

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

2015 Lincoln County Partners Non-Motorized Multiuse Trails Lincoln County, Nevada

On October 1, 2015 a Noxious & Invasive Weed Risk Assessment was completed for the 2015 Lincoln County Partners Non-Motorized Multiuse Trails project in Lincoln County, NV. The BLM is proposing to construct, operate, and maintain 25-30 miles of non-motorized, multipurpose singletrack trail and a trailhead on public lands near Caliente, NV. This would be Phase 1 of a 3 year plan intended to connect users to the same kind of singletrack trails in Kershaw Ryan State Park, the City of Caliente lands, and possibly beyond to the neighboring communities of Panaca and Pioch. Construction of the trailhead and associated facilities in Barnes Canyon would be completed on a seasonal timeline to mitigate potential impacts on nesting birds, grazing, and other wildlife. Construction of the trails would be completed using a combination of mechanized and hand-built techniques depending on the proposed difficulty of each trail and terrain through which the trails traverse. Trail construction would be guided by the Trail Solutions: IMBA's Guide to Building Sweet Singletrack document and follow the Principles of Sustainable Trails by implementing "The Five Essential Elements of Sustainable Trails" (Trail Solutions, 2004). The single-track sections of the trail have been designed to contour hillsides at an average grade of less than 10%, and the grade never exceeds 15%. International Mountain Biking Association (IMBA) design standards recommend the average trail grade of 10% or less is most sustainable. Constructed single-track trail would be a full bench design with a tread width of 18-24 inches. The trails would be outsloped at 3-5% and have constant rolling grade dips and knicks that allow water to sheet across rather than channel down the trails.

No field weed surveys were completed for this project. Instead, the Ely District weed inventory data was consulted. This area was last inventoried and treated in 2014. There are currently no mapped weed infestations along the proposed trail routes. The following noxious and non-native, invasive species are documented within the project area:

<i>Acrotilon repens</i>	Russian knapweed
<i>Ailanthus altissima</i>	Tree of heaven
<i>Centaurea stoebe</i>	Spotted knapweed
<i>Cicuta maculata</i>	Water hemlock
<i>Cirsium vulgare</i>	Bull thistle
<i>Conium maculatum</i>	Poison hemlock
<i>Lepidium draba</i>	Hoary cress
<i>Lepidium latifolium</i>	Tall whitetop
<i>Linaria dalmatica</i>	Dalmatian toadflax
<i>Onopordum acanthium</i>	Scotch thistle

<i>Robinia pseudoacacia</i>	Black locust
<i>Tamarix spp.</i>	Salt cedar
<i>Tribulus terrestris</i>	Puncturevine

The following non-native invasive weeds probably occur along or near portions of the proposed trail routes: red brome (*Bromus rubens*), cheatgrass (*Bromus tectorum*), Russian olive (*Elaeagnus angustifolia*), Russian thistle (*Salsola kali*), halogeton (*Halogeton glomeratus*), and tumble mustard (*Sisymbrium altissimum*). The different areas surrounding the project area were last inventoried in 2007, 2008, and 2014.

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 factor rates as High (8) at the present time. The trails will be constructed using a combination of mechanized and hand building techniques. Construction will result in the disturbance of an 18-36 inch wide linear stretch of ground, however the use of machines to construct the trailhead and easier grade trails will increase the chances of spreading noxious/invasive weeds. It is anticipated that the trails will attract a certain amount of tourism use which could also increase the chances of spreading noxious/invasive seeds from hiking boots and bicycle tires. Outreach and interpretation at the trailheads will be implemented as a measure to mitigate against the spread of weeds.

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

Low to Nonexistent (1-3)	None. No cumulative effects expected.
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. While there are no inventoried noxious/invasive weeds along the designated trail corridors, it is likely that there are some current areas of infestation. However, there is limited cattle grazing in the project area and little disturbance is expected after the trails are constructed. Though there is the potential that weeds may spread during trail maintenance and monitoring, much of the Weeds that occur in the surrounding area are generally more mesic species and become

limited outside of riparian area. While this greatly reduces the likelihood of these weeds becoming established along the trail system, there is still potential for some species to become established. Dalmatian toadflax, bull thistle, scotch thistle, and knapweeds all have the potential to become established in the proposed use areas.

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 (48). This indicates that the project can proceed as planned as long as the following measures are followed:

- Develop a weeds education program to be integrated in to the project. This may include interpretive signage, educational brochures, and other weed related materials that may be located at trailheads and at key points along the trail.
- Continue to use integrated weed management to treat weed infestations and use principles of integrated pest management to meet management objectives and to reestablish resistant and resilient native vegetation communities.
- Develop weed management plans that address weed vectors, minimize the movement of weeds within public lands, consider disturbance regimes, and address existing weed infestations.
- When manual weed control is conducted, remove the cut weeds and weed parts and dispose of them in a manner designed to kill seeds and weed parts.
- All straw, hay, straw/hay, or other organic products used for reclamation or stabilization activities, must be certified that all materials are free of plant species listed on the Nevada noxious weed list or specifically identified by the Ely District Office.
- Where appropriate, inspect source sites such as borrow pits, fill sources, or gravel pits used to supply inorganic materials used for construction, maintenance, or reclamation to ensure they are free of plant species listed on the Nevada noxious weed list or specifically identified by the Ely District Office. Inspections will be conducted by a weed scientist of qualified biologist.
- Where appropriate, vehicles and heavy equipment used for the completion, maintenance, inspection, or monitoring of ground disturbing activities; for emergency fire suppression; or for authorized off-road driving will be free of soil and debris capable of transporting weed propagules. Vehicles and equipment will be cleaned with power or high pressure equipment prior to entering or leaving the work site or project

area. Vehicles used for emergency fire suppression will be cleaned as a part of check-in and demobilization procedures. 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 Ely District Office Weed Coordinator or designated contact person.

- To minimize the transport of soil-borne noxious weed seeds, roots, or rhizomes, infested soils or materials will not be moved and redistributed on weed-free or relatively weed-free areas. In areas where infestations are identified or noted and infested soils, rock, or overburden must be moved, these materials will be salvaged and stockpiled adjacent to the area from which they were stripped. Appropriate measures will be taken to minimize wind and water erosion of these stockpiles. During reclamation, the materials will be returned to the area from which they were stripped.
- Prior to project approval a site-specific weed survey will occur and a weed risk assessment will be completed. Monitoring will be conducted for a period no shorter than the life of the permit or until bond release and monitoring reports will be provided to the Ely District Office. If the presence and/or spread of noxious weeds is 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.
- 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.
- For soil disturbing actions which will require reclamation, salvage and stockpile all available growth medium prior to surface disturbances. Seed stockpiles if they are to be left for more than one growing season. Re-contour all disturbance areas to blend as nearly as possible with the natural topography prior to re-vegetation. Rip all compacted portions of the disturbance to an appropriate depth based on site characteristics. Establish an adequate seed bed to provide good seed-to-soil contact.
- 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).
- Keep removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g. using previously disturbed areas and existing easements, limiting equipment/materials storage and staging area sites, etc.)
- Generally, conduct reclamation with native seeds that are representative of the indigenous species present in the adjacent habitat. Document rationale for potential seeding with selected nonnative species. Possible exceptions would include use of

nonnative species for a temporary cover crop to out-compete weeds. In all cases, ensure seed mixes are approved by the BLM Authorized Officer prior to planting.

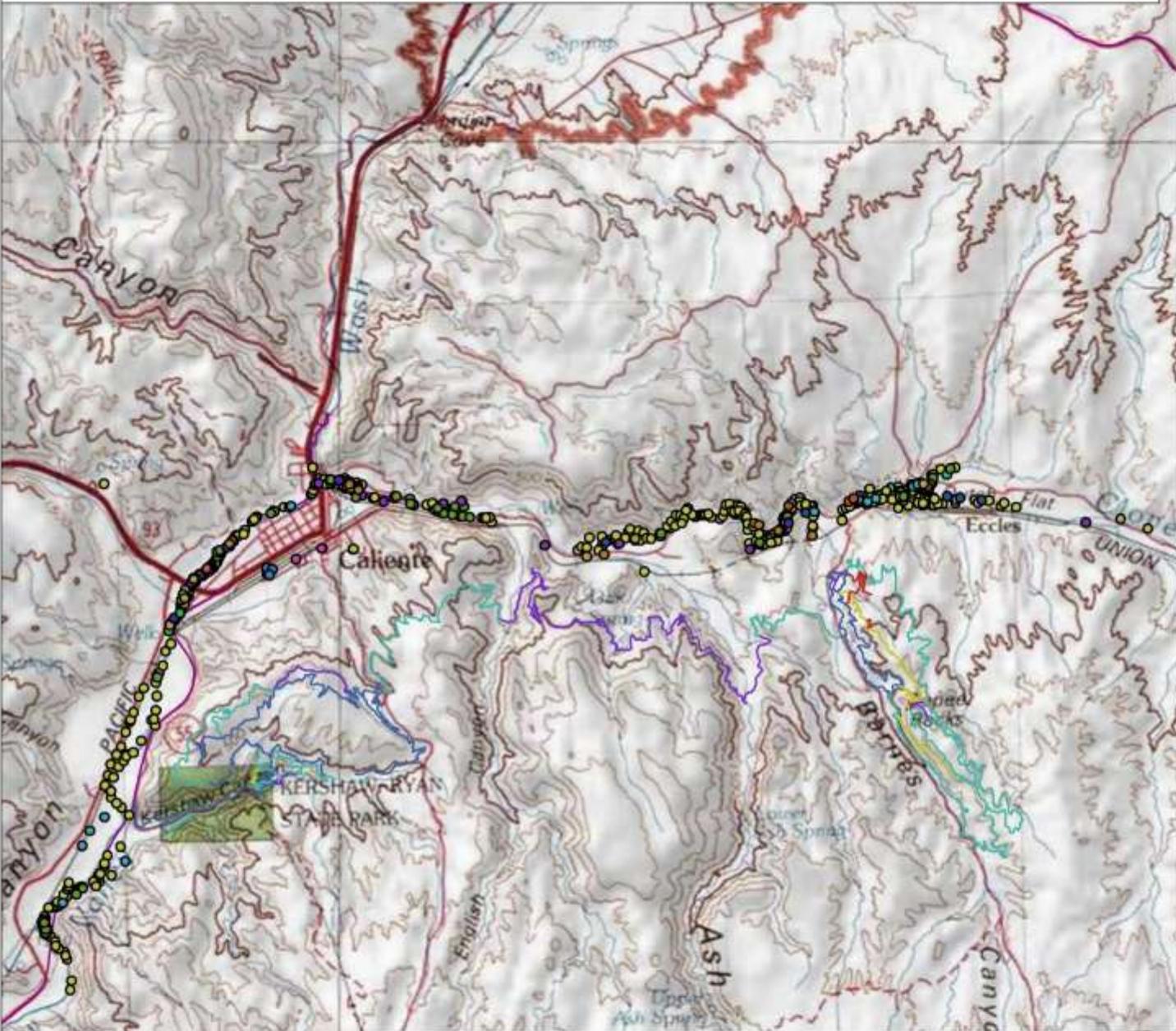
- Certify that all interim and final seed mixes, hay, straw, and hay/straw products are free of plant species listed on the Nevada noxious weed list.
- Respread weed-free vegetation removed from the right-of-way to provide protection, nutrient recycling, and seed source.
- When managing in areas of special 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.
- Do not apply pesticides within 440 yards (0.25 mile) of residences without prior notification of the resident.
- Prior to entering public lands, the contractor, operator, or permit holder will provide information and training regarding noxious weed management and identification to all personnel who will be affiliated with the implementation 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.
- Whenever possible, hand spraying of herbicides is preferred over other methods at heavily used recreation sites (i.e. campgrounds, trailheads, etc.).

Reviewed by:

Caliente Field Office Noxious & Invasive Weeds
Coordinator

Date

2015 LINCOLN COUNTY NON-MOTORIZED MULTIUSE TRAILS



species

●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●

● Draba
 ● Latifolium
 ● Acanthium
 ● Douglasii
 ● acanthium
 ● altissima
 ● draba
 ● Ramosissima
 ● latifolium
 ● maculatum
 ● pseudoacacia
 ● repens
 ● spp.
 ● vulgare

PROPOSED TRAILS

— <all other values>

Type

— Black
 — Blue
 — Green
 — Orange
 — Red

0 1 2
Miles



No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.