

# STATE OF COLORADO

**DIVISION OF MINERALS AND GEOLOGY**  
Department of Natural Resources

1313 Sherman St., Room 215  
Denver, Colorado 80203  
Phone: (303) 866-3567  
FAX: (303) 832-8106

*Min handbook ✓*



Bill Owens  
Governor  
Greg E. Walcher  
Executive Director  
Ronald W. Cattany  
Acting Division Director

**To:** Mined Land Reclamation Board  
**From:** Bruce Humphries *HBJ*  
**Subject:** Weed Control Policy ✓  
**Date:** July 17, 1998  
Revised February 14, 2002, Oct 28, 2002) ✓

The Governor's Office has made it know to state agencies of the state's need to effectively control the spread of noxious weeds. This policy is intended to address the management of noxious weeds that can occur at mine sites. The question for the Division is what is an acceptable level of weeds at an active mining operation, or on a reclaimed site at the time of financial warranty release request, in terms of the requirements of the Act, Rules, and bond release? The following document is intended to provide the staff and operators guidance on this issue.

## **GUIDELINE FOR THE MANAGEMENT OF NOXIOUS WEEDS AT HARD ROCK AND CONSTRUCTION MATERIAL MINING OPERATIONS**

### **1. INTRODUCTION:**

The infestation of noxious weeds on agricultural land and rangeland is a serious problem in Colorado and other western states. Reduced productivity, loss of desirable plant species diversity and wildlife habitat, and livestock health hazards can result from noxious weed infestations. Land disturbances associated with mining provide conditions conducive to the invasion and spread of a number of undesirable plant species.

This guide has been developed to provide guidance on the management the of noxious weeds on reclaimed areas and other areas that may be affected by mining activities, due to the lack of specific direction in the Act and Regulations. The purpose of the guideline is to set forth Board policy based on the Board's interpretation of the Act, Regulations, and common sense, for the effective control of noxious weeds at permitted mine sites. It is also intended to provide staff guidance as to when an operator has established an acceptable type of plant cover so that the Office may consider financial and performance warranty release.

**2. APPLICABLE REGULATIONS:**

Regulations referenced below reflect the consistent themes that operations and reclamation are to be conducted in such a way as to minimize adverse environmental impacts, and ensure that reclaimed lands will support the approved post mining land use. References to noxious weeds reflect the fact that in some instances, special management practices may be required to control undesirable plant species and prevent their spread in order to minimize offsite impacts, and ensure that reclaimed lands will fully support the post mining land use.

**A. Rule 3.1.10(6) in 2 CCR 407-1, 2 CCR 407-4**

The Rules state, "Methods of weed control shall be employed for all prohibited noxious weed species, and whenever invasion of a reclaimed area by other weed species seriously threatens the continued development of the desired vegetation. Weed control methods shall also be used whenever the inhabitation of the reclaimed area by weeds threaten further spread of serious weed pests to nearby areas."

**B. Rule 4.15.1(3), 4.16.2(2) of 2 CCR 407-1 and 2 CCR 407-4**

In part says, "...inspect the lands and reclamation described in the notice to determine if the Operator has complied with all applicable requirements."

**3. THE OPERATORS RESPONSIBILITY FOR THE MANAGEMENT OF NOXIOUS WEEDS DURING MINING OPERATIONS AND RECLAMATION:**

*It is the responsibility of the operator to monitor affected and reclaimed lands for noxious weed infestations. The need for weed control should be evaluated whenever infestations of noxious weeds occur on affected lands, or reclaimed lands. The Office recommends that operators consult the local weed control agency in their county (state or county extension personnel, or weed control district officials listed in Section 5) or other weed control experts where infestations occur on lands within the permit area. As part of the permit review process and if indicated in the opinion of the Office as a result of the pre-operational inspection, the Division may require a weed control plan as part of the application.*

*If in the course of an inspection of an existing permitted site, the Division finds that there exists an infestation of noxious weeds on lands disturbed by the mining operation, the Division may require a revision to the approved plan, or development of a plan where none exists. Where a noxious weed problem exists, the operator shall be given a reasonable amount of time to demonstrate significant progress correcting the situation prior to any kind of Board action.*

Once developed, the noxious weed control plan shall be submitted to the Division as a technical revision for review and approval.

**4. Regulated Noxious Weeds:**

The following plants are considered to be noxious weeds for the purposes of this guideline and the Hard Rock and Construction Material Regulations. It should be recognized that the following list may not include noxious weed species that are specific

to a particular county or of particular State interest. Operators should check with the county in which their particular mining site is located for additional weed species.

Common Name

Leafy spurge  
Canada thistle  
Musk thistle  
Plumeless thistle  
Scotch thistle  
Perennial Sowthistle  
Russian knapweed  
Spotted knapweed  
Diffuse knapweed  
Yellow toadflax  
Dalmation toadflax

Scientific Name

Euphorbia esula  
Cirsium arvense  
Carduus nutans  
Carduus acanthoides  
Onopordum acanthium  
Sonchus arvensis  
Centaurea repens  
Centaurea maculosa  
Centaurea diffusa  
Linaria vulgaris  
L. genistifolia dalmatica  
or L. dalmatica macedonia

Perennial pepperweed  
Hounds tongue  
Hoary cress (White Top)  
Field bindweed

Lepidium latifolium  
Cynoglossum officinale  
Cardaria draba  
Convolvulus arvensis

**4. NOXIOUS WEEDS AND BOND RELEASE:**

The ultimate decision as to the acceptability of a site for release from reclamation responsibility rests with the Board. However, in most cases it is the responsibility of the individual Environmental Protection Specialist (EPS) to evaluate the site proposed for release and determine if the site has met the reclamation requirements of the Act, Regulations, and the approved permit. In terms of infestations of noxious weeds, the Division will follow its standard financial warranty release process. Any agency or person that objects to the Division's decision may appeal that decision to the Board as allowed for in the Acts and Rules that address Appeals to an agency decision".

*In making the decision to release the site where noxious weeds occur, the EPS shall consider the likely impact to the long term stability and utility of the site given the level of noxious weed occurrences on and off site. If the site is surrounded by an infestation of noxious weeds, a higher level of noxious weed occurrence at the site should be allowed. In pristine areas (visually free of noxious weeds) no noxious weeds should be left untreated. Take into consideration that an established native plant community, if it is the dominant vegetative expression at the site, may be resistive enough to prevent the spread, or invasion by noxious weeds. It should be noted that noxious weed infestations adjacent to lakes, streams and mine site access roads require special consideration regardless of the post mining land use due to the possibility of water or vehicular transport of weed seeds.*

Where there exists a noxious weed problem, the Board insists that the site is properly managed under an approved weed control program prior to granting a release request.

All Minerals Staff  
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February 13, 2003

Once released, the site, along with any on-going weed control program then becomes the responsibility of the landowner.

**5. LIST OF RESOURCE AGENCIES:**

Colorado State University  
Extension Weed Specialists  
Fort Collins, Colorado 80523

The local National Resource Conservation Service and Soil Conservation District

County Extension Service

County Weed Supervisor

Colorado Dept. of Agriculture  
Div. Of Plants Industry  
700 Kipling St. Suite 4000  
Lakewood, CO 80215

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Bill Owens  
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**From:** Bruce Humphries *HBH*  
**Subject:** Weed Control Policy -  
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Leafy spurge	<u>Euphorbia esula</u>
Canada thistle	<u>Cirsium arvense</u>
Musk thistle	<u>Carduus nutans</u>
Plumeless thistle	<u>Carduus acanthoides</u>
Scotch thistle	<u>Onopordum acanthium</u>
Perennial Sowthistle	<u>Sonchus arvensis</u>
Russian knapweed	<u>Centaurea repens</u>
Spotted knapweed	<u>Centaurea maculosa</u>
Diffuse knapweed	<u>Centaurea diffusa</u>
Yellow toadflax	<u>Linaria vulgaris</u>
Dalmation toadflax	<u>L. genistifolia dalmatica</u> or <u>L. dalmatica macedonia</u>
Perennial peperweed	<u>Lepidium latifolium</u>
Hounds tongue	<u>Cynoglossum officinale</u>
Hoary cress (White Top)	<u>Cardaria draba</u>
Field bindweed	<u>Convolvulus arvensis</u>

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Where there exists a noxious weed problem, the Board insists that the site is properly managed under an approved weed control program prior to granting a release request.

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## MINERALS PROGRAM POLICY MEMO

To: Minerals Staff  
From: HBH *HBH*  
Date: January 19, 2005

Bill Owens  
Governor

Greg E. Walcher  
Executive Director

Ronald W. Cattany  
Division Director  
Natural Resource Trustee

RE: Tamarisk and Russian Olive Management at Permitted Mine Sites

This policy supplements the Board approved Weed Control Policy, dated July 17, 1998 and revised 2/14/02, and 10/28/02. This policy pertains just to tamarisk (salt cedar) and Russian olive.

As we developed this amendment to the Board's Weed Policy, we received input from industry associations, state weed experts, the Office of the Executive Director, Department of Natural Resources, the Attorney General's Office (AGO) and Office staff. We appreciate and thank those that provided comments and suggestions.

Our existing Weed Control Policy addresses noxious weeds and provides guidance for mine site control and/or eradication of noxious weeds. The policy currently excludes tamarisk or Russian olive. However, these species are now infestation problems on some permitted sites.

Where tamarisk and/or Russian olive occur and the State Weed Rules do not require eradication from the region in which the mining operation occurs, the Board directs the DMG to process reclamation liability release requests if:

1. The release area was in reclamation prior to January 19, 2005 (grandfathered); and
2. acceptable evidence is provided to the Division that the approved reclamation plan has been fully implemented; and
3. the release area satisfies all other provisions of the Act, Rules and Regulations, and the approved permit application.

However, where tamarisk and/or Russian olive are the sole source for infestation on to adjacent properties that are free of tamarisk and/or Russian olive, these plants shall be eradicated just as any other noxious weed would be required to be eradicated from reclaimed areas under these circumstances.

Mine sites or portions of mine sites that were not in reclamation as of January 19, 2005 shall manage or control tamarisk and Russian olive as noxious weeds.

The level of management or control of tamarisk and Russian olive, depends upon whether the permit area is behaving as a noxious weed "source" or a "sink". A site shall be considered a "source" if it is the sole area harboring noxious weed species which act as a source for propagation, through seeds or other means, to adjacent undisturbed areas. Complete eradication of the target species is typically required for "source" areas. A site may be considered a "sink" if it is adjacent to infested areas that could give rise to an invasion of the site by noxious weed species. The level of management will vary in "sink" areas but total eradication is not likely to be required either during active mining or at the time a release request is made. Noxious weed management plans and future warranty releases shall be based on site-specific criteria in both instances.

The proposed revisions to 8 C.C.R. 1203-19, Rules Pertaining to the Administration and Enforcement of the Colorado Noxious Weed Act, (Weed Rules), requires that regional areas of the State shall eradicate tamarisk. Where the State Weed Rules require regional noxious weed eradication, the DMG, Minerals Program may also require eradication. The Board's weed policy may be revised at any time so that it is consistent with the State Weed Rules and State noxious weed policy.