

PUBLIC SERVICE COMMISSION

Reclamation Division

Memorandum

TO: Commissioners Christmann, Fedorchak and Kroshus
FROM: *DKM* Dean Moos, Zanna Brinkman and Guy Welch
DATE: September 15, 2017
SUBJECT: Bond Release No. 6 to Surface Coal Mining Permit NACT-9101 held by the Coteau Properties Company, Case No. RC-16-646

Summary

On September 16, 2016, the Coteau Properties Company filed the application for Final Bond Release No. 6 to Surface Coal Mining Permit NACT-9101, requesting release of all reclamation liabilities on 128.824 acres of land located in portions of Sections 16, and 17, T145N, R86W 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 bond release performance standards. The Reclamation Division recommends approval of this bond release application based on the findings discussed below.

Discussion

The land in this bond release application is owned by the ND Game and Fish Department and it is part of the Harmony Lake Wildlife Management Area. Coteau deeded this property to the ND Game and Fish Department after creating Harmony Lake and diverting East Antelope Creek into the lake, which was created by a pit adjacent to pre-law orphan spoil. This bond release tract adjoins previously bond released tracts that are also part of the Harmony Lake Wildlife Management Area. Figure 1 is an aerial photo map of the bond release tract.

The bond release tract contains approximately 53 acres of land that was affected by Coteau under current law mining and 76 acres of land that was not disturbed by recent mining activities but consists of pre-law orphan spoil resulting from mining that occurred prior to any reclamation laws in North Dakota. The entire tract has a post mine land use of recreation and the 53 acres disturbed by Coteau was reclaimed to 11.3 acres of wetlands, 13.2 acres of native grassland, 20.824 acres of reclaimed orphan spoil, and 7.5 acres of road right-of-way located along the north side of the tract.

Current law mining disturbance initially occurred in 1995. This involved soil removal activities on areas not previously disturbed, and coal removal operations began in 1996. Coal removal took place from the northern portion of the tract. In addition, a haulroad and three sediment

ponds were constructed on this tract, which were used to support mining that was occurring in other portions of the permit area. Reclamation activities occurred from 2000 to 2013, with most of the reclamation occurring in 2007, 2008 and 2012. The sediment ponds were converted to post-mine wetlands and disturbed land that was not previously affected by pre-law orphan spoils was reclaimed to native grassland. Eight inches of subsoil or high quality overburden and 4 inches of topsoil were respread on orphan spoil areas that were re-affected. The reclaimed native grassland was respread with 8 inches of topsoil and 28 or 40 inches of subsoil depending upon graded spoil quality. The reclaimed native grassland was seeded with Coteau's standard native grass mixture and the reclaimed orphan spoil was seeded to a mixture containing 17 native and introduced species of grasses and forbs.

There have been no previous partial bond releases on this tract. Therefore, first (backfilling and grading), second (soil respreading), third (vegetation establishment) and fourth (vegetation performance standards) stage bond release is being requested. NDAC 69-05.2-12-09(2) allows the Commission to approve a liability period of less than 10-years on recreation land provided ground cover is not less than that required to control erosion or to achieve the approved postmining land use.

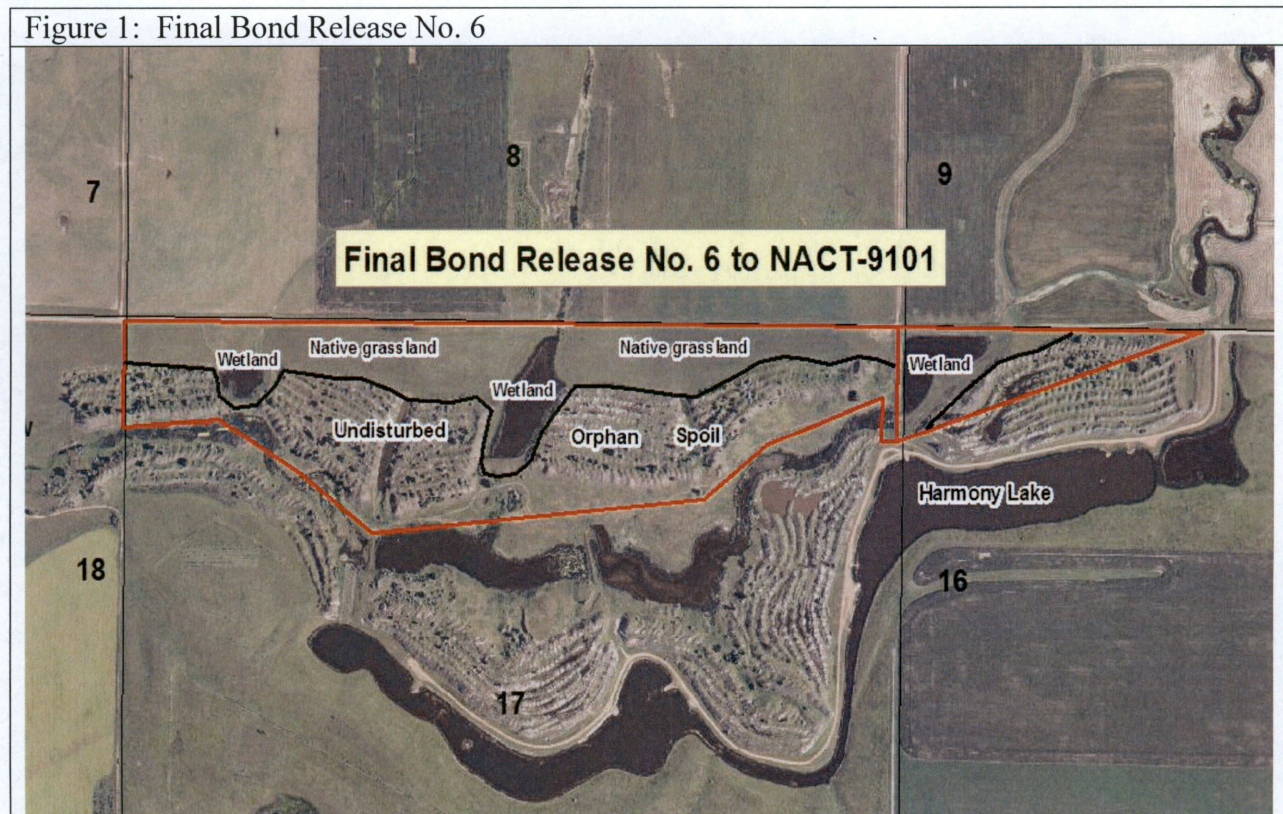
Coteau has demonstrated that the revegetation performance standards for third and fourth stage bond release have been achieved for the reclaimed lands included in the bond release application. The cover standard for the re-disturbed pre-law orphan spoil must not be less than can be supported by the best available plant growth material in the affected area nor less than the ground cover that existed before re-disturbance. Coteau included data in the bond release application demonstrating that these reclaimed orphan spoils have ground cover exceeding 94%, which exceeded the 80.2% cover on adjacent undisturbed pre-law orphan spoil. Ground cover on the reclaimed native grassland was greater than 98% and the established performance standard for grassland recreational land is 73%. Live cover included in the standard must be perennial species not detrimental to the land use, which is the case for both the reclaimed orphan spoil grassland and the reclaimed native grassland. These ground cover values provide documentation that this bond release tract is not contributing suspended solids to streamflow or runoff outside of the permit area as required by NDAC 69-05.2-12-12(7).

The reclaimed wetlands capture all runoff from affected areas in the bond release tract and Coteau has included wetland vegetation and water quality data in the bond release application showing that the reclaimed wetlands have achieved the wetland revegetation performance standards. As previously mentioned, these created wetlands were formed from converted sediment ponds. Created wetland CW-D17-04, was designed as a 2.6 acre seasonal basin, CW-D17-03 is a 4.6 acre seasonal basin and CW-D16-02 is a 4.1 acre semi-permanent wetland. A developed spring approximately 2 miles upstream of created wetland CW-D17-03 keeps this wetland at spill elevation so it has an open water zone more characteristic of a semi-permanent wetland. This wetland is replacing pre-mine wetland acreage that existed north of this tract in Section 8 of the permit. The watershed above each of these wetlands have been entirely reclaimed and these wetlands have been functioning naturally within the postmining hydrologic system. Coteau has demonstrated that the reclaimed wetlands have established vegetation zones dominated with hydrophytes appropriate for the intended wetland classes, considering spring flow and annual precipitation cycles. Three years of wetland data is included in the bond release application, including aerial photography showing the size and vegetation zonation, a complete species list of the established wetland vegetation and water quality information.

A road on the north side of this tract has been reconstructed by Coteau as directed by the Mercer County road authority. Mr. Ken Miller, Mercer County Road Superintendent, inspected this road on September 7, 2016 and he participated in the Reclamation Division's final bond release inspection. The Mercer County Commission accepted the road in its current condition and reopened the road to the public on November 14, 2016. This road is designed to provide the public access to the north side of Harmony Lake Wildlife Management Area.

Coteau has completed surface and ground water post-mine hydrologic assessments for the proposed bond release area and the 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 ground water resources within the bond release area. Created wetland CW-D17-03 has slightly elevated Total Dissolved Solids (TDS) and sulfate levels compared to most reclaimed wetlands and stockponds. These elevated levels can be attributed to the developed spring that provides a water source for this wetland and the TDS and surface levels are equal to or less than the levels observed from springs that existed in the area prior to mining.

A post-mining wildlife assessment for the Island Study Area was compiled and included in the biennial wildlife monitoring report. This report and the bond release application contains information that concludes that habitat on this area has not been diminished.



General Information

The formal bond release inspection was conducted on November 8, 2016. Bill Tviet (Mercer County Commissioner), Ken Miller (Mercer County Road Superintendent), Dan Halstead and Scott Peterson (ND Game and Fish Department), Troy Leingang, Kayla Torgerson, Amanda Hoffer, Ken Link and Mike Berg (The Coteau Properties Company) and several reclamation division staff participated in the bond release inspection. The County Commissioner, Mercer County Road Superintendent and ND Game and Fish representatives, the surface owners, did not express any concerns with this bond release application. NDGF Director Terry Steinwand sent a letter indicating his Department's satisfaction with the condition of this property, and he commended Coteau for developing this area for public use.

The reclaimed native grassland and re-disturbed orphan spoils grassland are well established with the species that were seeded, and other invasive species of grass, including Kentucky bluegrass and smooth brome grass. It was difficult to determine the boundary between the reclaimed native grassland and the re-disturbed orphan spoil in the field even though different amounts of soil were respread and different seed mixtures were planted. Both areas were hayed during the summer of 2016 and the Reclamation Division believes that the pre-mine capability of the reclaimed native grassland has been restored. The established vegetation is providing excellent ground cover and there was no evidence of any erosion on these reclaimed lands. State listed noxious weeds were present on the tract; however, there was evidence that they had been controlled.

The principal overflow outlet of Harmony Lake is located on this bond release tract and it is adjacent to the original channel of East Antelope Creek. There is a concrete energy dissipater at the outlet and the downstream channel is heavily established with cattails. The reclaimed section line trail along the north side of the tract has been constructed similar to a county road. Scoria surfacing material has been placed on the disturbed and reconstructed portion of this road and the ditches are well vegetated.

Actual soil respread thicknesses were verified by Bill Gunnerson, Reclamation Division, with a truck mounted soil probe at several locations on November 2, 2016. The topsoil and subsoil respread thicknesses were satisfactory.

Notice of the bond release application was published in the official county newspaper, the Hazen Star and Beulah Beacon weekly from October 20 through November 10, 2016. 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-9101 and others at the Freedom Mine. If Bond Release No. 6 to Permit NACT-9101 is approved, Coteau Properties Company will be released from all reclamation liabilities on 128.824 acres of land. The bond release will become effective October 23, 2017, unless a formal hearing is requested.