

# **RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS**

## Overland Pass Habitat Restoration Project

### **White Pine and Elko Counties, Nevada**

#### **Proposed Action**

The proposed action is to conduct various vegetation treatments over ten treatment units within the Overland Pass area. Areas targeted for treatment are sagebrush sites where pinyon pine (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*) have become established. These treatment areas have departed from the historic range of variability as described in biophysical setting models for each vegetation type. Treatments would be designed to meet the purpose and need of improving mule deer and sage-grouse habitat and improving vegetation diversity. Most treatment areas occur along the south foothills of the Ruby Mountain Range. Treatments would consist of chaining, mastication, hand thinning, prescribed fire, and possible mechanical thinning (i.e., feller buncher). Riparian restoration is also proposed for the Cracker Johnson Spring #2. Specific treatment details are described further below. The total Project Area is approximately 45,220 acres, with the proposed treatment units totaling 18,570 acres. Within the treatment units, approximately 70 to 80 percent of the acreage (13,000 to 14,850 acres) would receive treatment. Areas outside of the treatment units but within the Project Area may receive a hand-thinning treatment to reduce pinyon and juniper trees in sagebrush communities exhibiting Phase I woodland development.

Selecting the appropriate treatment to be applied would involve consideration of the vegetation composition, soils, slope, aspect, elevation, and the current successional and hydrologic state of the sites. In addition to the site conditions, it is equally important to determine how the management unit fits into the overall landscape mosaic, including, but not limited to wildlife habitat values, potential for wildfire, and other existing land use objectives.

Each proposed treatment is further described below including areas in which the treatment would likely be used, to be determined through adaptive management.

Adaptive management, as defined by the Natural Resource Council whose definition was adopted by the Department of Interior, is a decision making process that promotes flexible decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps adjust policies or operations as part of an iterative learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. It is not a 'trial and error' process, but rather emphasizes learning while doing. Adaptive management does not represent an end in itself, but rather a means to [achieve] more effective decisions and enhanced benefits. Its true measure is in how well it helps meet environmental, social, and economic goals, increases scientific knowledge, and reduces tensions among stakeholders.

Given the potentially longer time scale of this project and the need to be flexible in how treatments are applied in given areas, adaptive management would be used for implementation of the Overland Pass/Big Wash Project. Information gained from similar treatments in the vicinity, and from treatments implemented on this project would be utilized to determine if an alternative treatment should be implemented in the treatment units.

### **Treatment Descriptions**

The principal tree treatment methods under consideration for the Project include chaining, mastication, mulching, whole tree thinning, prescribed fire, hand thinning (both lop and scatter and cut and pile), invasive species suppression and greenwood harvest. The treatment descriptions are described in the Overland Pass EA, Section 2.3.1. Design features and restrictions that would be followed are listed in the Overland Pass EA, Section 2.3.3

Maintenance of treatments may be required in the future to maintain desired vegetative conditions. Maintenance of previously treated areas may be implemented if the treatment unit and/or the watershed is departing, as indicated through monitoring, from the respective objectives listed. Any maintenance treatments would be held to the same design features listed and described in Section 2.3.2.

### **No Action Alternative**

The No Action Alternative is the current management situation. Under the No Action Alternative, there would be no treatments implemented within the proposed project areas.

### **Risk Assessment**

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. The following species are found within the project area:

<i>Centaurea steobes</i>	Spotted knapweed
<i>Carduus nutans</i>	Musk thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Hyoscyamus niger</i>	Black henbane
<i>Lepidium draba</i>	Hoary cress
<i>Euphorbia esula</i>	Leafy Spurge
<i>Acroptilon repens</i>	Russian knapweed
<i>Conium maculatum</i>	Poison hemlock

The following species along with the above species are found along roads and drainages leading to the area:

<i>Centaurea steobes</i>	Spotted Knapweed
<i>Acroptilon repens</i>	Russian Knapweed

<i>Carduus nutans</i>	Musk thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Lepidium draba</i>	Hoary cress
<i>Hyoscyamus niger</i>	Black henbane

It is also likely that cheatgrass (*Bromus tectorum*), halogeton (*Halogeton glomeratus*), and Russian thistle (*Salsola kali*) are scattered along roads in the area. The area was last inventoried for noxious weeds from 2004 through 2008.

**Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.**

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the overall factor rates as Moderate (5) at the present time. This project has a range of ratings for this factor depending on the treatment method selected. The hand removal method and allowing the public access to the area to retrieve fuel wood has a Low (3) rating due to the minimal amount of ground disturbance associated with those treatments and activities. The fencing of the riparian area has a Moderate (5) rating due to the amount of ground disturbance from installing a pipeline and the presence of weeds within the project area. The chaining, mastication and prescribed burn methods have a Moderate (6) rating due to the ground disturbing activities and the removal of existing vegetation, in conjunction with the lack of the perennial herbaceous understory that many of these sites currently exhibit, may provide open sites for the weed infestations that already exist within or adjacent to the treatment areas to spread into these areas. Cheatgrass could easily invade the burned and mechanically treated areas, particularly those sites that have a limited shrub and herbaceous understory and seed bank. Seeding the treated sites, and possible invasive species suppression would greatly reduce the chance of invasive/noxious species becoming established.

Treatment of thistles, leafy spurge and hoary cress within the project area will minimize spread. Also since there are very few occurrences of black henbane and spotted knapweed currently documented, early detection and rapid response to control these two species will benefit the project. Also, due to the amount of riparian areas near the project area early detection and treatment of Canada thistle and further spread of the hoary cress is essential.

**Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.**

Low to Nonexistent (1-3)	None. No cumulative effects expected.
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Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as Moderate (6) at the present time. Since the treatment areas are relatively free of weeds, the establishment of new infestations within the treatment areas could adversely impact those native plant communities. An increase of cheatgrass could greatly alter the fire regime in these areas and degrade wildlife habitat. The proposed action is designed to improve the native plant communities with an extensive weed prevention and treatment process and seeding native vegetation in the treated areas which would help prevent the expansion or establishment of invasive/noxious weeds. Further treatment to suppress invasive species would also reduce potential for invasive species establishment.

**The Risk Rating is obtained by multiplying Factor 1 by Factor 2.**

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (30). This indicates that the project can proceed as planned as long as the following measures are followed:

- Prior to entering public lands, the contractor will provide information and training regarding noxious weed management and identification to all personnel who will be affiliated with the implementation and maintenance phases of the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.
- To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes all vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. All such vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project area. Cleaning efforts will concentrate on tracks, feet and tires, and on the undercarriage. Special emphasis will be applied to axels, frames, cross members, motor mounts, on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles. Cleaning sites will be recorded using global

positioning systems or other mutually acceptable equipment and provided to the District Weed Coordinator or designated contact person.

- Reclamation would normally be accomplished with native seeds only. These would be representative of the indigenous species present in the adjacent habitat. Rationale for potential seeding with selected nonnative species would be documented. Possible exceptions would include use of non-native species for a temporary cover crop to out-compete weeds. Where large acreages are burned by fires and seeding is required for erosion control, all native species could be cost prohibitive and/or unavailable.
- Determine seed mixes on a site specific basis dependant on the probability of successful establishment. Use native and adapted species that compete with annual invasive species or meet other objectives.
- Certify that all interim and final seed mixes, hay, straw, and hay/straw products are free of plant species listed on the Nevada noxious weed list.
- Monitoring will be conducted for a period no shorter than the life of the project and monitoring reports will be provided to the Ely District Office. If the presence and/or spread of noxious weeds are noted, appropriated weed control procedures will be determined in consultation with Ely District Office personnel and will be in compliance with the appropriate BLM Handbook sections and applicable laws and regulations. All weed control efforts on BLM-administered lands will be in compliance with BLM Handbook H-9011, H-9011-1 Chemical Pest Control, H-9014 Use of Biological Control Agents of Pests on Public Lands, and H-9015 Integrated Pest Management. Submission of Pesticide Use Proposals and Pesticide Application Records will be required.
- Conduct mixing of herbicides and rinsing of herbicide containers and spray equipment only in areas that are a safe distance from environmentally sensitive areas and points of entry to bodies of water (storm drains, irrigation ditches, streams, lakes, or wells).
- When managing in areas of special status species, carefully consider the impacts of the treatment on such species. Wherever possible, hand spraying of herbicides is preferred over other methods.
- Do not conduct noxious and invasive weed control within 0.5 mile of nesting and brood rearing areas for special status species during the nesting and brood rearing season.
- All applications of approved pesticides will be conducted only by certified pesticide applicators or by personnel under the direct supervision of a certified applicator.
- Prior to commencing any chemical control program, and on a daily basis for the duration of the project, the certified applicator will provide a suitable safety briefing to all personnel working with or in the vicinity of the herbicide application. This briefing will include safe handling, spill prevention, cleanup, and first aid procedures.
- Store all pesticides in areas where access can be controlled to prevent unauthorized/untrained people from gaining access to chemicals.
- Do not apply pesticides within 440 yards (0.25 mile) of residences without prior notification of the resident.
- Areas treated with pesticides will be adequately posted to notify the public of the activity and of safe re-entry dates, if a public notification requirement is specified on

the label of the product applied. The public notice signs will be at least 8 ½" x 11" in  
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size and will contain the date of application and the date of safe re-entry.

