

## **APPENDIX O: Weed Mitigation and Management Plan**

**NOXIOUS WEED MANAGEMENT PLAN**  
**BLACK BUTTE COPPER PROJECT**  
**MEAGHER COUNTY, MONTANA**

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## 1.0 PURPOSE AND OBJECTIVES

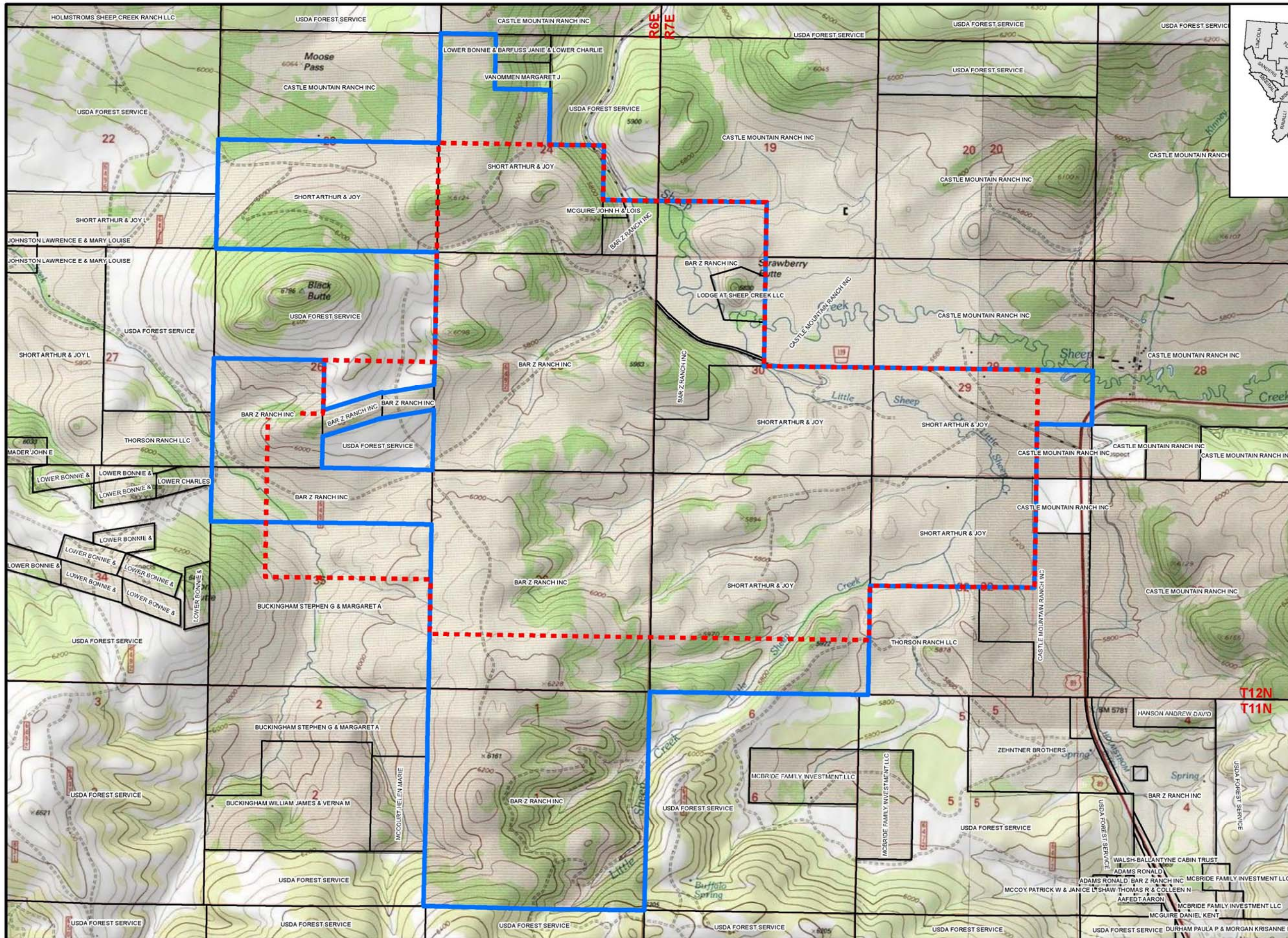
This weed management plan presents strategies to prevent and/or control the spread of noxious weeds during operations and reclamation of the Black Butte Copper Project (Project). Tintina Resources, Inc. (Tintina) intends to develop the Project in Meagher County, Montana, approximately 16 miles north of White Sulphur Springs, Montana in north-central Meagher County (Figure 1). The vegetation baseline study area is located in all or portions of Sections 23-26, 35 and 36 in T12N, R6E; Sections 19 and 29-32 in T12N, R7E; and Section 1 in T11N, R6E comprising pertinent portions of Tintina's current surface and mineral leases. The majority of the land is privately owned (Figure 1). Some portions adjacent to the Project area are owned and managed by the U.S. Forest Service (USFS). Initiation of mining operations is dependent on the permitting schedule.

The weed management plan is part of the overall Project Reclamation Plan. Tintina 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.

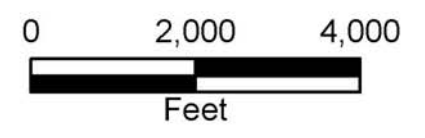
The objectives of noxious weed management on the Black Butte Project include the following:

- 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 all surface mine facilities 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 County, State, and Federal (where applicable) 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 and other surface facilities.



- Legend**
- 2015 Vegetation Study Area
  - 2014 Wetlands Study Area
  - Parcels



**TINTINA** RESOURCES  
 Black Butte Copper  
 Project Location and  
 Surface Ownership



**Figure 1**

## 2.0 NOXIOUS WEED MANAGEMENT REQUIREMENTS AND COMMITMENTS

Noxious weed management requirements and 1994 commitments are outlined in Montana's Weed Laws, the Meagher County Weed Plan, and the USFS's 1994 Lewis and Clark National Forest Noxious Weed Control Environmental Impact Statement (Noxious Weed 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 and Meagher County 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 801) 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, Section 80) 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 Meagher 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 Meagher County Noxious Weed Management Plan (updated 2016) outlines weed law enforcement policy (see Attachment B). 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 will 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 will be reviewed and approved by the Meagher County Weed Supervisor (Mr. Otto Ohlson).
- 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. 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.
- 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 Meagher County.

## **2.3 USFS Noxious Weed EIS**

The USFS completed the Lewis and Clark National Forest Noxious Weed Control EIS in 1994 (USDA Forest Service 1994). The Record of Decision authorized the use of particular herbicide active ingredients for control and management of invasive plants on Lewis and Clark National Forest-administered lands. The approved herbicide ingredients include clopyralid, picloram, and 2-4D. The newly combined Helena-Lewis and Clark National Forest is working on a new noxious weed control EIS which would allow for more adaptive management methods and include the use of additional approved herbicide active ingredients (Rowdy Wood, personal communication, March 10, 2016).

Prior to initiating operations, Tintina would consult with the Helena-Lewis and Clark National Forest to discuss potential opportunities for cooperative noxious weed management. Noxious weeds must be managed across administrative boundaries in order to increase management capacity and improve management success.

### 3.0 BASELINE VEGETATION AND WETLAND INVENTORIES

A baseline vegetation inventory was conducted within the area of the proposed development by WESTECH biologists May 27, June 12 and July 13-20, 2015. A wetlands field inventory of the Project area was conducted August 14-September 4, 2014. The inventories were conducted by biologists familiar with taxonomic characteristics and typical habitats of Montana's noxious weeds. The baseline vegetation and wetland inventories addressed a thorough level of study within the Project area. Quantitative sampling was conducted in the Project area in areas potentially affected by proposed operations, comprising approximately 7.4 square miles (2014 wetland study area) and 5.3 square miles (2015 vegetation study area) as shown in Figure 1.

State-listed noxious weeds are given on the "Montana Noxious Weed List, Effective July, 2015" (Montana Department of Agriculture 2015). Four state-listed weed species (all Priority 2B), and one Priority 3 regulated plant species were encountered on the study area during the 2014/2015 Black Butte baseline vegetation and wetland inventories. In addition to the state list, Meagher County has listed an additional thirteen noxious weed species, of which five were identified during the 2014/2015 baseline vegetation and wetland inventories.

**Priority 2B** noxious weeds are abundant in Montana and widespread in many counties of the state. Management criteria will require eradication or containment where less abundant. Management shall be prioritized by local weed districts. These weeds are capable of rapid spread and render land unfit or greatly limit beneficial uses. The five species recorded in the study area included:

- Canada thistle (*Cirsium arvense*)
- Spotted knapweed (*Centaurea maculosa*)
- Oxeye daisy (*Leucanthemum vulgare*)
- Houndstongue (*Cynoglossum officinale*)

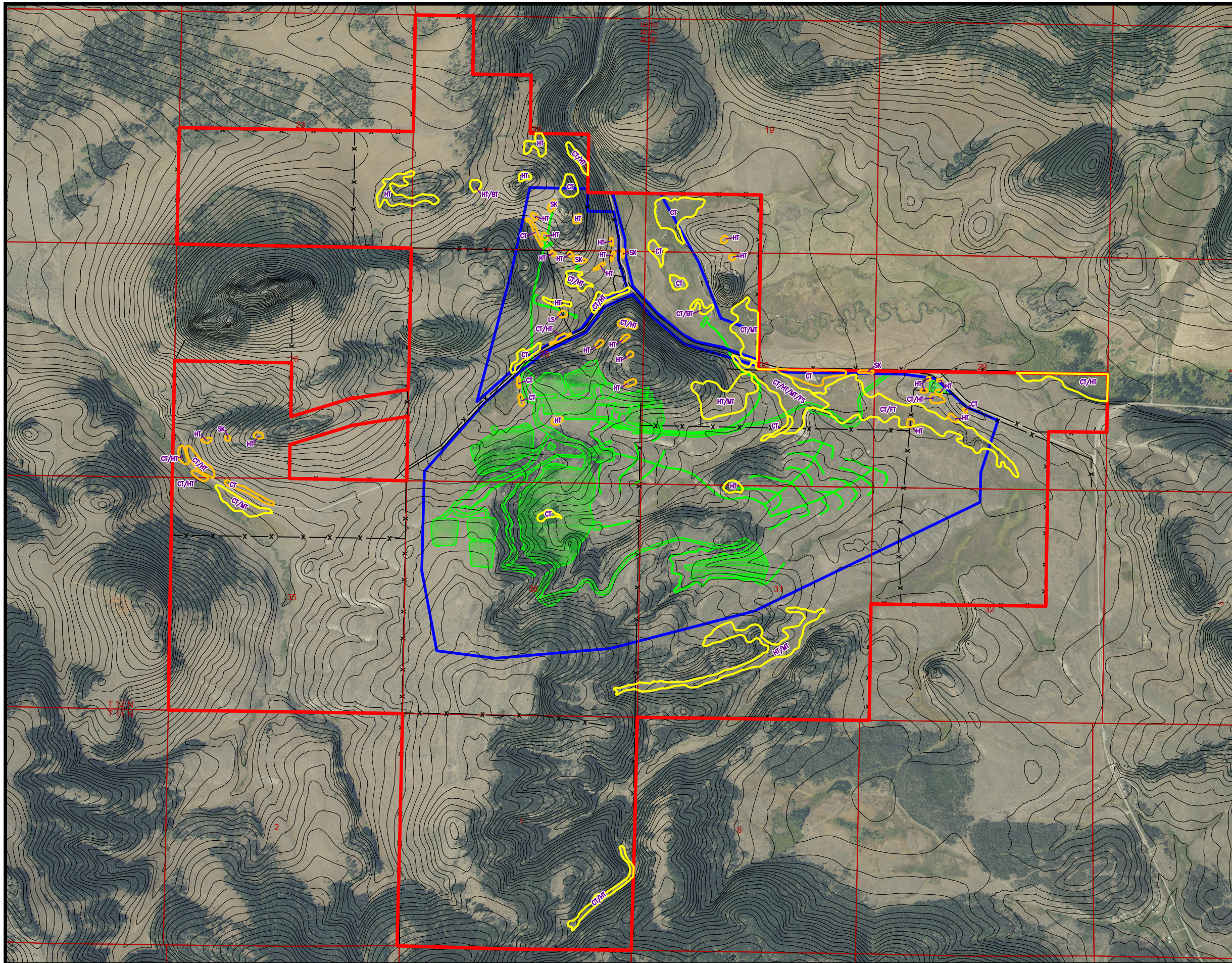
One additional "2B" species, leafy spurge (*Euphorbia esula*), was identified and mapped (Figure 2) during an earlier (2011-2012) reconnaissance inventory of the Project area (Tintina 2013).

**Priority 3** species are "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. One Priority 3 species was recorded on the Black Butte study area:

- Cheatgrass brome (*Bromus tectorum*)

The distribution and relative abundance of noxious weeds are discussed by vegetation community type in the following, and depicted in Figure 2.



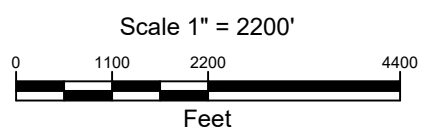
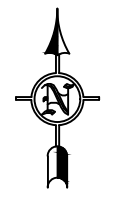


**LEGEND**

- Lease Boundary / Study Area
- Permit Boundary
- Disturbance Boundary
- x — Fence
- Weed Population (2013 Weed Survey)
- Estimated Weed Population (Vegetation & Wetland Baseline Sample Sites)

Symbol	Common Name
BT	Bull thistle
CT	Canada thistle
FS	Field scabious
FT	Field sow-thistle
HT	Houndstongue
LS	Leafy spurge
MT	Musk thistle
SK	Spotted knapweed

Aerial: 2015 NAIP  
 Topo: 20' Generated from 1/3 second NED



**TINTINA** RESOURCES  
 Black Butte Copper Project

**Noxious Weeds**



Appendix O  
 Figure 2

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### 3.1 Baseline Vegetation Inventory

The distribution of 185 sample plots throughout vegetation communities in the study area provides a fair assessment of the relative abundance of vascular plant species among community types, including state- and county-listed noxious weed species. Vascular plant canopy cover and constancy data are presented in the baseline vegetation report (Scow 2015), and an excerpt of noxious weed data is presented by species and vegetation type in Table 27 of that report.

Presently, 33 Priority 1 and 2 species are listed for Montana statewide. Of the five state-listed noxious weed species reported for the study area, three of them were recorded during the quantitative inventory of randomly distributed cover plots including Canada thistle (*Cirsium arvense*), houndstongue (*Cynoglossum officinale*) and spotted knapweed (*Centaurea maculosa*). The remaining species, oxeye daisy (*Leucanthemum vulgare*), was recorded during qualitative surveys of the study area, and leafy spurge (*Euphorbia esula*) was identified during an earlier survey. In addition to noxious weeds listed for Montana state-wide, many counties have independently listed various other troublesome weed species targeted for control. Of 56 Montana counties, most have designated such additional target weed species, including Meagher County (Ohlson 2016) which has listed thirteen additional weed species. Of these, five were identified in the Black Butte study area including common wormwood (*Artemisia absinthium*), musk thistle (*Carduus nutans*), bull thistle (*Cirsium vulgare*), field scabious (*Knautia arvensis*) and field sow-thistle (*Sonchus arvensis*). Two other potentially problematic weed species in the Black Butte study area were also analyzed, caraway (*Carum carvi*) and yellow rattle (*Rhinanthus crista-galli*), as they can often proliferate in high-mesic meadows; in the Black Butte baseline study area, they had relatively high canopy cover values (about 6 percent each) in the Lowland Altered Grassland (Hay Meadow) community type. A dense population of field scabious was recorded in a lower tributary just north of Little Sheep Creek in the vicinity of the county road. Many Montana counties have listed musk thistle as a problematic weed. The twelve species recorded in the Black Butte study area are shown below in a list of weed abundance and distribution summarized from Table 27 in the baseline vegetation report.

The two most common noxious weeds in the Black Butte study area, particularly in lowlands, were Canada thistle and common houndstongue. Spotted knapweed was recorded with minor cover values at limited sites in upland shrubland community types. Oxeye daisy was noted only as scattered plants in hay meadow and disturbed roadside locations. Leafy spurge was mapped during an earlier (2011-2012) survey in upland grassland-shrubland (Figure 2).

Of the seven additional problematic weed species recorded, musk thistle was by far the most common. In fact, musk thistle was generally more conspicuous than the listed noxious weed species, occurring in almost every vegetation physiognomic type present in the study area, occasionally in dense patches. One dense population was sampled during the 2014 baseline wetlands inventory. The site was treated with herbicide (very effectively) in the interim, prior to the 2015 baseline vegetation inventory, when it was again sampled. A comparison of the two years of vegetation cover data is presented in section 3.2.4 of the baseline vegetation report as the “noxious weed tailings” community type, and is shown in comparative photographs in Attachment E.

**Noxious Weed Abundance and Distribution (Percent Cover/Constancy) by Physiognomic Type,  
Black Butte Baseline Vegetation Study Area, 2015.**

	Upland Grassland n=28	Upland Shrubland n=44	Conifer Forest and Woodland n=40	Hay Meadow and Roadsides n=16	Riparian and Wetland (RW)		
					Herbaceous RW n=15	Shrub RW n=37	Deciduous Tree RW n=4
<b>STATE-LISTED NOXIOUS WEEDS</b>							
<i>Centaurea maculosa</i>		0.2/2					
<i>Cirsium arvense</i>			<0.1/5	0.3/19	4.3/20	1.0/30	0.1/25
<i>Cynoglossum officinale</i>		0.1/5	0.2/15			0.2/14	1.3/75
<i>Euphorbia esula*</i>	X						
<i>Leucanthemum vulgare</i>				X			
<b>MEAGHER COUNTY-LISTED WEEDS</b>							
<i>Artemisia absinthium</i>				X			
<i>Carduus nutans</i>	<0.1/4	<0.1/2	0.1/5	<0.1/6		<0.1/3	
<i>Cirsium vulgare</i>						<0.1/3	0.3/25
<i>Knautia arvensis</i>	1.5/4					<0.1/5	
<i>Sonchus arvensis</i>					0.4/7		
<b>PROBLEMATIC WEEDS</b>							
<i>Carum carvi</i>				6.6/63			
<i>Rhinanthus crista-galli</i>				6.3/50	0.3/13		

n = number of quantitative sample sites X = present in the type, not recorded at a sample site

\**Euphorbia esula* was identified during an earlier (2011-2012) reconnaissance survey.

### 3.2 Baseline Wetlands Inventory

The baseline wetland and waterbody survey (WESTECH 2015) was reviewed to further document noxious weed occurrence in the Project area. Quantitative and qualitative vegetation data were recorded at 45 wetland and 51 adjacent upland sample sites during the 2014 wetland survey, documenting six weed species of concern as summarized below.

The noxious weed species most commonly recorded at wetland/waterbody sites in the Project area was Canada thistle, occurring at 13 percent of wetland sites and 22 percent of the adjacent upland sites sampled. Where it occurred, canopy cover values ranged from 0.5 to 14 percent (averaging about 6 percent) on wetland sites, and 1 to 22 percent (averaging 10 percent) on upland sites.

Houndstongue did not occur on any of the 45 wetland sites sampled, however was recorded on 8 percent of the 51 adjacent upland sites where cover values ranged from 1 to 3 percent.

Musk thistle occurred on only two (4 percent) of the upland sample sites, at 3 to 84 percent cover. Field sow-thistle was recorded on one (2 percent) of the 45 wetland sites sampled, at 0.5 percent (trace) cover.

Two other potentially problematic weed species occurred on the Sheep Creek floodplain in and adjacent to the Hay Meadow vegetation type. Caraway was found at 4 percent of 45 wetland sites and 8 percent of 51 adjacent upland sites, ranging from 2 to 26 percent (average 7 percent) cover where it occurred. Yellow rattle was recorded at 4 percent of wetland sites and 4 percent of the upland sites, ranging from 2 to 36 percent (average 19 percent) canopy cover.

#### 4.0 MONITORING DURING OPERATION AND RECLAMATION PHASES

The focus of Tintina's weed management program is to protect weed-free vegetation communities by monitoring and treating new or expanding 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 and all other project-related surface disturbances and 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, Meagher County regulations, 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 and wetland inventories, including noxious weeds, were conducted on the Project area (see Section 3.0). 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.
- Tintina 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.
- Some 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 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. Tintina will implement revegetation activities as promptly as possible on lands disturbed by past activities while continuing to develop other parts of the Project 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, where appropriate, 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.
- Tintina 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, or weed density or extent exceeds the pre-mine occurrence, Tintina 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**

Tintina will provide information to its employees 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 Meagher County Weed Supervisor. All persons applying herbicides will have current Montana certification.

## **6.1 Herbicide Application and Handling**

Prior to herbicide application, Tintina or its weed contractor will obtain any required permits from Meagher County and/or the USFS (if applicable). 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 Material and Safety Data Sheets (MSDS) 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 Meagher County Weed Supervisor and other relevant agencies.

## 8.0 REFERENCES

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- U.S. Department of Agriculture (USDA), Forest Service (USFS). 1994.  
*Final Supplemental Environmental Impact Statement For Noxious Weed Control: Lewis and Clark National Forest, Forest-Wide*. 255 p.
- U.S. Federal Register (USFR). 1999.  
*Presidential Document, Executive Order 13112*. Invasive Species, Federal Register 64:6183-6186.
- WESTECH Environmental Services, Inc. 2015.  
*Baseline Wetland Delineation and Waterbody Survey, Black Butte Copper Project, Meagher County, Montana*. Unpublished technical report for Tintina Resources, Inc. by WESTECH Environmental Services, Inc., Helena, Montana. 16 p. + 139 p. appendices + map.



**ATTACHMENT A**  
**MONTANA AND MEAGHER COUNTY DESIGNATED NOXIOUS WEEDS**

## MONTANA NOXIOUS WEED LIST

Effective: July 2015

**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*)
- (c) Common Reed (*Phragmites australis ssp.australis*)

**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. floribundum*, *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) Eurasian watermilfoil (*Myriophyllum spicatum*)
- (i) Flowering rush (*Butomus umbellatus*)

**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) Curlyleaf pondweed (*Potamogeton crispus*)
- (q) Hoary alyssum (*Berteroa incana*)

**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.

- (a) Cheatgrass (*Bromus tectorum*)
- (b) Hydrilla (*Hydrilla verticillata*)
- (c) Russian olive (*Elaeagnus angustifolia*)
- (d) Brazilian waterweed (*Egeria densa*)
- (e) Parrot feather watermilfoil (*Myriophyllum aquaticum* or *M. brasiliense*)

**MEAGHER COUNTY WEED LIST**

(in addition to Montana-Listed weeds)

Effective: February 2016

- Absinth wormwood (*Artemisia absinthium*)
- Black henbane (*Hyoscyamus niger*)
- Bladder campion (*Silene vulgaris*)
- Bull thistle (*Cirsium vulgare*)
- Common burdock (*Arctium minus*)
- Common mullein (*Verbascum thapsus*)
- Field scabious (*Knautia arvensis*)
- Musk thistle (*Carduus nutans*)
- Perennial sowthistle (*Sonchus arvensis*)
- Poison hemlock (*Conium maculatum*)
- Scentless chamomile (*Matricaria maritima* var. *agrestis*)
- Scotch thistle (*Onopordum acanthium*)
- Yellow mignonette (*Reseda lutea*)

**ATTACHMENT B**  
**NOXIOUS WEED MANAGEMENT PLAN FOR MEAGHER COUNTY**  
**(2015-2018)**

Noxious Weed Management Plan  
for  
Meagher County  
(2015-2018)



Prepared by: Otto W. Ohlson  
Meagher County Weed District

Date Revised: Feb. 2, 2016

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## **I. Introduction**

Meagher County has had a weed management plan in effect since 1997. This plan was written to comply with the requirement of MCA 7-22-2101 through 7-22-2153, the “Montana County Noxious Weed Act”.

The purpose of this plan is to guide weed management through cooperative planning among public and private landowners and managers of Meagher County. This plan also supports the Montana Weed Management Plan to strengthen, support, and coordinate private, county, state, and federal weed management efforts in Montana, and promote implementation of ecologically-based noxious weed management programs. This plan will be evaluated and revised every two years.

The Meagher County Noxious Weed Management Plan includes an integrated weed management (IWM) approach. An integrated weed management plan incorporates education, prevention, early detection, and cultural, biological, mechanical, and chemical controls that have minimum impacts to the environment. Mapping, evaluation, and re-vegetation are also components of an IWM plan. This weed management plan is designed to evaluate and adapt management actions to improve the chances of long-term weed management success.

### **A. Goals and Objectives**

The goals of the Weed District are:

- 1) To provide management of noxious weeds on all lands located within Meagher County and to prevent establishment of any new noxious weed species.
- 2) To work cooperatively with private, state, and federal land managers to control noxious weeds and maintain native rangeland ecosystems; and
- 3) To provide weed education and outreach materials, workshops, and meetings for the county and public.

The following weed management objectives are measurable and time based:

- 1) Locate and eradicate new invasive plants and patches over the next two years using acceptable control methods;
- 2) Continue an active biological program with a minimum of 5 new releases annually; and
- 3) Reduce size and density of selected noxious weed infestations by 25% over the next two years using integrated weed management methods.

## B. Statement of the Weed Problem

A noxious weed is defined as any exotic plant species established or that may be introduced in the state that may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses or that may harm native plant communities. However, a **native plant may not be listed** on the State Noxious Weed list or be listed as a county designated noxious weed. Currently Meagher County recognizes the State Noxious Weed list with 46 noxious weeds (including Meagher County Listed Weeds) as the county's weed list (see Appendix A & B), in addition to the county designated noxious weeds.

### 1) Land Administration

Meagher County contains approximately 2350 square miles or 1,506,000 acres of land under multiple landownership. The following is a breakdown of the ownership in Meagher County:

US Forest Service & BLM	452,000	acres
Water	1,600	acres
Private Lands, State and Local Govt.	1,052,400	acres

### 2) Impact of Weeds

Noxious weeds infest about 834,000 acres in Meagher County. Noxious weeds are reducing economic productivity and integrity of Meagher County's land and waters. The rate of introduction and spread of noxious weeds has increased significantly over the past several years as human activities, trade, and commerce has increased. Adjacent U. S. Forest Service's lack of control has also impacted Meagher County.

Noxious weeds are capable of rapid spread. Once infested, the value of property for recreation, wildlife, ranching and farming is greatly reduced.

Economic losses caused by some noxious weeds have been calculated for Montana. The cost of spotted knapweed to grazing lands and wild lands in Montana is estimated at \$42 million.

Increased funding to private land managers, the county weed district, and federal and state agencies will have a positive impact on weed management in Meagher County.

## C. Montana Weed Laws and Regulations

The first noxious weed legislation in Montana was passed in 1939. Since that time additional laws and rules have been enacted to strengthen weed management efforts. The eight laws currently affecting weed management in Montana are summarized below:

- 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 weed control agents (80-7-720 MCA). Pursuant to 80-7-712 MCA, The Montana Department of Agriculture can obtain federal funds and disburse these funds to local governments authorized to conduct noxious plant management programs.

3) Montana Noxious Weed Trust Fund Act is a grant-funding program designed to encourage and support local cooperative weed management programs, weed research, and public education, awareness, and outreach programs. Revenue for the current grants program comes from interest from a permanent Trust, vehicle weed fee, and state and federal funding.

4) Montana Noxious Weed Seed Free Forage Act 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.

5) Montana Agricultural Seed Act lists prohibited and restricted weed seed levels that must be maintained in state certified seed.

6) Montana Commercial Feed Act prohibits noxious weeds in commercial feed.

7) Montana Environmental Policy Act must be addressed by state actions that have potential environmental or socioeconomic impacts.

8) Montana Nursery Law allows for inspections, certification, and embargo of all nursery stock for listed pests, including weeds.

## **II. Management Priorities for Noxious Weeds**

**A. Priority 1A:** Weeds not present in Montana. Management criteria will require eradication if detected; education and prevention

**Priority 1B:** Weeds have limited presence in Montana. Management will require eradication or containment and education.

**B. Priority 2A:** Weeds are common in isolated areas of Montana. Management criteria

will require eradication or containment where less abundant. Management will be prioritized by weed districts.

**Priority 2B:** Weeds that are abundant in Montana and widespread in many counties.

Management criteria will require eradication or containment where less abundant. Management will be prioritized by Weed Districts.

**C. Category 3:** These consist of regulated plants (not Montana Noxious Weeds).

These

plants have the potential to have significant negative impacts. The plant may not be intentionally spread or sold other than as a containment in agricultural products. The State recommends research, education and prevention to minimize the spread of the regulated plant.

**D. Meagher County Designated Noxious Weeds:** Montana Code Annotated 7-22-2101 (8)(ii) gives a county the authority to list local invasive species of concern. These weeds are capable of rapid spread and invasion of lands, rendering lands unfit for beneficial uses. Management criteria include awareness and education, monitoring and containment of known infestations, and eradication where possible.

1) Meagher County Designated Noxious Weeds are listed in Appendix B

2) Meagher County has also designated State Listed Noxious Weeds in Priority 1A or 1B due to the weeds not being present or established in the County and list the control and management strategies that will be utilized. These changes are in Appendix B

### **III. Integrated Weed Management Strategies and Methods**

#### **A. Prevention:**

- Meagher County Weed District has an active prevention plan which supports and/or encourages:
  1. Education Program for all floaters and shuttle drivers at Camp Baker
  2. Washing of all construction and logging equipment entering Meagher County
  3. Encouraging recreation, and other land users to utilize existing roads and limit all traffic to the established roads
  4. Active program to reseed disturbed construction areas, road disturbances and eroded areas
  5. Work with all subdivisions and require active weed management plan

#### **B. Education**

- Weed Kiosk at Camp Baker and major campgrounds
- Active participation in: Meagher County Conservation District Range Tours, Conservation Banquet and Annual Meeting
- Weed Tours, with emphasis on treated areas from recent 'Weed Management Areas'
- Support school activities with weed information.
- Continue to provide 'Noxious Weed Calendars'.

### **C. Mapping**

- Continue to utilize GPS mapping of noxious weed infestations and spraying activities as time permits.
- Mapping will be completed with existing Delorme and Igage mapping software.
- Meagher County Weed District will cooperate with State Section Based Mapping.

### **D. Chemical**

- Chemicals utilized by Meagher County Weed District currently are: (but not limited to) Dow-Agro - Tordon, Milestone, Forefront, Curtail; DuPont (Bayer) - Escort, Cimarron, Krovar; Perspective. BASF - Plateau, Overdrive, Harmony; Wilbur Ellis - 2,4D and surfactant (Liberate, Insist, and MSO); Monsanto - Roundup

### **E. Biological Control** (include a list of biocontrol used in your county's weed program)

- Meagher County Weed District will continue to implement an active biological program utilizing all available insects, fungus and pathogen control for: Leafy spurge, St. Johnswort, Musk Thistle, Canada Thistle, Diffuse Knapweed, Spotted Knapweed and Russian Knapweed.

### **F. Mechanical**

- Meagher County Weed District will continue to support roadside mowing by Meagher County and State Highway road crews.

### **G. Revegetation** (County Weed Control Act 7-22-2152)

- Meagher County Weed District requires a re-vegetation plan for all gravel pits, mines, subdivisions, road disturbances and quarries.

## **IV. Pesticide Management Goals and Procedures**

The Meagher County Weed District is in compliance with the Montana Pesticide Act (Title 80, Chapter 8 Section 80-8-101 through 80-8-405). The control of pesticides and their use is essential for the protection of humans and the environment. Pesticides are considered valuable and necessary to provide sufficient quantity of quality foods, protection of humans from vectorborne diseases, and invasive plant species.

The pesticide management goals for the Meagher County Weed District are:

- 1) Provide a safe work environment for the weed coordinator and all weed district staff; and
- 2) Insure herbicides are safely applied and the pesticide label is followed to have a healthy environment.

Meagher County Weed District has the following procedures when dealing with pesticides:

- 1) Water Quality Protection – Insure that all label directions are followed.

Extreme care will be utilized in all riparian areas, adjacent to any water and in areas with shallow groundwater. Other sensitive areas include course-textured soils that are subject to the pesticide moving off the target area.

1a) Provide and utilize anti-siphon devices to insure that chemicals do not enter water sources during all fill operations.

2) Public and Worker Safety – Proper PPE's will be provided for all employees and will be worn. All employees will follow all label directions regarding wearing of PPE's. Any re-entry in sprayed area will be in accordance with label directions. Extreme care shall be taken to insure the public's safety

3) Equipment Selection and Maintenance –Equipment selection will be made keeping safety, efficiency and reliability in mind. A servicing and maintenance plan will be provided for each piece of equipment and adequate records kept of repairs and maintenance

4) Pesticide Selection – Selection will be based on safety, cost, risks, and effectiveness of the chemical. Consideration will also be given to actual amount of chemical used.

a) Application – Application will be made with suitable equipment and will be in accordance with correct weather conditions, wind, temperature, and humidity. An approved surfactant and adequate carrier will be utilized to insure good coverage. In all cases, application will be in accordance with label directions. Droplet size will be controlled to reduce drift.

b) Mixing and loading – All mixing and loading will be in pre-approved locations to insure there will be no offsite movement of chemical. Anti-siphon devices will be utilized to insure that water sources will not be contaminated by chemicals. Label directions will be utilized.

c) Storage and disposal – All storage of chemicals shall be in the approved Chemical Storage Facility located at the Meagher County Weed Department. Disposal of all containers will be in accordance with State, Federal and local laws and following label directions. All plastic containers will be rinsed a minimum of three times and the water utilized in the spray mix. Use of bulk containers that can be returned for refill is encouraged. An active container recycling program will be followed.

## **V. Special Management Zones and Requirements**

### **A. Gravel Pits**

1) Current Program: All gravel pits and sources shall have an approved reclamation program with signed and approved weed management plan.

2) Need for Action: Follow up with any needed modification to plan. Reseed and provide necessary weed control measures

### **B. Subdivisions**

1) Current Program: Meagher County Subdivision plan updated in September

2007. Plan requires an approved weed management plan.

2) Need for Action: Follow up on existing subdivisions and provide necessary assistance where noxious weed problems exist. Provide assistance to any new subdivisions.

### **C. Utility Companies**

1) Current Program: Current utilities are limited to: Northwest Energy and Central Montana Communications. They provide adequate management and have their employees or contractors provide the reclamation and weed control.

2) Need for Action: Support existing program

### **D. Cities of White Sulphur Springs, Martinsdale and Ringling**

1) Current Program: Meagher County Weed District provides education and control activities for these three cities (and towns).

2) Need for Action: continue with present program

## **VI. Current Program and Program Needs**

### **A. Meagher County Weed District**

1) Current Program 7-22-2126 MCA subsection 1  
Meagher County Weed District shall:

- Administer Meagher County's Noxious Weed Program
- Establish management criteria for all noxious weeds on land within the district
- Make all reasonable efforts to develop and implement a noxious weed program an covering all land within the district owned or managed by State and Federal Agencies

2) Need for Action: Additional work with Federal Agencies with their program

### **B. Noxious Weed Seed Free Forage Program (7-22-2126 MCA subsection 2)**

1) Current Program

- Meagher County Weed District is the lead agency in developing and implementing the Noxious Weed Free Forage Program. The Supervisor shall retain certification to make inspections.

2) Need for Action: Expand program to include campgrounds on State managed lands and encourage hunting/fishing guides to implement program

### **C. Private Landowners**

1) Current Program

- Meagher County Weed District shall:
  - a. Provide assistance with identifying, mapping and controlling noxious weeds
  - b. Develop Weed Management Areas that have common problems and are willing to work on a common goal controlling the noxious weeds within the proposed area
  - c. Provide assistance with applying for cost-share through the Noxious Weed Trust Fund or similar State and Federal Programs.

- d. Assist landowners with an Integrated Weed Management program that includes: biological, cultural, mechanical and chemical control
- e. Provide follow-up with landowners to analyze effectiveness of their program.

2) Need for Action: Develop an adequate budget that permits a staffing level that permits additional employees to assist in this area.

**D. Cities and Towns**

1) Current Program:

The towns of Martinsdale and Ringling are currently not incorporated towns, thus are managed by Meagher County. As such, Meagher County Weed District is responsible for all weed control efforts within the towns.

The City of White Sulphur Springs is an Incorporated City and has an agreement with the Meagher County Weed District to provide weed control on all streets and alleys. City Ordinances prohibit weeds of all types and requires their management and control.

- The Meagher County Weed District provides management and control to City owned property, (shops, gravel pits and storage, lagoon and vacant lots).
- Provide assistance to individual landowners with identification and control of noxious weeds

2) Need for Action: Continued follow up

**E. Meagher County owned/managed lands:**

1) Meagher County Weed District shall be the lead agency in managing and controlling noxious weeds on Meagher County owned and managed lands (road right-of-ways, gravel pits, etc).

**F. Lands Administered by State Agencies**

1) Current Program: Meagher County works with the following State Agencies:

1: Department of State Lands: All State owned lands leased to landowners are reviewed by the DNRC every 5 -10 years. If noxious weeds are found, the Lessee is required by DNRC to develop and implement a noxious weed management plan with the Meagher County Weed District

2: Department of Fish, Wildlife and Parks: The 'Department owns and manages the 'Smith River Fishing Access', Camp Baker, boat camps on the Smith River and manages Martinsdale Reservoir and Newlan Creek Reservoir.

- Meagher County Weed District has will work closely with FWP to insure they adequately control their noxious weeds.

3. Department of Natural Resources and Conservation owns several Irrigation Reservoirs, South Side Canal, and North Fork Diversion Ditch.

- Meagher County Weed District works closely with the irrigation companies and assists with weed management and control efforts

4. Montana Department of Transportation:
- Meagher County Weed District assumes responsibility for spraying Right-of-Ways, gravel pits and borrow-areas.

2) Need for Action: Continue to work with the Various Stage Agencies

**G. Lands Administered by Federal Agencies**

1) Current Program: Meagher County will work with the U. S. Forest Service and the Bureau of Land Management with developing sound weed management plans and implementation of these plans.

2) Need for Action: Weed Control efforts on Federal Lands could use some improvement as they have significant weed problems that are not being adequately managed.

**VII. Estimated Budget for Weed Management Program**

**A. Personnel: \$55,000**

**B. Operations: \$71,000**

**C. Equipment: \$20,000**

**VIII. Plan Implementation and Evaluation**

The key to success of Meagher County’s Weed Management Plan is dependent on the ability of stakeholders to implement action items identified in the Plan. The below table identifies key action items within the plan, responsible entity for implementing the proposed action, and an estimated date for completion.

Evaluation of progress on action items is critical to determine whether modifications or additions to the plan are necessary to improve facilitation and implementation. Meagher County’s Weed Management Plan will be reviewed biennially by stakeholders in the Plan. Status of action items will be reviewed, updated as needed, and suggestions identified for facilitation of the Plan

Action Item	Responsibility	Action Date	Action Required	Progress
Prevention	SMHP, FWP, MCWD	2015-18	Weed Kiosk @ Camp Baker	
		2015-18	Reporting form for noxious weeds on Smith River	

Action Item	Responsibility	Action Date	Action Required	Progress
Education	MCWD	2015-18	1) Participate in Cons. Dist Range Tour 2) Develop Power Point presentation for Conservation District Annual Meeting 3) Presentation at Rotary 4) Participate in Outdoor Classroom and School tours at school system 5) Actively work with Tintina Res. On Weed plan	
Mapping	MCWD	2015-18	1) Continue active GPS mapping system and transfer Delorme mapping programs. 2) Support State Section Based Mapping	
Right-of-Way Control	MCWD	2015-18	1) Lead agency in responsibility for controlling noxious weeds on all right-of-ways	
Federal Agencies	MCWD	2015-18	Continue working with USFS in developing effective weed management plan and implementing on USFS administered lands within Meagher Co.	
Follow-up	MCWD	2015-18	Develop budget to provide funding to provide additional resources for completing follow-up with all management efforts	

## **IX. Appendices**

### **A. & B: State and Meagher County Noxious Weed List with Estimated Acreages**





**ATTACHMENT C**  
**SAMPLE BLACK BUTTE PROJECT NOXIOUS WEED INVENTORY FORM**

**NOXIOUS WEED INVENTORY FORM  
BLACK BUTTE PROJECT**

				<b>SITE:</b>
Examiners:	Date:	Photo: Y N	Ownership: USFS 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 2016



**ATTACHMENT D**  
**MEAGHER COUNTY WEED SUPERVISOR APPROVAL OF PLAN**

## Meghan Wirth

---

**From:** Otto Ohlson <47weed@itstriangle.com>  
**Sent:** Monday, April 11, 2016 7:03 AM  
**To:** Meghan Wirth  
**Subject:** Re: Black Butte weeds

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

First, I want to thank you for the weed plan. It is complete and thorough. I appreciate the effort. I approve the plan. I also approve appendix D. Regarding the map, I have no problem and would probably like the disturbance footprint on the map. Thanks and anything I can do to help, please feel free to ask. Otto

**From:** [Meghan Wirth](#)  
**Sent:** Wednesday, April 6, 2016 9:24 AM  
**To:** [Otto Ohlson](#)  
**Cc:** [Ken Scow](#)  
**Subject:** RE: Black Butte weeds

Hi Otto,

We would be happy to send you a copy of the weed map. Would you want the proposed disturbance footprint included on the map? We are still waiting to receive the disturbance footprint from Tintina. If you don't care to have the disturbance footprint on the map, let me know and I will get the 36"x24" map in the mail to you. Just let me know your preference.

Also, would you/could you please state in an e-mail that you approve of the weed plan so that we may include your approval as Appendix D of the weed plan?

Thanks very much,  
Meghan

Meghan Trainor Wirth  
WESTECH Environmental Services, Inc.  
3005 Airport Road  
Helena, MT 59601  
Office: 406-442-0950  
Mobile: 406-459-9908  
[mwirth@westech-env.com](mailto:mwirth@westech-env.com)  
<http://www.westech-env.com>

---

**From:** Ken Scow  
**Sent:** Tuesday, March 29, 2016 12:07 PM  
**To:** Meghan Wirth <[MWirth@westech-env.com](mailto:MWirth@westech-env.com)>; Dan Culwell <[DC@westech-env.com](mailto:DC@westech-env.com)>  
**Subject:** FW: Black Butte weeds

FYI

**ATTACHMENT E**  
**COMPARATIVE PHOTOGRAPHS OF MUSK THISTLE, BEFORE/AFTER TREATMENT**  
**2014/2015**



**Plot 162 (2014) Facing North Noxious Weed Tailings c.t.**



**Plot 162 (2015) Facing North Noxious Weed Tailings c.t.**



**Plot 162 (2014) Facing South Noxious Weed Tailings c.t.**



**Plot 162 (2015) Facing South Noxious Weed Tailings c.t.**