

**EXHIBIT 308E**

**NOXIOUS WEED MANAGEMENT PLAN**

**OTTER CREEK COAL PROJECT**

**POWDER RIVER COUNTY, MONTANA**

Prepared for:

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## **1.0 PURPOSE AND OBJECTIVES**

This weed management plan presents strategies to prevent and/or control the spread of noxious weeds during operations and reclamation of the Otter Creek Coal Project (Project). Otter Creek Coal, LLC (Otter Creek) intends to develop the Project in Powder River County, Montana, approximately six miles southeast of Ashland, Montana, Township 3 South, Range 45 East. The majority of the land is privately owned. Portions of the Project area are owned and managed by the State of Montana and by the Bureau of Land Management (BLM). Initiation of mining operations is dependent on the permitting schedule.

The weed management plan is part of the overall Project Reclamation Plan. Otter Creek will be responsible for implementing the practices described in this Plan. Monitoring during operational and reclamation phases will ensure that weed management objectives are achieved.

The objectives of noxious weed management on the Otter Creek Project include the following:

- prevent the establishment of new populations of noxious weeds in previously uninfested areas within the Project area and limit the spread of existing infestations to the extent feasible;
- monitor topsoil stockpiles for noxious weeds and control any noxious weeds observed on topsoil stockpiles prior to redistribution;
- monitor reclaimed areas after topsoil redistribution and seeding and control any noxious weeds observed in reclaimed areas;
- monitor mine facilities (e.g. conveyor, railroad loadout and loop and other infrastructure) for noxious weeds, and control any noxious weeds observed in these areas;
- minimize possible negative effects to desirable vegetation within the Project area by control activities;
- coordinate and consult with designated Federal (where applicable), State and County weed personnel regarding noxious weed control activities to ensure compatibility with existing weed control protocols; and
- respond to landowner and/or regulatory agency reports of weeds during reclamation.

This plan addresses all Project lands disturbed by mining activities, including life-of-mine (LOM) features such as the conveyor, railroad loadout, and loop and other facilities.

## **2.0 NOXIOUS WEED MANAGEMENT REQUIREMENTS AND COMMITMENTS**

Noxious weed management requirements and commitments are outlined in Montana's Weed Laws, the Powder River County Weed Plan, and the BLM's Final Vegetation Treatments Using Herbicides Programmatic Environmental Impact Statement (Vegetation EIS).

Additionally, Executive Order 13112 requires that each federal agency: 1) prevent the introduction and spread of invasive species; 2) detect and respond rapidly to control such species; 3) monitor invasive species populations; and 4) provide for restoration of native species and habitat conditions in ecosystems that have been invaded (United States Federal Register (USFR) 1999).

## **2.1 Montana Weed Laws and Regulations**

Eight Montana laws pertinent to weed management for the Project are summarized below. Listed noxious weeds for Montana are presented in Attachment A.

- 1) Montana County Weed Control Act (Title 7, Chapter 22 Part 21) provides for weed management activities at the county level. Local county government has the responsibility for the implementation and enforcement of weed management in Montana.
- 2) Montana Weed Control Act (Title 80, Chapter 7 Part 7) provides for technical assistance, embargoes, and rearing and distribution of biological control agents (80-7-720 MCA).
- 3) Montana Noxious Weed Trust Fund Act (Title 80, Chapter 7 Part 8) is a grant-funding program designed to encourage and support local cooperative weed management programs, weed research, public education, awareness, and outreach programs.
- 4) Montana Noxious Weed Seed-Free Forage Act (Title 80, Chapter 7 Part 9) establishes a certification program that provides for production of weed seed-free forage and mulch used by individuals, agencies, and private corporations on public and private lands. The Montana program supports and complements the regional North American Weed Management Association (NAWMA) weed-free forage certification program. This Act also applies to straw used for mulch on reclamation projects.
- 5) Montana Agricultural Seed Act (Title 80, Chapter 5, Part 134) lists prohibited and restricted weed seed levels that must be maintained in state certified seed.
- 6) Montana Nursery Law (Title 80, Chapter 7 Part 1) allows for inspection, certification, and embargo of all nursery stock for listed pests, including weeds.
- 7) Montana Aquatic Invasive Species Act (Title 80, Chapter 7 Part 10) provides for measures to prevent the introduction, importation, and infestation of species such as zebra and quagga mussels, curly leaf pond weed, watermilfoil, and disease organisms that could threaten the state's waters.
- 8) Noxious Weed Control on State Lands Law (Title 77, Chapter 1 Part 1) provides a notification process for noncompliant weed control on state lands and allows the Department of Natural Resources and Conservation (DNRC) to control weeds on state land and bill lessees for costs incurred.

## **2.2 Weed Control on Montana State-Owned Lands**

State-owned land within the Project area is managed by the Montana DNRC Trust Land Division. The project's coal leases address weed control(DNRC 2009, Dobler 2011 and David 2012).

## **2.3 Powder River County Weed Plan**

County weed control districts in Montana are responsible for developing a district-wide noxious weed management plan to assist county residents and others in complying with the Montana County Weed Control Act.

The Powder River County Noxious Weed Management Plan (Updated 2014) outlines weed law enforcement policy. The weed law will be followed when entry must be made onto private land to verify a noxious weed complaint or sighting. The County Weed Plan also outlines specific requirements for mining operations as outlined below.

- The project proponent must notify the county weed board at least 15 days prior to initiation of mining operations.
- A noxious weed management plan which provides guidance for weed management and revegetation must be approved by the Powder River County Weed Supervisor.
- After the county weed supervisor has received the Project's noxious weed management plan, the supervisor will inspect the project area for noxious weed populations. There is a non-refundable \$75.00 fee for the initial site inspection. If noxious weed populations are found during the inspection, the county may require the posting of a cash bond or other form of security to insure the control of noxious weeds for a period of three years.
- All inspections performed between October and April are non-conclusive due to the time of year and growth stage of vegetation. If the landowner / developer desire to break ground during this period, a guarantee of \$100.00 per acre for the entire proposed project may be requested by the Powder County Weed Board. At the time of inspection, the guarantee may be adjusted accordingly or returned completely.
- The Project must take reasonable and necessary steps to ensure that all vehicles and heavy equipment used on the project site are free of noxious weed plant parts prior to being transported on public roads located in Powder River County.

## **2.4 BLM Vegetation EIS**

The BLM completed a programmatic EIS for Vegetation Treatments Using Herbicides in September 2007. The Record of Decision authorized the use of particular herbicide active ingredients for control and management of invasive plants on BLM-administered lands. The list of approved active ingredients for BLM land was updated in September 2011 (BLM 2011).

Prior to using herbicides on BLM lands, a Pesticide Use Proposal (PUP) form must be completed and filed with the BLM Miles City Field Office. Following treatment of noxious weeds on BLM lands, a pesticide application record must be completed within 24 hours of spraying.

### **3.0 BASELINE VEGETATION INVENTORY**

A baseline vegetation inventory within the area of the proposed development was conducted by WESTECH biologists June 22-30, July 7-16, and August 20, 2011. The field inventory of the Facilities Area was conducted July 2-7, 2012. The inventory was conducted by biologists familiar with taxonomic characteristics and typical habitats of Montana's noxious weeds. The baseline vegetation inventory addresses a thorough level of study of the Project area. Quantitative sampling was conducted in the Project area (Tract 2 and the Facilities Area) in areas potentially affected by proposed initial operations; Tract 2 comprises approximately 12.2 square miles and the Facilities Area comprises approximately 2.3 square miles.

The distribution of noxious weeds by vegetation community type are presented in Attachment B. Two state-listed noxious weed species, both Priority 2B, were encountered during the 2011 Tract 2 baseline inventory and 2012 Facilities Area baseline inventories. Priority 2B weeds are weeds that are abundant in Montana and widespread in many counties. Management criteria require eradication or containment where the weeds are less abundant; management is to be prioritized by local weed districts. The two species recorded in the Project area are Canada thistle (*Cirsium arvense*) and field bindweed (*Convolvulus arvensis*).

The most common weed in the Project area is Canada thistle, with minor occurrences of field bindweed. Canada thistle is mostly restricted to mesic sites, and was recorded in a wide variety of community types, particularly Drainage Bottom communities and portions of Tame Pasture. Field bindweed was recorded on only one sample site in the *Artemisia cana/Agropyron smithii* community type, and three of 66 sample sites in the Hay Cropland type; it also occurs occasionally at road margins or isolated disturbed sites in drainage bottom pastures (Scow 2014).

### **4.0 MONITORING DURING OPERATION AND RECLAMATION PHASES**

The focus of Otter Creek's weed management program is to protect weed-free vegetation communities by monitoring and treating new or expanding noxious weed populations within the Project area during operations and reclamation phases. During operations, the distribution and density of noxious weeds will be monitored on topsoil stockpiles, the railroad loadout facility, railroad loop, and other project-related infrastructure. Topsoil stockpiles that are not to be redistributed for one year or longer will be protected from erosion and from the invasion of noxious weeds by the establishment of a certified noxious weed seed-free native vegetation seed mix. Noxious weeds may emerge on topsoil stockpiles because the seeds were previously dormant in the soil or were carried to the stockpile by wind. During operations, topsoil stockpiles will be monitored and managed in the event that noxious weeds emerge.

The distribution and density of noxious weeds will be assessed during reclamation monitoring. Surveys will be conducted as early in the year as feasible to identify and control noxious weeds before they produce seed. Noxious weeds, if present, will be documented on noxious weed inventory forms

(Attachment C). Percent cover, phenology, infested area and density (stems/0.01-acre) of weed species will be ocularly estimated. Boundaries of noxious weed populations will be delineated with a GPS unit.

Weed monitoring will be conducted in conjunction with revegetation monitoring consistent with the reclamation plan and MDEQ regulations.

## **5.0 NOXIOUS WEED MANAGEMENT**

Weeds are spread by a variety of means that may include construction and mining equipment, construction and reclamation materials, livestock, wildlife, and wind. The risk of establishing weeds increases with ground-disturbing activities (Sheley et al. 1999). This Plan emphasizes: 1) preventing the establishment of new populations of noxious weeds in lands that are currently weed-free; and 2) limiting the spread of existing populations of noxious weeds as feasible. The following section presents strategies to manage noxious weeds during pre-operations, operations and reclamation phases of the Project.

### **5.1 Preventive Measures**

Measures that have been or will be implemented to prevent the spread of noxious weeds prior to and during Project operations and reclamation phases include those listed below.

- Baseline vegetation inventories, including noxious weeds, were conducted on the Project area. Supplemental noxious weed surveys will be conducted on other Project-related disturbances prior to vegetative clearing as necessary (e.g. life of mine features). Existing infestations will be described (species, density, and extent) and recorded on a map.
- Otter Creek may implement weed treatment prior to construction/operations on a site-specific basis. Pre-construction treatments may include mechanical means (mowing, clearing) or herbicides, depending on the species present and size of the population.
- All equipment is expected to be new. If any used equipment is brought to the mine, it will arrive at the work site clean and free of noxious weed seeds or parts. Equipment that requires cleaning will be addressed using either compressed air and shovels or using high-pressure washing devices. Vehicles and equipment will be inspected and verified that they are free of soil and debris capable of transporting noxious weed seeds or parts prior to being allowed access to the Project area.
- Noxious weeds will be controlled prior to soil stripping and prior to soil redistribution to the extent feasible. To prevent potential problems with germination and establishment of desirable vegetation after seeding, residual and mobile residual herbicides will not be used on topsoil for a minimum of six months prior to stripping/stockpiling and 12 months prior to redistribution from a stockpile. If noxious weeds are present and require treatment within 18 months of these operations a non-soil active, non-residual herbicide such as glyphosate will be used. This treatment would allow reseeding to occur immediately (CODRMS 2012).

- Topsoil stockpiles will be seeded with a certified noxious weed seed-free native seed mix in order to protect the soil from erosion and from noxious weed seed invasion. Topsoil stockpiles will be inspected and noxious weeds controlled prior to redistribution.
- Other high priority areas that will be monitored for noxious weeds are major traffic areas, road cuts and embankments, and non-use areas around buildings. Ditches and pond embankments will also be high priority management areas to prevent offsite contamination by water-transported seeds.
- Concurrent reclamation will be employed. Otter Creek will implement revegetation activities as promptly as possible on lands disturbed by past activities while continuing to develop the coal resources in other parts of the mining area. Revegetation will occur during the optimal seeding and planting window. An adequate vegetative cover greatly reduces the opportunity for invasion by noxious weeds.
- Fertilizer will be applied to reclaimed areas only if soil from stockpiles is deficient in nutrients as determined by soil testing. Fertilizer will generally not be applied to direct-haul topsoil. Fertilizer is known to enhance the growth of noxious weeds.
- The source of straw/hay bales and mulch used for erosion control will be identified to verify that it is noxious weed-free.
- All seed used will be certified noxious weed-free.
- Imported gravel or fill material will be source-identified to ensure that the originating site is noxious weed-free.

## **5.2 Management Methods**

Management of noxious weeds would occur if one or more of the following three criteria are met:

1. A new noxious weed population is confined to the Project area;
2. A noxious weed population is expanding via the Project; and/or
3. A noxious weed population is impeding revegetation establishment.

Weed monitoring and management will continue until revegetation success criteria have been met and the performance bond is released.

Noxious weed management will be in accordance with state and county regulations, and jurisdictional land management agency or landowner agreements. Control measures may include one or more of the methods listed below.

- Mechanical methods will include hand-pulling, mowing or discing weeds. If these methods are used, subsequent seeding may be conducted to re-establish a desirable vegetative cover that will stabilize soils and limit the potential establishment of noxious weeds.



- County, State, and Federally-approved herbicides will be utilized to control noxious weed populations at selected sites. Applications will typically be controlled to minimize impacts on surrounding vegetation (specific plants will be targeted). In areas of dense infestation, a broader application will be used and a follow-up seeding program implemented if needed. The timing of subsequent revegetation efforts will be based on the life of the selected herbicide and appropriate seeding windows. Herbicide application is discussed in greater detail in Section 6.0.
- In the event that seeding is delayed following redistribution of topsoil because of weather or scheduling constraints, annual weed species and undesirable vegetation that have become established will be mechanically removed (e.g. discing, harrowing) as part of seedbed preparation.
- Otter Creek will respond to landowner reports of post-construction noxious weeds on or adjacent to the Project area or Project facilities. Where it is determined that new populations have become established due to the project, or weed density or extent exceeds the pre-mine occurrence, Otter Creek will either treat directly, treat via county or private contractor, or reimburse the landowner for reasonable costs associated with the treatment of documented weeds. Mechanical/cultural control methods or herbicide treatments will be considered.

Management methods will be based on species-specific and site-specific conditions (e.g. plant phenology, proximity to water or riparian areas, agricultural activities, time of year) and will be coordinated with landowners and local regulatory agencies.

### **5.3 Education**

Otter Creek will provide information to its field employees working in reclamation and related areas regarding noxious weed identification, reporting, and impacts on agriculture, livestock, and wildlife. The critical importance of preventing the spread of noxious weeds in uninfested areas, and controlling the proliferation of weeds already present will be explained. The importance of adhering to measures to prevent the spread of noxious weeds will be emphasized.

## **6.0 HERBICIDE APPLICATION, HANDLING, AND SPILL REPORTING**

Herbicides will be utilized on a limited basis during the pre-operations phase and as the primary control method during the operations and reclamation phases. Herbicides used on the Project will first be approved by the Powder River County Weed Supervisor and/or the BLM Miles City field office. All persons applying herbicides will have current Montana certification.

### **6.1 Herbicide Application and Handling**

Prior to herbicide application, Otter Creek or its weed contractor will obtain any required permits from Powder River County and/or the BLM. A licensed contractor will handle, store, and apply herbicide in accordance with all applicable laws and regulations.

U.S. Environmental Protection Agency (EPA) herbicide label instructions will be strictly followed. Application of herbicides will be suspended when any of the following conditions exist:

- Wind velocity exceeds 6 miles per hour for application of liquids or 15 miles per hour for application of granular herbicides;
- Snow or ice covers the foliage of noxious weeds; or
- Precipitation is occurring or is imminent.

Vehicle-mounted sprayers (e.g. handgun, boom, injector) will be used primarily in open areas that are readily accessible by vehicle. Hand application methods (e.g. backpack spraying) that target individual plants will be used to treat small, scattered weed populations in rough terrain. Calibration checks of equipment will be conducted at the beginning of spraying and periodically thereafter to ensure that proper application rates are being achieved.

Herbicides will be transported daily to the Project site with the following provisions:

- Concentrate will be transported only in approved containers and in a manner that will prevent tipping or spilling, and in a compartment that is isolated from food, clothing, and safety equipment; and
- Mixing will only be conducted on-site and only at a distance greater than 300 feet from open or flowing water, wetlands, or other sensitive resources.

All herbicide equipment and containers will be inspected daily for leaks.

## **6.2 Worker Safety and Spill Reporting**

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

## **7.0 REPORTING**

Weed control activities will be documented. A report will be prepared describing occurrence, distribution, and abundance of noxious weeds and weed control activities. Reported data will also include survey dates, herbicide treatments, amount and types of chemicals applied, and a list of participants and their activities. Reports will be presented to the Powder River County Weed Supervisor and other relevant agencies.

## **8.0 REFERENCES**

Bureau of Land Management (BLM). 2011. Updating list of approved herbicide formulations and adjuvants. EMS Transmission 12/06/2012, Information Bulletin No. 2012-2, 9011, 9015 (220) P, December 5, 2011. Available at [http://www.blm.gov/wo/st/en/info/regulations/Instruction\\_Memos\\_and\\_Bulletins/national\\_information/2012/IB\\_2012-022.html](http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_information/2012/IB_2012-022.html). Retrieved 6 June 2012.

- Bureau of Land Management (BLM). 2007. Vegetation Treatments Using Herbicides Final Programmatic Environmental Impact Statement. Available at [http://www.blm.gov/wo/st/en/prog/more/veg\\_eis.html](http://www.blm.gov/wo/st/en/prog/more/veg_eis.html) . Retrieved 7 June 2012.
- Colorado Division of Reclamation Mining and Safety (CODRMS). 2012. Guideline for the Management of Noxious Weeds on Coal Mine Permit Areas. Available at <http://mining.state.co.us/Coal%20Forms.htm> Retrieved 4 June 2012.
- David, J. 11 June 2012. Personal communication. Montana Department of Natural Resources and Conservation, Trust Lands Division, Minerals Management Bureau. Helena, MT.
- Dobler, D. 9 November 2011. Personal communication. Montana Department of Natural Resources and Conservation, Trust Lands Division. Helena, MT.
- Montana Code Annotated (MCA) 7-22-2101. 2009. County Weed Act. Internet. Available: <http://data.opi.mt.gov/bills/mca/7/22/7-22-2101.htm> Retrieved 11 December 2009.
- Montana Department of Natural Resources and Conservation (DNRC). 2009. Ark Land Company Coal Lease, No. C-1103-10, Amended 12/21/2009. Minerals Management Bureau. Helena, MT.
- Powder River County Weed District. 2014. Powder River County Noxious Weed Management Plan. Updated 2014. Contact: Jennifer Esp, P.O. Box 200, Broadus, MT 59317
- Scow, K. 2014. Baseline Vegetation Inventory, Otter Creek Coal Project, Powder River County, Montana. WESTECH Environmental Services, Inc. Helena, MT. 59601. In press.
- Sheley, R.L., M. Manoukin, and G. Marks. 1999. Preventing Noxious Weed Invasion, pages 69-72 in, R.L. Sheley and J.K. Petroff, editors. Biology and Management of Noxious Rangeland Weeds. Oregon State University Press, Corvallis, OR.
- U.S. Federal Register (USFR). 1999. Presidential Document, Executive Order 13112. Invasive Species, Federal Register 64:6183-6186.

**ATTACHMENT A**  
**MONTANA DESIGNATED NOXIOUS WEEDS**

## Montana Noxious Weed List

Effective: December 2013

**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:

- (a) Yellow starthistle (*Centaurea solstitialis*)
- (b) Dyer's woad (*Isatis tinctoria*)

**PRIORITY 1B** These weeds have limited presence in Montana. Management criteria will require eradication or containment and education:

- (a) Knotweed complex (*Polygonum cuspidatum*, *P. sachalinense*, *P. × bohemicum*, *Fallopia japonica*, *F. sachalinensis*, *F. × bohémica*, *Reynoutria japonica*, *R. sachalinensis*, and *R. × bohémica*)
- (b) Purple loosestrife (*Lythrum salicaria*)
- (c) Rush skeletonweed (*Chondrilla juncea*)
- (d) Scotch broom (*Cytisus scoparius*)

**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:

- (a) Tansy ragwort (*Senecio jacobaea*, *Jacobaea vulgaris*)
- (b) Meadow hawkweed complex (*Hieracium caespitosum*, *H. praealtum*, *H. floridundum*, and *Pilosella caespitosa*)
- (c) Orange hawkweed (*Hieracium aurantiacum*, *Pilosella aurantiaca*)
- (d) Tall buttercup (*Ranunculus acris*)
- (e) Perennial pepperweed (*Lepidium latifolium*)
- (f) Yellowflag iris (*Iris pseudacorus*)
- (g) Blueweed (*Echium vulgare*)
- (h) Hoary alyssum (*Berteroa incana*)

**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:

- (a) Canada thistle (*Cirsium arvense*)
- (b) Field bindweed (*Convolvulus arvensis*)
- (c) Leafy spurge (*Euphorbia esula*)
- (d) Whitetop (*Cardaria draba*, *Lepidium draba*)
- (e) Russian knapweed (*Acroptilon repens*, *Rhaponticum repens*)
- (f) Spotted knapweed (*Centaurea stoebe*, *C. maculosa*)
- (g) Diffuse knapweed (*Centaurea diffusa*)
- (h) Dalmatian toadflax (*Linaria dalmatica*)
- (i) St. Johnswort (*Hypericum perforatum*)
- (j) Sulfur cinquefoil (*Potentilla recta*)
- (k) Common tansy (*Tanacetum vulgare*)
- (l) Oxeye daisy (*Leucanthemum vulgare*) (m) Houndstongue (*Cynoglossum officinale*)
- (n) Yellow toadflax (*Linaria vulgaris*)
- (o) Saltcedar (*Tamarix spp.*)
- (p) Flowering rush (*Butomus umbellatus*)
- (q) Eurasian watermilfoil (*Myriophyllum spicatum*)
- (r) Curlyleaf pondweed (*Potamogeton crispus*)

Priority 3 Regulated Plants: (NOT MONTANA LISTED NOXIOUS WEEDS)

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.

- Cheatgrass (*Bromus tectorum*)
- Hydrilla (*Hydrilla verticillata*)
- Russian olive (*Elaeagnus angustifolia*)

**ATTACHMENT B**  
**NOXIOUS WEED DISTRIBUTION BY COMMUNITY TYPE**

**Noxious Weed Distribution by Community Type,  
Otter Creek Baseline Study Area, 2011-2012.**

COMMUNITY TYPE	n	Percent Cover/Constancy	
		Canada thistle	Field bindweed
<b>GRASSLAND</b>	<b>185</b>		
<i>Agropyron smithii / Bouteloua gracilis</i>	15	0.07/7	-
<i>Agropyron smithii / Stipa viridula</i>	77	0.16/4	-
<b>TAME PASTURE</b>	<b>106</b>		
Hay Cropland	66	0.80/9	0.43/5
Pastureland	40	0.16/3	-
<b>SHRUB / GRASSLAND</b>	<b>172</b>		
<i>Artemisia cana / Agropyron smithii</i>	52	0.29/8	0.03/2
<b>BREAKS</b>	<b>175</b>		
<b>Conifer-Dominated Breaks</b>	<b>55</b>		
<i>Pinus ponderosa/Juniperus scopulorum/Agropyron spicatum</i> Breaks	18	0.02/6	-
<b>DRAINAGE BOTTOM</b>	<b>113</b>		
<b>Herbaceous Bottom</b>	<b>46</b>		
<i>Spartina pectinata/Bromus inermis</i>	4	1.50/50	-
<i>Spartina pectinata/Poa pratensis</i>	1	3/100	-
<i>Typha latifolia/Bromus inermis</i>	2	3.50/100	-
<i>Typha latifolia/Spartina pectinata</i>	2	0.15/50	-
<i>Scirpus acutus-Scirpus validus/Spartina pectinata</i>	7	0.57/29	-
<b>Mesophytic Low Shrub Bottom</b>	<b>27</b>		
<i>Symphoricarpos occidentalis-Rosa woodsii/Poa pratensis-Agropyron smithii</i>	17	0.47/6	-
<b>Mesophytic Deciduous Tree Bottom</b>	<b>37</b>		
<i>Populus deltoides/Bromus inermis</i>	2	0.50/50	-
<i>Acer negundo/Bromus inermis</i>	15	2.00/53	-
<i>Acer negundo/Spartina pectinata</i>	4	1.00/25	-
<i>Acer negundo/Prunus virginiana</i>	3	1.00/67	-

n = number of sample sites



**ATTACHMENT C**  
**SAMPLE OTTER CREEK PROJECT NOXIOUS WEED INVENTORY FORM**

**NOXIOUS WEED INVENTORY FORM  
OTTER CREEK COAL PROJECT**

<b>SITE:</b>				
Examiners:	Date:	Photo: Y   N	Ownership: BLM   PRVT   STATE	
<b>Noxious Weed Species, Cover, Phenological Stage, and Estimated Density within Project Area</b>				
Species	Cover (%)	Phenology	Infested Area (ft x ft)	Estimated Density (stem/0.01ac)
		Veg Flwr Seed		<1 1-5 5-10 10-20 20-50 50-100 >100
		Veg Flwr Seed		<1 1-5 5-10 10-20 20-50 50-100 >100
		Veg Flwr Seed		<1 1-5 5-10 10-20 20-50 50-100 >100
		Veg Flwr Seed		<1 1-5 5-10 10-20 20-50 50-100 >100
		Veg Flwr Seed		<1 1-5 5-10 10-20 20-50 50-100 >100
		Veg Flwr Seed		<1 1-5 5-10 10-20 20-50 50-100 >100
		Veg Flwr Seed		<1 1-5 5-10 10-20 20-50 50-100 >100
		Veg Flwr Seed		<1 1-5 5-10 10-20 20-50 50-100 >100
Site Conditions (adjacent land use; existing disturbance including livestock/wildlife, vehicular, burning, erosion)				
Weed Origination, if known (adjacent, elsewhere from project, other)				
Comments/Recommendations:    No Action _____    Monitor _____    Weed Control _____				
Flagged site?    Y    N				Hand-pulled weeds within project during inventory?    Y    N

WESTECH 7/14



**ATTACHMENT D**  
**POWDER RIVER COUNTY WEED SUPERVISOR APPROVAL OF PLAN**

**From:** [Esp, Jennifer](#)  
**To:** [Meghan Trainor Wirth](#)  
**Subject:** RE: Otter Creek Coal Noxious Weed Management Plan  
**Date:** Friday, June 15, 2012 10:55:36 AM

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I, Jennifer Esp the Powder River County Weed Supervisor approve the Otter Creek Coal Project Noxious Weed Management Plan as it stands written. If there are any questions or need for clarification the Weed District may be contacted. PO Box 200/ Broadus, MT 59317. Office (406)436-2405

Jennifer Esp  
Powder River County Weed Supervisor  
PO Box 200  
Broadus, MT 59317  
Office (406)436-2405

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**From:** Meghan Trainor Wirth [mwirth@westech-env.com]  
**Sent:** Thursday, June 14, 2012 3:15 PM  
**To:** Esp, Jennifer  
**Subject:** RE: Otter Creek Coal Noxious Weed Management Plan

Hi Jennifer,

I'm glad you checked with Dave Burch on the MCA language and reference to 'mine.' Thank you for the clarification.

We do not need a formal signature page. But, if you do approve of Otter Creek's Weed Plan, please send me an email saying that you approve of the Plan. An email from you should fulfill the DEQ's requirement.

Thanks very much for your review,  
Meghan

**Meghan Trainor Wirth**

WESTECH Environmental Services, Inc.

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**From:** Esp, Jennifer [mailto:JEsp@prco.mt.gov]  
**Sent:** Thursday, June 14, 2012 1:39 PM  
**To:** Meghan Trainor Wirth  
**Subject:** RE: Otter Creek Coal Noxious Weed Management Plan

Meghan

Hey this is Jennie and just out of curiosity I went and double checked the MT code Annotated. I also asked for the opinion from the State Weed Coordinator Dave Burch. Here is the section you were asking me about. Everyone seems to believe the mine stated here is any kind of mine not just a gravel or hard rock mine. I hope that this helps. Other than that the plan looks great! I just need to know if you need a signature page from Powder River County or if you will supply one.

**7-22-2152. Revegetation of rights-of-way and areas that have potential for noxious weed infestation.** (1) Any person or state agency **proposing a mine**, a major facility under Title 75, chapter 20, an electric, communication, gas, or liquid transmission line, a solid waste facility, a highway or road, a subdivision, a commercial, industrial, or government development, or any other development that needs state or local approval and that results in the potential for noxious weed infestation within a district shall notify the board at least 15 days prior to the activity.

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**From:** Meghan Trainor Wirth [mwirth@westech-env.com]  
**Sent:** Wednesday, June 13, 2012 4:30 PM  
**To:** Esp, Jennifer  
**Subject:** Otter Creek Coal Noxious Weed Management Plan

Hello Jennifer,

Please find attached for your review the Otter Creek Coal Project's Noxious Weed Management Plan.

Do not hesitate to contact me with any questions or comments.

Thank you very much for reviewing the plan.

Sincerely,  
Meghan

**Meghan Trainor Wirth**

WESTECH Environmental Services, Inc.

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