

SPRUCE MOUNTAIN RESTORATION

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Spruce Mountain Restoration

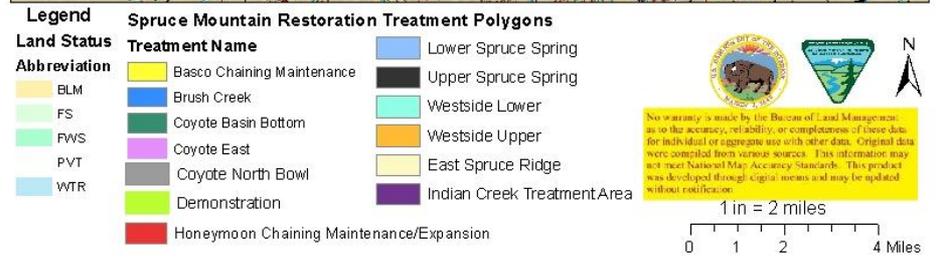
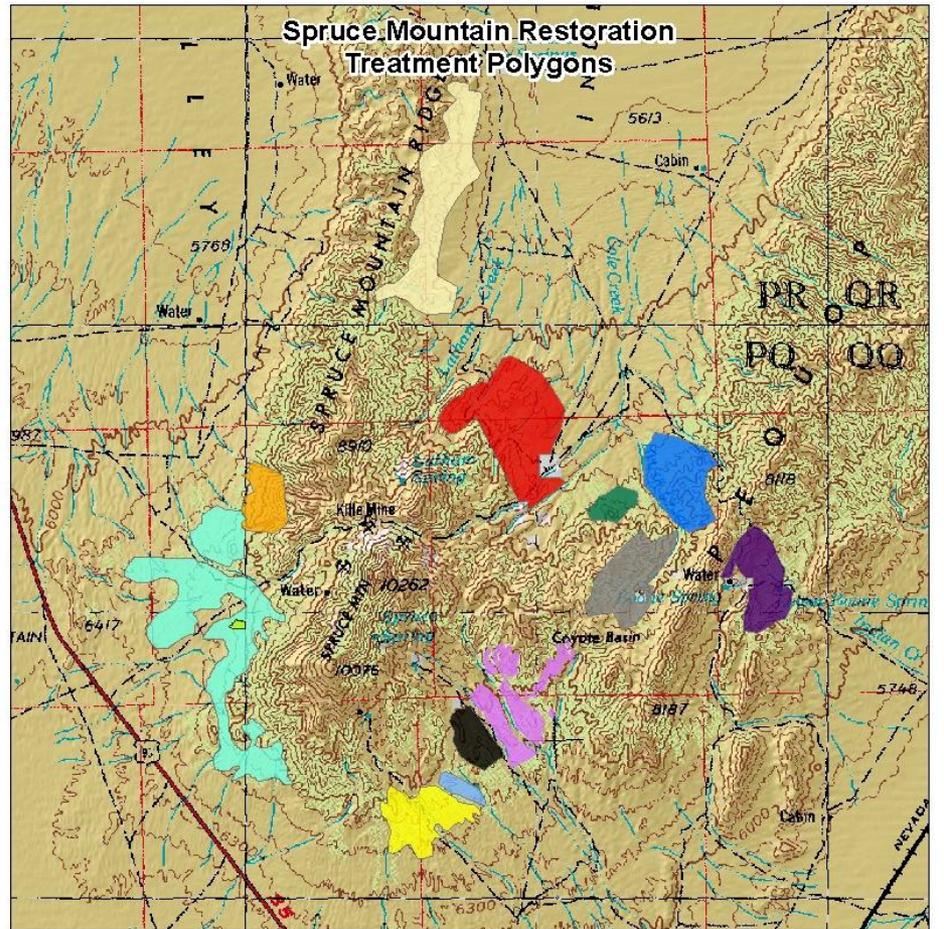
- ❖ Pinyon-juniper woodlands have tripled in last 150 years.
- ❖ Conversion of sagebrush and bunch grass communities to pinyon-juniper woodlands.
- ❖ Over stocked sites at risk of large-scale, stand replacing fire.
- ❖ Few disturbances within the Spruce Allotment.
- ❖ Decrease in habitat quality.

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- ❖ The Purpose of the Spruce Mountain Restoration Project is to:
 - ❖ Reduce the expansion of pinyon-juniper woodlands and promote healthy forests by removing stressed and diseased trees.
 - ❖ Reduce hazardous fuels to reduce the threat of a large-scale wildland fire.
 - ❖ Restore and maintain healthy rangelands and wildlife habitat.
 - ❖ Protect historic pinyon-juniper woodlands.
 - ❖ Reduce the amount of invasive weeds throughout the project area.
 - ❖ Restore previous wildfire damaged areas with desired vegetation.
 - ❖ Protect treatment areas from livestock grazing to allow for establishment and for treatment success on case by case basis.
 - ❖ Protect cultural resources within the project area.
- ❖ The Need for Action is to:
 - ❖ Reverse expansion of pinyon-juniper woodlands because of the negative effects on wildlife habitat quality.
 - ❖ Prevent large-scale wildland fire resulting from the buildup of fuels and the conversion of fuel type based on prediction from historic assessments.
 - ❖ Improve species composition and diversity.
 - ❖ Reverse the decreasing quality of wildlife habitat and forage due to damage from wildfires.
 - ❖ Prevent the establishment and expansion of invasive non-native species.

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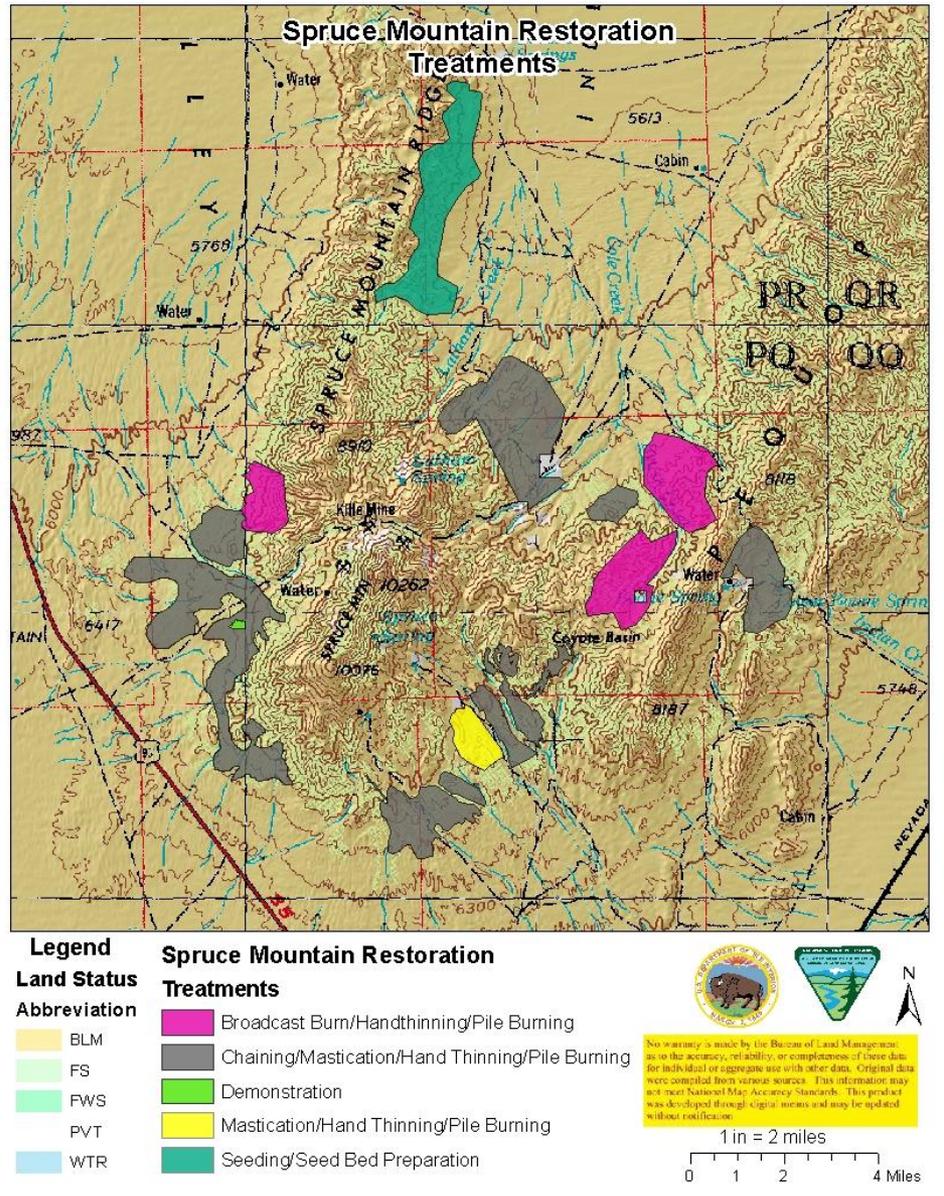
- ❖ Consists of 12 treatment units.
- ❖ 18,000 acres analyzed under the Spruce Mountain Restoration Environmental Assessment.
- ❖ The BLM is proposing to treat only 10,000 acres of the 18,000 acres analyzed.
- ❖ Polygons were developed by BLM and Nevada Department of Wildlife Specialists.
- ❖ Predominantly pinyon-juniper woodlands.



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Treatments Methods Analyzed:

- ❖ Prescribed fire including broadcast burning and pile burning.
- ❖ Management of wildland fire.
- ❖ Hand thinning including green wood cutting areas.
- ❖ Mechanized equipment including chaining and mastication.
- ❖ Seeding including broadcast, drill and aerial seeding of native and non-native species.
- ❖ Herbicide application to control invasive non-native species.
- ❖ Seed bed preparation including disking and/or harrowing.
- ❖ Fence construction.



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Prescribed Fire:

- ❖ Broadcast burning treatments are located in areas where slope is the limiting factor for mechanical treatments and creating openings in the vast overstocked pinyon-juniper woodlands has been identified as a priority.
- ❖ Prescribed fire would reduce hazardous fuels loading on project site as well as assist in preparation of the site for seeding.

Management of Wildland Fire:

- ❖ Natural ignitions within the project areas could be managed to achieve desired resource objectives if the environmental conditions allow for attainment of those objectives.



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Chaining:

- ❖ Areas will be recommended for chaining when the site has been identified to have an inadequate desired understory vegetation and competition is high among overstocked woodlands. Site evaluations will decide if local seed source is present or if seeding would be completed in coordination with this treatment. Chaining treatments would be limited by slope; rule of thumb for chaining operations has been identified as slopes of 30% or less.

Mastication:

- ❖ Mastication sites would be determined based on site evaluations. Sites with sufficient desired understory vegetation and little to no seeding are recommended for mastication.



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Hand thinning:

- ❖ This treatment would include hand thinning methods using chainsaws. Selective cutting may occur in specific areas and may include a single tree to several acres of trees. Selective cutting may include dead, diseased, or healthy trees depending on site evaluation and treatment objectives. It may be necessary to cut healthy trees where there are no dead or diseased trees to meet resource objectives. Cut trees may be removed, chipped, lopped and scattered, or piled and burned, based on site evaluation and objectives.



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Herbicide Application:

- ❖ A combination of:
 - ❖ Imazapic
 - ❖ Glyphosate
 - ❖ 2-4-D
 - ❖ Dicamba
- ❖ Application methods include:
 - ❖ Ground Application (including the use of All Terrain Vehicle, Vehicle, and Tractor Mounted Units).
 - ❖ Aerial Application (including fixed-wing and helicopters).



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Seeding:

- ❖ All treatments described throughout the proposed action could have seeding applied. Seeding would occur on disturbed sites when it has been determined that native perennial vegetation response and on-site seed source would be inadequate. Additionally, where portions of the Spruce Allotment have experienced past wildland fires and vegetation has not responded as desired vegetation, seeding may also be needed. Seed mixes would primarily be of native species; however, in some cases non-native species may be applied to meet site objectives.
 - ❖ Broadcast and Drag.
 - ❖ Drill.
 - ❖ Aerial Broadcast.
 - ❖ Harrow.
 - ❖ Disking.
 - ❖ Hand Planting of Seedlings.



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Vegetation Treatment Protection:

- ❖ The BLM is also proposing to construct livestock and wild horse protection fences around treatment boundaries. These protective fences would be on an as needed basis to allow for vegetation to successfully establish.
- ❖ Treatment areas may be closed to livestock and wild horse grazing in order to allow the vegetation to successfully establish. The closure would occur through a minimum of two growing seasons or until establishment objectives are met.

Maintenance:

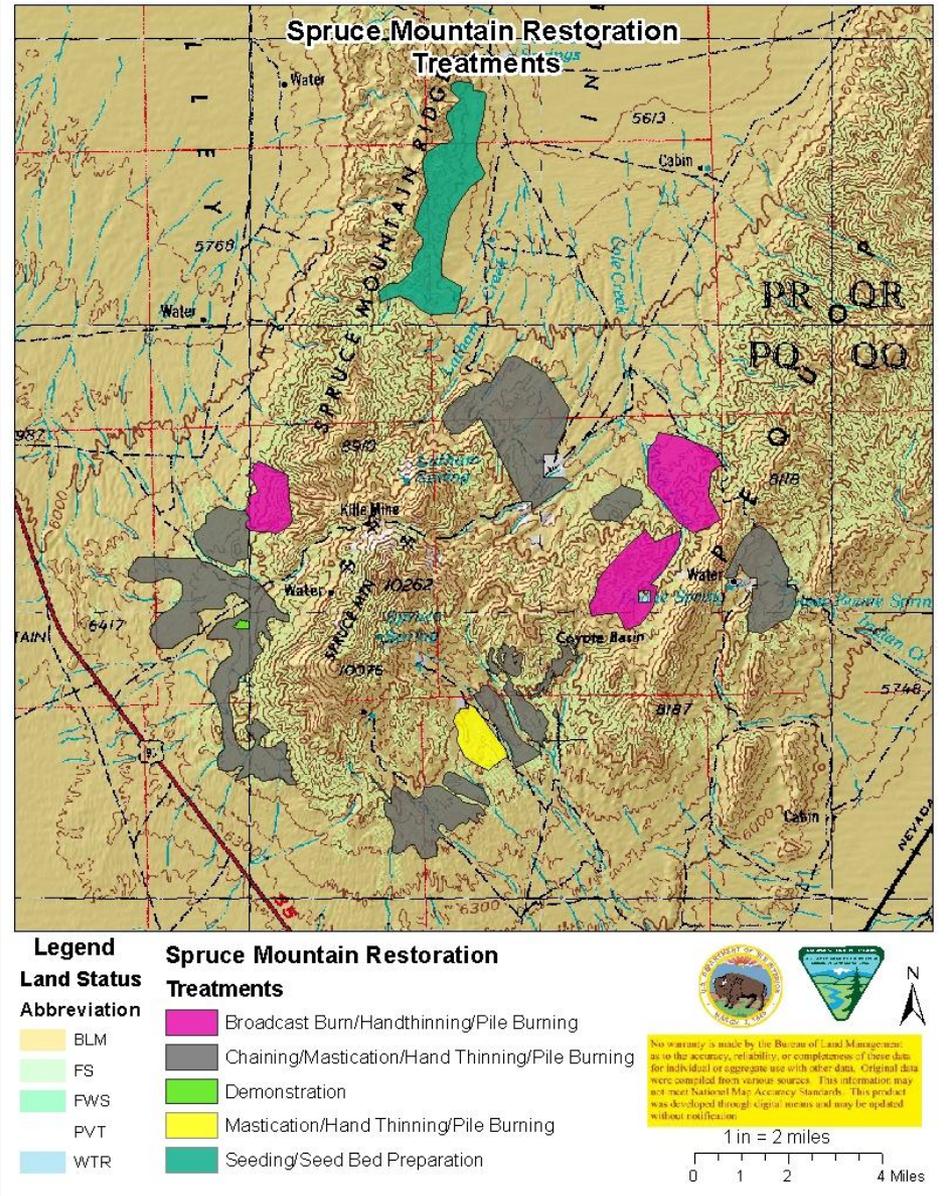
- ❖ The BLM is proposing to maintain the above treatments so that original objectives may be met or continue to be met. Objectives for above treatments would be based on agency specific objectives and resource benefits.



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Alternatives:

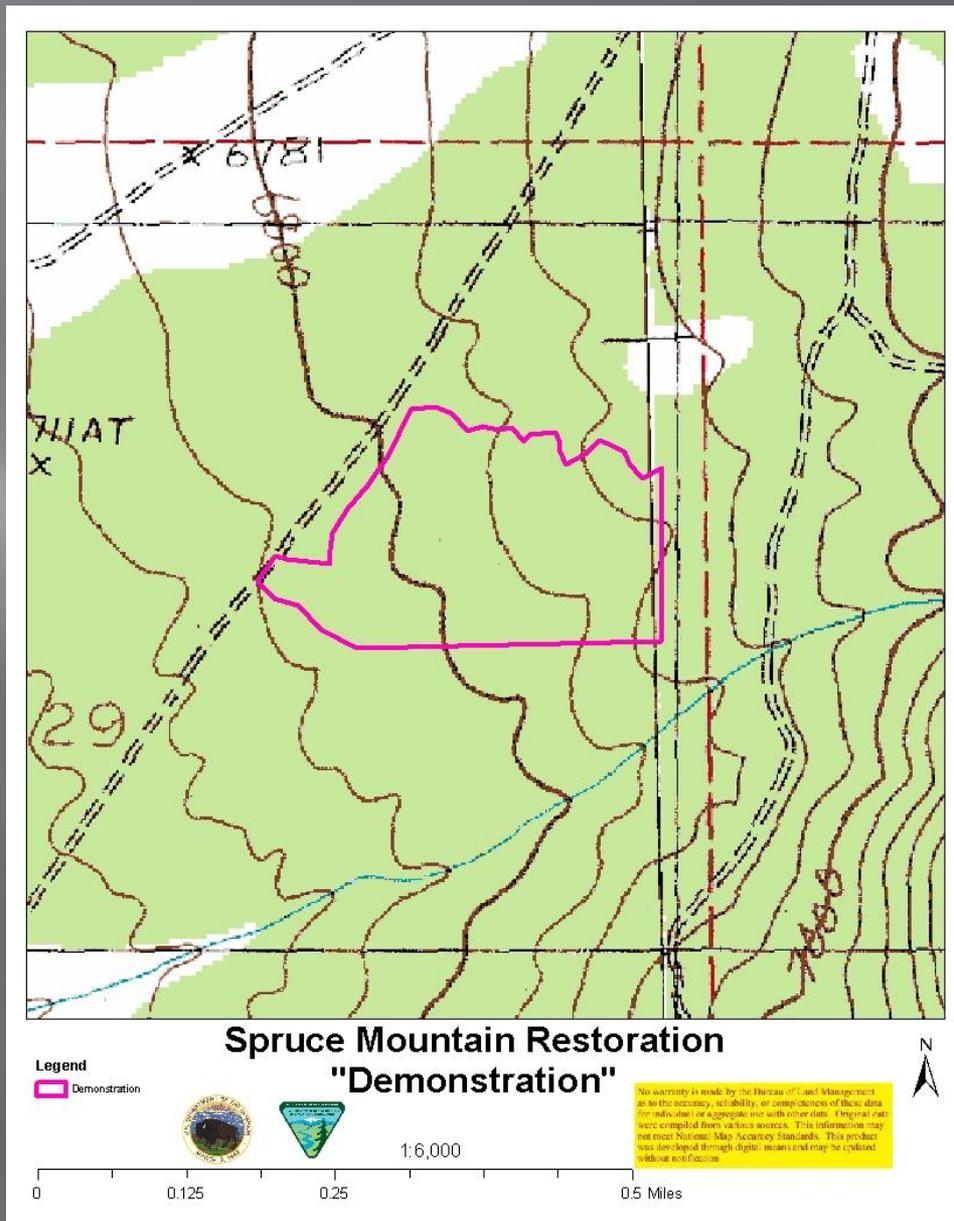
- ❖ Alternative A (Proposed Action).
 - ❖ All treatments described earlier.
- ❖ Alternative B.
 - ❖ All treatments described earlier without the use of broadcast burning and management of wildland fire.
- ❖ Alternative C.
 - ❖ All treatments described earlier without the use of chaining.
- ❖ Alternative D.
 - ❖ All treatments described earlier with out the use of herbicides to control and/or reduce cheatgrass and halogeton throughout the project area.
- ❖ No Action Alternative.
 - ❖ Restoration project would not be completed and there would be no human caused direct changes to the current conditions.



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Demonstration Plot.

- ❖ In the early 1980's a clear cutting project was completed on 31 acres.
- ❖ All pinyon and juniper were removed from the site.
- ❖ Seed was applied to the site via hand broadcast seeding methods.
- ❖ No herbicides or grazing closures were applied to the treated area.



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2011 Inside of Demonstration Plot



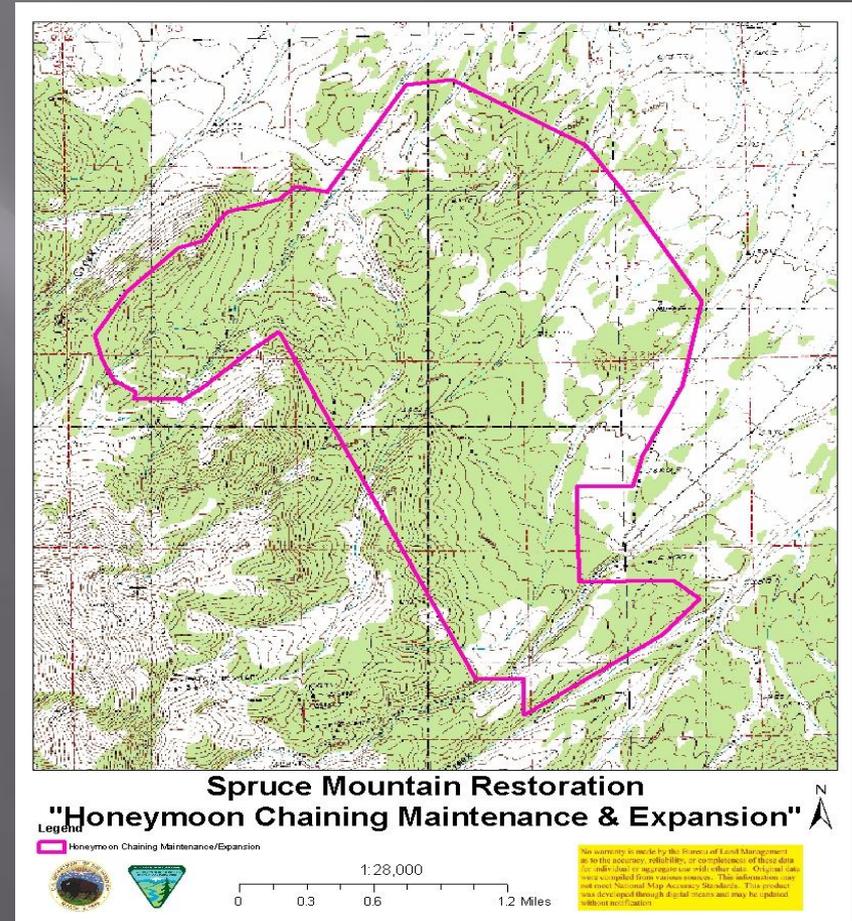
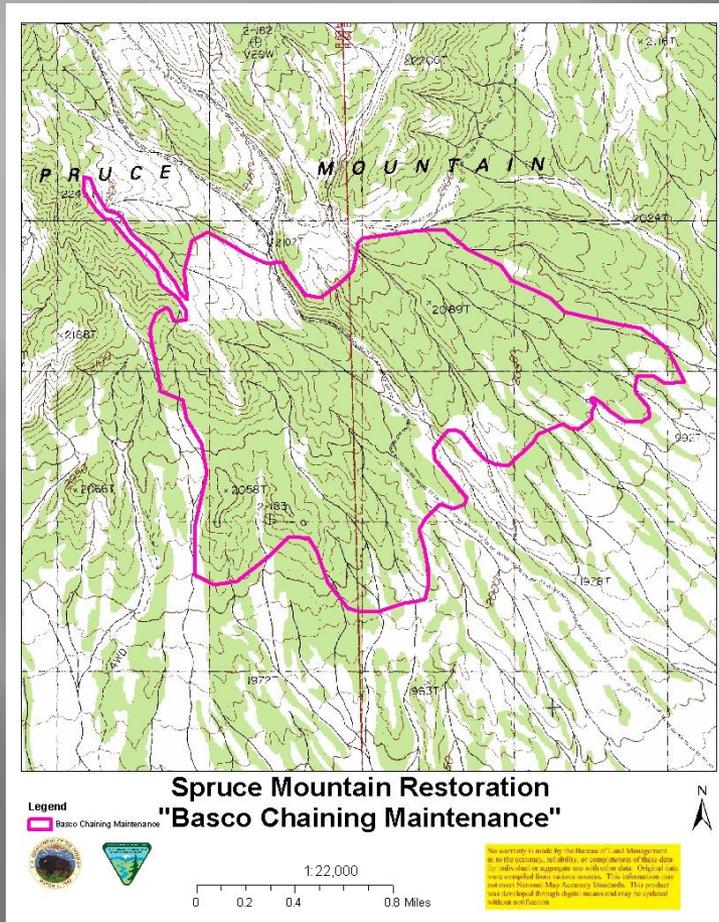
2011 Outside of Demonstration Plot



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Maintenance to Existing Chainings:

- ❖ Basco and Honeymoon chainings.
- ❖ Basco Completed in 1960's.
- ❖ Honeymoon completed in 1970.



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Basco Chaining 2011



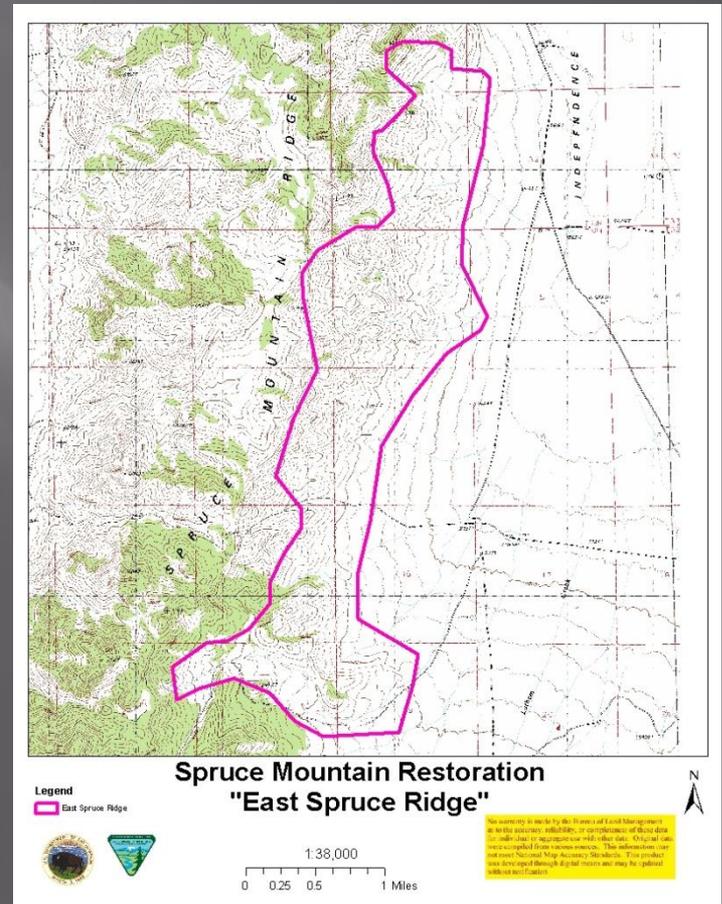
Honeymoon Chaining 2011



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East Spruce Ridge Polygon:

This treatment area is approximately 2,700 acres in size. This area has been impacted by the 2006 Nine Mile Fire and a previous unrecorded fire. The impacts by these previous fires has left this area with very little ground cover. Lower elevations of these fires have responded with crested wheatgrass (*Agropyron cristatum*) that was seeded years prior to fires occurring; however, much of the upper elevations are negatively impacted by cheatgrass.



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Conclusion:

Copies of the Spruce Mountain
Restoration Project EA can be
found at

<http://on.doi.gov/elkoBLM>

Comments for the Spruce
Mountain Restoration Project EA .

Can be mailed to

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Or emailed to:

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Thank you.

Any Questions?