



Public Service Commission

State of North Dakota

ZAB

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INSPECTION REPORT

DATE OF INSPECTION: September 9, 2020
TYPE OF INSPECTION: Partial
PERMITEE - MINE: Coteau Properties Company - Freedom Mine
PERMITS INSPECTED: NACT-0201, NACT-9001

PERSONS ACCOMPANYING INSPECTORS: Sarah Flath, Dillon Belisle and Kayla Torgerson representing the Coteau Properties Company and Jeanne Heilig and John Kempenich representing NRCS Dickinson Soil Survey Office.

INSPECTION CONDITIONS: The inspection was conducted between 9:30 a.m. and 4:00 p.m. CDT. Skies were mostly sunny. The temperature ranged from 32 to 60° F. Access was unrestricted.

GENERAL

This inspection was scheduled for the purpose of evaluating reclaimed lands associated with Final Bond Release Application No. 1 to Permit NACT-9001. The bond release application consists of 811.8 acres of land in Sections 1 and 2, T145N, R88W, in Mercer County. The property contains 683 acres of reclaimed native grassland, 4 reclaimed stock ponds, a reclaimed seasonal wetland, a portion of relocated County Road No. 15 and approximately 112.7 acres of undisturbed land. The property is owned by the Coteau Properties Company.

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. NRCS Soil Scientists from the Dickinson Office participated in the inspection.

Portions of this bond release tract were mined from 1992 through 1998 and initial seedings to initiate the 10-year revegetation responsibility period occurred from 1995 through 2014. The majority of this tract was reclaimed contemporaneously, but a primary haul road in the SW1/4 of Section 1 and an ancillary access road, sediment ponds and SPGM stockpiles that affected portions of Section 2 were not reclaimed until 2014 and 2011, respectively. On September 4, 2019 the Reclamation Division granted Coteau a variance from the 10-year revegetation responsibility period for areas affected by sediment ponds, stockpiles, and haul roads to facilitate eligibility for final bond release.

The initial native grassland seedings in Sections 1 and 2 were hayed for a few years, then fenced and managed with prescribed grazing since 2000. The reclaimed native grassland in Section 1 is fenced into two grazing units and Section 2 is fenced into three grazing units that can generally be

described as the NE1/4, SE1/4 and W1/2 of Section 2. Stock ponds and a seasonal wetland were constructed and Southwest Water pipeline pasture taps supply water to four stock tanks in the W1/2 of Section 1 and E1/2 of Section 2.

The reclaimed native grassland was seeded to western wheatgrass, slender wheatgrass, green needlegrass, blue grama, sideoats grama, switchgrass and little bluestem. Western wheatgrass, green needlegrass, sideoats grama, switchgrass and little bluestem are the principle seeded native species currently established. Vegetation composition differences are apparent between some of the numerous seedings on these tracts of land. Smooth brome grass and Kentucky bluegrass are quite abundant on some of the older seedings and alfalfa is prominent in places. Other native grasses, forbs and shrubs have established on portions of this reclaimed land, presumably through direct respread of native grassland topsoil. Native grass species present that were not seeded includes big bluestem, porcupine grass, prairie Junegrass and prairie sandreed. Numerous species of native forbs that have established on some areas include silverleaf scurfpea, cudweed sagewort, Heath aster, purple coneflower, American licorice, curlycup gumweed, American vetch, prairie rose, wavyleaf thistle, yellow coneflower and Missouri goldenrod. Non-native forbs identified growing on this reclaimed grassland include alfalfa, yellow sweetclover, cicer milkvetch, black medic, Canada thistle and absinth wormwood.

The established herbaceous grassland vegetation yielded well this year and adequate live and dormant cover remains to protect the soil from erosion. A headcut was observed in the drainages way below stock pond SP-02-01 near the disturbance boundary and a few less significant gullies were observed in the drainageway above stock pond SP-02-02 and in the drainageway in the S1/2SW1/4 of Section 1. These erosional features need to be repaired.

Three wildlife habitat enhancement tree plantings comprising 5 acres were planted on reclaimed native grassland in Section 1. These trees were planted in the early 2000's and fenced to exclude livestock. Cottonwood, green ash, common chokecherry, American plum, silver buffaloberry, and silverberry have established in these plantings and the low and tall shrub species have expanded through suckering. Tree and shrub density is variable within and between these three plantings and herbaceous vegetation, primarily smooth brome grass, and the tree and shrub canopy are providing excellent aerial ground cover. Silver buffaloberry, American Plum and chokecherry produced fruit this year. Tree species appear more prominent in the western planting, SB-01-02, compared to the other plantings, SB-01-01 and SB-01-03, and tree height and tree and shrub vigor appeared better in planting SB-01-02. These tree and shrub plantings are providing landscape diversity and an area not intensively used for agricultural purposes.

The reclaimed seasonal wetland, CWI02-01, is approximately 2.5 acres in size. This wetland is not fenced to exclude cattle and thus it also functions as a stock pond. The low prairie and wet meadow zones around the wetland are quite heavily impacted by livestock. The low prairie zone is dominated with native and introduced grasses while reed canarygrass, common spikerush, needle spikerush, hardstem bulrush, water plantain, carex spp. and cattail occupy portions of the wet meadow and shallow marsh zones not heavily impacted by cattle. Steeper sideslopes around the perimeter of the pool area of the wetland limits the size of the low prairie and wet meadow zones and most of the shallow marsh zone is open water that may be supporting species such as American milfoil, sago pondweed and star duckweed. Two gadwall ducks were observed utilizing this wetland.

Reclaimed stock ponds SP-01-01, SP-01-02, SP-02-01 and SP-02-02 are functioning as intended. Cattle utilize these stock ponds and areas around the the ponds are barren of vegetation from cattle

concentration. Surface water runoff passes through stock ponds SP-01-01, SP-02-01 and SP-02-02 to reclaimed drainageways and there is no embankment or risers to maintain on these stock ponds. Stockpond SP-01-02 has a riser that functions as the principle spillway. A trash rack should be installed on top of this riser as recommended by NRCS Agriculture Handbook No. 590. A diversion has been constructed west of stock pond SP-02-01 to increase the watershed size of this pond. A circuitous waterway has been constructed on a fairly long and steep slope in the S1/2 of the SE1/4 of Section 2 to direct surface water runoff over this slope to created wetland CW-102-01. The diversion above stockpond SP-02-01 and this drainageway in the SE1/4 of Section 2 are stable and no erosion was observed in these drainage ways.

Two rock piles were observed on the reclaimed native grassland. These features are not viewed as something detrimental to the post mining land use.

Relocated County Road No. 15 has been constructed on the section line between Sections 1 and 12 and 2 and 11 of T145N, R88W. The right-of-way associated with this re-located County road is 150 feet wide. The road is surfaced with gravel and the ditches are established with perennial vegetation, principally smooth brome grass, intermediate wheatgrass, Kentucky bluegrass and alfalfa. The road ditches are stable and the County Road Superintendent has accepted the road in its current condition.

Figure 1 depicts the bond release tract and the attached photographs document conditions during this bond release inspection.

OVERBURDEN/COAL REMOVAL

The 903 dragline was removing overburden from an initial pit for a new pit sequence in the N1/2 of Section 10 in Mine Area 3 of Permit NACT-0201.

SURFACE WATER MANAGEMENT

Sediment pond P-W32-02 was holding water about 6 feet below riser spill elevation.

STOCKPILES

Mulch was being crimped into subsoil stockpile SS-428, which is located north of the shop office complex in Permit NACT-8601.

REVEGETATION

The NDSU native grassland research site located primarily in the SW1/4 of Section 31 in Mine Area 1 of Permit NACT-0201 was briefly inspected. This reclaimed native grassland was planted in the spring of 2019. The seeded native species are becoming established, but as expected a few annual weeds persist, primarily Russian thistle, on this two-year-old planting. Slender wheatgrass is the dominant species established but western wheatgrass, switchgrass, sideoats grama and green needlegrass are also present throughout in good quantities. This seeding was not clipped or hayed in 2020 so the established vegetation is providing excellent ground cover.

Absinth wormwood is growing throughout the NDSU research site seeding. Mr. Belisle said that an herbicide was applied at a light rate earlier in the growing season to control this noxious weed and that management is limited because of ongoing research activities. Leafy spurge was also identified

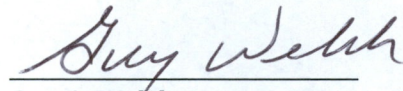
growing in one location on this seeding.

WILDLIFE

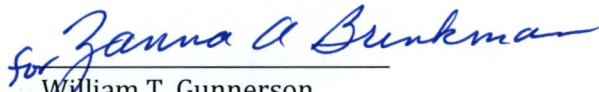
Two gadwalls were utilizing reclaimed seasonal wetland CW-I02-01. A covey of Hungarian partridge and a western meadow lark and were observed on reclaimed native grasslands in Sections 1 and 2 of Permit NACT-9001.

MISCELLANEOUS

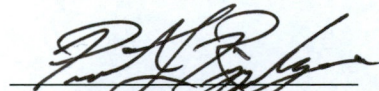
Photographs taken and a GPS tracklog of the route traveled during this inspection are on file with the Reclamation Division.



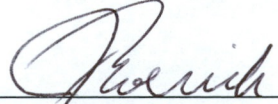
Guy A. Welch
Environmental Scientist



William T. Gunnerson
Environmental Scientist



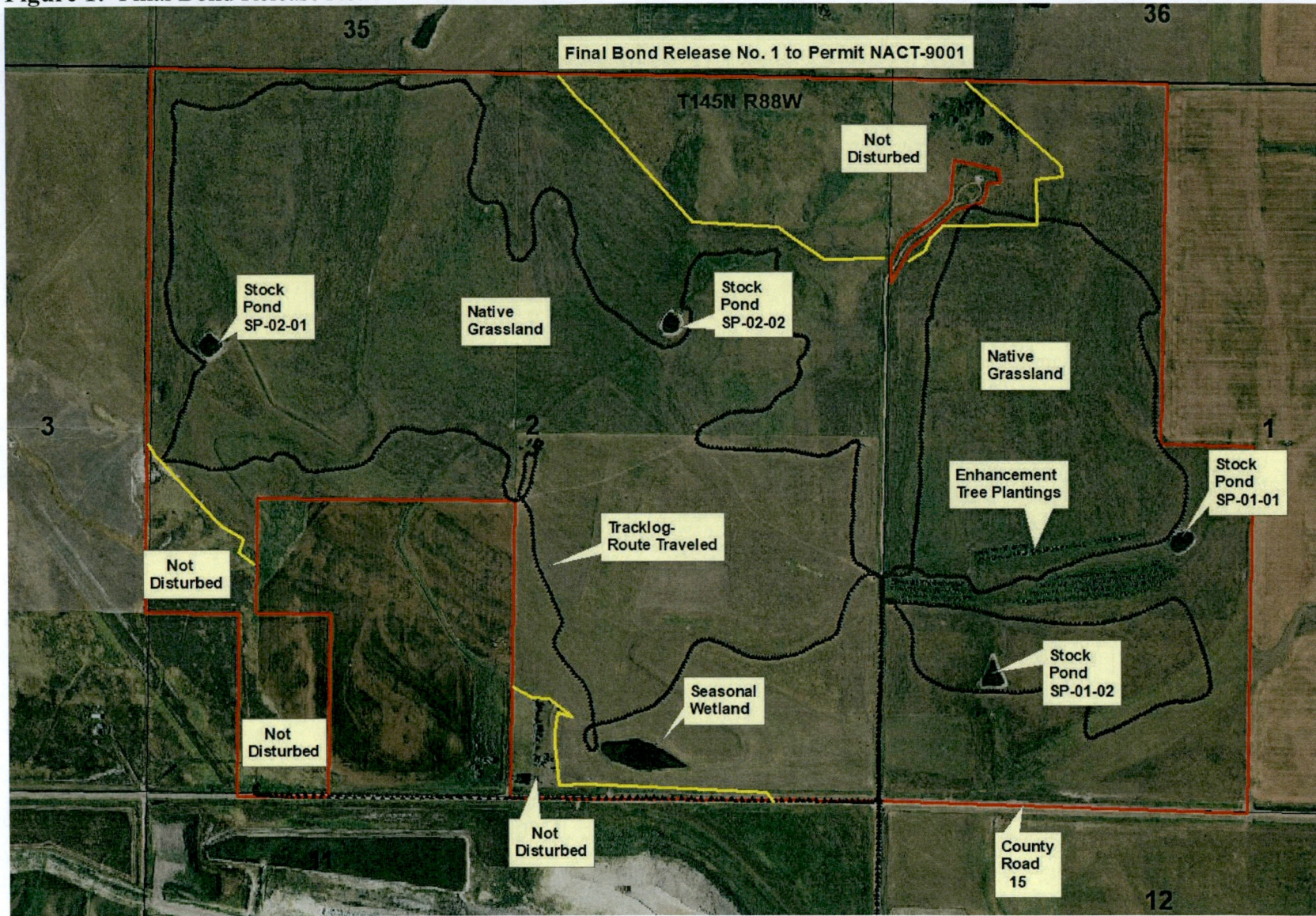
Preston J. Ripplinger
Environmental Scientist



Jeffrey A. Roerick
Environmental Scientist

cc: Sarah Flath
OSM Casper Field Office
Mercer County Auditor

Figure 1: Final Bond Release No. 1 to NACT-9001



Photograph 1: Reclaimed native grassland, NW1/4 of Section 2



Photograph 2: Reclaimed native grassland, SW1/4 of Section 2



Photograph 3: Reclaimed native grassland, SW1/4 of Section 2



Photograph 4: Reclaimed native grassland and reclaimed wetland in SE1/4 of Section 2



Photograph 5: Stock tank with water supplied by Southwest Water Pipeline



Photographs 6: Wildlife enhancement tree planting in the SW1/4 of Section 1



Photograph 7: Stock pond SP-01-02

