

Cedar Creek Anticline (CCA) EOR Development Project

Noxious Weed Management Plan

Prepared for
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1.0 INTRODUCTION

Noxious and invasive weeds can move into disturbed areas and dominate or disrupt natural communities or restoration projects. Noxious weeds compete with native species for soil, water, and other limiting resources. Noxious weeds are often able to out-compete native vegetation and can form monocultures. This degrades the value of agricultural and natural resources, including wildlife habitat. Management of noxious weeds is a reclamation requirement in the Montana Bureau of Land Management (BLM) Approved Resource Management Plan Amendments (BLM 2015). The Miles City Field Office of the BLM has zero tolerance for state-listed noxious weed species. Therefore, weed management is an important part of the reclamation procedures outlined in the Reclamation Plan for the Project.

This Programmatic Noxious Weed Management Plan for the Cedar Creek Anticline (CCA) EOR Development Project (Project) provides an overview of the noxious weed goals and standards that will be used to ensure successful treatment of noxious weeds in disturbed areas created by the Project. These standards are designed to establish the potential methodologies, monitoring, and reporting requirements for noxious weed treatment associated with this Project.

This plan is in accordance with Federal Invasive Species Executive Order 13112, which defines noxious weeds as alien, non-native, species whose introduction causes or is likely to cause economic or environmental damage or harm to human health (U.S. Federal Register 1999). In accordance with the Federal Plant Protection Act of 2000, as amended (United States Code 2001), the BLM requires that NEPA documents consider and analyze the potential for the spread of noxious weed species and provide preventative rehabilitation measures for each management action involving surface disturbance. The BLM considers plants noxious if they have been introduced into an environment where they did not evolve. In addition, a noxious weed is any plant designated by a federal, state, or county government as injurious to public health, agriculture, recreation, wildlife or property.

Each state is federally mandated to uphold the rules and regulations set forth by the Federal Plant Protection Act of 2000 and manage their lands according. Montana state legislation has passed the following eight laws that regulate the management of noxious weeds:

- Montana County Weed Control Act (Title 7, Chapter 22, Part 21);
- Montana Weed Control Act (Title 80, Chapter 7, Part 7);
- Montana Noxious Weed Trust Fund Act (Title 80, Chapter 7, Part 811);
- Montana Noxious Weed Seed Free Forage Act (Title 80, Chapter 7, Part 9);
- Montana Agriculture Seed Act (Title 80, Chapter 5, Part 1);
- Montana Environmental Policy Act (Title 75, Chapter 1); and
- Montana Nursery Act. (Title 80, Chapter 7, Part 1)

These laws were designed to complement regional, national, and international strategies in the National Invasive Species Management Plan (NISC 2008). County weed districts (CWDs) are responsible for implementing and enforcing the regulations set forth in the Montana County Weed Control Act (State of Montana 2015).

A list of the noxious weed species designated by the State of Montana, and Carter, Fallon, and Powder River counties are provided in Table 1.

Table 1. State of Montana, and Fallon, Carter, and Powder River Counties Weed List

STATE OF MONTANA NOXIOUS WEED LIST*	
<i>Effective: July 2015</i>	
Priority 1A¹	
Yellow starthistle	<i>Centaurea solstitialis</i>
Dyer's woad	<i>Isatis tinctoria</i>
Common Reed	<i>Phragmites australis</i> ssp. <i>australis</i>
Priority 1B²	
Knotweed complex	<i>Polygonum cuspidatum</i> , <i>P. sachalinense</i> , <i>P. × bohemicum</i> , <i>Fallopia japonica</i> , <i>F. sachalinensis</i> , <i>F. × bohémica</i> , <i>Reynoutria japonica</i> , <i>R. sachalinensis</i> , and <i>R. × bohémica</i>
Purple loosestrife	<i>Lythrum salicaria</i>
Rush skeletonweed	<i>Chondrilla juncea</i>
Scotch broom	<i>Cytisus scoparius</i>
Priority 2A³	
Tansy ragwort	<i>Senecio jacobaea</i> and <i>Jacobaea vulgaris</i>
Meadow hawkweed complex	<i>Hieracium caespitosum</i> , <i>H. praealtum</i> , <i>H. floridundum</i> , and <i>Pilosella caespitosa</i>
Orange hawkweed	<i>Hieracium aurantiacum</i> and <i>Pilosella aurantiaca</i>
Tall buttercup	<i>Ranunculus acris</i>
Perennial pepperweed	<i>Lepidium latifolium</i>
Yellowflag iris	<i>Iris pseudacorus</i>
Blueweed	<i>Echium vulgare</i>
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Flowering rush	<i>Butomus umbellatus</i>
Priority 2B⁴	
Hoary alyssum	<i>Berteroa incana</i>
Canada thistle	<i>Cirsium arvense</i>
Field bindweed	<i>Convolvulus arvensis</i>
Leafy spurge	<i>Euphorbia esula</i>
Whitetop	<i>Cardaria draba</i> or <i>Lepidium draba</i>
Russian knapweed	<i>Acroptilon repens</i> or <i>Rhaponticum repens</i>
Spotted knapweed	<i>Centaurea stoebe</i> and <i>C. maculosa</i>
Diffuse knapweed	<i>Centaurea diffusa</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>

STATE OF MONTANA NOXIOUS WEED LIST*	
<i>Effective: July 2015</i>	
St. Johnswort	<i>Hypericum perforatum</i>
Sulfur cinquefoil	<i>Potentilla recta</i>
Common tansy	<i>Tanacetum vulgare</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Houndstongue	<i>Cynoglossum officinale</i>
Yellow toadflax	<i>Linaria vulgaris</i>
Saltcedar	<i>Tamarix</i> spp.
Curlyleaf pondweed	<i>Potamogeton crispus</i>
Priority 3 Regulated Plants⁵	
Cheatgrass	<i>Bromus tectorum</i>
Hydrilla	<i>Hydrilla verticillata</i>
Russian olive	<i>Elaeagnus angustifolia</i>
Brazilian waterweed	<i>Egeria densa</i>
Parrot feather watermilfoil	<i>Myriophyllum aquaticum</i> and <i>M. brasiliense</i>
POWDER RIVER COUNTY – Listed Species	
Poison hemlock	<i>Conium maculatum</i>
Puncturevine	<i>Tribulus terrestris</i>
Black henbane	<i>Hyoscyamus niger</i>
CARTER COUNTY – Listed Species	
Common burdock	<i>Arctium minus</i>
Poison hemlock	<i>Conium maculatum</i>
FALLON COUNTY – Listed Species	
Common crupina	<i>Crupina vulgaris</i>

¹ Priority 1A - These weeds are not present or have a very limited presence in Montana. Management criteria will require eradication if detected, education, and prevention.

² Priority 1B - These weeds have limited presence in Montana. Management criteria will require eradication or containment and education.

³ Priority 2A - These weeds are common in isolated areas of Montana. Management criteria will require eradication or containment where less abundant. Management shall be prioritized by local weed districts.

⁴ Priority 2B - These weeds are abundant in Montana and widespread in many counties. Management criteria will require eradication or containment where less abundant. Management shall be prioritized by local weed districts.

⁵ Priority 3 Regulated Plants - These regulated plants have the potential to have significant negative impacts. The plant may not be intentionally spread or sold other than as a contaminant in agricultural products. The state recommends research, education, and prevention to minimize the spread of the regulated plant (Not Montana listed noxious weeds).

*Montana Department of Agriculture, 2015. Montana Noxious Weed List, July 2015. <http://agr.mt.gov>

1.1 PLAN PURPOSE

The purpose of the plan is to prescribe methods to prevent and control the spread of noxious weeds during and following construction of the proposed Project on federal, state, and private

lands. Denbury Resources (Denbury) and their contractors would be responsible for carrying out the methods described in this plan. This Noxious Weed Management Plan is applicable to the construction and operation of the proposed Project.

1.2 GOALS AND OBJECTIVES

The goal of weed management in the Project area is to prevent and control the spread of noxious weeds during the construction and operation of the Project. Denbury will assist federal, state, and local agencies' weed control efforts; comply with requirements designed to prevent the spread of noxious weeds; and implement noxious weed control measures on areas of the Project that are identified to be of special concern.

Success standards outlined in the Reclamation Plan will be used to assess whether revegetation requirements for the Project are being met. Part of successful revegetation includes maintaining native plant communities and a zero tolerance for noxious weed occurrences. Success standards and management goals are designed to be site-specific to each surface-disturbing activity and the surrounding vegetation. Monitoring and treatment both prior to construction and during the operational phase would ensure that these goals are achieved.

2.0 NOXIOUS WEED INVENTORY

Noxious weeds that may potentially occur in the Project area, as identified by the local Weed Districts and BLM offices, are presented in Table 1. In 2015, field biologists from SWCA Environmental Consultants (SWCA) conducted field surveys for noxious weed occurrences within the proposed Project area, in alignment with other resource surveys. The absence of recorded weeds does not infer that areas have no potential for noxious weed occurrences, but that weeds were not detected during 2015 surveys.

All noxious weed occurrences found during 2015 surveys were documented via digital field data forms using geo-referencing tablets. Additionally, Trimble Geo 7X (sub-meter accuracy) Global Positioning System (GPS) units were used to delineate noxious weed occurrences larger than 0.1-acres. Small occurrences under 0.1-acres in size were recorded as individual point features. During field surveys, occurrences of Canada thistle (*Cirsium arvense*), field bindweed (*Convolvulus arvensis*), and Russian olive (*Elaeagnus angustifolia*) were identified.

The presence, distribution, and cover of noxious and invasive weeds in the proposed Project will be assessed prior to all construction activities. Weed surveys will be conducted during the growing season to determine occurrence and abundance within the Project area. Surveys will focus on resources within areas planned for development, including access roads, extra work spaces, and transmission line corridors. Data will be collected using handheld data-logger units and geo-referenced using global positioning system (GPS) locations and delineated shapefiles. Information collected during noxious weed surveys (including species identified, locations, and extent of occurrences within the Project area) will be submitted to the Miles City Field Office and local Weed and Pest Districts. Early identification of existing infestations will help to minimize the spread of noxious weeds with the implementation of preventative measures.

2.1 CANADA THISTLE

Sixty-three occurrences of Canada thistle were identified during the 2015 surveys (Attachment A). All occurrences were found in association with streams, wetlands, ponds, or depressions holding ephemeral hydrology. Sixty-two of these occurrences were isolated patches covering less than 0.1 acre. Two larger occurrences were mapped on Sandstone Creek in the northwest of the project area. The first of these populations was 0.4 acre in size, while the second covered 0.3 acre.

2.2 FIELD BINDWEED

Nine occurrences of field bindweed were identified during the 2015 surveys (Attachment A). Occurrences were generally found in association with upland grasslands and cultivated or disturbed areas. Eight of these occurrences were isolated patches covering less than 0.1 acre. One larger occurrence, approximately 0.1 acre, was mapped on the berm above an unnamed holding pond in the northwestern corner of the project area.

2.3 RUSSIAN OLIVE

Two occurrences of Russian olive were identified during the 2015 surveys (Attachment A). Both were found in association with streams and were isolated patches covering less than 0.1 acre. The first was mapped on Sandstone Creek in the northwest of the project area, while the second was mapped on Waterhole Creek in the central portion of the project area.

3.0 NOXIOUS WEED MANAGEMENT

Noxious weeds are spread by a variety of vectors, including vehicles, construction equipment, livestock, and wildlife. Invasive species management must consider the best available scientific information, updated target population monitoring information, and the effectiveness of control when selecting and implementing a range of complementary and environmentally sound technologies and methods to achieve the desired objectives (NISC 2005). Implementation of preventative measures to control the spread of noxious weeds is the most cost-effective management approach. Noxious weed controls would be implemented in each phase of project development within the construction footprints.

3.1 PREVENTATIVE MEASURES

Prevention is the most cost-effective approach to noxious and invasive weed management. Denbury will assist federal, state, and local agency noxious and invasive weed control efforts; comply with preventative requirements; and implement weed control measures on areas of the Project identified to be of special concern. The following preventative measures would be used to prevent the spread of noxious weeds where ground disturbing activities would occur during construction:

- Denbury would be responsible for the treatment and eradication of any noxious weed populations within the 100-foot-wide construction ROW, ancillary disturbance footprints, and along access roads where improvements would be made. The Fallon,

Carter, and Powder River CWDs, and affected landowners would be responsible for controlling weed infestations present outside of the aforementioned areas.

- Prior to vegetation clearing, the construction ROW and ancillary disturbance footprints would be inspected for noxious weeds by the Environmental Inspector (EI), CWPDs, or a qualified botanist. All noxious weed occurrences would be identified and documented with GPS devices for pre-treatment and post-construction monitoring purposes.
- Preventative measures on private lands would be discussed with individual landowners.
- Prior to being allowed access to the construction ROW and ancillary disturbance footprints, the EI would ensure that vehicles and equipment are free of soil and debris capable of transporting noxious weed seeds, roots, or rhizomes. Vehicles found transporting noxious weed species will not be allowed to enter the Project area.
- Chemical pre-treatment would be used prior to ground clearing activities, as appropriate. Pretreatment methods are discussed in Section 3.2 of this Plan.
- Selective vegetation clearing and soil stripping methods during reclamation would be used to minimize the transport of noxious weed seeds, rhizomes, or roots from infested areas into areas where noxious weeds are not present.
- During the reclamation phase of the proposed project, all areas disturbed by construction would be reseeded. With the exception of permanent aboveground facility footprints, all temporary disturbance areas would be reseeded with an approved seed mix within the proper growing season to ensure appropriate vegetative cover/species and further reduce the establishment of noxious weeds.
- Denbury would verify that all straw bales, mulch, matting, and seed would be certified noxious weed-free before being used on the proposed project.
- All gravel and fill material imported on-site would be source-identified by Denbury to ensure that the originating site is noxious weed-free.

3.2 TREATMENT METHODS

The four primary control categories are mechanical, biological, chemical, and cultural. An integrated approach, typically a combination of control methods, will produce the most effective results. Best management practices (BMPs), such as revegetation paired with active control to manage reoccurrences of noxious plant species (Michels et al. 2013) and continued monitoring of reestablishment of native vegetation and displacement of noxious and invasive weed species are recommended.

Methods used to reduce the spread and establishment of noxious weeds would be determined in coordination with the Fallon, Carter, and Powder River CWDs and affected landowners. Chemical treatments would be used depending on species-specific and site-specific conditions (e.g., proximity to water or wetlands and time of year), and would be coordinated with the BLM Miles City Field Office; Fallon, Carter, and Powder River CWPDs, and affected landowners.

3.2.1 Mechanical Control

Common mechanical control techniques include pulling, cutting, tilling, mowing, and chopping (Attachment B). These techniques, if done often enough, will weaken the weeds by depleting the root reserves and prevent flowering of the plants. Disadvantages of this method are the resources and labor involved the disturbance to the area being treated, and the potential for spreading seeds to other areas. Most noxious weeds are attracted to areas of disturbance, so if not done properly or in combination with other techniques, this method can make the problem worse. An example of poor use of mechanical control is mowing when plants have already seeded; this will spread the seeds. Mowing and cutting should be done multiple times during the growing season, before the plants set any seed.

3.2.2 Chemical Control

Chemical control is through the use of herbicides to either reduce or eliminate the presence of noxious weeds. The decision as to which pesticide to use is based on the target species being controlled; the stage of growth of the plant and current environmental conditions on the ground, i.e., precipitation; other sensitive species nearby; wind speed and direction; and manufacturer's specifications (Attachment B). When using herbicides, Denbury will always follow the manufacturer's recommendations on the label for use conditions and spray rates and appropriate Federal and State regulations.

Herbicide application is an effective means of reducing the size of noxious weed populations. Applications will be controlled to minimize effects on surrounding vegetation. In areas of dense infestation, a broader application will be used and a follow-up seeding program implemented. Supplemental seeding will be based on criteria outlined in the Reclamation Plan. The timing of subsequent revegetation efforts will be based on the life of the selected herbicide.

Only herbicides that are approved for use within treated lands (federal, state, or private) will be used and all herbicides will be applied in accordance with their label requirements. Sensitive areas, as described by the Project Reclamation Plan, will be treated with the using the following BMPs. If weeds targeted for herbicide treatments are found in the vicinity of sensitive areas, proper buffers established in coordination with the BLM and local agencies will be used to prevent the spread of herbicides to these areas. If weeds are found in sensitive areas, cultural and/or mechanical controls will be implemented. In areas where noxious weeds may be interspersed with native vegetation, the herbicide application method will be adapted to affect only targeted weed species to preserve and retain native plant communities.

BLM Manual 9011 (Chemical Pest Control) outlines the policies, and BLM Handbook H-9011-1 (Chemical Pest Control) outlines the procedures, for use of herbicides on public lands. An approved Pesticide Use Proposal (PUP) is required to apply chemical herbicide (Attachment B). All herbicide applications on BLM-administered public lands are required to be applied by a certified commercial applicator(s) and all herbicides used must be from the current list of herbicides approved for application on BLM-administered lands (BLM 2015).

Spot spraying applies herbicide to the foliage of weed species, avoiding contact with the surrounding foliage. Spot sprays can be applied with either backpack sprayers or by operating a handgun from a line connected to a tractor mounted sprayer. Overall broadcast spraying is done with a boom sprayer. Irregular spray applications can be avoided by the use of flagging tape, foam markers, or the use of an appropriate dye. To apply the herbicides at the recommended rate the equipment must be calibrated and in proper working order. An overall broadcast spray is recommended for treating large infestations.

The effects to special status species (see BLM Manual 6840 Special Status Species) will be considered when designing herbicide treatment programs. A selective herbicide and a wick or backpack sprayer will be used to minimize risks to special status plants. Vegetation will not be treated with herbicide during time-sensitive periods (e.g., nesting and migration, sensitive life stages) for special status species in the treatment area. Other treatment methods (i.e., cultural or mechanical treatment) will be implemented during these periods.

3.2.2.1 Pre-construction Herbicide Treatment

Prior to construction activities that disturb soil and vegetation, noxious weeds would be treated with chemical herbicides at the appropriate time dependent on the targeted species (e.g., spring, summer, or fall spraying). The uses of herbicides that break down and detoxify relatively rapidly are necessary to prevent adverse effects on germination and growth of reseeded species. Only approved, short-lived herbicides would be used for pre-treatment of noxious weeds. Only approved herbicides would be used to control noxious weeds near water, wetlands, and riparian areas.

Pre-construction treatment would be conducted prior to any clearing of vegetation to reduce the spread of noxious weeds by equipment used during clearing. The treatment method applied would vary depending on site-specific conditions and the type of species encountered. Methods used to reduce the spread and establishment of noxious weeds would be discussed with the affected landowners, the BLM, and applicable CWD.

3.2.2.2 Post-construction Herbicide Treatment

Post-construction treatment of noxious weeds, if required, would likely require use of more persistent herbicides on upland sites that are more than 100 feet from waterbodies, wetlands, or riparian areas. As discussed in Section 3.2.2, only approved herbicides would be used to control noxious weeds near waterbodies, wetlands, and riparian areas.

Supplemental seeding would be in accordance with criteria presented in the Project Reclamation Plan. The timing of subsequent revegetation efforts would be based on the life of the selected herbicide. In areas of dense infestation, a broader application may be used and a follow-up seeding program implemented.

3.2.3 Biological Control

Biological control (biocontrol) is done by the introduction of animals (usually insects), fungi, or diseases to the plant in order to either weaken it or kill it entirely. The organism used usually comes from the native range of the target species and will commonly only affect that species or sometimes members of the same family. Such is the case with thistles, where some

of the biocontrol species affect more than one species. The use of biocontrol methods will require the permission of both the state and federal authorities, usually the USDA. The intent of biocontrol is not to eradicate weed occurrences, but to reduce the density and vigor of known occurrences to manageable levels that may be controlled through the application of additional control measures, if necessary (Michels et al. 2013). Most sites occur in disturbed areas along roadsides or inundated with other noxious and invasive weed species. Revegetation of native grasses and forbs likely would be effective in preventing the reestablishment of weed species of controlled sites and provide a healthy plant community and habitat.

3.2.4 Cultural Control

To perform cultural control of invasive weeds, the habitat surrounding the area or the area of infestation itself is manipulated. This includes manipulation of vegetation canopy and structure as well as composition around an area of noxious weeds that are likely shade intolerant. Cultural control methods can also include the use of mechanical control by using a tractor to till, mow or cut, and irrigate an area to reduce the seed bank, thereby allowing for native species to be planted in an effort to outcompete the noxious weeds.

Another method is the use of grazing animals, usually goats and sheep, to control invasive weed populations. The use of other livestock can be beneficial, but cattle and horses are often poisoned by many invasive species where goats and sheep are tolerant. This method will usually need to be done repeatedly over the course of several years to be effective. Rarely will the animal eat the entire plant, most of the time; the damage is done to the rosette or the flower of the plant. As is the case with most of mechanical, biological, and cultural methods, the best results will be in combination with an appropriate chemical control program.

Prescribed fire or controlled burns can reduce invasive plant material and stimulate native species. Following local and federal regulations concerning prescribed fires, this treatment is accomplished by burning the vegetative material. The burns are done under precise weather and fuel conditions guided by local ordinances and planned and organized by trained fire crews. Burning is normally conducted in the spring or fall and can kill or severely reduce the intensity of noxious weeds.

3.3 EDUCATION

Information regarding noxious weed identification, management, and impacts on livestock, wildlife, and special status species would be provided to all project personnel. Additionally, workers would be informed on the critical importance of preventing the spread of noxious weeds in areas not infested, and controlling the proliferation of weeds already present. The importance of adhering to measures to prevent the spread of noxious weeds (e.g., use of permitted travel lanes and proposed access roads; preventive measures that control the collection of soil and plant seeds on vehicles prior to entering the proposed construction areas; and quickly identifying new infestations of noxious weeds) would be emphasized.

3.4 MONITORING

Annual post-construction vegetation monitoring would be conducted during the peak of the growing season for five years. Monitoring would be conducted within all construction disturbance areas regardless of surface ownership. All new noxious weed occurrences found during annual monitoring within areas disturbed by the proposed project would be treated, as necessary. If after three years revegetation is not successful, a remedial revegetation plan would be developed and implemented in consultation with the appropriate agencies and landowners.

Data collected during monitoring events would include the following:

- Identification of the noxious weed species present by common and scientific name;
- Location information (GPS documentation and accompanying map products);
- Extent of the infestation; results of previous control measure implemented (if any);
- Recommendations for further control (if needed).

Spatial estimates would be made for the entire population size; comparing disturbed and adjacent areas, and would include the range of species cover and density values. Consultation with the BLM Miles City Field Office and the Fallon, Carter, and Powder River CWDs will take place to determine the most appropriate control measures. All noxious weed populations would be document with GPS devices. All post-construction monitoring results would be submitted in an annual report to the appropriate agencies.

4.0 REFERENCES

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ATTACHMENT A

NOXIOUS WEED OCCURRENCES*

* The absence of recorded weeds does not infer that areas have no potential for noxious weed occurrences, but that weeds were not detected during 2015 surveys.

Common Name	Species	USDA/Plants Code	Occurrence Size (Acres)	Latitude	Longitude
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.2800	-104.1686
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.2940	-104.0739
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.2948	-104.0734
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.2955	-104.0753
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.2958	-104.2290
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.2959	-104.0745
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.2973	-104.0750
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.2975	-104.0757
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.2986	-104.0864
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3020	-104.0813
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3025	-104.0810
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3030	-104.2337
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3033	-104.0831
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3038	-104.2343
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3067	-104.0848
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3072	-104.0840
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3077	-104.0847
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3079	-104.0856
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3084	-104.0860
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3088	-104.2396
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3103	-104.0520
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3114	-104.0840
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3166	-104.0581
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3170	-104.0594
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3209	-104.1405
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3298	-104.0844
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3320	-104.1328
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3320	-104.0806
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3339	-104.0902
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3409	-104.1428
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3413	-104.1465
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3421	-104.1482
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3465	-104.2102
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3513	-104.2582
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3534	-104.2588
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3547	-104.2597
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3562	-104.2526
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3562	-104.2529
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3562	-104.2529

Common Name	Species	USDA/Plants Code	Occurrence Size (Acres)	Latitude	Longitude
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3576	-104.2578
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3690	-104.2429
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3690	-104.2429
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3695	-104.2427
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3697	-104.2407
Canada thistle	<i>Cirsium arvense</i>	CIAR4	0.3	46.3700	-104.2208
Canada thistle	<i>Cirsium arvense</i>	CIAR4	0.4	46.3715	-104.2351
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3725	-104.2450
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3743	-104.2018
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3744	-104.2055
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3767	-104.2430
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3776	-104.1406
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3812	-104.1442
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3831	-104.2124
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3833	-104.1896
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3836	-104.1897
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3864	-104.2232
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3880	-104.2260
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3887	-104.1993
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3926	-104.2484
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3930	-104.2495
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3930	-104.2501
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3946	-104.1955
Canada thistle	<i>Cirsium arvense</i>	CIAR4	<0.1	46.3987	-104.2012
Field bindweed	<i>Convolvulus arvensis</i>	COAR4	<0.1	46.2914	-104.1146
Field bindweed	<i>Convolvulus arvensis</i>	COAR4	<0.1	46.3028	-104.2336
Field bindweed	<i>Convolvulus arvensis</i>	COAR4	<0.1	46.3140	-104.0546
Field bindweed	<i>Convolvulus arvensis</i>	COAR4	<0.1	46.3418	-104.1388
Field bindweed	<i>Convolvulus arvensis</i>	COAR4	<0.1	46.3655	-104.1359
Field bindweed	<i>Convolvulus arvensis</i>	COAR4	<0.1	46.3720	-104.2532
Field bindweed	<i>Convolvulus arvensis</i>	COAR4	<0.1	46.3836	-104.1897
Field bindweed	<i>Convolvulus arvensis</i>	COAR4	<0.1	46.3887	-104.1993
Field bindweed	<i>Convolvulus arvensis</i>	COAR4	0.1	46.3895	-104.2689
Russian olive	<i>Elaeagnus angustifolia</i>	ELAN	<0.1	46.3413	-104.1465
Russian olive	<i>Elaeagnus angustifolia</i>	ELAN	<0.1	46.3715	-104.2695

ATTACHMENT B

SPECIES CONTROL OPTIONS*

*Potential control options for noxious species found during 2015 field surveys. The following information is provided as a resource only and is not intended to limit control methods.

Field bindweed

Field bindweed is a creeping, viney, deep-rooted perennial with prostrate stems that grow up to 6 feet long (Figure 1). This plant has an expansive root system (up to 20 feet deep) that assists in propagation. Stems are capable of twining around other plants or trail along the ground. The arrowhead-shaped leaves are 0.5 to 2.0 inches long and flowers are bell- or trumpet-shaped, white to pink in color, and about 1 inch long. This species flowers from June through September and a single plant is capable of producing up to 550 seeds with 90% viability (Penn State Extension College of Agricultural Sciences 2014). These seeds can remain viable in the soil for up to 40 years (CDA 2014). Field bindweed commonly invades cultivated fields, orchards, gardens, pastures, abandoned fields, and roadsides.



Figure 1. Field bindweed

Control Options

To successfully manage field bindweed, containment and persistence in controlling existing stands is necessary in order to exhaust the root system and deplete the soil seed bank. This weed needs to be continually stressed, forcing it to exhaust root nutrient stores and eventually die. Of all control methods, prevention is most important. Healthy pastures and rangeland should be maintained and the property should be continually monitored for new infestations. A healthy cover of desirable perennial plants will assist in discouraging field bindweed establishment (CDA 2014).

Mechanical Control

Cutting, mowing, or pulling has a negligible effect unless the plants are cut below the surface in the early seedling stage (CDA 2014). Well-established populations have a large seed bank in the soil that can remain viable for over 40 years.

Chemical Control

The most effective herbicide application is systematic herbicides which will be transported to the roots and kill the plant (Table 1). This can be done when the plant is in bud or early bloom stage. Contact application of herbicides will kill the top growth, but not affect the root system. If in a severe drought, do not apply the herbicides as the plant will be dormant and

translocation to the roots is negligible. Effective herbicides include: Tordon 22K, Clarity, Roundup Ultra, and 2,4-D. Ideal timing of herbicide application is May through August with some cases of early September for application of picloram and 2,4-D (CSU Extension 2014). Chemical control of field bindweed generally requires a multiple-year approach.

Table 1. Recommended Herbicides to Control Field Bindweed

Trade Name	Active Ingredient	Application Rate*	Application Timing	Notes
Tordon 22K	Picloram	1 qt/acre	Just after full-bloom and/or fall.	Restricted-use herbicide cannot be used where there is a potential for water contamination. Add non-ionic surfactant @ 0.32 oz/gal water or 1 qt/100 gal water.
Clarity + 2,4-D amine	Dicamba+ 2,4-D amine	1 qt/acre	Just after full-bloom and/or fall.	Add non-ionic surfactant @ 0.32 oz/gal water or 1 qt/100 gal water.
Roundup Ultra	Glyphosate	4-5 qts/acre	Just after full-bloom and/or fall.	Add non-ionic surfactant @ 0.32 oz/gal water or 1 qt/100 gal water.

* Rates shown are approximate; read label for exact rates. The herbicide label is the law.

Biological Control

The bindweed gall mite (*Aceria mahlerbae*) has proven to be effective in reducing field bindweed infestations and is considered an option for large infestations (CDA 2014). This microscopic mite feeds on field bindweed and other related morning glory species. Mites are released in the cooler part of the day on non-irrigated sites. If this method is effective, the leaves will fold in half or appear twisted or crumpled (CSU Extension 2014).

Cultural Control

Shading field bindweed from shrubs and trees reduces growth, especially if bindweed is not allowed to climb above the foliage of these plants. Establishment of selected native grasses (E.g. Bluebunch wheatgrass, Western wheatgrass, Indian ricegrass, and Sandberg bluegrass) can also be an effective cultural control of field bindweed as is maintaining healthy pastures and preventing bare spots caused by overgrazing. Bare ground is prime habitat for field bindweed invasions.

References

Penn State Extension, College of Agricultural Sciences. 2014. W. Thomas Lanini, extension weed specialist. 2014. Available online at www.extension.psu.edu. Accessed November 27, 2014.

Colorado Department of Agriculture (CDA). 2014. Noxious weed species. Available online at <https://www.colorado.gov/pacific/agconservation/noxious-weed-species>. Accessed December 2014.

Colorado State University (CSU) Extension. 2013. Canada thistle fact sheet. Available online at <http://www.ext.colostate.edu/pubs/natres/03108.html>. Accessed December 2014.

Canada thistle

Canada thistle is native throughout Europe and northern Asia and is a perennial broadleaf weed. Its rhizomes and roots can extend up to 17 feet horizontally and up to 20 feet deep (Figure 2). Plants can grow 2 to 5 feet high with each flower head producing roughly 50 seeds with an average stem containing roughly 12 to 14 flowers. Flowering occurs from June to October with pollination occurring primarily through wind, but insects are attracted to the scent of the flowers (Penn State Extension College of Agricultural Sciences 2014). Seeds commonly germinate beginning in late spring and continue through the fall with 86°F considered the best temperature for germination.



Figure 2. Canada thistle

Control Options

Because of its vigorous rhizomatous growth and abundant seed production, it is recommended that a combination of control methods be considered for best results. Prevention is the most important strategy. This can be achieved by maintaining healthy natural plant communities and immediately treating new infestations. Established infestations need to be continually stressed. The interruption of seed production and root propagation will weaken the plants by depleting the energy reserves in the roots. Management options become limited once plants begin to produce seeds (Colorado Department of Agriculture [CDA] 2014).

Mechanical Control

Due to Canada thistle's extensive root system, hand-pulling and tilling will create root fragments and stimulate the growth of new plants (CDA 2014). Repeated mowing will assist in weakening the plants and deplete the energy reserves stored in the roots, which will impact seed production and destroy the current year's growth. Mowing can be effective if done every 10 to 21 days throughout the growing season (CDA 2014; Penn State Extension College of Agricultural Sciences 2014). Mowing should be done early in the growing season before plants flower and set seed. Combining mowing with chemical control methods will further enhance Canada thistle control (CDA 2014).

In some instances, mowing may not be a viable control option for Canada thistle. Examples include areas that are known to be inhabited by special status species protected by the ESA. Additionally, wetland areas are protected through federal regulations such as Section 404 of the Clean Water Act of 1977, which regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Therefore, mechanical control options causing disturbance to soils in close proximity to wetland habitats may not be a viable or environmentally responsible option.

Chemical Control

Table 2 includes recommendations for herbicides that can be used for control of Canada thistle (CDA 2014; Colorado State University [CSU] Extension 2013). Repeat treatments may be necessary for up to an additional 3 years until root nutrient stores are fully depleted. Depending on the herbicide used, treatments can be completed either in the spring at the pre-bud growth stage or in the fall to control regrowth. Always read, understand, and follow the label directions; the herbicide label is the law. Chemical control of established infestations is more effective when combined with other treatment options such as mechanical or cultural control methods.

Table 2. Recommended Herbicides to Control Canada Thistle

Trade Name	Active Ingredient	Application Rate*	Application Timing	Comments
Milestone	Aminopyralid	5-7 oz/acre	Apply in spring at the pre-bud growth stage until flowering and/or to fall regrowth.	Add 0.25% v/v non-ionic surfactant (equivalent to 0.32 oz/gal water or 1 qt/100 gal water).
Perspective	Aminoclopyrachlor + chlorsulfuron	5.5 oz/acre	Apply in spring from rosette to flower bud stage and/or fall regrowth.	Applications greater than 5.5 oz/acre exceeds the threshold for selectivity. Do not treat in the root zone of desirable trees and shrubs. Add 0.25% v/v non-ionic surfactant

Trade Name	Active Ingredient	Application Rate*	Application Timing	Comments
Confront	Clopyralid + Triclopyr	3 pints product/acre	Apply from rosette to flower bud stage and/or fall regrowth.	Add 0.25% v/v non-ionic surfactant.
Tordon 22K	Picloram	1 qt/acre	Spring after all shoots have emerged, rosette to early bud growth stages; or fall.	Do not apply near trees or where soils have rapid permeability or water level is high. Add 0.25% v/v non-ionic surfactant non-ionic surfactant.
Transline	Clopyralid	0.67-1.33 pints/acre	Spring after all shoots have emerged, rosette to early bud growth stages; or fall.	May need re-treatment for 1 to 3 years.
Telar XP	Chlorsulfuron	1 oz/acre	Spring bolting to bud growth stages; or fall.	Fall applications most consistent results. Add non-ionic surfactant at 0.25% v/v; may need retreatment 1 to 2 years.
Banvel, Vanquish, Clarity	Dicamba	2 qts/acre	Spring rosette growth stage; or fall.	Fall applications most consistent results; may need re-treatment 2 to 4 years.

* Rates shown are given as a guideline only; read and follow label for exact rates.

Further chemical control options are available and may already be in use on WAFB. If an effective chemical control plan has been established, it is recommended that monitoring results are regularly revisited to assess treatment success. If results are not meeting control goals then treatment options should be revisited.

Biological Control

Cattle, goats, and sheep will graze on Canada thistle when plants are young and succulent in the spring. Grazing will stress plants and increase susceptibility to chemical treatments in the fall. Grazing will reduce tall growth and reproduction using a rotational grazing pattern so as to not negatively affect native vegetation. If an area is overgrazed however, that will favor the spread of Canada thistle. Best time to graze the area will be May and June.

Two insect species are available for use to control Canada thistle, but results have shown limited control (CDA 2014). Stem weevil (*Ceutorhyncus litura*) is a weevil currently being used for Canada thistle control in Colorado and Wyoming. The female deposits eggs on the leaves of Canada thistle plants in early spring and larvae will bore into the crown. This damage causes stress to the plants, but may not be lethal. Stem gall fly (*Urophora cardui*) is also currently being used as a biocontrol agent in Colorado and Wyoming. The female lays eggs on the apical meristem of developing shoots and resulting larvae burrow into the plant triggering large galls to form. This stress can reduce reproductive output and limit seed production (CSU Extension 2013).

The most effective biological control agent trialed to date is Canada thistle rust (*Puccinia punctiformis*). Unlike many classical biological control agents that limit or control the spread of an infestation, the Canada thistle rust fungus specifically targets one host and has the potential to significantly decrease infestations. In past trials, control of Canada thistle showed a range from 45% reduction of thistles over 5 years to 100% after 18 months (CDA 2014). Effective collection and distribution methods are under development, but studies have shown that the weevil (*Ceratapion onopordi*) induces systemic infections in the year following weevil infestation by transmitting spores of the rust fungus to Canada thistle plants (Wandeler et al. 2008).

Cultural Control

Prevention is the best control strategy for Canada thistle and a robust monitoring program will detect new infestations for immediate treatment (CDA 2014). Maintaining healthy native plant communities and preventing bare ground caused by overgrazing or disturbance will help control spread of Canada thistle. Establishment of select grasses can be an effective control. Perennial forage crops and winter-annual cereal crops compete very effectively with Canada thistle and can inhibit its emergence (Penn State Extension College of Agricultural Sciences 2014). This is due to the susceptibility of Canada thistle seedlings to shading. Seedlings will exhibit greater vigor without competition for light.

Controlled burning of large areas infested with Canada thistle can weaken plants and destroy stored energy reserves. For successful control, burns must continue for up to 3 years and be combined with fall herbicide application. Restoration of native plant communities will likely be needed to reduce further invasive species colonization.

References

- Penn State Extension, College of Agricultural Sciences. 2014. W. Thomas Lanini, extension weed specialist. 2014. Available online at www.extension.psu.edu. Accessed November 27, 2014.
- Colorado Department of Agriculture (CDA). 2014. Noxious weed species. Available online at <https://www.colorado.gov/pacific/agconservation/noxious-weed-species>. Accessed December 2014.

Colorado State University (CSU) Extension. 2013. Canada thistle fact sheet. Available online at <http://www.ext.colostate.edu/pubs/natres/03108.html>. Accessed December 2014.

Wandeler, H., N. Nentwig, and S. Bacher. 2008. Establishing systemic rust infections in *Cirsium arvense* in the field. *Biocontrol Science and Technology* 18(2):209–214. Available online at http://www.unifr.ch/biol/ecology/bacher/pdfs/bacher_esr.pdf. Accessed December 2014.

Russian olive

Russian olive is a perennial tree or shrub that is native in Europe and Asia (Figure 3). This species can reproduce by seed or the plants' extensive root system which sprouts root suckers frequently. Seeds are readily spread by birds and can remain viable for up to 3 years. Spring moisture and alkaline soils tend to favor seedling growth. The tree can reach up to 30 feet in height with branches that have 1- to 2-inch thorns. The alternate leaves are linear and 2 to 3 inches long. The lower surface is silvery white, while the upper surface is light green. The small light yellow flowers are born in clusters from May through June. Fruits mature from September to November.



Figure 3. Russian olive.

Control Options

The key to effective control of Russian olive is preventing establishment of the trees or shrubs (CDA 2014). If plants are already present, control options include mechanical mowing, cut-stump treatments, or basal bark treatments. These treatment options depend on the size and location of the plant.

Mechanical

Saplings can be pulled or cut with a brush-cutter and mature trees can be girdled or cut with a chainsaw, however this will often lead to sprouting from the roots. Stump excavation without removal of the roots can also result in sprouting. Treating cut stumps with an herbicide can eliminate this problem. Saplings are most sensitive to mechanical treatment (CDA 2014).

Chemical

Table 3 includes recommendations for herbicides that can be applied to range and pasturelands for control of Russian olive.

Table 3. Recommended Herbicides to Control Russian Olive

Trade Name	Active Ingredient	Application Rate*	Application Timing	Notes
Garlon 4, Remedy	Triclopyr	Undiluted	Apply to the cambrial layer of the tree immediately after the cut-stump treatment.	
Habitat, Arsenal	Imazapyr	8 to 12 fl oz/gallon	Apply to the cambrial layer of the tree immediately after the cut-stump treatment.	
Habitat, Arsenal	Imazapyr	4 to 6 pt/acre	Broadcast spray individual trees; low or high volume spray.	

* Rates shown are approximate; read label for exact rates. The herbicide label is the law.

Biological

Tubercularia canker is a biological control agent for Russian olive (CDA 2014). It overwinters on infected stems and spreads via rain-splash, herbivory, or pruning implements to open wounds in the bark. Infected tissue becomes discolored or sunken and entire stems may become girdled or killed. Over time, this disease can deform or kill stressed Russian olive plants. Mature goats have also been used to selectively graze seedlings and young trees (Bureau of Land Management 2013).

Cultural

One cultural control method is to remove Russian olives and replace them with native trees. It is important to prevent the establishment of new infestations by removing any Russian olive saplings or seedlings before they can mature (CDA 2014).

References

Colorado Department of Agriculture (CDA). 2014. Noxious weed species. Available online at <https://www.colorado.gov/pacific/agconservation/noxious-weed-species>. Accessed December 2014.

ATTACHMENT C

PESTICIDE USE PROPOSAL FORM

Prior to the initial application of chemical herbicides on public land, a 3-year PUP would be prepared and submitted to the BLM Authorized Officer. A revised PUP would be submitted if control measures are needed beyond the 3-year PUP time period. Following herbicide application, a Pesticide Application Record (PAR) would be submitted to the BLM Miles City Field Office and Fallon, Carter, and Powder River CWD supervisors.

Herbicide Application and Handling

The use, handling, storage, and disposal of herbicides would be performed in compliance with all federal and state laws. Prior to herbicide application, Denbury would complete PUPs and obtain the required permits from the BLM Miles City Office, and Fallon, Carter, and Powder River CWDs, as appropriate. Herbicide application would be performed by the operations personnel or an independent, licensed contractor in accordance with all applicable laws and regulations. The contractor would either prove knowledge in noxious weed identification, or be accompanied by a qualified botanist to ensure that the appropriate species are treated on-site.

All guidelines by the Environmental Protection Agency (EPA) herbicide label instructions would be strictly followed. Applications of herbicides would not be permitted when the instructions on the herbicide label indicate conditions that are not optimal. Herbicide application would be suspended if the following conditions exist.

- Wind velocity exceeds 20 miles per hour;
- Snow or ice covers the foliage of noxious weeds; or
- Precipitation is occurring or imminent.

Vehicle-mounted sprayers (e.g., handgun, boom, and injector) would be used primarily in open areas that are readily accessible by vehicle. Hand application methods (e.g., backpack spraying) that target individual plants would be used to treat small, scattered noxious weed populations in rough terrain. Herbicide application would follow the following restrictions:

- Boom and hand gun sprayers would not be used within 25 feet of surface water;
- Broadcast backpack spraying would not occur within 10 horizontal feet of water;
- Only wipe application (or hand-directed spray using a backpack sprayer) would be allowed within 10 horizontal feet of surface water; and
- Herbicides would not be mixed in an area where accidental spill could enter a waterbody.

Fertilizers, lime, or mulch would not be used in wetlands unless required by agencies.

Herbicides would be transported to the project site with the following provisions:

- Concentrate would be transported only in containers in a manner that would prevent tipping or spilling and in a compartment that is isolated from food, clothing, and safety equipment; and
- Mixing would only be conducted on-site and more than 200 feet from open or flowing water, wetlands, or other sensitive resources.

Worker Safety and Spill Reporting

All herbicide contractors would obtain and have readily available copies of the appropriate USEPA Material Safety Data Sheets (MSDS) for the herbicides being used. Herbicide spills would be reported in accordance with all applicable laws and requirements.

Herbicide Use

The use of herbicides would comply with the federal and state laws governing their proper use and storage, and disposal. Further, their use would only occur within the purview of the regulations set forth by the Secretary of the Interior.

The following is the sequence of events to be followed for using herbicides on BLM administered lands:

- An on-site reconnaissance would occur between the company personnel, or their contractor, and CWD personnel certified in pesticide application. A treatment plan would be formulated.
- The primary species targeted for control on BLM and private lands would include those presented on the Montana Noxious Weed list as well as the additional county-specific species of concern (see Table 1).
- The loss of special status plant species and their associated habitats from weed control measures during project maintenance would be avoided by consultation between the special status plant species jurisdictional agency and weed control specialists.
- The 3-year PUP form would be submitted by the permit holder to the BLM Miles City Field Office certified pesticide applicator (Authorized Officer).
- The permit holder would be notified by this office of approval of the PUP and be furnished a copy of the document with any changes noted and explained.
- Any special conditions, such as sign posting requirements or notice to livestock grazers, would be noted.
- The BLM Miles City Field Office would be notified at least 72 hours prior to pesticide application so that application operations can be inspected.
- All herbicides, both restricted use and nonrestrictive use, would be applied only by personnel certified in the use of these herbicides or under the direct supervision of certified applicators. A PAR form would be completed within 24 hours of ceasing herbicide application. The PAR would be submitted by the permit holder to the certified BLM Miles City Field Office certified pesticide applicator and the Fallon, Carter, and Powder River CWD supervisors, within seven days of completion of field treatment operations for the season.

UNITED STATE DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

PESTICIDE USE PROPOSAL

STATE:

COUNTY:

FIELD OFFICE:

DURATION OF PROPOSAL:

LOCATION:

ORIGINATOR – NAME:

ORIGINATOR – COMPANY:

ORIGINATOR – CONTACT INFORMATION:

DATE:

PROPOSAL NUMBER:

EA REFERENCE NUMBER:

DECISION RECORD (DR) NUMBER:

.....

I. APPLICATION INFORMATION – (Including mixtures and adjuvants):

1. TRADE NAME(S):
2. COMMON NAME(S):
3. EPA REGISTRATION NUMBER(S):
4. MANUFACTURER(S):
5. METHOD OF APPLICATION:
6. MAXIMUM RATE OF APPLICATION – AS STATED ON THE LABEL:
 - a. Formulated Product:
 - b. Pounds Active Ingredient or Acid Equivalent:
7. INTENDED RATE OF APPLICATION:
 - a. Formulated product:
 - b. Pounds Active Ingredient or Acid Equivalent:
8. APPLICATION DATE(S):
9. NUMBER OF APPLICATIONS:

II. **PEST** [List specific pest(s) and reason(s) for the proposed application of the pesticide]:

III. **DESIRED RESULTS OF THE APPLICATION – LINKED TO THE OBJECTIVES OF THE APPLICATION:**

IV. **APPLICATION SITE DESCRIPTION:**

1. ESTIMATED NUMBER OF ACRES:
2. GENERAL DESCRIPTION (Describe land type or use, size, stage of growth of target species, soil characteristics, and any additional information that may be important in describing the area to be treated.)

V. **SENSITIVE ASPECTS AND PRECAUTIONS** (Describe sensitive areas – marsh, endangered, threatened, candidate, and sensitive species habitat – and distance to application site. List measures to be taken to avoid impact to these areas):

VI. **NON-TARGET VEGETATION** (Describe potential immediate and cumulative impacts to non-target pests in Project area as a result of the pesticide application. Identify any planned mitigation measures that will be employed – BE GENERAL, SPECIFICS DISCUSSED IN THE EA):

VII. **INTEGRATED PEST MANAGEMENT PRACTICES CONSIDERED IN THE OVERALL PROJECT:**



VIII. **SIGNATURES:**

1. Pesticide Use Proposal's Originator: _____ Date: _____
 - a. Company: _____
2. Certified Pesticide Applicator: _____ Date: _____
 - a. Printed Name: _____
 - b. Address: _____
 - c. License Number: _____
 - d. Certifying Organization: _____
3. Field Office Weed and Pest
Coordinator: _____ Date: _____
4. Field Office Manager: _____ Date: _____

5. BLM State Weed and Pest

Coordinator: _____ Date: _____

6. Deputy State Director: _____ Date: _____

- Concur or Approved
- Not Concur or Disapproved
- Concur or Approved With Modifications

- Any changes (modifications) to this proposal by the state pesticide Coordinator will be listed below or in an attached memo to the manager requesting approval from the Deputy State Director