



BUREAU OF LAND MANAGEMENT

---

# SODA FIRE

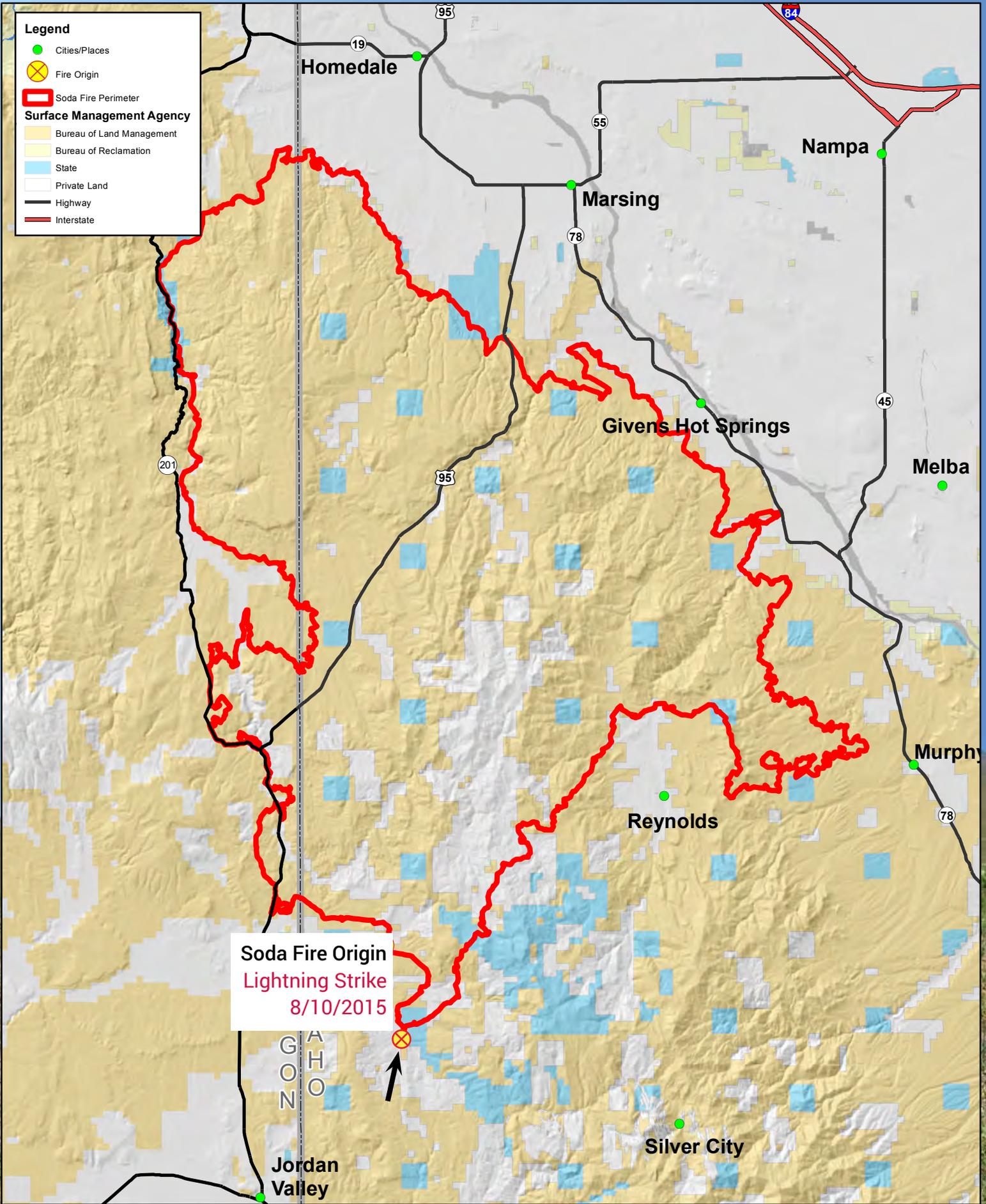
Emergency Stabilization and Rehabilitation, Idaho and Oregon

---

A photograph of a field of soda plants (halophytes) in Idaho. The plants are tall, green, and have silvery undersides. They are growing in a field with some dry grass and soil. In the background, there are rolling hills under a blue sky with some clouds.

May 2016  
Owyhee County  
Idaho

# 2015 Soda Fire and Vicinity





BUREAU OF LAND MANAGEMENT

# SODA FIRE

Emergency Stabilization and Rehabilitation

---

May 2016

Owyhee County

Idaho





## Background

---

The 2015 Soda Fire burned nearly 280,000 acres in southwest Idaho and southeast Oregon, including nearly 200,000 acres of sage-grouse habitat, portions of 41 grazing allotments, three wild horse management areas, and a popular motorized and non-motorized recreation area. Due to the location of the fire and its effect on federal, state and private lands, a collaborative approach was taken to assess values at risk within the entire burned area. The Soda Fire Emergency Stabilization and Rehabilitation (ESR) plan was the first large scale fire to be planned and implemented following the release of Secretarial Order 3336 – Rangeland Fire Prevention, Management and Restoration.

The collaborative concept was carried forward with the development and implementation of the ESR effort. This level of collaboration which involved US Fish and Wildlife Service (USFWS), Natural Resources Conservation Service (NRCS), Idaho Department of Lands (IDL), Idaho Department of Fish & Game (IDFG) and the Bureau of Land Management (BLM) is not typical of ESR efforts, but has been successful and supported. The Record of Decision was issued by the Boise and Vale Districts on October 21. The plan identified treatments to begin stabilizing the burned area, promote the recovery of native communities, increase perennial grasses, reduce invasive annual species, and restore shrubs and forbs to take the first steps toward the recovery of habitat for the greater sage-grouse. BLM continues to work with our partners through monitoring, the development of grazing rest and resumption decisions, and adaptive management.





August 2015 Emergency Wild Horse Gather in the Hardtrigger Herd Management Area



November 2015 Drill Seeding

## Treatments

---

To rehabilitate the 280,000-acre burned area, BLM and its partners:

- Gathered 283 wild horses from three burned Herd Management Areas in Idaho, with all but six horses in the Sands Basin Herd Management Area (HMA) successfully gathered. These horses are being cared for in temporary holding facilities until they can be adopted or returned to the range.
- Assessed and cleaned up three hazardous materials sites.
- Repaired roads and recreation trails including culverts, ditches, warning signs, and water barring. Over 28 miles of roads and 150 miles of recreation trails are being repaired now.
- Purchased and mixed 1.6 million pounds of seed for first year treatments. In the fall of 2016, 0.8 million pounds will be seeded.
- Drill seeded 17,257 acres of BLM and State of Idaho land at sites with high soil erodibility factors.
- Completed 27,426 acres of aerial herbicide application (imazapic) for suppressing annual invasive grass germination for native plant release and seed bed preparation.
- Seeded cultural sites with grasses, shrubs, and forbs and increased law enforcement patrols to protect sites during critical first year vegetative recovery.
- Aerial seeded over 200,000 acres to rehabilitate areas impacted by fire suppression, increase perennial grass densities in areas impacted by invasive annual grasses, increase shrub and forb densities, and provide sage-grouse preferred forbs in and around lek areas.
- Planted 492,140 sagebrush and bitterbrush seedlings in fall 2015 and spring 2016. An additional 933,000 seedlings are being grown by local Lucky Peak Forest Service Nursery and the Snake River Correctional Institute to be planted in fall of 2016 or spring 2017.
- Developed two 25-acre test plots of *Pseudomonas fluorescens* (D7), a naturally occurring soil bacterium, to test the effectiveness for reducing annual invasive grass over time.
- Contracted for the 2016 repair of over 300 miles of grazing management fences damaged by the fire. Other damaged range improvements are also being inventoried and repaired. Approximately 30 miles of temporary fence have been constructed to protect treatments where portions of grazing allotments were burned.
- Inventoried and treated noxious weeds in fall 2015 and will continue for the duration of the ESR plan.
- Partnered with United States Geological Survey (USGS) Forest and Rangeland Ecosystem Science Center in Boise to conduct the vegetative treatment monitoring, data collection, analysis, and reports for the Soda ESR project. The BLM worked with partners to develop a 'Rapid Assessment' method using 2,000 data points to cover a large fire with many integrated ecotypes and treatments.



*Mowing vegetation down for a fuel break in the sagebrush-steppe along an existing road.*



*A fuel break minimizes vegetation height to break up fuel continuity which reduces wildfire intensity.*

## ***Emergency Fuel Breaks***

---

On May 5, 2016, the BLM Owyhee Field Office signed an emergency decision authorizing the construction of up to 25 miles of fuel breaks in the highest-priority area of the wildland-urban interface. The fuel breaks will include approximately 200 acres of targeted grazing and mowing along with improvements on up to 25 miles of roads.

## ***Fuel Breaks Environmental Assessment***

---

On May 13, 2016, BLM released an environmental assessment (EA) of a network of fuel breaks designed to protect the ESR investment for public comment.

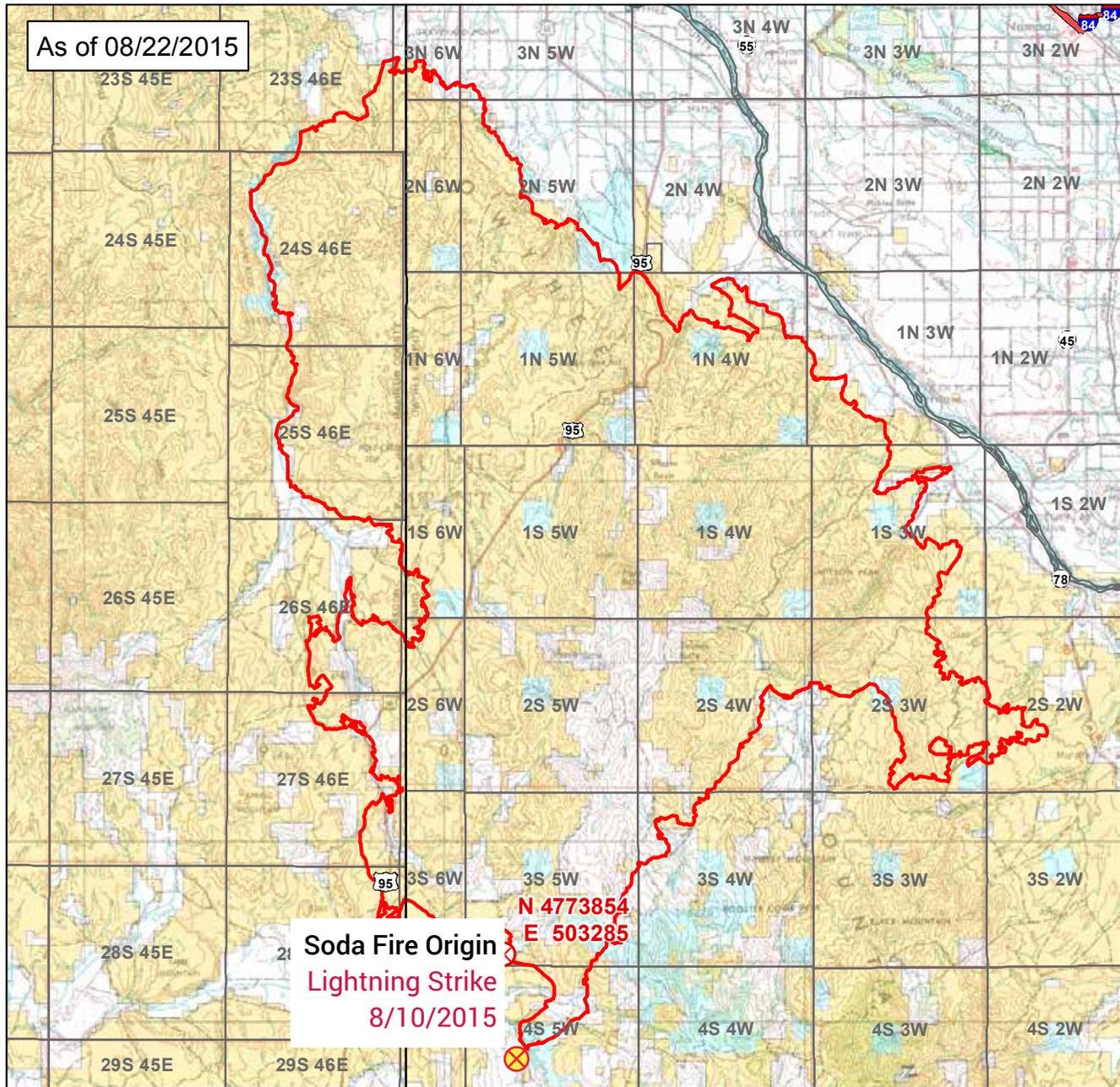
- The EA analyzes the completion of approximately 425 miles of fuel breaks, using a combination of road maintenance, mowing of sagebrush, application of herbicides, targeted grazing, and establishment of vegetative fuel breaks.
- These fuel breaks will allow for improved access by fire suppression resources and a higher probability for stopping fires before they become large, protecting lives, property, ESR treatments, and natural resources.
- A final EA and decision are anticipated in early June, 2016.

## ***Next Steps***

---

- The Soda Fire partners group, consisting of federal and state agencies in Idaho and Oregon, continues to meet regularly to identify future treatments, refine objectives, and maintain the all-hands, all-lands approach used in the project to date.
- Numerous research proposals from other agencies such as USGS and Agricultural Research Service (ARS) and from a variety of universities are being planned or in process. The results of monitoring data will be used to inform future decisions about adaptive management, additional treatments across the landscape, and resumption of grazing.
- The scope and complexity of the project coupled with the high degree of public interest and stakeholder engagement will continue to be a challenge for BLM Boise and Vale Districts.
- Many ESR treatments are multi-year treatments and will continue over the next several years, incorporating additional drill seeding, herbicide treatment, seedling planting, seed collection and grow-out, and range improvements. This process will allow for long term resistance and resilience and begin the restoration of sage-grouse habitat. Involvement with partner agencies continues to occur in order to allow for monitoring and re-treatment needs to occur across multiple jurisdictions.

# Fire Perimeter and Mixed Land Ownership



Fire Origin:  
T03S R05W, Sec 34

**Total acres: 279,144**  
BLM 225,953  
Private 40,138  
State 12,896  
BOR 157

No warranty is made by the Bureau of Land Management. The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.  
Map projection: UTM 11, NAD 1983, meters

Map Date: August 25, 2015

## Boise District 2015 Owyhee Field Office Fire: J08B Soda



## All Hands, All Lands Partnership

The scale, complexity, and multiple ownerships of the Soda Fire presented many challenges but also many opportunities. The initial ESR planning efforts were following the “normal” ESR process; however, as the team began to be compiled, BLM executive leadership’s intent was clearly beyond that of the normal process. The direction was to “think outside of box” in all aspects of planning, treatments, and adaptive management to ensure success. An interdisciplinary team of about 40 natural resource specialists and representatives from USFWS were convened to complete field work and assess fire damage. The planning effort would be a joint effort between Idaho and Oregon to address emergency stabilization and restoration at the landscape scale.

Coordination and partnering with other agencies was critical to ensure a landscape scale approach to treatments and was termed an “All Hands, All Lands” approach. Having executive leadership support from multiple agencies emphasized the importance of ensuring management across the landscape, regardless of ownership.

This partnership includes the Idaho Governor’s Office of Species Conservation, IDFG, IDL, Idaho Department of Agriculture (IDA), Oregon Department of Fish and Wildlife (ODFW), NRCS, ARS, USGS, USFWS, and the BLM in Idaho & Oregon.

The ESR process should, at a minimum, move toward creating a resistant and resilient landscape, identifying treatments necessary to move toward restoring sage-grouse habitat. Many treatments that were previously unavailable to the ESR program, such as herbicide use, multiple layered treatments and re-treatment in subsequent years, were now permissible under Executive Order 3336. Extending the ESR program from 3 years to 5 was also key in allowing adaptive management to be considered.

### OUR VISION

*Resistant and resilient landscapes with a mixture of sagebrush, perennial grasses and forbs that can adjust to normal disturbance from fire, drought, livestock grazing, and other management practices without continued vegetation treatments or a conversion to annual grasslands.*





*"Soda", a weanling gathered from the Hardtrigger Herd Management Area after the Soda Fire, was trained by two 4-H students and adopted by a loving family on April 17, 2016.*



## ***Wild Horses Impacted by the Soda Fire***

---

The Soda Fire burned all of the Sands Basin and Hardtrigger and nearly a third of Black Mountain Herd Management Areas in August of 2015. An emergency wild horse gather commenced the day following the control of the fire. During the fire, 29 horses died and an additional six were euthanized from the injuries sustained in the fire.

It took nine days to gather 279 wild horses. All of the horses were immediately transported to the Boise BLM Wild Horse Corrals where they were examined by a veterinarian; 30 were treated for mild to moderate burn injuries. There were a number of horses on the Sands Basin HMA that were not captured during the helicopter gather, but were hay/water bait trapped over the winter. According to February's aerial census there are six horses on both the Sands Basin and Hardtrigger HMAs, and 42 horses on the Black Mountain HMA.

The Boise Wild Horse Corrals are situated on 20 acres. The pens were re-designed and enlarged to handle the number of horses (over 101,375 square feet of corral space). However, there still was not enough space to hold all of them comfortably; so 69 horses were transported to the Palomino Valley National Adoption Center. Another 50 or so horses have been adopted and 25 are being trained for the Extreme Mustang Makeover to take place in Nampa, July 29 – 30. There were 55 stud horses that were transported to the Bruneau Off-Range Corrals, where they will be cared for until they can be returned to the range.

A group of horses were returned to the Black Mountain HMA to reach the low end of the Appropriate Management Level (AML) of 30, including four mares that were treated with the Porcine Zona Pellucida fertility control vaccine.

There were a good number of mare/foal pairs that were gathered, and several foals have since been born at the Facility. These young horses and those of weanable age will go into Idaho's 4-H training/adoption partnership with the University of Idaho Extension Program.

### **NEXT STEPS**

Once the range recovers and the rehabilitation objectives have been met, wild horses will be returned to the low end of the AML. There will be 27 horses returned to Sands Basin and 60 horses returned to Hardtrigger.

The Sands Basin HMA is located about 13 miles southwest of Homedale and the Hardtrigger and Black Mountain HMAs are south of the Snake River between Murphy and U.S. 95 to the West – all three HMAs are managed by the BLM Owyhee Field Office.

- Sands Basin AML: 33-64; 11,724 acres
- Hardtrigger AML: 66-130; 69,910 acres
- Black Mountain AML: 30-60; 50,904 acres



*492,140 sagebrush and bitterbrush seedlings were planted in fall 2015 and spring 2016.*



*Seeding area within the Soda Fire burn area, spring 2016.*

## ***Fire History & Suppression, Sage Grouse Habitat and ESR Treatments***

### **FIRE HISTORY & SUPPRESSION**

- The Soda Fire started on August 10 and was contained on August 23. It burned nearly 280,000 acres of federal, state, and private lands in southwest Idaho and eastern Oregon.
- The Soda Fire burned rapidly and intensely because of the high temperatures, low relative humidity and high sustained winds in the area. In addition, there was extremely low live fuels moisture. There were even reports of the dirt burning. Strong shifting winds caused erratic fire behavior and created a dangerous situation for fire fighters. The steep terrain made it impossible to get equipment in some areas.

### **SAGE-GROUSE**

- Almost all of the burned area is habitat for the Greater Sage-Grouse, with more than 50,000 acres designated by BLM as Priority Habitat Management Area (PHMA). It also burned approximately 191,000 acres of important habitat and more than 36,000 acres of general habitat.

*A sage-grouse hen thrives in the understory of sagebrush-steppe vegetation.*

### **TREATMENTS**

Sagebrush seedlings planting occurred on BLM and Idaho State Lands throughout the burned area. Much of the plantings occurred near sage grouse leks.

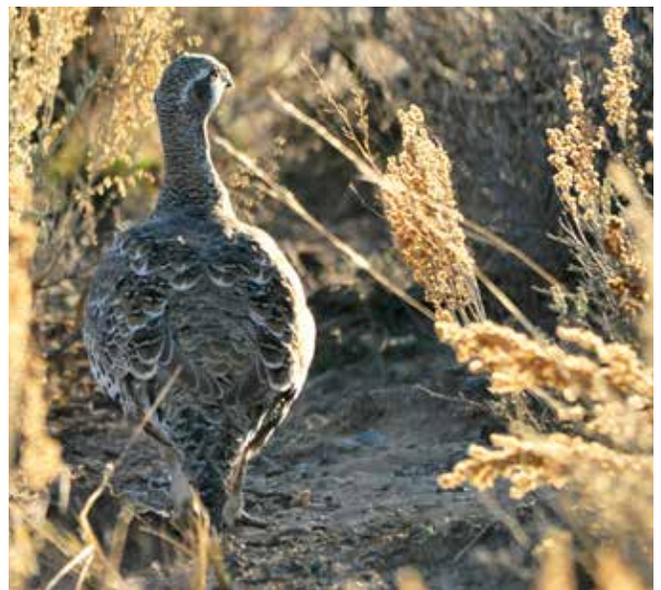
Aerial seeding was used in areas inaccessible to mechanical treatments, covered 60,500 acres, and was completed in January 2016

Aerial seeding of grasses helped:

- protect Cultural sites
- prevent erosion
- enhance forage in HMAs
- deter expansion of cheat grass
- sustain riparian areas

Aerial seeding of shrubs and forbs included a general mix and a sage-grouse-preferred mix.

Bitterbrush and sagebrush were also aerially seeded.





*Results from the November 2015 Drill Seeding at Stop 2, May 2016.*



*About 2,000 monitoring points on BLM were established to gather information on the overlapping treatments.*

## *ESR Treatments, Monitoring and Partnerships*

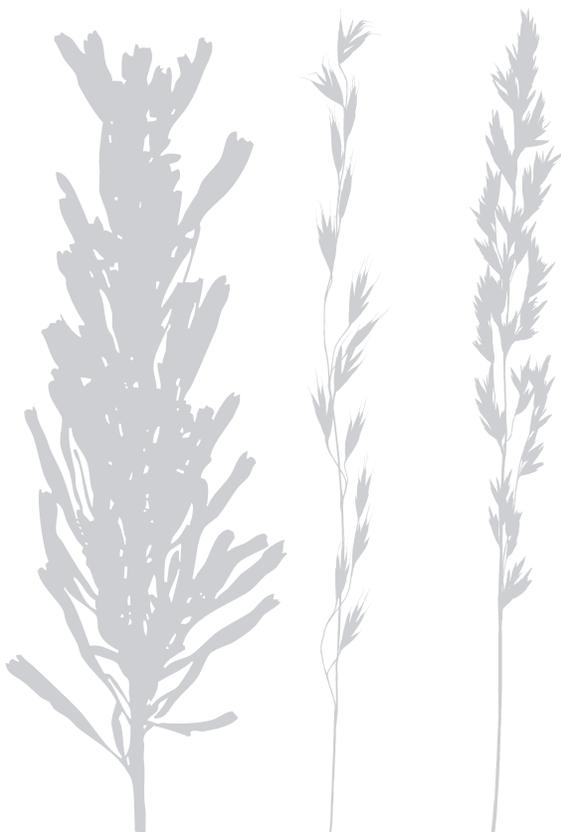
### TREATMENTS

Drill seeding was used in areas with high wind erodability and to control cheatgrass by inter-seeding among existing vegetation.

BLM drill seeded 15,000 acres of public land (2,000 acres of native grasses and 13,000 acres of non-native grasses) and 2,500 acres of state land (200 acres of native grasses and 2,300 acres of non-native grasses) for a total of 17,500 acres. This represents just over 6% of the total burned area.

This area was also part of the aerial seeding described in Stop 1.

An aerial herbicide application, imazapic, was used to suppress annual invasive grass (ie. cheatgrass and medusahead) germination to encourage native plant release and seed bed preparation on 27,000 acres (almost 10% of the burned area).



### MONITORING

The monitoring component of the Soda ESR may be a model for similar ESR and restoration work going forward. Approximately 2,000 monitoring points on BLM will be evaluated to gather information on the numerous overlapping treatments. Working with the Soda Fire Partners, livestock grazing resumption objectives were developed.

A shared vision for treatment of the landscape with partner federal agencies exists. Partner agencies are critical in developing and reviewing treatment proposals on BLM lands as well as being a mechanism for promoting similar treatments on adjacent lands managed by other agencies or private land owners.

Working with our partners, we developed a process to evaluate treatment needs across 280,000 acres with varying potential. This involved prioritizing landscape in to zones.

### RE-TREATMENT

New directives extends ESR re-treatment to five years. Treatment failures will occur based on past experience and this plan integrates re-adjustment to treatments and re-treatments to areas as necessary.



U.S. Department of the Interior  
Bureau of Land Management  
Owyhee Field Office  
20 First Avenue West  
Marsing, ID 83639  
208-896-5912

