

Reclamation Division

Memorandum

TO: Commissioners Christmann, Haugen-Hoffart, and Fedorchak
FROM: ^{JE} Jonathan Emmer, ^{MJ} Monty Johnson, and ^{GW} Guy Welch
DATE: September 13, 2024
SUBJECT: Bond Release No. 1 to Surface Coal Mining Permit NACT-1801 held by the Coteau Properties Company, Case No. RC-22-428

Summary

On December 13, 2022, the Coteau Properties Company filed Final Bond Release No. 1 to Surface Coal Mining Permit NACT-1801 requesting release of all reclamation liabilities on 197.938 acres located in the S½ of Section 17, T145N, R87W, Mercer County at the Freedom Mine. These lands are subject to current reclamation laws and rules and Coteau has demonstrated 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

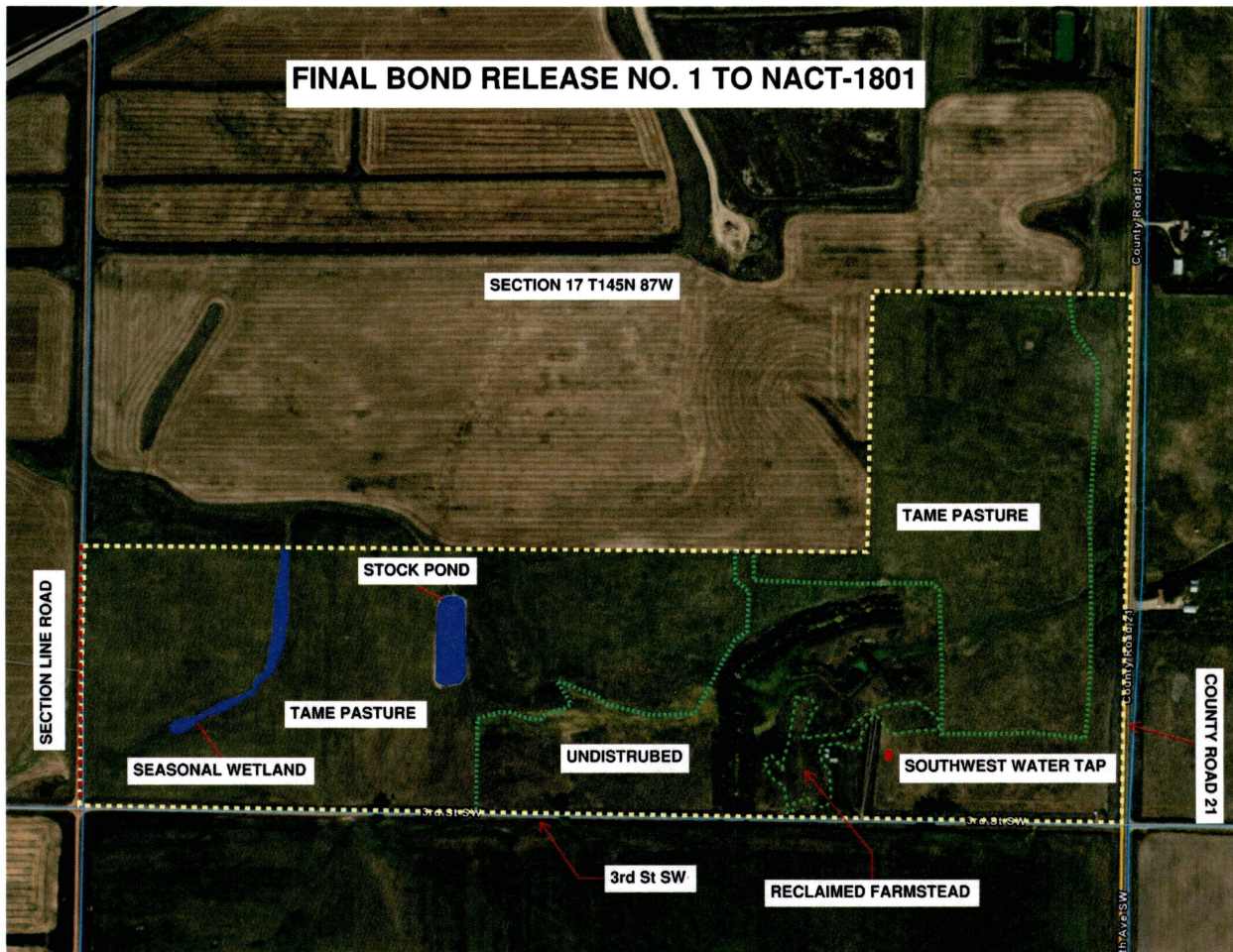
The bond release application contains 197.938 acres in the S½ of Section 17, T145N, R87W which is owned by Coteau Properties Company. This bond release contains 126.3 acres of reclaimed tame pastureland, 1.5 acres of reclaimed stock pond, 1.2 acres of wetland (seasonal), 5.0 acres of reclaimed county road, 5.23 acres of reclaimed farmstead, and approximately 59 acres of undisturbed land.

The bond release tract was originally permitted with Surface Coal Mining Permit NACT-8203, which has since been incorporated into Permit NACT-1801. Surface disturbance began in 1983 and coal removal was completed from 1986 to 1987. Portions of this tract were affected by SPGM stockpiles, a sediment pond, and haul roads that were used to support mining occurring elsewhere. Reclamation efforts began in 1988 and continued until 2007 when the last affected areas were seeded to initiate the ten-year revegetation responsibility period. These reclaimed lands were respread with either 7 or 12.7 inches of topsoil and 11.3 inches of subsoil. Soil respread depths on areas mined were based on graded spoil properties.

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 resspreading, the third stage is successful vegetation establishment, and the fourth stage is a demonstration of revegetation success.

Coteau has demonstrated 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 post-mining topography. **Figure 1** below depicts the bond release tract.

Figure 1: Final Bond Release No. 1 to NACT 1801



Revegetation Success Standards

The Reclamation Division's revegetation success standards require each landowner's property be evaluated independently for the purposes of demonstrating revegetation success. This tract of reclaimed land is owned by the Coteau Properties Company. The tame pastureland productivity standard was established using the soil mapping units of the pre-mining native grassland in Section 17. Coteau allowed local farmers and ranchers to graze cattle on this tame pastureland during the revegetation responsibility period.

Tame Pastureland

Mining companies must demonstrate reclaimed tame pastureland yields are as good or better than the expected yield of the pre-mining grassland soils during any two years after year six of the ten-year revegetation responsibility period. The year 2013 is the seventh year of the revegetation responsibility period. The productivity standard is calculated using the Natural Resource Conservation Service (NRCS) Pasture and Hayland Forage Suitability Group yields of the pre-mine soils. The standard is then multiplied by a Climatic Correction Factor which utilizes the National Agricultural Statistics Service 15-year average divided by the current year's yield. Annual yield estimates were determined by hand harvested plots within enclosures that excluded cattle from grazing. The tame pastureland revegetation

performance standard also requires a demonstration that vegetative ground cover is at least 73%, which includes live and litter. Live species used to determine ground cover must not be detrimental to the post-mining land use. For example, live annual and noxious weed growth cannot be used to demonstrate ground cover. Productivity and ground cover sampling data are summarized in the tables below.

Production

Year	Reclaimed Yield (ton/acre)	Productivity Standard (ton/acre)	Achieved
2013	2.03	2.00	Yes
2017	1.11	1.08	Yes

Cover

Year	Reclaimed Basal Cover %	Basal Cover Standard %	Achieved
2013	98.9	73	Yes
2017	98.5	73	Yes

The performance standard is achieved by the established vegetation's continued persistence in the reclaimed area. This reclaimed tame pastureland has been managed with prescribed grazing during the revegetation responsibility period (portions since 2002). Fencing and livestock water support facilities have been installed to support the intended post-mine land use.

Reclaimed Farmstead

A portion of an abandoned farmstead affected by surface coal mining activities was reclaimed in the same manner as the tame pastureland, and a portion of this area is fenced and grazed with the tame pastureland. For all practical purposes the farmstead site is tame pastureland. Vegetative ground cover is used to determine the revegetation success standard for the reclaimed farmstead area. The vegetation must be adequate to control erosion which has been established at least 73% total ground cover (live and litter). Tame pastureland sample site number 1 East was located on the reclaimed farmstead area and the tame pastureland cover sampling data is also representative of the reclaimed farmstead area.

Reclaimed Wetland

Developed wetland DW-B17-01 was not constructed as part of the post mining land uses but it formed through differential settling in a reclaimed drainageway in the SW¼ of Section 17. This area provides approximately 1.2 acres of habitat that has been classified as a seasonal wetland. DW-B17-01 has three distinct vegetation zones: low prairie, wet meadow, and shallow marsh. The wetland performance standard requires that the wetland basin exhibits the capacity to hold water. This is demonstrated by the establishment of hydric vegetation in the wetland basin. Reclaimed wetlands should develop vegetation zonation characteristic of its intended wetland class. The established vegetation zones and water quality testing indicate that this wetland is a seasonal Class III wetland suitable for livestock and wildlife usage. The low prairie zone is dominated by western wheatgrass, smooth brome, Kentucky bluegrass, and creeping foxtail. The wet meadow and shallow marsh zones are dominated by creeping foxtail, spike rush, and reed canary grass. All zones are vegetated, and the adjacent areas have ground cover adequate to prevent erosion. This seasonal wetland has been managed along with the tame pasture, and cattle utilize the wetland vegetation.

Roads

One-quarter mile of section line road located along the west side of the bond release tract and a portion of section line road on the south side of the bond release tract were directly affected by mining activities. Both roads have been reconstructed according to Mercer County standards. The road ditches are established with cool season grasses consisting primarily of smooth brome and Kentucky bluegrass. These section line roads were inspected and approved by the Mercer County Road Superintendent, Ken Miller, on September 21, 2023.

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 habitat in this area has not been diminished.

General Information

The formal bond release inspection was conducted on September 26, 2023. Participants of the bond release inspection included Reclamation Division staff and Coteau Properties staff. The Mercer County Commissioners, Mercer County NRCS District Conservationist, OSMRE Casper Field Office, and ND Game and Fish Department were invited to participate in the bond release inspection, but all declined the offer.

The Reclamation Division verified that the reclaimed tame pastureland is established with a diverse mixture of tame and native grass species. Originally, this tract was planted to a native grassland seed mixture, but the seeded species have been largely displaced by introduced species. Coteau's efforts to control smooth brome on this tract were not successful and Reclamation Division staff agreed with Coteau, in this instance, it was appropriate to classify the tract as tame pastureland rather than native grassland. The post-mining land use was changed to tame pastureland with Revision 1 to Permit NACT-1801, approved on July 25, 2022. During the final bond release inspection, smooth brome, Kentucky bluegrass, western wheatgrass, green needlegrass, sideoats grama, and switchgrass appeared to be the dominant species established. Plant vigor was high, and the grasses were providing excellent cover and protection from erosion.

The Reclamation Division was initially hesitant to recommend Commission approval of this final bond release application because North Dakota Agricultural Statistic Service (NDASS) Mercer County hayland yield data is not available for 2008, 2011, and from 2014 through 2019. The NDPSC Revegetation Success Standards document states that the climatic correction factor should be calculated using data from the last fifteen years. Coteau initially attempted to use productivity sampling data from 2016 and 2020 to demonstrate revegetation success, but the absence of NDASS Mercer County data did not allow for proper development of a climatic correction factor. The bond release application was revised to use sampling data from 2013 and 2017 rather than more recent years because of the absence of NDASS Mercer County data. The 2017 NDASS yield data from the West Central District is being used to develop the 2017 climatic correction factor. NDASS West Central District data is not available for any year after 2018. The Cropland section of the NDPSC Revegetation Success Standards document provides that NDASS "Agricultural District" data may be used if individual county data is missing. The Tame Pastureland section of the NDPSC Revegetation Success Standards document does not include explicit language regarding the use of NDASS Agricultural District data.

To help demonstrate revegetation success, Coteau included annual unadjusted productivity data from 2012 through 2022 in the bond release application to show the reclaimed tame pastureland has consistently yielded well. This reclaimed tame pastureland yielded an average of 1.42 tons of forage per acre during this eleven-year period which equates to 2,840 pounds per acre.

At the time of the bond release inspection, the reclaimed farmstead area was established with a dense stand of perennial vegetation consisting primarily of smooth brome grass, quackgrass, and Kentucky bluegrass. The established vegetation provides excellent ground cover and protection from erosion.

The developed water resource (stock pond SP-B17-01) was holding water and functioning as intended. This pond is designed as a sump or dugout which means it does not have an embankment or riser to maintain. There are no specific vegetation performance standards for developed water resources.

The seasonal linear wetland was dry. Hydric vegetation is prevalent throughout the wetland. Quackgrass and reed canarygrass appear to generally dominate the low prairie zone around the wetland basin. Spikerush, softstem bullrush, barnyard grass, yellow nutsedge, and carex species were observed growing in the wet meadow zone.

A Southwest Water livestock tap has been installed in the bond release tract. The bond release tract is cross fenced to facilitate rotational grazing, and the pasture tap provides water to tame pastureland in the SE¼ of Section 17. The Reclamation Division advised that a wildlife escape ladder be installed in the tire tank associated with the pasture tap but Coteau has refused to comply with this request.

Notice of bond release application was published in the Hazen Star weekly from September 14, 2023, through October 5, 2023. No objections to this bond release 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-1801 and other permits at the Freedom Mine. If Bond Release No. 1 to Permit NACT-1801 is approved, Coteau Properties Company will be released from all reclamation liabilities on 197.938 acres of land. If Bond Release No. 1 is approved on September 27, 2024, the bond release will become effective on October 28, 2024, unless a formal hearing is requested.