkbox"/> Hazard Trees | <input type="checkbox"/> Signage |

CHANNEL TREATMENTS:

- | | |
|--|---|
| <input type="checkbox"/> Straw Bales | <input type="checkbox"/> Armoring |
| <input type="checkbox"/> Debris Removal | <input type="checkbox"/> Detention Basins |
| <input type="checkbox"/> Culvert Cleaning | <input type="checkbox"/> Berm Removal |
| <input checked="" type="checkbox"/> Culvert Installation | <input type="checkbox"/> Ditch Construction |

may be?
 A U culvert in Franktown Ditch would prevent subsequent erosion / debris flows from compromising ditch structure. Current repairs to ditch include sand bags & logs so it is a temporary fix. Erosion control above ditch might be difficult due to lack of on-site materials & erosion from multiple slopes flowing into one drainage.



0 0.125 0.25 Miles

Prepared By:



- ▭ Fire perimeter
 - ▭ Washoe County Parcels
 - + Fire rehab
- JS Bar Ranch Rd**

Scale:

1:5,000

If the line below does not measure one inch in length, then the scale of this drawing has been altered.



Design	AMH	07/30/15
Drawn	AMH	07/30/15
Edited	ABC	DD/MM/YY
Reviewed	ABC	DD/MM/YY
Approved	ABC	DD/MM/YY

Title:

JS Bar Ranch Rd

Figure Description:

Approximate location of erosion controls & weed abatement

Figure Number:

FIGURE 1

Revision

A

File Name:

JSBarRanchRd

Debris flow in drainage – potentially cause breach of Franktown Ditch



Erosion on 4955 Franktown Rd (Healy) property contributing to debris flow



Erosion on slope above Franktown Ditch. Whittell Forest property

























Treatment Options for the Little Valley Fire

As recommended by the BAER Team



Log Erosion Barriers (LEB's) are logs placed in a shallow trench on the contour to intercept water running down a slope and trap sediment. This treatment may also be known as contour log felling, log terraces or terracettes.

Rock Check Dams are used where runoff is concentrated in a drainage way, swale, or road ditch that has lost all its natural protection due to the fire, or will receive increased flow rates as a result of fire in the contributing drainage area. The rock dams will reduce erosion and trap sediment generated from adjacent areas or the ditch itself. Rock Check Dams should be limited to use in open channels that drain 50 acres or less.



Broadcast Seeding: Re-establishment of permanent vegetation provides long-term erosion control, may restore lost habitat values, and may help suppress noxious weed invasion after a wildfire.

Sediment log is a linear roll made of natural materials such as straw, coconut fiber, or compost. All sediment control logs are used as a sediment barrier to intercept sheet flow runoff from disturbed areas.













Homeowner Guide to Fire Injured Trees



Fire can kill a tree outright, or weaken a tree so that it becomes susceptible to attack by insects. Fire injured trees may also survive injury, especially fire adapted pines such as ponderosa pine & Jeffrey pine. Trees burned during late season fires are also more likely to survive as the buds have already set for the season and are protected from heat damage.

Having a professional forester assess your trees can aid in determining what trees are dead or likely to die within a year & what trees might survive injury from fire.

Examples of trees likely to survive



Left: the majority of this pine's crown is scorched, however notice the upper crown is still green.

Below: The majority of the needles on this branch are scorched yet the bud has set for the season and is still green.



Scorched (*adjective*):

parched or discolored by scorching

Scorch (*verb*):

- 1.) to burn a surface as to change its color and texture
- 2.) to dry or shrivel with intense heat

BAER TEAM
POST-FIRE REHABILITATION RECOMMENDATIONS

Franktown Watershed reseeding & revegetation

Franktown Irrigation Ditch, Drainages, Water Diversion Structures, and Culverts, cleaned and opened

10,000 lineal feet of straw erosion logs installed

12 rock check dams installed

Hazard tree, log erosion barrier and salvage assessments

Hazard tree removal and log erosion barrier placement

TIMELINE

October 14, 2016 Little Valley Fire

- BAER Team – Established October 19, 2016
- Community Meeting Presentations October 24th
- Field Assessments – October 25-26, 2016
- BAER Team Post-Assessment Meeting – Oct. 27th
- TEAM Recommendations completed November 3rd
- BAER Team Community Meeting Monday, November 14th

NEXT STEPS

- CONTINUE RIGHT OF ENTRY'S
- SECURE FUNDING FOR TREATMENTS
- FOREST HEALTH ASSESSMENTS
- IMPLEMENTATION
- QUESTIONS