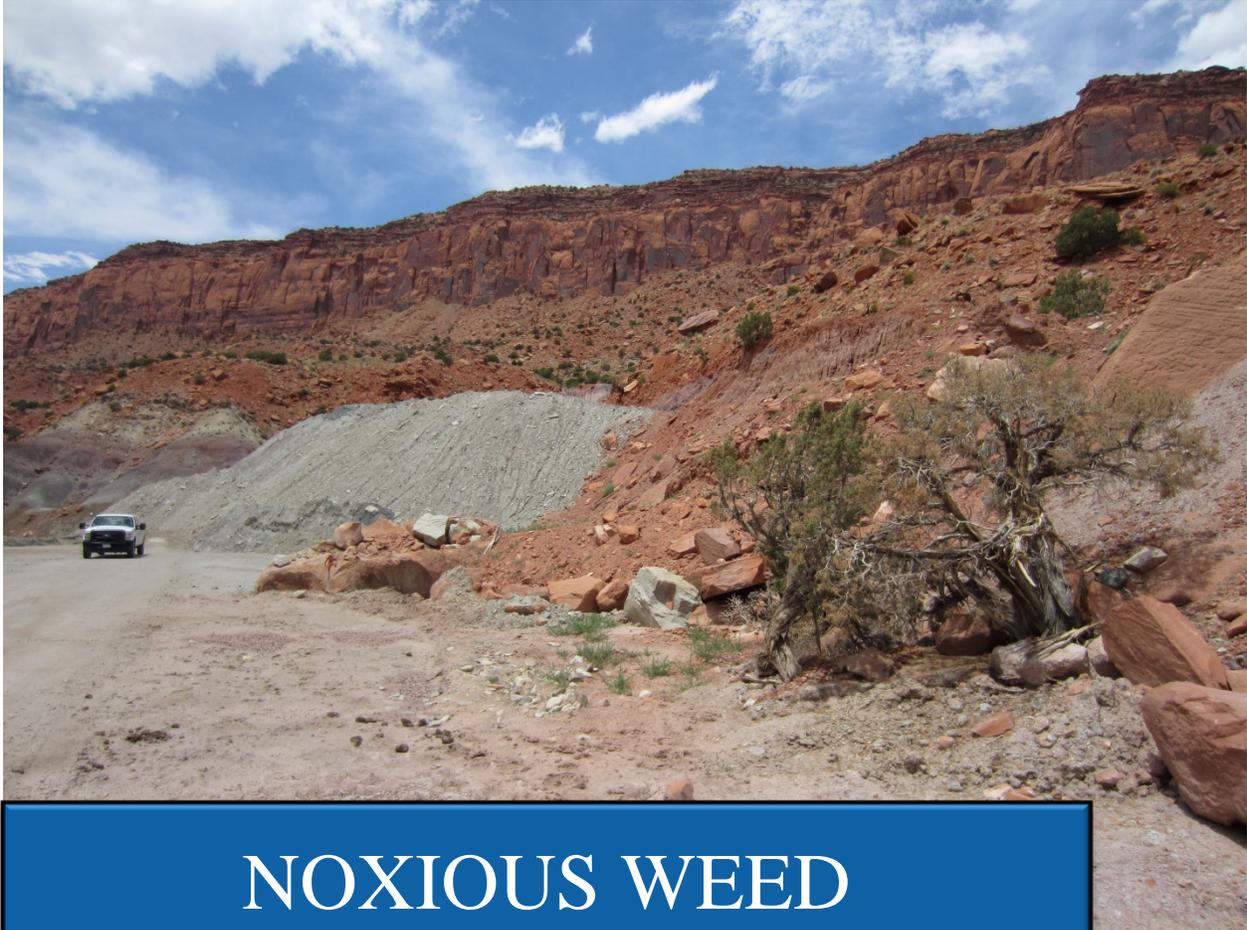


# **Attachment P**

## **Weed Management Plan**



# NOXIOUS WEED MANAGEMENT PLAN for the Daneros Mine

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## Attachment

Attachment A Daneros Mine Quarterly Noxious Weed Inspection Form  
Attachment B Training Documentation Form

## 1.0 INTRODUCTION

This plan was developed by Energy Fuels Resources (USA) Inc. (Energy Fuels) to identify noxious weed and invasive plant control practices to be employed at the Daneros Mine (the Mine) in San Juan County, Utah. The Utah Noxious Weed Act (Utah 2013) defines a noxious weed as any plant that is determined by the Commissioner of Agriculture to be especially injurious to public health, crops, livestock, land, or other property. Equipment and supplies necessary for construction, operation, maintenance and reclamation activities at the Mine, and mining activities themselves, are possible agents for the spread of noxious weeds. The risk of establishing a noxious plant community increases with ground disturbing maintenance activities (Sheley and others, 1999).

The Utah Legislature passed the Utah Noxious Weed Act, Title 4, Chapter 17 into law in 1971 (Utah 2013). Implementation of the law was subsequently guided by the Department of Agriculture rules and regulations (R68) (Utah 2008). In 1999, Executive Order 13112 was signed and required 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
4. Provide for restoration of native species and habitat conditions in ecosystems that have been invaded (USFR 1999)

The Utah Department of Agriculture and Food administers the weed laws and enforcement is the responsibility of individual counties, county weed boards and the county weed supervisor (Utah 2004). In 2008, the state of Utah added 9 new weeds to the Utah Noxious Weed List for a total 27 noxious weeds. The noxious weeds are designated in three different classes and are listed in Table 1 below.

**Table 1. Utah Noxious Weed List**

Common Name	Scientific Name
<b>Class A: EDRR</b>	
Early Detection Rapid Response (EDRR) Declared noxious weeds not native to the state of Utah that pose a serious threat to the state and should be considered as a very high priority.	
Blackhenbane	<i>Hyoscyamus niger</i> (L.)
Diffuse Knapweed	<i>Centaurea diffusa</i> (Lam.)
Leafy Spurge	<i>Euphorbia esula</i> L.
Medusahead	<i>Taeniatherum caput-medusae</i>
Oxeye daisy	<i>Chrysanthemum leucanthemum</i> L.
Perennial Sorghum spp.	including but not limited to Johnson Grass ( <i>Sorghum halepense</i> (L.) Pers. and <i>Sorghum Almum</i> ( <i>Sorghum Almum</i> , Parodi).
Purple Loosestrife	<i>Lythrum salicaria</i> L.
Spotted Knapweed	<i>Centaurea maculosa</i> Lam.

Common Name	Scientific Name
Squarrose Knapweed	Centaurea Squarrosa Gule.
St. Johnsworts	Hypericum perforatum L.
Sulfur cinquefoil	Potentilla recta L.
Yellow Starthistle	Centaurea solstitialis L.
Yellow Toadflax	Linaria vulgaris Mill.
<b>Class B: Control</b>	
Declared noxious weeds not native to the state of Utah, that pose a threat to the state and should be considered a high priority for control.	
Bermudagrass*	Cynodon dactylon (L.) Pers. Broad-leaved Peppergrass Lepidium latifolium L. (Tall Whitetop)
Dalmation Toadflax	Linaria dalmatica (L.) Mill
Dyers Woad	Isatis tinctoria L.
Hoary cress	Cardaria spp.
Musk Thistle	Carduus nutans L.
Poison Hemlock	Conium maculatum L.
Russian Knapweed	Centaurea repens L.
Scotch Thistle (Cotton Thistle)	Onopordium acanthium L.
Squarrose Knapweed	Centaurea virgata Lam. ssp
<b>Class C: Containment</b>	
Declared noxious weeds not native to the state of Utah that are widely spread but pose a threat to the agricultural industry and agricultural products with a focus on stopping expansion.	
Field Bindweed (Wild Morning-glory)	Convolvulus spp.
Canada Thistle	Cirsium arvense (L.) Scop.
Houndstounge	Cynoglossum officianale L.
Saltcedar	Tamarix ramosissima Ledeb.
Quackgrass	Agropyron repens (L.) Beauv.
* Bermudagrass (Cynodon dactylon) shall not be a noxious weed in Washington County and shall not be subject to provisions of the Utah Noxious Weed Law within the boundaries of that county. It shall be a noxious weed throughout all other areas of the State of Utah and shall be subject to the laws therein.	

Source: Utah 2008

The San Juan County's Weed Supervisor was contacted and confirmed that four additional weed species are of concern in San Juan County, but none of them could exist in the area of the Mine (Eberling 2014).

## 2.0 PURPOSE

The purpose of this Weed Management Plan is to outline methods for reducing or eliminating existing weed infestations and preventing the spread of new noxious weeds to the extent feasible

for the life of the project. Energy Fuels and its contractors will be responsible for carrying out the procedures described in this plan.

The Mine is located on and surrounded by land owned by the Bureau of Land Management (BLM). Implementation of this Weed Management Plan throughout the life of the mine is required by the BLM (BLM 2011). Execution of the plan will help keep the project area free of species that are not yet established, and will set priorities for the control or elimination of noxious weeds that have already been established at the site. If necessary, Energy Fuels will consult with the BLM, the Utah Division of Oil, Gas and Mining (UDOGM), and the San Juan County Weed Control Supervisor regarding problematic weed infestation areas, and appropriate control measures will be agreed upon prior to initiation (BLM 2011). Energy Fuels' efforts to control weed infestations in the Mine area will have limited success without concurrent control of weed infestations in the surrounding areas.

### 3.0 WEED CONTROL AREA

Energy Fuels will implement this Weed Management Plan within in the Weed Control Area which includes lands disturbed by construction activities plus a 30-foot buffer area around the disturbances. Existing disturbance associated with the Mine includes the Daneros Portal Area and two ventilation shafts. Future surface disturbance areas may include the Bullseye Portal Area, the South Portal Area, additional ventilation shafts, future areas of exploration drilling, and new access roads.

### 4.0 NOXIOUS WEED MANAGEMENT

Noxious weeds are spread by a variety of means including humans (e.g., workers and recreationalists), vehicles, construction equipment, construction, maintenance and reclamation materials, livestock, and wildlife. Implementation of preventive measures to control the spread of noxious weeds is the most cost-effective management approach.

#### 4.1 Preventive Measures

The following preventive measures will be implemented to prevent the spread of noxious weeds during construction, operation and reclamation activities:

1. A copy of the Weed Management Plan will be provided to the mine site manager. Attachment A to the plan contains the Mine Quarterly Noxious Weed Inspection Form, which includes pictures of noxious weeds that may exist within the project area.
2. Energy Fuels and its contractors will be trained on methods for cleaning equipment, identification of problem plant species in the project area, and procedures to follow when a noxious weed is located. Training will be documented on the form included as Attachment B.

3. Energy Fuels will flag all known noxious weeds (for avoidance) prior to initiating new construction to prevent the spread of existing populations found in the designated weed control area.
4. Equipment, materials, and vehicles will be stored at specified work areas or construction yards. All personal vehicles, sanitary facilities, and staging areas will be confined to a limited number of specified weed-free locations to decrease chances of incidental disturbance and spread of noxious weeds.
5. Disturbed areas will be seeded following completion of activities to reduce the potential for the establishment and spread of noxious weeds. Seeding should occur as soon as possible following construction and during the optimal seasonal time period. Only certified “weed-free” seed mixes, approved by the BLM and UDOGM, will be used.
6. All introduced construction materials used for the mine, such as straw and fill, will also be certified weed-free.

## 4.2 Control Measures

Energy Fuels personnel will conduct quarterly noxious weed inspections to evaluate site conditions and determine if weed control measures need to be implemented. Attachment A contains the Daneros Mine Quarterly Noxious Weed Inspection Form. If it is determined that pesticides should be used in the project area to control weeds, a Pesticide Use Proposal (PUP) will be sent to the BLM for approval. When needed, annual spraying will be conducted during the months of May and June; however the potential for fall treatment does exist for some species. Annual spraying will continue, as necessary, to control noxious weeds in the weed control area for the life of the project.

The PUP will identify the chemicals that will be used to control targeted species. Only EPA-registered pesticides will be used. Pesticide use will be limited to nonpersistent, immobile pesticides and will be applied in accordance with label and PUP directions. Spraying will be conducted by Energy Fuels or a qualified contractor and in consultation with designated BLM, UDOGM, and San Juan County personnel. Rather than broad application, the intent of applying herbicide will be to treat only designated areas.

It is anticipated that most spraying will be conducted by hand or using ATV-mounted spray equipment, supported by one or more four-wheel drive pickups. Pickups will carry necessary chemicals, fluid pumps, tools, and water to provide a base station for refilling of ATV spray tanks. Spraying infestations within the weed control area will be conducted by ATV, using hand-held spray guns with 25 to 50 foot hoses attached to spray tanks or by using 8 to 12 foot spray booms. The spray booms will be utilized for treating larger areas on roadbeds and on gentle to moderately steep terrain. All spraying equipment shall be calibrated to verify the proper rate of herbicide is applied.

Following annual spraying, a monitoring survey will be conducted to determine if noxious weeds remain in the project vicinity. These monitoring surveys are expected to occur in the late summer or early fall (August-September).

## 5.0 REPORTING

Energy Fuels will report annually to the BLM and UDOGM regarding the previous years' weed control activities. The report will:

1. Detail the current status of noxious weed occurrence, distribution and abundance
2. Summarize activities conducted in the project area during previous years
3. Include copies of the quarterly noxious weed inspection forms
4. Outline projected activities for the following year

This report will include timing of surveys, herbicide treatments, amount and types of chemicals applied, and a list of participants and their activities. These reports will continue annually for the life of the project, or as required by designated federal, state and county personnel, to verify that long-term noxious weed management plan control measures are effective in the weed control area.

## 6.0 REFERENCES

Bureau of Land Management (BLM) 2011. Decision Record, Finding of No Significant Impact, and Environmental Assessment for the Daneros Mine Project. June 2011.

Eberling, Jim. 2014. Personal Communication between Jim Eberling, San Juan County Weed Supervisor, and Andrea Reither, Environmental Permitting Specialist with Energy Fuels. July 21, 2014.

Sheley, R.L., Manoukian, M., 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.

Utah Weed Advisory Council and The Utah Weed Control Association. 2004. *The Utah Strategic Plan for Managing Noxious and Invasive Weeds*. February 2004. Available at <http://www.utahweed.org/>.

Utah Administrative Code. 2008. "Rule R68-9. Utah Noxious Weed Act."

Utah Code/Constitution. Last amended in 2013. "Title 4 Utah Agricultural Code Chapter 17 Utah Noxious Weed Act"

# ATTACHMENT A

# Quarterly Noxious Weed Inspection Form



**Mine name, site name:**

**Inspector name, title:**

**Inspection date, time:**

State Noxious Weed		Weed on Mine Site		Action Taken (If Needed)
		No	Yes	
Black Henbane				
Diffuse Knapweed				
Johnsongrass				
Leafy Spurge				
Medusahead				
Oxeye Daisy				
Purple Loosestrife				
St. Johnswort				
Spotted Knapweed				
Sulfur Cinquefoil				
Yellow Starthistle				
Yellow Toadflax				
Bermudagrass				

State Noxious Weed		Weed on Mine Site		Action Taken (If Needed)
		No	Yes	
Dalmatian Toadflax				
Dyer's Woad				
Hoary Cress				
Musk Thistle				
Perennial Pepperweed				
Poison Hemlock				
Russian Knapweed				
Squarrose Knapweed				
Scotch Thistle				
Canada Thistle				
Field Bindweed				
Houndstongue				
Quackgrass				
Saltcedar				

# ATTACHMENT B

