

February 13, 2025

Chris Girardi
Colorado Department of Reclamation, Mining and Safety
1313 Sherman Street, Room 215, Denver, CO 80203
(720) 793-3041
Delivered via Email

RE: Outstanding Corrective Action, Alamosa Pit No.2, Permit No. M-1983-175; Alamosa Pit No.2
Weed Mitigation Plan

Mr. Girardi:

Please see the enclosed weed mitigation plan for the Alamosa Pit No. 2 (M-1983-175) in response to the Division's January 29, 2025 letter. Following Division feedback, this plan will be included in a follow-up comprehensive submittal for the site. A quote for local weed mitigation services is attached to this submittal.

Weed Mitigation Plan for Alamosa Pit No. 2 – Alamosa County

Executive Summary

This weed mitigation plan outlines the strategic approach for controlling invasive plant species and promoting native vegetation establishment at the Alamosa Pit No. 2 mine site. The plan adheres to Colorado state regulations and best practices for mine site restoration and provides a comprehensive framework for successful site rehabilitation.

Site Assessment and Planning

A thorough site assessment forms the foundation of effective weed mitigation. The initial survey must document the presence and distribution of invasive species across the site, with particular attention to prevalent Colorado mine site invaders such as cheatgrass (*Bromus tectorum*), Russian knapweed (*Acroptilon repens*), Canada thistle (*Cirsium arvense*), yellow toadflax (*Linaria vulgaris*), and spotted knapweed (*Centaurea stoebe*). Beyond weed identification, the survey should evaluate existing native vegetation communities, assess soil conditions, identify erosion concerns, and map

water resources and drainage patterns. This comprehensive assessment will inform the development of targeted control strategies.

Control Methods

The control strategy employs an integrated approach combining mechanical, chemical, and cultural control methods. Mechanical control operations should be conducted during the growing season before seed production occurs. This includes carefully timed mowing, cutting, and hand-pulling operations. All equipment must undergo thorough cleaning before entering and leaving the site to prevent the spread of weed seeds.

Chemical control requires careful consideration of environmental conditions to ensure effective and safe application. Herbicide applications should only proceed when wind speeds remain below 10 mph, no precipitation is forecast within 24 hours, and day time temperatures fall between 50-85°F. The herbicide program may utilize a single chemical or a combination cocktail such as glyphosate for broad-spectrum control, aminopyralid for selective broadleaf control, and imazapic for annual grass management. Applications must be timed to coincide with periods of active growth for maximum effectiveness.

Cultural control focuses on establishing competitive native vegetation through proper soil preparation and strategic species selection. Soil preparation involves adjusting pH as needed, incorporating organic matter, and implementing appropriate erosion control measures. The Division approved reclamation seed mix includes species well-adapted to local conditions.

Implementation Schedule

Implementation begins in the first year with a three-phase approach. The spring phase encompasses the initial site survey, mechanical control implementation, and the first round of herbicide applications. Summer activities focus on continued mechanical control, treatment monitoring, and soil preparation for fall seeding. The fall phase includes native seed installation, erosion control implementation, and comprehensive documentation of first-year results.

The program continues through years two and three with ongoing monitoring and treatment adjustments. During this period, native plant establishment is evaluated, control methods are refined based on observed results, and follow-up seeding is conducted as needed.

Monitoring and Documentation

Effective monitoring requires at least quarterly documentation of treatment activities, environmental conditions, and vegetation response. This includes detailed records of treatment dates and methods, weather conditions during applications, photo documentation of treated areas, vegetation response patterns, and the identification of any new weed populations.

Annual assessments provide a broader view of program effectiveness, examining the overall success of control methods, evaluating native vegetation establishment, identifying necessary methodological adjustments, and measuring progress toward site objectives.

Reporting Requirements

Annual reports must be submitted to the Colorado Division of Reclamation, Mining and Safety, the county weed management authority, and other relevant stakeholders. These reports should provide comprehensive documentation of all monitoring data, detail the control methods employed, and outline recommendations for future management activities.

Safety and Environmental Protection

Environmental protection measures include maintaining current Material Safety Data Sheets for all chemical products, ensuring proper Personal Protective Equipment use, continued implementation of spill prevention and response protocols, and maintenance of established wildlife and water quality protection measures.

Success Criteria

Project completion requires meeting several key benchmarks: reduction of invasive species cover to less than 10% of initial levels, establishment of native vegetation cover exceeding 60%, prevention of new invasive species establishment, achievement of stable soil conditions with minimal erosion, and development of self-sustaining native plant communities.

Adaptive Management

The plan undergoes annual review and updates based on monitoring results, emerging control methods, changing site conditions, regulatory updates, and stakeholder input. This adaptive approach ensures the program remains responsive to site needs and incorporates new information and techniques as they become available.

Budget and Resources

Financial management includes detailed tracking of labor hours, equipment costs, material expenses, contractor fees, and monitoring costs. This comprehensive accounting supports effective resource allocation and future planning.

Emergency Response

The program maintains detailed procedures for addressing chemical spills, fire prevention, erosion control failures, extreme weather events, and wildlife encounters. These protocols ensure rapid and appropriate response to potential emergencies.

Contact Information

The program maintains current contact information for all key personnel, including the project manager, contractors, regulatory agencies, emergency services, and technical experts, ensuring effective communication and rapid response capabilities.

Regards,



Katie Todt, P.G.

Senior Consultant

Lewicki & Associates, PLLC

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Attachments: SouthwayPit2024 – weed quote.pdf

EC: Paul Bottini, Jared Ebert



(719) 580-2439
slvgroundcontrol@outlook.com
1520 W. 7th Street
Alamosa, CO 81101

Date
11/18/2024

Recipient
Southway Construction
117 White Pine Drive
Alamosa, CO 81101

Quote
No. 272

Quote Subject- This quote is for the gravel pit on road 112 S. in Alamosa, CO 81101
Vegetation Management- Apply a mix of long term bareground herbicide to fence line 4' wide. Mow, Cut or Trim overgrowth areas. Apply Herbicide in areas of unwanted growth or noxious weeds. Areas of grass growth are to be maintained, mowed, cut or trimmed. Cut down Russian Olive trees. Place cuttings in designated area for customer to dispose.

Service/Product	Description	Qty	Unit Cost	Total
Mowing/Cutting	A. Fence line (Purple) Mow/Cut	1	80	\$80.00
Herbicide App	Herbicide application after Mowing/Cutting	1	325	\$325.00
	B. Mow, Cut or Trim (Blue) open areas	4	2340	\$9,360.00
	1 per month June July August and September			\$0.00
	Herbicide application after Mowing/Cutting/Trim	2	6340	\$12,680.00
	1 app early June 1 app early August (60 days apart)			\$0.00
	C. Spot Spray (Orange) Gravel piles/work areas	1	2000	\$2,000.00
	Herbiced application to areas of gravel storage			\$0.00
	where a mower can not be used			\$0.00
	D. Tree Removal - Charge per tree. Price based	1	800	\$800.00
	on 10 trees			\$0.00
	Equipment and Mobilization	1	250	\$250.00

Notes:
The application will consist of pre emergent and post emergent herbicides. There will be a one time spot spray treatment at no charge within thirty days of application for residual weeds in the treated bareground area. This proposal is good for Sixty (60) days. Payment is due ten (10) days from the service date.

Subtotal	\$25,495.00
Discount	
Quote Total	\$25,495.00

