



STATE OF
COLORADO

Simmons - DNR, Leigh <leigh.simmons@state.co.us>

C1981022, Elk Creek Mine, TR-77, Initial Adequacy Review

1 message

Simmons - DNR, Leigh <leigh.simmons@state.co.us>

Tue, May 7, 2019 at 4:04 PM

To: Doug Smith <Doug.Smith@oxbow.com>, savageandsavage@earthlink.net

Doug, Mike,

Please find attached the initial adequacy review of TR-77.

Janet Binns helped me with this review, her memo is available through our laserfiche portal - the link below should take you to it directly:

<https://dnrweblink.state.co.us/drms/0/doc/1277582/Page1.aspx?searchid=4b0d8fa3-a10f-4a56-a7d9-5d06d8d2d2c8>

Please let me know if you have any questions

Leigh Simmons
Environmental Protection Specialist



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

P 303.866.3567 x 8121 | C 720.220.1180 | F 303.832.8106

1313 Sherman Street, Room 215, Denver, CO 80203

leigh.simmons@state.co.us | <http://mining.state.co.us/>



TR77 Adequacy 1.pdf

226K



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

Doug Smith
Oxbow Mining, LLC
PO Box 535
Somerset, CO 81434

May 7, 2019

Re: Elk Creek Mine (Permit No. C-1981-022)
Technical Revision No. 77, (TR-77)
Initial Adequacy Review

Dear Mr Smith,

The Colorado Division of Reclamation, Mining and Safety (Division) has completed the initial review of materials submitted by Oxbow Mining, LLC (OMLLC) in support of the TR-77 application. The Division's comments and questions are below, with items that need to be addressed highlighted in bold type.

All comments refer to Exhibit 2.05-E6, which is proposed to be revised in its entirety.

1. Proposed Section 2.3.1 discusses seeding, with details of seed mixtures to be used on privately owned land, BLM land and USFS land given in Tables 3, 4 and 5 respectively.

In the currently approved PAP, letters from the BLM, USFS and Hotchkiss Ranches, Inc. are included. These letters give specific consent to OMLLC for a variance from the woody plant standard as a criteria for revegetation success, see Rule 4.15.8(7).

Please retain the letters from the BLM, USFS and Hotchkiss Ranches, Inc. in the revised Exhibit 2.05 – E6 for future reference.

Please include in the footer to Table 5 the commitment to use at least three of the listed forb species.

2. Proposed Section 2.6 discusses grazing, and states that:
On areas owned and managed by Hotchkiss Ranches, the BLM, and Forest Service, grazing is allowed and not controlled by OMLLC

Rule 4.15.5(1) states that:

Domestic livestock grazing must not commence until one year after seeding or planting and shall be managed to promote the postmining land use.



It is the responsibility of Oxbow to control the grazing of livestock on reclaimed areas, including prevention of grazing on newly seeded areas.

Please revise the text of Section 2.6 to acknowledge the responsibility of Oxbow to manage grazing, in accordance with Rule 4.15.5(1)

3. Proposed Section 2.8 discusses defines the Revegetation Success Criteria against which reclamation will be judged, and provides greatly appreciated clarity.

As the text describes, mining in the Elk Creek Mine area began in 1901 so much of the facilities area was disturbed prior to the passage of the Colorado Surface Coal Mining Reclamation Act and subsequent Regulations. In these “pre-law” disturbance areas no topsoil was salvaged prior to disturbance, and no baseline vegetation data was collected prior to disturbance. The currently approved post-mining land use on the pre-law disturbance areas is either “commercial and industrial”, or “undeveloped land”. These areas are subject to Rule 4.15.10.

Considering the lack of undisturbed land to use as a reference area, and the lack of pre-mining vegetative data, use of the modified Universal Soil Loss Equation (copied below, for reference) to calculate the necessary vegetative cover to achieve erosion control is an acceptable approach, however some additional information regarding the assumptions made in determining parameter values is needed.

$$C = A / (R * K * LS * P)$$

Where:

C = Cover factor

A = Soil loss, (tons/acre/year)

R = Rainfall factor

K = Soil erodibility factor

LS = Length of slope and Steepness of slope factors combined

P = Control practice factor

The proposed value for A is 13.68 tons/acre/year.

Please provide more detail regarding how the proposed value of A was derived.

The proposed value for R is 33.30, based on the 2-year, 6-hour, Type II storm event for Somerset, CO. The Division concurs with this value.

The proposed value for K is 0.2

Please provide more detail regarding how the proposed value of K was derived.

The proposed value for LS is 10.57

Please provide more detail regarding how the proposed value of LS was derived.

The proposed value for P is 1.0, based on the assumption that the reclaimed areas would be unmanaged. The Division concurs with this value.

4. In proposed Section 2.8.1 (and subsequent sections where the “cover only” standard applies), the text states that:

Total vegetation cover shall include live vegetation cover of all plants encountered during the quantitative cover sampling.

Rule 4.15.1(1) states that:

Each person who conducts surface coal mining operations shall establish on all affected land a diverse, effective and permanent vegetation cover of the same seasonal variety native to the area of disturbed land, or species that support the approved postmining land use.

It is the Division’s policy that noxious weed species do not count towards the cover standard (since they do not effectively support any approved post-mining land use); and that annual and biennial species may count for no more than 10% of relative cover.

Please note in the text that noxious species will not be used to count towards the total vegetative cover, and that annual/biennial species will be used to count for up to 10% of relative cover.

5. Proposed Section 2.8.7 defines Revegetation Success Criteria for areas that were disturbed since the passage of the Colorado Surface Coal Mining Reclamation Act and subsequent Regulations, and have a postmining land use of “undeveloped land”. It is proposed that the cover, production and diversity of the reclaimed land in these areas be assessed against a reference area, however no detail is given about the nature or location of the reference area to be used.

Please provide more detail about the reference area referred to in Section 2.8.7, including reference to a map showing its location if appropriate.

The proposed decision due date for TR-77 is May 21, 2019.

Yours sincerely,



Leigh Simmons
Environmental Protection Specialist

CC: Michael S. Savage, Savage and Savage Environmental