

Reclamation Division

Memorandum

TO: Commissioners Christmann, Haugen-Hoffart, and Fedorchak

FROM: Jonathan Emmer and Guy Welch

DATE: November 20, 2023

SUBJECT: Bond Release No. 3 to Surface Coal Mining Permit NACT-9501 held by the Coteau Properties Company, Case No. RC-22-285

Summary

On June 29, 2022, the Coteau Properties Company filed Final Bond Release No. 3 to Surface Coal Mining Permit NACT-9501 requesting release of all reclamation liabilities on 343.03 acres in Section 22, T146N, R88W, Mercer County at the Freedom Mine. These lands are subject to current reclamation laws and rules and Coteau has demonstrated that the reclaimed lands have met all applicable final bond release performance standards. The Reclamation Division recommends approval of this bond release application based on the findings discussed below.

Discussion

The bond release application contains 343.03 acres in Section 22, T146N, R88W that is owned by the Coteau Properties Company. Section 22 consists of 183.2 acres of reclaimed native grassland that includes two stock ponds totaling 1.2 acres, and 158.63 acres that were not affected by mining activities.

Section 22 was initially affected by mining in 2004 and coal removal operations were completed from 2006 through 2009. Backfilling and grading operations were completed from 2007 through 2011 and soil respreading activities and initial seedings to initiate the 10-year revegetation responsibility period were completed in 2004, 2011, 2012, and 2014. These reclaimed lands were respread with 6 to 7 inches of topsoil and subsoil respread depths ranged from 17 to 42 inches based on graded spoil properties.

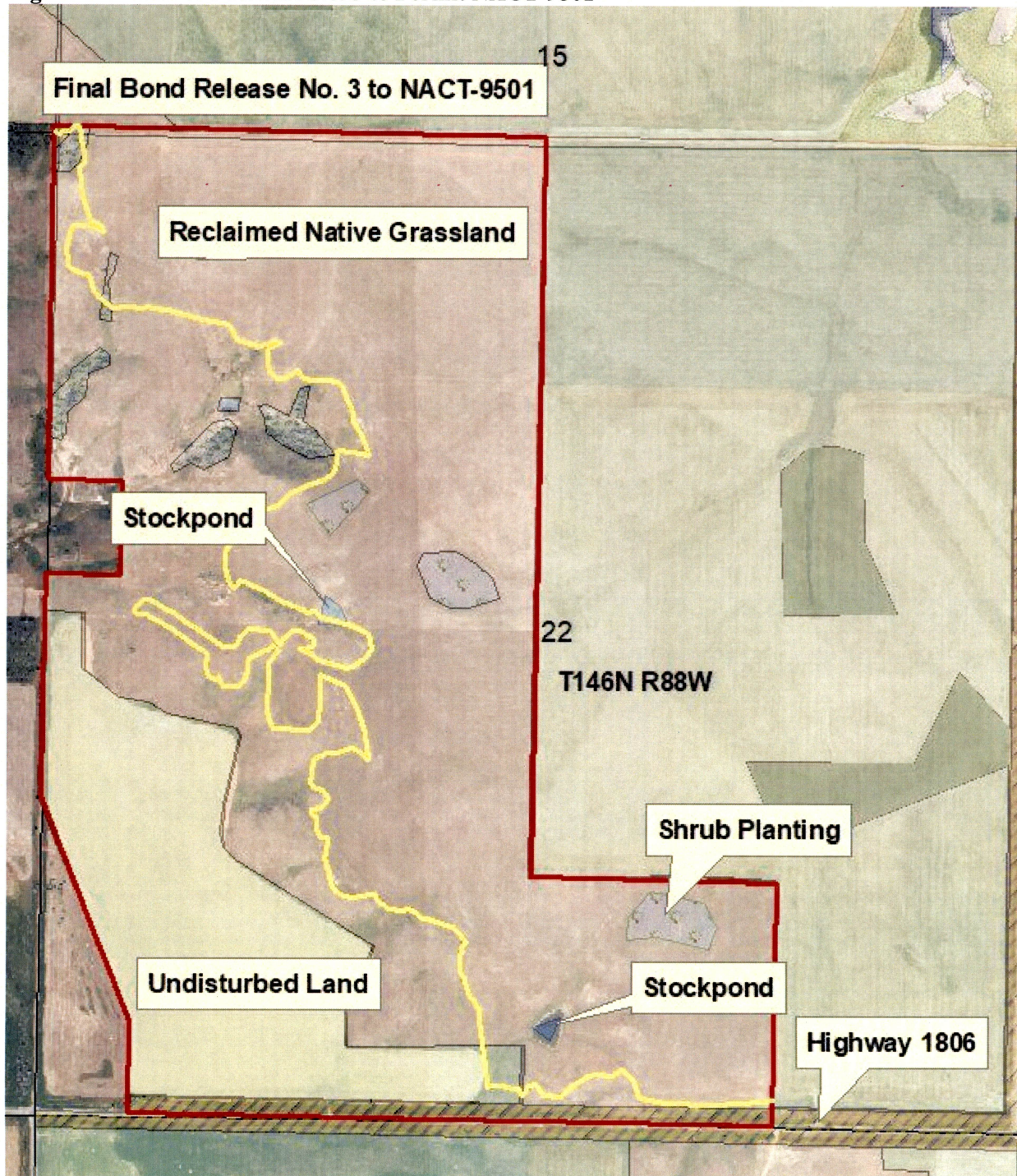
Sediment ponds were removed in 2012 and 2014. Sediment pond P-H22-01 was converted to a developed water resource, and a developed water resource was constructed above sediment pond P-H22-03. On December 29, 2021, the Reclamation Division granted Coteau a variance from the 10-year revegetation responsibility period for 19.7 acres that was reclaimed in 2014. This variance from the 10-year revegetation period allowed final bond release one year earlier than would have otherwise been allowed. This variance also allowed Coteau to use 2018 vegetation sampling data to demonstrate revegetation success.

There have been no previous partial bond releases on this property. Therefore, all four stages of bond release are being requested with this application. The bond release stages are as follows: the first stage is backfilling and grading, the second stage is soil respreading, the third stage is successful vegetation establishment, and the fourth stage is a demonstration of revegetation success as set forth in the Reclamation Division's revegetation success standards document.

Coteau has demonstrated that the revegetation performance standards have been achieved as discussed below and described in the bond release application. Vegetation establishment has been successful and actual topsoil and subsoil respread depths have been verified by Reclamation Division staff. The

topography of the bond release tract has been shaped to conform with the contours of the approved of post-mining topography.

Figure 1: Final Bond Release No. 3 to Permit NACT-9501



Revegetation Success Standards

The Reclamation Division’s revegetation success standards require that each landowner’s property be evaluated independently for the purposes of demonstrating revegetation success. However, Coteau owns much of the land at the Freedom Mine, and they have developed regional standards for lands they own. Coteau allows local farmers and ranchers to utilize their reclaimed agricultural lands during the revegetation responsibility period.

Native Grassland

Mining companies must demonstrate that reclaimed native grassland yields are as good as or better than pre-mine native grassland yields during any two years after year six of the ten-year revegetation responsibility period. The productivity standard is calculated using the Natural Resources Conservation Service (NRCS) ecological site yields of the pre-mine native grassland and these values are climatically adjusted annually using native grassland reference areas. The native grassland ground cover standard is developed using reference areas and a value that the Agriculture Research Service determined to be sufficient to control erosion. The native grassland species diversity and seasonality standards require that at least five native grass species be present on the reclaimed tract using ground cover or production data. The relative composition of all warm-season grasses must be at least 15%. Four native grass species must each contribute at least 3% relative live basal cover or at least 5% by weight during the years sampling data were used for final bond release purposes. Of these four species, at least two must be warm-season species and at least one must be a cool-season grass. For each sampling year that is used to prove reclamation success, the permittee must show that a fifth native grass species is present, and a species list must show that at least three native forb species are present.

The reclaimed grassland was seeded with seven native species: western wheatgrass, slender wheatgrass, green needlegrass, blue grama, sideoats grama, switchgrass, and little bluestem. Vegetation sampling data from 2018 and 2020 were used to demonstrate revegetation success as summarized in the tables below. The productivity and cover standards were developed using the pre-mine ecological sites of Mine Area 4 - North Region of the mine, which includes this proposed bond release area, as indicated in Coteau’s Consolidated Vegetation Success Standards (CVSS) document.

Production

Section 22

Year	Reclaimed Yield (lbs/acre)	Yield Standard (lbs/acre)	Achieved
2018	1,685	1,522	Yes
2020	2,448	2,394	Yes

Ground Cover

Section 22

Year	Reclaimed Cover	Cover Standard	Achieved
2018	91.1%	80.0%	Yes
2020	90.3%	82.6%	Yes

Diversity and Seasonality Standards

Five native grass species must be present and four must each contribute at least 3% of the relative live basal cover or at least 5% of the relative composition by weight (production). Of these four species, at least 2 must be warm-season species and at least 1 must be a cool-season species. Cover or production data must show the relative composition of all warm-season species to be at least 15%. The sampling data or a species list must show at least 3 native forbs are present.

Section 22

Seasonality	Standard	2018	2020	Achieved
% Warm Season Composition	15	49.4	43.3	Yes
Number Cool Season Species >5%	1	2	1	Yes
Number Warm Season Species >5%	2	3	3	Yes

Diversity	Standard	2018	2020	Achieved
Total Number Species Present	5	6	6	Yes
Number Species >5% Composition	4	5	4	Yes
At least 3 native forbs	3	Yes	Yes	Yes

A comprehensive species list in the bond release application, Table 1, documents at least three native forbs in the reclaimed native grassland. Two of three conservation shrub plantings failed to establish in the reclaimed native grassland and a thin stand of shrubs persist in the other planting. Wildlife agencies no longer recommend tree and shrub plantings on grassland areas as these species diminish the habitat value of grasslands for grassland breeding birds of conservation concern. Fencing around these shrub plantings has been removed.

The permanence standard is achieved by the established vegetation's continued persistence in the reclaimed area. This reclaimed native grassland is cross fenced and has been managed with prescribed grazing during the revegetation responsibility period. Fencing and livestock water support facilities have been installed to support the intended post-mine land use. The water facilities include two stock ponds, and a Southwest Water Pipeline pasture tap has been installed in the northwest corner of the tract.

Developed Water Resources

Two stock ponds and a Southwest Water pasture tap were constructed as supplemental livestock water sources to support the post mining land use. Stock pond SP-H22-01 has functioned as intended during the revegetation responsibility period whereas stock pond SP-H22-02 tends to dry up during the summer months. SP-H22-02 is in the tract with the Southwest Water tap and functions as a permanent water source. Coteau has documented that the water in these ponds is suitable for livestock consumption, according to water quality sampling results in the bond release application.

Hydrologic Assessment and Wildlife

Coteau has completed surface and groundwater post-mine hydrologic assessments for the bond release and adjacent area. The reports show that there was no material damage to the hydrologic balance outside of the permit area and no significant negative impacts were observed to the surface and groundwater resources within the bond release area. The bond release application contains a wildlife report that

concludes that habitat in this area has not been diminished. Three conservation shrub plantings were planted to provide landscape diversity and habitat for wildlife, but two of these plantings failed to establish.

General Information

The formal bond release inspection was conducted on September 28, 2022. Participants of the bond release inspection included Reclamation Division staff; Coteau Properties Company staff; John Sieving with the Office of Surface Mining Reclamation and Enforcement (OSMRE), Casper Field Office; and a landowner, Gwen Dinkins. The Mercer County Commissioners and the Mercer County NRCS District Conservationist were invited to participate in this bond release inspection but declined the offer to participate.

OSMRE has reviewed this bond release application and sent a letter concurring with our recommendation of final bond release approval. This bond release application includes approximately 303 acres of leased federal coal in the W½ of Section 22. All available federal coal was mined.

The Reclamation Division has verified that the reclaimed native grassland has been established with a diverse mix of native cool and warm-season grass species. The seeded species included western wheatgrass, green needlegrass, sideoats grama, blue grama, switchgrass, and little bluestem. These species have established throughout this reclaimed land along with invasive non-native grasses, namely smooth brome and Kentucky bluegrass. The established vegetation was providing excellent ground cover and protection from erosion, but a couple of minor erosional features were observed in a reclaimed drainageway during the final bond release inspection. Measures have been taken to stabilize these areas. Developed water resource (DWR) SP-H22-01 was holding water and functioning as intended while DWR SP-H22-02 was dry.

The Reclamation Division verified actual soil respread thicknesses with a truck-mounted soil probe in August of 2022. A small area above a reclaimed sediment pond was identified as an area where an insufficient amount of subsoil might have been respread, but Coteau subsequently provided spoil sample results in this area to demonstrate that enough soil had been respread.

Notice of the bond release application was republished in the official county newspaper, the Hazen Star, weekly from June 1, 2023 through June 22, 2023 after an error was noticed in the September 2022 affidavit of publication. No objections to this bond release application were received.

Coteau is not requesting any reduction in the bond amount since this area is currently covered by a worst-case reclamation condition that exists at the Freedom Mine. This area is part of a consolidated bond area that includes Permit NACT-9501 and other permits at the Freedom Mine. If Bond Release No. 3 to Permit NACT-9501 is approved, Coteau Properties Company will be released from all reclamation liabilities on 323.03 acres of land. If Bond Release No. 3 is approved on November 29th, the bond release will become effective January 2, 2024, unless a formal hearing is requested.