

Reclamation Division  
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Memorandum

TO: Commissioners Fedorchak, Christmann and Haugen-Hoffart  
 FROM: ZAB JWE GW  
 Zanna Brinkman, Jonathan Emmer and Guy Welch  
 DATE: March 2, 2022  
 SUBJECT: Bond Release No. 1 to Surface Coal Mining Permit NACT-9001 held by the Coteau Properties Company, Case No. RC-20-156

**Summary**

On March 25, 2020, the Coteau Properties Company filed Final Bond Release No. 1 to Surface Coal Mining Permit NACT-9001 requesting release of all reclamation liabilities on 811.82 acres of land located in portions of Sections 1 and 2, T145N, R88W at the Freedom Mine. The reclaimed lands are subject to our current reclamation law 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 consists of land in Sections 1 and 2, T145N, R88W that is owned by the Coteau Properties Company. Sections 1 and 2 consists primarily of reclaimed native grassland that includes four stockponds, a reclaimed county road, a seasonal wetland, and land that was not affected by mining. The post-mining land use acreages in each tract (Section) are provided in the land use summary table below.

**Land Use Summary Table**

Tract	Reclaimed Grassland	Reclaimed Stockpond	Reclaimed Wetland	Reclaimed Co. Road	Undisturbed Land	Total Acres
Section 1	246.7	1.7	0	9.0	22.2	279.6
Section 2	436.7	1.0	2.5	1.5	90.5	532.2
<b>Total Acres</b>	<b>683.4</b>	<b>2.7</b>	<b>2.5</b>	<b>10.5</b>	<b>112.7</b>	<b>811.8</b>

Portions of Sections 1 and 2 were initially affected by mining in 1991 and coal removal was completed from 1992 through 1998. Backfilling and grading were completed from 1994 through 2000 and soil resspreading activities and initial seedings were completed from 1995 through 2014. Portions of both tracts were affected by long-term primary and ancillary haul roads, soil stockpiles, and sediment ponds that were not reclaimed until 2011 and 2014. On September 4, 2019, the Reclamation Division granted Coteau a variance from the 10-year revegetation responsibility period for areas reclaimed in 2011 and 2014. This variance from the 10-year revegetation responsibility period allows the pursuit of final bond release two years earlier than would otherwise be allowed.

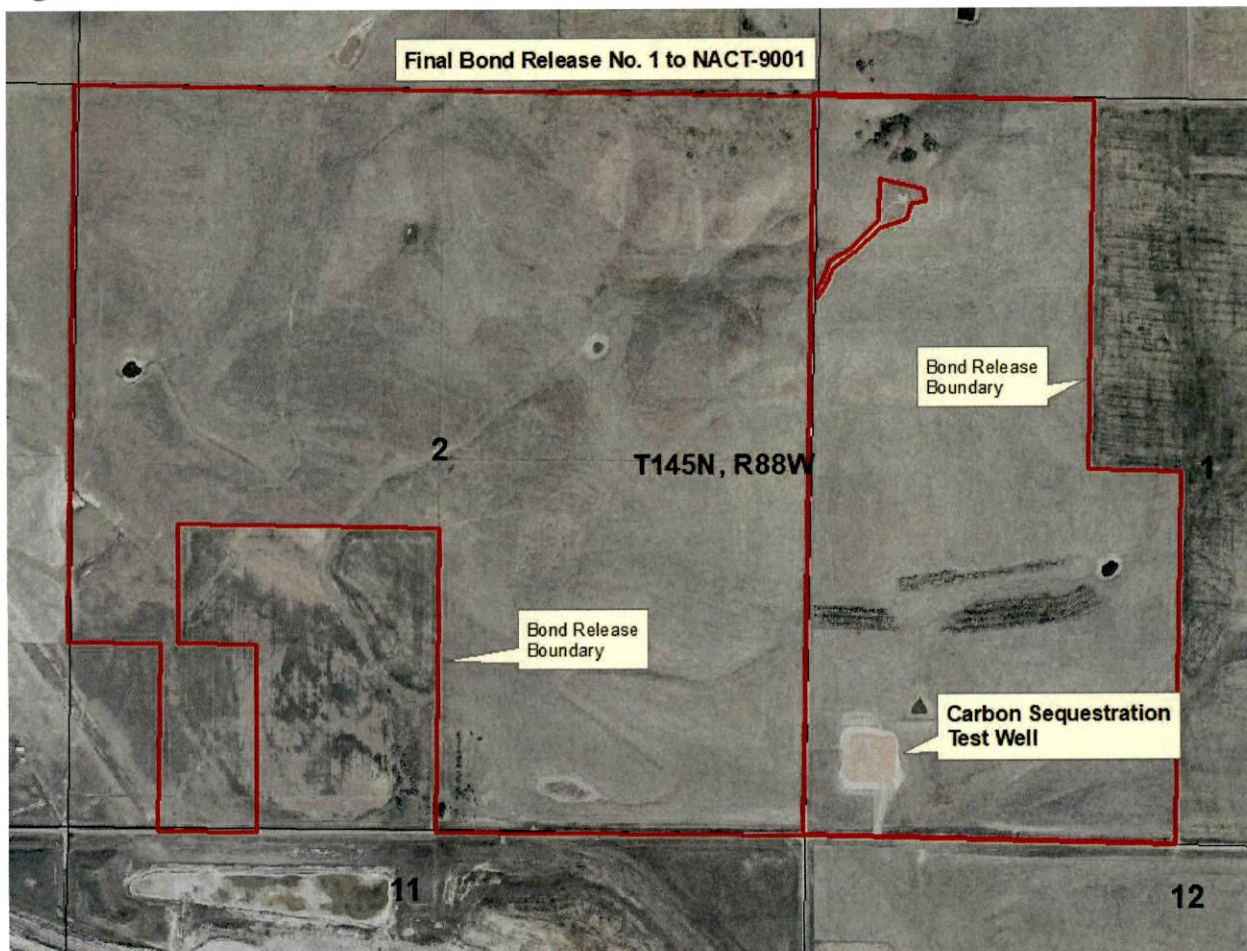
The reclaimed lands were resspread with 6.0 to 12.9 inches of topsoil and subsoil resspread depths ranged from 16 to 42 inches. County Road 15 was reclaimed on a portion of the south side of Sections 1 and 2 and a statutory section line trail was reclaimed that was affected between Sections 1 and 2. Coteau

planted approximately 5 acres of trees and shrubs in the native grassland in Section 1 for wildlife enhancement purposes. These trees and shrubs are considered conservation planting.

There have been no previous partial bond releases on this property. Therefore, first (backfilling and grading), second (soil respreading), third (vegetation establishment), and fourth (vegetation performance standards) stage bond release are being requested for this property.

Coteau has demonstrated that the revegetation performance standards have been achieved for the reclaimed land as discussed below and described in the bond release application.

**Figure 1: Final Bond Release No. 1**



### Revegetation Success Standards

Our revegetation success standards require that each landowner's property be evaluated independently for the purposes of demonstrating revegetation success. However, Coteau has purchased 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 land during the revegetation responsibility period.

## Native Grassland

Mining companies must demonstrate that reclaimed native grasslands yield as good as or better than pre-mine native grassland during any two years after year six of the ten-year revegetation responsibility period. The productivity standard is calculated using NRCS yields of the pre-mine native grassland ecological sites 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 (ARS) 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 is 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 at least three native forbs 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 2015, 2016, and 2017 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 the 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 1

Year	Reclaimed Yield (lbs/acre)	Yield Standard (lbs/acre)	Achieved
2015	3,153	2,487	Yes
2016	2,986	2,505	Yes

#### Section 2

Year	Reclaimed Yield (lbs/acre)	Yield Standard (lbs/acre)	Achieved
2016	2,984	2,505	Yes
2017	2,166	1,225	Yes

### Ground Cover:

#### Section 1

Year	Reclaimed Cover	Cover Standard	Achieved
2015	98.9%	83.3%	Yes
2016	98.5%	83.3%	Yes

#### Section 2

Year	Reclaimed Cover	Cover Standard	Achieved
2016	98.0%	83.3%	Yes
2017	98.8%	83.4%	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 1

Seasonality	Standard	2015	2016	Achieved
% Warm Season Composition	15	31.1	32.7	Yes
Number Cool Season Species >3%	1	2	2	Yes
Number Warm Season Species >3%	2	3	3	Yes

Diversity	Standard	2015	2016	Achieved
Total Number Species Present	5	7	5	Yes
Number Species >3% Composition	4	5	5	Yes
At least 3 native forbs (2018)	3	N/A	N/A	Yes

### Section 2

Seasonality	Standard	2016	2017	Achieved
% Warm Season Composition	15	34.5	20.1	Yes
Number Cool Season Species >3%	1	1	1	Yes
Number Warm Season Species >3%	2	3	3	Yes

Diversity	Standard	2016	2017	Achieved
Total Number Species Present	5	6	8	Yes
Number Species >3% Composition	4	74	4	Yes
At least 3 native forbs (2018)	3	N/A	N/A	Yes

The permanence standard is achieved by the established vegetation's continued persistence in the reclaimed area. This reclaimed native grassland is cross fenced has been managed with rotational grazing during the revegetation responsibility period. Fencing and livestock water support facilities have been installed to support the intended post-mine land use.

## Wetlands

There is one reclaimed seasonal wetland in this bond release application. Reclaimed wetland CW-I02-01 is a 2.5-acre seasonal wetland in the SW $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 2. This wetland is an enhancement feature and is not replacing pre-mine wetland acreage. Wetland CW-I02-01 is five feet deep at its deepest depth and has a contributing watershed of 52 acres. Coteau has provided information in the bond release application demonstrating revegetation success. This wetland has developed a shallow marsh, wet meadow, and a low prairie vegetation zones that have been impacted by cattle. The bond release application includes aerial photography showing the wetland's size and vegetation zonation, a species list of the vegetation in

each zone, and three years of water quality data. These seasonal wetlands benefit a multitude of wildlife species and functions as a water source for livestock.

### **County Roads and Right-of-Ways**

County Road 15 was reclaimed where affected along the south side of Sections 1 and 2 and a section line trail has been reconstructed between Sections 1 and 2 where disturbed. Coteau has granted Mercer County right-of-way easement beyond the statutory right-of-way for County Road 15. County Road 15 and the section line right-of-way are currently open for public use. The Mercer County Road Superintendent inspected County Road 15 and has provided concurrence that the road is in satisfactory condition. County roads are considered industrial land for bond release and the road ditches must have adequate ground cover to control erosion, which is the case for County Road 15.

### **Developed Water Resources**

Four stockponds were constructed as water sources for livestock. These ponds, in addition to four Southwest Water pasture taps, are replacing pre-mine stockponds, springs, and wells that existed on this property prior to mining. All of these ponds were constructed as dugouts so there is no embankment to maintain. 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 the permit area and no significant unmitigated negative impact 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. Conservation tree plantings in Section 1 provide landscape diversity and habitat for wildlife.

### **General Information**

The formal bond release inspection was conducted on September 9, 2020. Reclamation Division and Coteau Properties Company staff participated in the bond release inspection as did two representatives from the Natural Resource Conservation Service (NRCS) Dickinson Soil Survey Office. The Mercer County Commissioners, the Mercer County Road Superintendent, ND Game and Fish Department, OSM, and the Mercer County NRCS District Conservationist were invited to participate in this bond release inspection but declined the offer to participate.

OSM has reviewed this bond release application and they inspected these reclaimed lands on September 16, 2020 with Reclamation Division staff. OSM subsequently sent a letter concurring with our recommendation of final bond release approval. This bond release application includes approximately 275.98 acres of federal coal that were leased and mined in Section 2.

The Reclamation Division has verified that the reclaimed native grassland is established with a mixture of native cool and warm-season species. Vegetation composition differences were apparent between some of the numerous seedings on these tracts of land. Smooth bromegrass and Kentucky bluegrass were quite abundant on some of the older plantings, and alfalfa is prominent in places. Numerous other native grasses, forbs, and shrubs have been established on portions of this reclaimed land, presumably through direct respread of native grassland topsoil. The established vegetation was providing excellent ground

cover and protection from erosion. The reclaimed wetland and developed water resources were holding water.

The Dakota Gasification Company, DGC, a subsidiary of Basin Electric Power Cooperative, drilled a carbon sequester test well in the southwest corner of Section 1 in 2021. This carbon sequester test well is not mining-related disturbance and we have been informed that additional carbon sequestration wells and associated infrastructure, roads, and pipelines, are planned in Sections 1 and 2.

The Reclamation Division verified actual soil respread thicknesses with a truck-mounted soil probe in October of 2021. Coteau's vegetation sampling data from 2015 and 2016 did not include the variance area in Section 1, but Coteau provided 2019 production data demonstrating that the area is yielding well and that it is dominated by the seeded native species. The Reclamation Division has inspected the variance area and has verified that it is established with a dense stand of perennial vegetation that is providing excellent protection from erosion. Some of this variance area has been affected by the carbon sequestration test well.

Notice of the bond release application was published in the official county newspaper, the Beulah Beacon weekly from September 3<sup>rd</sup> through September 24, 2020. 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 still exists at the Freedom Mine. This area is part of a consolidated bond area that includes Permit NACT-9001 and others at the Freedom Mine. If Bond Release No. 1 to Permit NACT-9001 is approved, Coteau Properties Company will be released from all reclamation liabilities on 811.816 acres of land. Assuming March 9<sup>th</sup> approval, the bond release will become effective April 11, 2022, unless a formal hearing is requested.