



# Public Service Commission

## State of North Dakota

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June 17, 2014

Mr. Donn Steffen  
Engineering and Environmental Manager  
Coyote Creek Mining Company  
204 County Rd. 15  
Beulah, ND 58523

Dear Mr. Steffen:

The Reclamation Division has conducted a technical review of Coyote Creek Mining Company's application for Surface Coal Mining Permit NACC-1302 for the Coyote Creek Mine in Mercer County, North Dakota. The following items must be satisfactorily addressed before the Reclamation Division will recommend Commission action on this application.

### **Section 1.1 – Introductory Information**

1. Since Permit NACC-1301 has already been approved, you should revise the narrative that is provided in the Attachment to the Application Form in Section 1.1.1. The narrative states that NACC-1301 is currently under review by the PSC, and that portion of the sentence can be deleted. (BEB)

### **Section 1.2 – Legal Information**

2. Section 1.2.6, Relation to Mining-Prohibited Areas and Areas Designated Unsuitable, needs to provide additional details. As currently written, much of the narrative in this section basically restates the requirements of NDCC 38-14.1-07. In those instances where specific mining prohibitions apply to structures or features within the proposed permit area, then additional detail needs to be provided in the narrative. For example, please modify narratives to discuss the specific occupied dwellings and other farm buildings located within the proposed permit area, all public roads with the proposed permit and nearby areas, etc. Regarding cultural resource sites eligible for listing on the National Register of Historic Sites, it would be acceptable to reference Sections 1.2.6.1 and 2.8 for location of significant cultural resource sites and plans for avoidance or mitigation of those sites. Also the start of the discussion of public roads on the second page of Section 1.2.6 gives the impression that only one section line road will be disturbed and mining operations will occur within 100 feet of just one other. Please add more detailed descriptions that are specific to this permit and correct as necessary. (DKM/JRD)

3. The Pit Layout and Facilities Map, Section 3.1.3, appears to depict mining through County Road 13 in that portion of the road that lies within the NW¼ of Section 1 and NE¼ of Section 2, T142N, R89W. However, the Proposed Section Line and Road Closures and Setback Waivers Map, Section 1.2.6.1, does not show a projected temporary road closure for this area nor does it show projected operations within 100 feet of the section line ROW in this area. In addition, it appears that several other section line/public road closures or areas where operations will be within 100' of the outside ROW are not depicted on Section 1.2.6.1, such as the short segment of County Road 11 between Sections 2 and 35 and County Road 13 between Sections 25 and 26. Please review Section 1.2.6.1 to ensure that all projected road/section line closures and areas where operations will be with 100' of the outside ROW are accurately depicted and make the necessary updates. (BEB)
4. Please add the Mercer County conditional use documents for the NACC-1301 area and any additional conditional use approval documents that may have been recently acquired to Section 1.2.7. (RLK)
5. Please add the approval documents from Mercer County for the road closures and approvals to operate within 100 feet of the outside ROW obtained for the Permit NACC-1301 area to Section 1.2.8 – Mercer County Section Line Right-of-Way Closure and Setback Waiver Documents. NDAC 69-05.2-04-01.3 (RLK)
6. Since Permit Application NACC-1302 has been deemed complete, please update the permit narrative in Section 1.2.9, Filing with County Auditor, to provide a past-tense account of your permit application filing status with the County Auditor. (BEB)

#### **Section 1.3.5 Other Licenses and Permits**

7. Please update Section 1.3.5 as necessary to reflect the acquisition of additional licenses or permits since this section was last updated during the permit application completeness review. (WTG)

#### **Section 1.4 – Surface Owner Protection Act Compliance**

8. Bookmarks in Section 1.4.2 that are labeled as *4.1.4 Pref Statements & Receipts.pdf* and continuing down through Norman Winkler at the end, do not work and appear to be a duplicate of the listing of surface owner preference information already presented in this section. Please review the document and delete the non-working bookmarks if they are not needed. Otherwise, please insert whatever information was intended. (BEB)

#### **Section 1.5 – Identification of Interests and Rights of Entry**

9. As required by NDAC 69-05.2-06-03(1) and NDCC 38-14.1-14(1)(k), please include a certified copy of the coal lease(s) with the North Dakota Department of Trust Lands in the application for the tracts listed below. Please note that Permit NACC-1302 will not be issued until documents are included in the application showing the right to mine or otherwise disturb tracts where the surface interests are owned by the State of North Dakota. (RLK)
  - a. Tract 0019 in Section 2, T142N, R89W, 50 percent coal only.
  - b. Tract 0061 in Section 36, T143N, R89W, 50 percent coal only.
  - c. Tract 0062 in Section 6, T142N, R88W, surface and coal.

- d. Tract 0063 in Section 12, T142N, R89W, surface and coal.
- e. Tract 0064 in Section 24, T143N, R89W, surface and coal.
- f. Tract 0065 in Section 26, T143N, R89W, surface and coal.
- g. Tract 0066 in Section 36, T143N, R89W, surface and coal.

### **Section 2.1 – Geology**

- 10. Stratigraphy narrative on page 2 of Section 2.1.1 describes geologic formation and depositional sequences within the general area and references a stratigraphic column on “the next page”. However, there is no next page and a depiction of North Dakota’s stratigraphic column is not provided elsewhere in the application. Please add the stratigraphic column that was intended for this section into the application. (BEB)
- 11. The third paragraph of Site Specific Geology Narrative on page 4 of Section 2.1.2 describes the Sentinel Butte Member and this should be changed to Sentinel Butte Formation to maintain accurate and consistent nomenclature throughout the document. (BEB)
- 12. The first sentence in Section 2.1.3, Overburden Characteristics, describes sedimentology within the Fort Union Formation and this should be changed to denote the Fort Union Group for the same reason as stated above. (BEB)
- 13. North American Coal Corporation has historically provided a narrative section in their permits summarizing coal quality characteristics. Considering there are 150 pages of coal quality data provided in Section 2.1.8, we request that a narrative summary or statistical analysis of coal quality characteristics be considered for placement in the application. Other NACC permits provide this data in a separate section; however, the location and format for presenting this information is at your discretion. (BEB)
- 14. Please provide the header information (drillhole ID., location, strata, elevation, etc.) on the top of each of the 49 pages of spreadsheets that are provided in Section 2.1.12, Drill Hole Lithology and Survey Data. An occasional bookmark that segments the documents provided similar to what is provided for the lithologic logs and overburden sample analyses sections would also be appreciated. Additionally, the provision of an index or key at either the top or bottom of the spreadsheet displaying the full names of the many abbreviated coal seams and lithologic units (under the Lithology column) would be appreciated. (BEB)
- 15. NDAC 69-05.2-08-02(1)(d) requires that elevations of drillholes used for collecting geologic, ground water, and overburden information be provided on a map. Simply placing the individual ground surface elevations for each of the permit drillholes underneath the drillhole identification numbers on the Geologic Cross-Section Location Map, Section 2.1.9.1, is all that is required. Please update the map accordingly. (BEB)

### **Section 2.2 – Surface Water Hydrology**

- 16. In the table of contents for Section 2.2, Surface Water Hydrology, please correct the title for Section 2.2.3.4, Surface Water Quantity. (RLK)

17. The heading of Section 2.2.4 is labeled as "...*Probably Hydrologic Consequences*" and should be relabeled to Probable Hydrologic Consequences. Please make this minor typographical change. (BEB)

### **Section 2.2.1 – Physiographic Setting, Surface Water Features and Water Narrative**

18. Please activate the hyperlink to Section 2.2.2 that is provided on page 1 of Section 2.2.1. (BEB/FSE)
19. Please include supporting flow information for the Knife River at Hazen, USGS Gauging station 06340500, which is discussed on page 3 of Section 2.2.1. A copy of the water year annual report available from the USGS web site corresponding to the narrative would be appropriate supporting flow information. (RLK)
20. The flow information provided for Coyote Creek in the Section 2.2.1 narrative does not agree with the information provided in Permit NACC-1301. Please review and revise if appropriate. Also identify the USGS gauging station number pertaining to the Coyote Creek flow information discussed in the narrative. (RLK)
21. Please provide supporting data summary for the Coyote Creek flow information from the USGS monitoring station referred to in the Section 2.2.1 narrative similar to that provided in Permit NACC-1301. (RLK)
22. The Section 2.2.1 narrative provides the definition used to classify streams as perennial, intermittent and ephemeral as well as providing substantial information on the perennial streams. Please elaborate on the methods, observations or measurements used to differentiate the intermittent and ephemeral stream classifications for tributaries/drainages in this permit area. (RLK)
23. Surface Water Quality discussion under the Streams category on page 8 of Section 2.2.1 describes in several places the measurement unit of electrical conductivity/specific conductance as mMOHS/cm and these measurement units should be changed to umhos/cm. Please correct as necessary. (BEB/RLK)
24. The narrative in Section 2.2.1 in regard to stock ponds states: "TDS concentrations of 2000 mg/l or below are generally considered suitable for cattle watering, while increasingly higher concentrations of dissolved ions tend to inhibit weight gain." Please identify or cite the source for this guideline for TDS concentrations in livestock water. (RLK)
25. On the ninth page of Section 2.2.1, the narrative states that Coyote Creek Mine Monitoring sites were 1635 and 1700 in reference to median TDS but the specific monitoring sites are not identified. Please clearly identify the monitoring site identification or stream name in relation to the data presented in the narrative. (RLK)
26. Surface Water Quality discussion under the Stock Ponds category on page 10 of Section 2.2.1 describes that "*Similar variance is evident in values of the principal irons...*" and it appears the intent was to describe variance in values of the principal ions. Please correct this minor typographical error. (BEB)

**Section 2.2.2 – Surface Water Features Map**

27. Please label Mud Creek, Coyote Creek and Knife River on the Surface Water Features Map, Section 2.2.2. (BEB/RLK)
28. Please add to the legend of the Surface Water Features Map in Section 2.2.2 with a descriptor that identifies the mapped locations of Rain Gauges (RG) within the permit area. (BEB/RLK)

**Section 2.2.4 – Surface Water Hydrologic Reclamation Plan and Probable Hydrologic Consequences**

29. The discussion on replacing stockponds needs to be expanded to include more specific replacement plans for each stockpond that will be disturbed by Coyote Creek's proposed mining operations. The current discussion is limited to a reference to the locations depicted on the postmining land use map, Section 4.1.2, and general statements about meeting the water supply replacement requirements. Based on the requirements of NDAC 69-05.2-08-04(6), more specific plans need to be provided for the stockponds listed in Section 2.2.3.1. The assessments listed in Section 2.2.3.1 also shows that all of the stockponds have ground water contributions and many are listed as being 'spring-fed'. Most of these groundwater sources will be eliminated by the proposed mining operations and postmining stockponds that are constructed on reclaimed lands will be less reliable water source than premine conditions. Coyote Creek needs to ensure that each of these stockponds will be replaced with a reliable water source and those plans should be detailed separately for each stockpond listed in Section 2.2.3.1. Also, this needs to be thoroughly covered in the probable hydrologic consequences. (JRD)
30. The pre-mining and post-mining watershed modeling narrative for watershed CC-02 states that post-mining runoff volumes decreased by up to 9.1% but the tables in Section 2.2.4.3 indicate no change in runoff volume at Control Point CC-02 for modeled storm events. Please review and revise as appropriate. (RLK)

**Section 2.3 – Ground Water Hydrology**

31. The second and third paragraphs on page 1 of Section 2.3.1, Groundwater Hydrogeology of the Permit and Adjacent Area, identify the Coyote Creek Mine as Permit NACT-1302 and should be changed to NACC-1302. (BEB)
32. Geologic narrative in the first paragraph on page 2 of Section 2.3.1 describes a clastic bedrock framework covered by Quaternary alluvial sediments partially filling the Coyote Creek valley in the west of the permit area. It appears the intention was to describe the Coyote Creek valley as being located in the east of the permit area, now that the application is describing the NACC-1302 permit area and not Permit NACC-1301. Please review and address as necessary. (BEB)
33. The bookmarks provided for water level hydrographs in Section 2.3.1.2.b are labeled as Ch12-01A, Ch12-08A, etc. and should be changed to the same naming convention that is used throughout the permit for the ground water monitoring wells, which is CM12-01A, CM12-08A, etc. Please review and correct the bookmarks. (BEB)
34. If the information is available, please incorporate measurements of nitrate and calculated SAR into the Certified Wells and Certified Springs Water Quality spreadsheets in Sections 2.3.2.2 and 2.3.2.3. NDAC 69-05.2-08-06(1)(e) (BEB)

35. For clarity and consistency, please bookmark the Landowner Well and Spring Certification Documents located in Section 2.3.2.7 with the same well and spring identifiers that are used throughout the permit in spreadsheets and maps, as opposed to the different numbering system currently provided in the bookmarks. Please review and consider this request. (BEB)
36. All applicable ground water sections in the permit indicate that monitoring well CM12-20C is monitoring Coyote Creek Alluvium; however, the Ground Water Monitoring Schedule in Section 2.3.4.1 depicts the Upper Jim Creek as the monitored unit for that particular well. Also, we have been unable to find monitoring well installation details in the application for either CM12-20C or CM12-20D. Please check for construction details of these two wells and review your notes for monitoring well CM12-20C and update as necessary for consistency in the permit. (BEB)
37. Of the 77 ground water monitoring wells proposed for Coyote Creek's Ground Water Monitoring Schedule as provided in Section 2.3.4.1, a total of 47 of those wells have the minimum baseline water quality analyses provided in the application for parameters required by NDAC 69-05.2-08-06(e). In reviewing the permit data it appears the majority of the remaining 30 wells were likely unsaturated or dry to the point of being unable to collect a water sample. However, there is a few monitoring wells that appear to contain sufficient hydraulic head (ranging from 8.5 to 40 feet) for the collection of a water quality sample. We recognize that your monitoring program is extensive, comprehensive, and adequate as currently presented. However, if water quality analyses for monitoring wells CM12-04A, 09C, 09E, 14A, 16C, and 22C are available, and not placing them in the permit was an oversight or the results had not been received at the time of permit submittal, please supplement Section 2.3.1.2.d with the data. (BEB)
38. None of the hyperlinks that are provided in Section 2.3.1.2.e, Hydraulic Properties of the Ground Water Resources, function as intended. Please activate these hyperlinks. (BEB)
39. Please correct the minor sentence structure error in the narrative of Potential Impacts of Mining that is provided in the third paragraph of Section 2.3.3.2, which describes that "*No water significant quality changes or head losses...*" It appears the intent was to describe "*No significant water quality changes...*" Please update the narrative. (BEB)
40. Continuing narrative in Section 2.3.3.2 on top of page 2 describes that "*Mining will not disturb the sand and gravel aquifers of Coyote Creek and the Missouri River.*" We believe your intention was to describe alluvial aquifer non-disturbance to Knife River, not the Missouri River. Please review and revise as necessary. (BEB)
41. Narrative under Ground Water Uses on page 3 of Section 2.3.3.2 – Potential Impacts of Mining, describes that "*Water quality results from the well and spring certification process have not yet been received, but will be added to the permit when they are.*" This sentence can be struck from the application because the data has now been provided in Sections 2.3.2.2 and 2.3.2.3, respectively, in the permit. However, if additional water quality data from wells and/or springs have been received since the application was deemed complete, please incorporate that data into the permit at this time. (BEB)
42. Post-Mining Monitoring Plan narrative on page 2 of Section 2.3.4 describes that nested reclamation monitoring wells will be screened at the base of spoil and one well screened in the aquifer immediately below the lowest mined seam. Based on review of information provided in the permit, it appears the most likely, laterally persistent water-bearing unit to be monitored below the base of

spoils will be the Lower Beulah 3 Lignite hydrostratigraphic unit. If that is the case, please specifically identify this unit in the sentence of the narrative. If geohydrologic conditions exist in which other, deeper units are to be considered the next viable water-bearing unit below depth of mining in miscellaneous or unusual/outlier areas of the mine permit area requiring post-mining monitoring, please provide that discussion in this section as well. (BEB)

43. Please supplement information provided in the Ground Water Monitoring Plan, Section 2.3.4, by briefly noting methodology and procedures that have been used, as well as procedures that will be used for collecting water level data and your water sampling protocol for collecting water quality data. Additionally, please note in the permit if Coyote Creek is planning to obtain water level and water quality data in-house, or planning to provide that data through contract with an outside vendor, or whatever the situation may be. (BEB)
44. Considering that most all of the important baseline ground water data and information provided in this application was acquired through sampling and professional interpretation of the monitoring system that is now in place, we ask that you provide a brief synopsis of the monitoring well development technique(s) that were employed on existing ground water wells in your monitoring system. (BEB)
45. Please incorporate surface elevation of the ground water monitoring wells into the Monitoring Well Location Map, Section 2.3.4.2, as required by NDAC 69-05.2-08-02(1)(d). Simply providing the average/mean elevation (1 datum point) on the map in the case of nested or multiple monitoring wells are sufficient. (BEB)
46. A comment is made in the surface water section about the deep well and pipeline system that is present in the proposed permit and adjacent areas. The water pipelines and associated tanks are also depicted on the premine topography and existing structures map. Please provide a detailed discussion of this deep well and water pipeline system in Section 2.3 since it will be disrupted by the proposed mining operations. Also, discuss replacement plans for this important water supply system in the permit area. This includes both interim replacement plans as portions of the system are disturbed by mining as well as the more permanent replacement plans. NDAC 69-05.2-08-06(1)(b) and 69-05.2-08-04(6). (JRD)
47. While the table of certified wells and springs, Section 2.3.2.1 is very useful, narrative needs to be added that discusses each well and spring listed in that table. The discussion should include information about its use, production rate, and relative water quality. NDAC 69-05.2-08-06(1)(b). (JRD)
48. As noted in stockpond assessments listed in Section 2.2.3.1, nearly all of the premine stockponds within and/or adjacent to the proposed permit area have groundwater contributions and fifteen are listed as being spring-fed. However, it appears only two springs of the fifteen spring-fed stockponds are listed in Section 2.3.2.1, the summary of certified wells and springs. The discussion of springs in Section 2.3 gives the impression that springs and other ground water seepage is insignificant and inconsequential. There seems to be a major inconsistency between the information presented in the ground water section and surface water section of the application (including the temporary and seasonal wetlands shown in drainages that appear to be associated with springs and seeps as well as the soils report showing hydric soils in some drainages). Considering the apparent importance of springs that provide water for a large number of stockponds, Coyote Creek needs to conduct a more thorough and comprehensive assessment of

springs in the proposed permit area with the appropriate information and discussion added to Section 2.3. Also, as noted in an item under the surface water section, the effects of mining on the pre-mine springs need to be thoroughly assessed and addressed in the probable hydrologic consequences. Water supply replacement plans must also address replacing spring-fed stockponds with a water source that is reliable as the naturally occurring springs. (JRD)

## **Section 2.4 – Pre-Mining Land Use and Vegetation**

### **Section 2.4.1 – Methods**

49. Please revise Section 2.4.1 to discuss how the sample location was determined to assess ecological condition of the major sites in each tract of native grassland. The last sentence on page 3 of Section 2.4.2, Narrative, states that condition was determined on representative areas as described in Section 2.4.1 but this information is not provided as stated. (NDAC 69-05.2-05-02(2)(c) (GAW)
50. Please revise the third paragraph on page 3 of Section 2.4.1 to clarify that similarity index scores of an ecological site in one tract can be used to represent that ecological site in other tracts if species composition visually appears to be the same on both tracts rather than stating if similar conditions exist. (GAW)
51. The third paragraph of Section 2.4.1 narrative states that ecological sites were defined and sampled by landowner. This seems to be an incorrect statement since the ecological sites are not defined by landowner but are evaluated and sampled by surface ownership. Please review and clarify as appropriate. (RLK)

### **Section 2.4.2 – Narrative**

52. In the cropland narrative in Section 2.4.2, the discussion of the cropland in Section 30 does not mention the extensive presence of Canada thistle in this cropland tract. The abundance of this noxious weed on the idled tract should be included in the pre-mine discussion or a reference to the tract specific narrative provided later in Section 2.4. (RLK)
53. The last paragraph of the cropland narrative on the first page of Section 2.4.2, incorrectly indicates the soil map unit productivity index is relative to the county average wheat yield. The NRCS productivity index (PI) is relative to the soils best rated for crop production which are assigned a PI of 100. (Based on the NRCS productivity index for Mercer County, the wheat yield for the best crop producing soil map units (those having a PI of 100) had been 37 bu/ac; however, the NRCS no longer provides yield information). Please revise as appropriate. (RLK)
54. The last paragraph of the first page of Section 2.4.2, Narrative, states that mapping unit 45B has a 67% PI but Table 2.4.8.2, Cropland Mapping Unit Acres by Owner does not show this mapping unit on cropland. Please review and revise accordingly. (GAW)
55. Please clarify the last sentence on the first page of Section 2.4.2. This sentence refers to the “past few two field seasons”. Please revise to clarify the intent of this sentence. (RLK)
56. The ecological site narratives that begin on page 4 of Section 2.4.2 repeatedly states that potential reference areas were “embedded” within the sampling. Please revise to clarify what is meant by the term “embedded” in these statements. (GAW)

57. The loam terrace narrative on page 12 of Section 2.4.2 states that the “Relative abundance of species found in a reference condition is quite low within the permit area.” It is not clear what is meant with this statement. Please revise as necessary to clarify the intent of this sentence. (GAW)
58. The tame pastureland narrative discusses an area “to the north and an area to the south”. Presumably this is south and north of the road that bisects this single tract of tame pastureland. Please revise as necessary to provide clarity. (GAW)
59. The word “temporary” should be placed at the beginning of the sentence in the second paragraph on page 20 of Section 2.4.2 that reads “Wetlands in areas that are grazed are often more disturbed than seasonal wetlands”. Please review and revise as appropriate to provide clarity. (GAW)
60. Please revise the wetland discussion in Section 2.4.2 to discuss why the pools or depressions that pond water within ephemeral drainages were classified as temporary wetlands rather than being depicted and classified as seasonal wetlands. (GAW)
61. Many ephemeral drainages have been classified as temporary wetlands by Coyote Creek but NWI classifies a number of these drainages as PEMC, meaning palustrine emergent seasonally flooded. Please further explain using NWI information about how the distinction was made between temporary and seasonally flooded systems. Presumably obligate or facultative wet species indicative of a shallow marsh zone, such as *Carex* spp., foxtail barley, prairie cordgrass or spikerush were not the dominant species growing along temporary wetland drainages. (GAW)
62. The detailed soil survey lists the hydric soils found within the permit area but in some instances these hydric soils are not considered wetlands. For example, reaches of drainageways located in the SW<sup>1</sup>/<sub>4</sub> of Section 1, SE<sup>1</sup>/<sub>4</sub> of Section 25 and SW<sup>1</sup>/<sub>4</sub> of Section 24. In other instances, only a thin line representing wetland is depicted in large mapping units of hydric soil, such as in Section 27. Please provide a discussion about using hydric soils listed on the detailed soils map for the classification of wetlands and provide some justification as to why the whole wetland soil mapping unit is not considered wetland acreage. (GAW)
63. Please discuss the nature and variability of the vegetation of temporary wetland systems as required by NDAC 69-08-08(1)(d) and as further explained by item No. 3 of the pre-mining assessment in the wetlands section of our vegetation guidelines document. (GAW)
64. The species ‘Scots pine’ is listed in the shelterbelt narrative on page 19 of Section 2.4.2. It appears this is Scotch pine rather than Scots pine. Please review and correct as necessary. (GAW)
65. Please provide additional information regarding the ecological condition of the dominant ecological sites for each tract of land. The qualitative narratives in Section 2.4.2 do not always provide this information. For example, claypan and thin claypan are dominant sites on the State land in Section 6 but there is no information regarding the ecological condition of these sites and there is essentially no information for the loamy site in the E<sup>1</sup>/<sub>2</sub>E<sup>1</sup>/<sub>2</sub> of Section 6. Likewise, there is no discussion regarding the claypan site in Section 1 or the clayey site in Section 12 even though these are dominant sites within these tracts. There is no discussion about the sands and loamy sites in Section 1 or the Sands site in Section 30 owned by Voigt. There is limited discussion about the loamy, sands and sandy sites in the SE<sup>1</sup>/<sub>4</sub> of Section 24. Please revise to discuss the nature and variability of the dominant sites of each tract and reference which sample in Section 2.4.7.4 represents each of these areas. Tracts divided by fences and managed as parts of separate

- management units should be discussed and evaluated as such or it should be stated that ecological condition is similar throughout, if that is the case. For example, Voigt's land in Section 31 is managed as part of four separate grazing units but one would not realize that from the narrative description of ecological condition. NDAC 69-08-08(1)(d) (GAW)
66. The qualitative narratives for Sections 2 and 3 refer to a thin claypan similarity index in Section 3. However, Section 2.4.7.4, Range Similarity Index, does not include a thin claypan site for Section 3. Please review and revise as necessary. NDAC 69-08-08(1)(d) (GAW)
  67. Please revise the Section 25 qualitative narrative in Section 2.4.2 to clarify if the other dominant ecological sites, claypan and loamy, are in as good of ecological condition as the sandy site that was sampled. NDAC 69-08-08(1)(d) (GAW)
  68. Please discuss the ecological condition of the claypan and shallow loamy ecosites located in N $\frac{1}{2}$  and SW $\frac{1}{4}$  of Section 26 in the qualitative assessment narrative in Section 2.4.2. The narrative states that the loamy site has an increased percentage of blue grama due to proximity to water, but the sandy site is also fairly close to water and 53% of its yield is from this species. Please revise the sentence to clarify that both sample sites were fairly close to water and discuss if these sample sites accurately and properly represent the ecological condition of the balance of the tract. (GAW)
  69. Please revise the qualitative narrative for the E $\frac{1}{2}$  of Section 27 to provide additional information about the ecological condition of the loamy, sandy and thin claypan sites. These are dominant sites on the tract and must be discussed for compliance with NDAC 69-05.2-08-08. (GAW)
  70. Please discuss the ecological condition of the shallow loamy site located in the NE $\frac{1}{4}$  and N $\frac{1}{2}$ SE $\frac{1}{4}$  of Section 34 in the qualitative narratives. NDAC 69-05.2-08-08 (GAW)
  71. Please revise the qualitative narrative to discuss the ecological condition of the claypan sites in Section 35 to document differences between that portion of the tract managed with hayland compared to that which is grazed. It is not clear if the ecological condition of this dominant site is responding to management similar to the sandy site. NDAC 69-08-08(1)(d) (GAW)
  72. Please revise the qualitative narrative discussion for the N $\frac{1}{2}$  and SW $\frac{1}{4}$  of Section 36 to discuss the ecological condition of the dominant ecological site. NDAC 69-08-08(1)(d) (GAW)
  73. Please revise the qualitative narrative discussion for the SE $\frac{1}{4}$  of Section 36 to specifically mention which similarity index sites represent the sandy and thin claypan ecological sites. Two sandy sites are mentioned as being representative sites and it is not clear which one was in the pasture but in a different tract. (GAW)
  74. The qualitative narrative discussion for the various tracts in Section 2.4.2 mentions grazing strategies. For example, the narrative for the N $\frac{1}{2}$  and SW $\frac{1}{4}$  of Section 26 states that the area is grazed with a once over rotation at the same time of the year. Please clarify if this information was obtained from the operator or if that information was deduced during the inventory process. NDAC 69-05.2-05-02 (GAW)
  75. Please review the narrative for Section 23-143-89 on page 47 of Section 2.4.2. The last paragraph discusses elevated levels of crested wheatgrass from hayland and an old homestead place spreading at an increased rate. It appears the reference to the homestead may be a copy/paste error since no

homestead is depicted in Section 23 on the Pre-Mine land use map. Please review and revise if necessary. (ZAB)

#### **Section 2.4.3 - Pre Mine Land Use Map**

76. On the Pre-Mining Land Use and Vegetation Map, Section 2.4.3, please identify, the precise location(s) where sampling occurred on the linear wetlands listed in Section 2.4.11. Some of these linear wetlands are over a half mile long and yet the drawings in Section 2.4.11.b represent a small portion of the total length of the basin. GPS locations of the sampling site should be listed with each wetland drawing in Section 2.4.11. The wetland methodology narrative in Section 2.4.1 should also be revised to discuss how the sample site(s) were chosen for long linear wetlands. NDAC 69-05.2-05-02 (GAW)
77. Please label the springs located in the SE¼ of Section 6, T142N, R88W, SE¼ of Section 31, T143N, R88W, and NE¼ of Section 30, T143N, R88W. (GAW)
78. Coyote Creek has been diverted around Casey Voigt's farmstead in Section 31 but this new creek channel is not identified as such on the Pre-Mining Land Use Map, Section 2.4.3, or accounted for in Sections 2.4.4 or other sections of the permit. Please review and revise as necessary. (GAW)

#### **Section 2.4.5 – Plant Species List**

79. The Plant Species List, Section 2.4.5, lists *Artemisia cana* as having a common name of Dwarf Sagebrush. *Artemisia cana* is commonly called Silver sagebrush as discussed in Section 2.7.2 of the permit. Please review and either use a single common name for this species or provide further justification/documentation for stating that *Artemisia cana* is commonly referred to as Dwarf Sagebrush. (GAW)

#### **Section 2.4.7.1 – Ecological Site Map**

80. Please modify the ecological site colors in the legend on the Ecological Site Map as it is difficult to distinguish between the various shades of reds, greens and blues. For example, the various shades of yellow used for the Ly, SL, and SwLy sites are very similar and can only be distinguished under close examination. In addition, the font size of the symbols used to label the ecological sites are so small that they are not legible. It is also somewhat difficult to see the sampling points on this map. NDAC 69-05.2-05-02 (GAW)
81. Please consider showing fence lines on the Ecological Site Map, Section 2.4.7.1, so that one can determine which tracts are managed as a unit, which would help one understand the qualitative narratives and why samples taken in a different tract are being used to represent other areas. NDAC 69-05.2-05-02 (GAW)

#### **Section 2.4.6 – Productivity by Soil Map Unit and Land Use**

82. Please use the agronomic ratings provided in Table 17 of the High Intensity Soil Survey Report provided in Section 2.5.2. The table provides interpretations for map unit components correlated specifically for the permit area. The Niobell fine sandy loam, Noonan fine sandy loam and Belfield loam map units (146s, 147s and 1117s) are significantly different than other map units based on the respective soil series. (RLK)

#### **Section 2.4.7.4 – Rangeland Similarity Index and Summary**

83. Please include information about the level of utilization for each sampled ecological site to document the conditions at the time the tract was sampled. We realize that the grazing adjustment factor in the forage production clipping worksheet is listed as zero because the grazing adjustment was completed in the first step of the process as explained in Section 2.4.1, but please revise in some manner to document the utilization levels that existed at the time of sampling. (GAW)
84. If available, please include GPS locations for each native grassland sampling site on the Range Similarity Index forms. NDAC 69-05.2-05-02 (GAW)
85. Please review the ecological condition rating of the Sandy ecological site that was sampled in Section 25. Little bluestem was not counted in the similarity index value but this species can contribute up to 5% of the site in historic climax plant community (HPCP). Please correct this error and check all of the other sites to ensure similar errors were not made. The similarity index value listed for this site in the qualitative assessment narrative in Section 2.4.2 will also need to be updated. (GAW)

#### **Section 2.4.11 – Wetland and Spring Vegetation Data**

86. The photograph for Spring SPG-NE2-6-142-89 is included in Section 2.4.11.5.b under the bookmark provided for the springs in Sec. 26, T143N, R89W. Please revise as appropriate. (RLK)

#### **Section 2.4.13 – Woodland Data**

87. Please revise the Woodland Map, Section 2.4.13.1, to identify the dominant species in each woodland that is located within the proposed mining disturbance boundary. Alternatively, this could be done in a table format if each woodland site is numbered. The dominant species should also be depicted on woodlands not represented by the sampling data that are located outside of the disturbance boundary. Casey and Julie Voigt have requested their woodlands be replaced with the same varieties so this information needs to be documented. NDAC 69-05.2-08-08(1)(d) (GAW)

#### **Section 2.5 – Soil Resources**

88. As required by NDAC 69-05.2-15-04(4)(a)(1) and NDAC 69-05.2-21-03, please insert a projected required soil respread depth map in Section 2.5 and revise Section 2.5.4.1 - Soil Volume by Landowner to evaluate the projected required respread volumes necessary to cover toxic forming material with nontoxic material as described in Part 1-A(2) - Method 2 for Sodic Spoil of Policy Memorandum No. 3 to Mine Operators. Please also expand Section 2.5.4, Section 3.1.1.1, and Section 4.1.1 narratives as necessary to describe the requirement for nontoxic cover of toxic forming material when suitable plant growth material is redistributed according to NDAC 69-05.2-15-04(4)(a)(1). As currently presented, it is unclear if the total soil depth listed for some landowners on Section 2.5.4.1 is adequate to minimize adverse effects on plant growth and the approved postmining land use as required by NDAC 69-05.2-21-03. Depending on the evaluation to cover toxic forming material with nontoxic material, it may be necessary to propose selective handling of shallow overburden underlying some soil map units as suggested in items 1 and 2 of suitable plant growth interpretations (pages 57 and 58) in the High Intensity Soil Survey Report. (WTG/RLK)

**Section 2.5.5 – Prime Farmlands**

89. Please revise the slope phase to read 0 to 2 percent slopes, rather than 0 to 3, for the heading of the 91 Straw loam soil map unit description on page 1 of Section 2.5.5. The slope phase was apparently re-correlated in the Soil Survey Geographic Database following the 1984 SCS prime farmland publication that may have been used as a soil map unit reference. (WTG)
90. Discussion in the third paragraph of Section 2.5.5 gives the impression that at least several areas of prime farmland will be disturbed by actual mining disturbances and soils will be handled separately. Since it appears that no prime farmland, or only one small prime area, will be disturbed by the actual mining disturbances, please revise this discussion accordingly. (JRD)
91. As noted in a related item in Section 2.5.6, please add the NRCS soil map unit description for Straw silt loam, 0 to 2 percent slopes to Section 2.5.5 to describe the additional 17-some acres of prime farmland identified in the SW¼ of Section 19, T143N, R88W. Please also update Section 2.5.5.1 (Prime Acres by Landowner) to reflect the additional 17-some acres of prime farmland identified for C & J Voigt ownership. (WTG)

**Section 2.5.6 – Soil Survey and Prime Farmland Map**

92. Please correct the soil map unit name for soil map unit 44F in the Soil Map Unit Legend on Section 2.5.6 (Soil Survey and Prime Farmland Map). The correct soil map unit name is Zahill loam, rather than Zahl loam as currently listed. (WTG)
93. Please review and revise as necessary the following items for soil map units 211C and 212B in the Soil Map Unit Legend on Section 2.5.6 (Soil Survey and Prime Farmland Map): (a) it appears that the typic subgroup was added to both of these soil map units in the map legend that was not used in the soil survey report; and, (b) soil map unit 212B is included in the map legend even though there are no acres of this map unit in the permit area, but soil map unit 212E that also has no acres in the permit area is not included in the legend. (WTG)
94. Please revise the mining disturbance limit depicted on Section 2.5.6 (Soil Survey and Prime Farmland Map) to match that of the mining disturbance limit depicted on Section 3.1.3, Pit Layout and Facilities Map (including any changes that are made to address other items in this letter). (WTG)
95. Please revise Section 2.5.6 (Soil Survey and Prime Farmland Map) to depict three parcels of Straw silt loam 0 to 2 percent slopes that total 17-some acres of additional C & J Voigt ownership prime farmland in the SW¼ of Section 19, T143N, R88W. Please also update Section 2.5.5.1 (Prime Acres by Landowner) to reflect the additional 17-some acres prime farmland identified for C & J Voigt. (WTG)

**Section 2.6.1 - Alluvial Valley Floor Determination**

96. The link to Section 2.6.2 in the second paragraph does not work, please review and make appropriate corrections. (FSE/RLK)

**Section 2.7.2 – Fish and Wildlife Report**

97. Please revise the Fish and Wildlife Report, Section 2.7.2, to clarify at the beginning of the report the intensity of the inventory work completed in various parts of the “study area”. The proposed and approved “study area” consist of about 25,000 acres but the results and discussion section of the report is written with focus on the proposed permit area and the word “study area” is used throughout the report in term of proposed permit area rather than the approved study area. Please revise to provide clarity. NDAC 69-05.2-05-02 (GAW)
98. Please include a table and discussion in Section 2.7.2 that compares and characterizes the habitat types in the approved study area versus the more intensively studied proposed permit area. This is needed to determine and clarify if there are any habitat types in the study area that do not exist in the proposed permit area (examples are riparian forest, irrigated cropland, fen wetlands, etc.). The discussion should mention if the more intensively studied proposed permit area properly represents the approved “study area”. (GAW)
99. Please revise the cropland and hayland narratives in the Results and Discussion section to mention the cropland and hayland along the Knife River. Please also mention if any of this land is irrigated. The discussion about the hayland along Coyote Creek is written such that it may lead one to believe that the floodplains are an Alluvial Valley Floor (AVF) so this issue should also be discussed and clarified. (GAW)
100. Please revise the native grassland narrative in the Results and Discussion section to provide some information about the present value or condition of the native grassland in the study area and outside of the proposed permit area as stated would be done in the approved wildlife inventory plan. The first sentence of the fifth paragraph on page 15 of Section 2.7.2 states that “Each tract containing native grassland in the study area has varying degrees of rank compared to potential” and then the discussion only mentions lands within the proposed permit area. Please provide information about the quality of this habitat outside of the proposed permit area. (GAW)
101. Please include a “High Value Habitats” discussion in the Results and Discussion of Section 2.7.2 as stated in the approved wildlife inventory plan. (GAW)
102. Please revise the Woodland discussion in the Results and Discussion narrative to discuss whether or not there are any riparian woodlands along the Knife River and discuss their general condition and value to wildlife. This discussion should also discuss if these woodlands are suitable habitat for the Northern Long Eared Bat since that species is proposed to be added to the list of Threatened and Endangered species. (GAW)
103. Please revise the Shelterbelt discussion in the Results and Discussion of Section 2.7.2, to discuss field windbreaks and shelterbelts in the whole study area. The last paragraph of the shelterbelt discussion is obviously specific to the proposed permit area. (GAW)
104. Please revise the Wetlands discussion in the Results and Discussion of Section 2.7.2 to discuss wetlands located in the study area but outside of the proposed permit area. This includes properly characterizing wetlands associated with the Knife River and any other unique wetlands within this area. (GAW)

105. Please revise the Farmstead discussion in the Results and Discussion of Section 2.7.2 to clarify that there is more than one farmstead in the “study area” as incorrectly stated in the first sentence. (GAW)
106. Please revise the wetland narrative (fourth paragraph) in the Threatened and Endangered Species discussion in the Results and Discussion of Section 2.7.2 to encompass the whole study area. The narrative is written as if the study area is the proposed permit area. (GAW)
107. Please revise the Dakota Skipper discussion in the Results and Discussion portion of Section 2.7.2 to discuss how the surveys were coordinated with the USFWS as stated would be done in the approved wildlife inventory plan. Please also discuss the suitability of the existing habitat within the study area located outside of the proposed permit boundary. It is not clear why no Dakota Skipper butterfly surveys were completed beyond the proposed permit boundary, nor is it clear how intensively areas outside of the proposed permit area were studied to determine if potential habitat was present. (GAW)
108. Please correct the error in the paragraph on page 29 of Section 2.7.2 that incorrectly states that the study area is a “proposed” study area. (GAW)
109. Please revise the Sprague’s pipit discussion in the Results and Discussion of Section 2.7.2 to discuss how intensively Sprague pipit surveys were conducted in that portion of the study area located outside of the proposed permit area. Please also discuss the suitability of the native grassland habitat located in the study area beyond the proposed permit boundary. (GAW)
110. Narrative on page 9 of Section 2.7.2 states that four belt transects were selected to monitor for Sprague’s pipit but eight individual transects are identified on Sheets 1 and 2 of Section 2.7.2.1, Wildlife Studies Map. Please revise as necessary to provide clarity. (GAW)
111. A sentence in the first paragraph on page 13 of Section 2.7.2 states that the native grassland on most tracts sees very full utilization so there is little standing cover available. Please provide further explanation of this statement which appears to conflict with what is stated in Section 2.4.2 and in the snowberry and woodland discussions of Section 2.7.2, which indicates that the permit area is grazed at a moderate level and that the area is properly utilized. (GAW)
112. The second sentence of the western snowberry discussion on page 16 of Section 2.7.2 states that western snowberry increases with grazing pressure but the fourth paragraph of the woodland discussion states that western snowberry height and canopy cover is reduced with increased grazing pressure. Please review and revise to provide clarity. This discussion may need to be further refined to ecological site type if this species responds differently between site types. (GAW)
113. Very little information is provided for that portion of the wildlife study area located along the Knife River beyond a map showing the land uses of the area. It seems unusual that no sharp-tailed grouse leks or Sprague’s pipit sightings were made in this area. We assume that access may have been limited to this area. If that is the case, then please provide information in Section 2.7.2 about gaining access to this area (Sections 3, 4, 5, 7, 8, 9, 10 of T143N, R88W and Section 12 of T143N, R89W) during the survey period. Additional information for this area will be needed prior to permitting additional land in this area (e.g., haulroad corridor). (GAW)

114. Please revise Section 2.7.2, Fish and Wildlife Report, to mention that Dakota Skipper, Poweshiek Skipperling and Northern Long-Eared Bat are no longer Candidate species but are now "Proposed" to be listed as Endangered Species. Also, please thoroughly discuss whether or not the approved study area contains habitat suitable for each of these species. (GAW)
115. Although relatively insignificant in acreage but still noteworthy, please update the Mining Disturbance narrative on page 4 of the Fish and Wildlife Report, Section 2.7.2, to describe the small abandoned surface mine located within the permit area in the SE1/4SW1/4 of Section 30, T143N, R88W. (BEB)

#### **Section 2.7.2.7 – Incidental Observations**

116. Please include the township and range for each Section listed in the first column of Section 2.7.2.7 since the study area contains portions of four different townships and there are more than one Section 3, 4, 5, 7, 8, 9, 10, 12, 13, 14, 15, 17 and 18 in the permit area and it is not clear which of these sections is being referred to in the report. (GAW)

#### **Section 2.7.2.8 – Federal Threatened, Endangered and Candidate Species Found in Mercer County**

117. Section 2.7.2.8, Federal Threatened, Endangered and Candidate Species in Mercer County, includes species that are not known to exist in Mercer County. For example, Black-footed Ferret, Western Prairie Fringed Orchid, Dakota Skipper, Poweshiek Skipperling and Greater Sage Grouse. It appears Section 2.7.2.8 is a North Dakota species list rather than a Mercer County list. Please revise to provide clarity. (GAW)
118. Section 2.7.2.8, Federal Threatened, Endangered and Candidate Species in Mercer County, does not include the Northern Long-Eared Bat, which is proposed to be added to North Dakota's Threatened and Endangered Species list. Please revise the table and include detailed information about whether the permit and adjacent study area contains habitat suitable for this species to exist. Surveys, using USFWS protocol, should be conducted this summer in areas containing suitable habitat since it appears this species will officially be added as an Endangered species this fall. (GAW)
119. Section 2.7.2.8, Federal Threatened, Endangered and Candidate Species in Mercer County, does not include Rufa Red Knot. Please include this species in Section 2.7.2.8. (GAW)

#### **Section 2.7.2.9 – ND Species of Concern and Species of Habitat Fragmentation Concern**

120. Sections 3-W2, 4-E2 and 10 are listed twice under T142N, R89W, on page 2 of Section 2.7.2.9. Please review and revise or clarify why duplicate information is being provided for these tracts. (GAW)
121. Sections 15 and 16, T143N, R88W, are listed in the table in Section 2.7.2.9, ND Species of Concern but these tracts are not included in the approved study area. Please provide an explanation for including information for these two tracts of land. (GAW)
122. Sections 25, 26, 35 and 36, T143N, R89W, are missing from the table in Section 2.7.2.9, ND Species of Concern..., and this area happens to be where most disturbances are planned. Please revise the table to include Species of Concern information for these tracts. (GAW)

**Section 2.7.3 – Mining Impacts**

123. Please revise the Threatened and Endangered Species discussion in Section 2.7.3, Mining Impacts, to discuss Candidate species including those that have been proposed to be added as Threatened and Endangered Species. (GAW)

**Section 2.7.4 – Monitoring Plan**

124. Please revise Section 2.7.4, Monitoring Plan, to include annual surveys using established protocol for the Northern Long-Eared Bat if suitable habitat exists for this species in the monitoring area. (GAW)
125. Please revise Table 1 on page 4 of Section 2.7.4 to include all species presently listed as Threatened, Endangered and Candidate species in North Dakota and identify the Candidate species presently proposed to be listed as Endangered. The Northern Long-Eared Bat and Rufa Red Knot are not included in this list. (GAW)

**Section 2.8 – Cultural Resources**

126. Narrative in the March 2013 Class III Cultural Resource Inventory report describes that cultural resource site 32ME2508 (the Casey and Julie Voigt residence) was purchased in 1978 by the current owner, Floyd Jakober. However, Mr. Jakober's name does not appear to be associated with any of the leasehold information provided in the permit for the farmstead. We are not suggesting that you have the cultural resource contractor change the text of the report/work product, but an explanation would be appreciated, in particular because the cultural resource report is dated only six months prior to permit application submittal. (BEB)
127. With regard to remaining NRHP eligible sites to be disturbed in the future by mining operations, if there are any updated report summaries, plans, or approval letters to be added to the cultural resources sections of the permit since your last revised application submittal, please incorporate those updates or additions into the permit at this time. (BEB)
128. Please depict the location of NRHP eligible cultural resource site 32ME2460 on the Cultural Resources Location Map, Section 2.8.3. This site is located south of the Voigt farmstead in the S1/2 of Section 31, T143N, R88W. (BEB)
129. Please depict the location of NRHP cultural resource site 32ME2457 on the Cultural Resources Location Map, Section 2.8.3. This site appears to be located a couple of hundred yards southeast of site 32ME2456 in the SE1/4NE1/4 of Section 34, T143N, R89W. (BEB)
130. Please add an explanation for the site labeled as the "Historic Lignite Mine" on the Pre-Mining Topography and Existing Structures Map, Section 3.1.2, and briefly noted in other permit narrative. It appears that this site was either not recognized or not documented during cultural resource investigations. If historic information regarding this small abandoned strip mine located in the SW1/4 of Section 30 has been researched and is available, please supplement the permit with that historic information. (BEB)

### **Section 3.1.1 – Operations/Reclamation Narrative**

131. Please provide more details on the mining of the federal coal located in Section 30 and adjacent to the pit scheduled to be mined in 2016. The details should address how the mining of the federal coal will affect the reclamation of the 2016 pit and also address where overburden will be stockpiled when mining of the federal coal begins in the year 2022. (BAJ)
132. Please include plans to mark the “buffer zones” that will need to be clearly marked in the field. This includes the stream buffer zones as depicted on the pit layout and facilities map and the appropriate buffer zones around significant cultural resources sites that will not be disturbed by mining activities and those that may need to be mitigated pending development and approval of the cultural resource management plan. We believe these buffer zones need to be clearly marked in the field before mining operations occur within ¼ mile of any of the buffer zones. The spacing of markers should be such that at least two markers can be observed from a single location when traveling near a buffer zone. (JRD)

### **Section 3.1.1.1 – Soils Handling**

133. Please correct the reference to Section 2.5.6 (Soil Survey and Prime Farmland Map) in the first paragraph of Section 3.1.1.1 under the Prime Farmlands subheading on page 3 that incorrectly references Section 2.5.10. (WTG)
134. The first paragraph on page 2 of Section 3.1.1.1, Soils Handling Narrative, describes that there are no prime farmlands that will be disturbed by mining; however, the Soil Survey and Prime Farmland Map, Section 2.5.6, depicts prime farmland in the E½SE¼ of Section 30 in Permit NACC-1301 which will be incorporated into Permit NACC-1302 and includes the shop/office area that will be disturbed and reclaimed. The narrative indicates that no prime farmland will be disturbed by mining (presumably by pits or spoil placement), but this statement also implies that prime farmland will not be disturbed by any of the mining related activities. Please clarify that Coyote Creek plans to disturb some of the prime farmland with associated disturbances (sedimentation ponds, diversions, etc.) that are not subject to the special soil handling requirements, but does not plan to disturb any of the prime farmland by the mine pits and spoil placement. (BEB)
135. The first paragraph on page 2 of Section 3.1.1.1 – Soils Handling, narrative makes the following incorrect assertion: *If the permit area does not have a large amount of sodic spoil exposed, which would be expected based on Section 2.5.2, there will not be a shortage.* First the soil survey report, Section 2.5.2, does not address the overburden quality and ultimately the spoil quality that may occur after mining. The overburden quality samples provided in Section 2.1.7 suggest that a large amount of sodic spoils may be exposed. Please provide appropriate supporting information or revise the statement as appropriate. (RLK)
136. The last paragraph on page 2 of Section 3.1.1.1 describes reclaiming associated disturbance areas including roads constructed out of subsoil. Please commit to ripping or scarifying to relieve compaction on subsoil roads prior to topsoil respread. (RLK/BEB)

### **Section 3.1.1.2 – Mining Methods Narrative**

137. Please revise the Mining Methods Narrative, Section 3.1.1.2, to discuss plans for minimizing disturbance to woodland communities located in areas where coal is not going to be removed. The

mining disturbance boundaries need to be tightened up considerably around woodlands where coal is not going to be mined in accordance with NDAC 69-05.2-13-05 and NDCC 38-14.1-24(21). A special area of concern during the first term of the permit is the SE¼ of Section 24 due to the amount of woodlands in this area and the steep slopes. We also strongly recommend that mining plans in this area be modified so that the initial pit(s) along the coal cropline in this area will be dug by the truck/shovel fleet, rather than the dragline, to minimize disturbances to this high value habitat. (GAW/JRD)

138. None of the hyperlinks that are provided in Section 3.1.1.2, Mining Methods Narrative, function as intended. Please repair or enable the hyperlinks. (BEB/FSE)

### **Section 3.1.1.3 – Reclamation Procedures and Schedule**

139. Coyote Creek Mining Company has requested variances from NDCC 38-14.1-24(14) for the initial pits mined in the year 2016 and 2017. However, it also appears additional variances from NDCC 38-14.1-24(14) will be necessary for the endwalls of the pits in the S½ of Section 25 (Pits mined from 2019 – 2027), for the endwalls of the pits in the S½ of Section 26 (Pits mined from 2033 – 2035), for the endwalls of the pits in the N½ of Section 36 (Pits mined from 2018 – 2020), and for the endwalls of the pits located in the N½ of Section 1 (Pits mined from 2021 – 2027). The variance request must also specify the time frame for the needed variance and when the variance areas will be reclaimed. (BAJ/GAW)
140. Please provide narrative that describes the mining of the federal coal in Section 30 and how it impacts reclamation of the 2016 pit (it appears this area also needs a variance from the reclamation timing requirements, as well as other areas where federal coal will be mined in the future). We also suggest that a separate map be developed for Section 3.1.1.3 that clearly shows where reclamation variances from NDCC 38-14.1-24(14) and NDAC 69-05.2-21-01(2) are requested. (BAJ/GAW)
141. The Reclamation Schedule on page 2 of 3.1.1.3 shows that all reclamation through the initial seeding will not be completed until the statutory ‘maximum’ of three years after mining is completed for the non-variance areas. Please be reminded that NDCC 38-14.1-24(14) requires that all reclamation efforts proceed as contemporaneously as practicable with surface coal mining operations. Please explain why Coyote Creek needs the maximum amount of time allowed under the reclamation law to complete reclamation work through initial seeding on the non-variance areas. (Also, please note that the area for soil respreading and revegetation under the worst-case reclamation cost estimate for the second bond increment would be quite large (more than 1,000 feet behind the worst-case pit) based on the reclamation schedule currently proposed in Section 3.1.1.3). (JRD)
142. Please add to the Reclamation Procedures and Schedule narrative on page 5 of Section 3.1.1.3, to describe that reclaimed haulroads and other equipment access roads and trails will be suitably ripped and scarified as required by NDAC 69-05.2-15-04. (RLK/BEB)

### **Section 3.1.1.6 – Landowner and Public Access**

143. Please revise Section 3.1.1.6, Landowner and Public Access, to discuss Coyote Creek’s tentative plans for closing or mining through County Road 13. The Mine Plan does not indicate that the road will be avoided but there is no discussion about future plans to provide an alternative route. Please provide a discussion regarding this issue. (GAW)

144. It appears that the reference to “*several jogs to the northeast*” in paragraph three on page 1 of Section 3.1.1.6 was likely intended to be written as “*several jogs to the northwest*”. Please review the phrase and correct if necessary. (WTG)

**Section 3.1.1.8 – Reclamation Costs – (Incremental)**

145. Please revise the first incremental bond area depicted on The General Location Map, Section 3.1.1.8.6, to be consistent with the Total Estimated Reclamation Cost given in Section 3.1.1.8.1 and to be consistent with the narrative of Section 3.1.1.8, which states the first increment covers the initial development of approximately 532 acres of disturbance and a worst case bond will be submitted prior to disturbance outside of the *first increment*. The proposed bond area to be covered by first bond increment is much larger than the 532 acres of disturbance that are used in the reclamation cost estimate for this increment. Please reduce size of the first increment and revise the Legal Description of Incremental Bond Area in Section 3.1.1.8 as appropriate. At a minimum, the SW $\frac{1}{4}$  of Section 24, W $\frac{1}{2}$  of Section 25 and NW $\frac{1}{4}$  of Section 36 need to be eliminated from that legal description. (ZAB/JRD)
146. Please revise the last sentence of the second paragraph of the Reclamation narrative in Section 3.1.1.8 by removing the last portion of the sentence which implies the proposed bond is adequate for an area larger than the 532 acres of initial disturbance. We suggest revising the sentence as follows, “*The General Location Map, Section 3.1.1.8.6, of this permit application depicts the disturbance areas associated with the first increment. as well as the area within the permit covered under bond.*” (ZAB)
147. A description of the ‘second’ bond increment (the entire permit area) needs to be clearly stated in the narrative as required by NDAC 69-05.2-12-01(5). (JRD)
148. Please update the Pit Layout and Facilities Map, Section 3.1.3 to show the new location of the washbay sump and substation located near the shop/office facility in the SE $\frac{1}{4}$  of Section 30 as described in Coyote Creek’s email correspondence dated May 6, 2014. The washbay sump should also be shown on the General Location Map, Section 3.1.1.8.6, and the disturbed area included in the Worst Case Bond calculations, Section 3.1.1.8. Include reclamation costs for backfilling the sump, respreading of SPGM, and seeding. (BAJ)
149. Please review the subsoil respread acres for the SW $\frac{1}{4}$  of Section 19 T143N R88W, on Table 2 of Section 3.1.1.8.3 – SPGM Respread Equipment Hours. The table shows 21.7 acres of native grassland but from Section 3.1.1.8.6, General Location Map, the Reclamation Division calculates that the area is approximately 29 acres. Please correct as necessary. (BAJ)
150. The title for Section 3.1.1.8.6 (General Location Map) is somewhat confusing. It is suggested to use *Worst Case Reclamation Cost Map (Bond Increment 1)* or another similar title relevant to bonding calculations. The legend should indicate the topsoil and subsoil respread areas, overburden fill and SPGM stockpiles, etc. It is also suggested to include the bonding information contained in drawings 3.1.1.8.7 and 3.1.1.8.8 in one map. (FSE)

**Section 3.1.3 – Pit Layout and Facilities Map**

151. Please update the Pit layout and Facilities Map, Section 3.1.3, so that in addition to depicting the cultural resource sites eligible for NRHP listing on this map, that the SHPO approved minimum 100-foot setback/buffer zone around these sites also be depicted on the map. A double line, hatching, or shading a distance of 100 feet outside the polygon perimeter of these sites is recommended to show the setback of the avoidance areas. If the 100-foot setback distance has already been incorporated into the sites as is now displayed on the map, you may disregard this item. (BEB)
152. Prehistoric cultural resource site 32ME2478 is located within the permit area and is planned for avoidance; however, the diversion between sediment ponds P31-05 and P06-02 skirts alongside the southwest edge of this site. In consideration of the previously-listed deficiency regarding setback requirements, it appears the location of the diversion will be located inside of the SHPO-approved 100 foot setback buffer. Please address the 100 foot setback issue as noted in the previous deficiency and reroute or relocate the diversion as necessary on the Pit Layout and Facilities Map, Section 3.1.3, to maintain the required setback distance from this NRHP eligible site. If the planned avoidance of this site is unrealistic, then please add this site to the list for testing and make a commitment not to disturb within 100 feet of the site until the site has been properly tested and cleared for disturbance. (BEB)
153. Data recovery of cultural resource site 32ME2350 in the SE1/4 of Section 30 has been completed and was cleared for disturbance by SHPO and the site should now be identified with a separate labeling for eligible, mitigated sites that are cleared for disturbance on the Pit Layout and Facilities Map, Section 3.1.3. Currently, the site is listed as “Eligible” on the map; however, a similar symbol and labeling to what is currently provided in other NACC permits is acceptable for this and other significant cultural resource sites cleared for disturbance. Please update the map. (BEB)
154. Cultural Resource sites 32ME2354, 32ME2484, and 32ME2485 are all located within the permit area and are eligible cultural resource sites that are planned for avoidance. Please depict and label these three sites on the Pit Layout and Facilities Map, Section 3.1.3. (BEB)
155. It appears that the mining disturbance limit encroaches into a small area of prime farmland in the NW¼NE¼ of Section 7, T142N, R88W, as evident on Section 2.5.6 (Soil Survey and Prime Farmland Map), and further supported by overlaying Section 2.4.3 (Pre-Mine Land Use and Vegetation Map), Section 2.5.6 (Soil Survey and Prime Farmland Map), and Section 3.1.3 (Pit Layout and Facilities Map). Please review the mining and reclamation plans in this area and revise as necessary at your discretion by shortening the adjacent pits to shift the mining disturbance limit to the northwest on Section 3.1.3. Otherwise, the prime farmland reclamation plan must be revised to address actual mining disturbances on prime farmland. (WTG)
156. Please update Section 3.1.3 (Pit Layout and Facilities Map) within the area of Permit NACC-1301 to depict changes with facility relocation or enlargement (wastewater pond, electrical substation) as provided on a proposed layout drawing submitted to the Reclamation Division on May 5, 2014 (dated May 1, 2014). (WTG/GAW)
157. Additional details of the proposed mining plans and the areas that will be affected by the initial dragline and truck/shovel pits are needed. The pit layout map depicts a rather common mining disturbance line that extends about 300 to 400 feet beyond the boundaries of the Beulah/Zap coal

cropline. However, considering the variation in the deep of overburden in the boxpit areas and the steep slopes in many of the virgin grounds where the boxcut spoil will be placed, it appears the mining disturbance line will be highly variable and extend well beyond the depicted 300-400 foot disturbance line in many locations. Please review all areas that will be needed for spoil placement and related disturbances in all boxcut and endwall areas and clearly identify the necessary spoil placement areas on the Pit Layout and Facilities Map. This needs to take into account the depth of overburden, 140-foot wide pits, and the steepness of slopes in each area. Also, please clearly identify and mark the initial pit areas that will be dug by the truck/shovel fleet and those that will be dug with the dragline. NDAC 69-05.2-09-02(4) (GAW/JRD)

158. More details are needed for areas that will be affected by pre-benching operations with the truck/shovel fleet when the depth of overburden is greater than 85 feet above the coal seam as stated in the operations narrative. The pit layout map (or a separate map if necessary) must clearly identify the areas that will be pre-benched and depict the areas where the pre-bench material will be placed. These areas are generally discussed in the assumptions used to develop the postmining topography, but these areas also need to be depicted on the pit layout map. It is important to know where Coyote Creek plans to place the pre-bench material because placing them elsewhere will significantly affect (probably adversely) the postmining topography in those areas. NDAC 69-05.2-09-02(4) (JRD)
159. A number of stockpile locations are labeled as OB/SPGM on the Pit Layout and Facilities Map, Section 3.1.3, indicating that both overburden and SPGM will be stockpiled in these general locations. Please clearly identify those areas where overburden will be stockpiled from the areas where SPGM will be stockpiled. (GAW/JRD)
160. Please give consideration to revising the locations of certain SPGM and OB piles to avoid trees and shrub communities, especially deciduous trees, and areas of steep slopes. This includes the stockpiles located in the SW1/4 of Section 31, NW1/4 of Section 31, S1/2 of Section 24, SE1/4 of Section 26, E1/2 of Section 27, NE1/4 of Section 24 and E1/2 of Section 3. Please consider moving the location of the SPGM pile located west of the haul road in the NW1/4 of Section 19 to the cropland area located to the north. The OB/SPGM pile in the NW corner of Section 12 and the SPGM pile in NW1/4 of Section 7 need to be moved outside of the drainageways to allow clean water runoff to pass and to not impede the drainage in these channels. Consideration should be given to moving some of these SPGM stockpiles east of the primary haul road on the Coyote Creek flood plain as these areas are already disturbed by agricultural activities rather than disturbing steeply sloping native grassland sites. NDAC 69-05.2-13-05 (GAW)
161. In some instances, sedimentation ponds are shown downstream of woodland communities and it is not clear how runoff is going to be transported to the sediment pond without disturbance to these woody draws. Diversions that route runoff around these woodlands should be shown to minimize disturbance as required by NDAC 69-05.2-13-05. (GAW)
162. Please review the proposed route of the primary haul road to ensure minimal disturbance to deciduous woodland communities. For example, this road corridor is shown affecting the upper reaches of a wooded draw in the southwest corner of the NW1/4 of Section 31. It appears the route could be altered so that fewer acres of woodlands in the W1/2 of Section 31 are impacted. Please review and revise as appropriate to ensure compliance with NDAC 69-05.2-13-05. (GAW)

**Section 3.1.5 – Post Mine Topography Map**

163. The postmine topography of portions of the permit area has elevations and slopes significantly greater than what existed in the pre-mine environment. In particular, the area located in the E½ of Section 25 has elevations of 30 to 40 feet higher than the premine elevations. The post-mine slopes of the 25-acre cropland tract located in the NW¼ of Section 25 also exceed the approximate original contour (4.4% postmine vs. 3.6% premine). To fully comply with NDCC 38-14.1-24(3), Coyote Creek needs to lessen the elevations and slopes in this and other areas of increased elevations and slopes. (BAJ/GAW)
164. Please revise the Postmining Topography Map to minimize any significant topography changes on areas beyond the coal removal boundary. Except for areas in the NW¼ of Section 2 and NE¼ of Section 3, we realize that in most instances the proposed elevation differences are insignificant, but the mined land needs to be reshaped to conform with the adjacent non-mined lands rather than categorically altering the topography on a 300 foot buffer area adjacent the mineral removal area. (GAW)
165. Due to the magnitude of some of the topographic changes to certain property owners, please provide a tract by tract assessment that compares the pre and postmine acreage by slope class. (GAW)
166. Please review the feasibility of using all of the boxcut spoil in the initial permit term as currently proposed. It appears this may not be possible. (GAW)
167. Please include high points or ridges immediately above proposed steeply sloping areas to minimize the amount of runoff passing over these steeper areas. For example, a hill or higher point may be needed in the NW¼ of Section 36 so that runoff from the center of the section does not pass over the proposed steep area in the SW¼NE¼ of that section. Likewise, knolls are needed above the proposed steep areas in the W½NE¼ of Section 26 to divert runoff to adjacent drainage ways that are less steep. (GAW)
168. Please explain the feasibility of mining the federal coal in Section 30 beginning in 2021 if box cut spoil is going to be placed on this area. (GAW)
169. Please review the slope gradient of the steeper reclaimed drainages and revise, as necessary, so that the steepest segment of slope in the reclaimed drainage way is located at the head of the watershed to the extent possible and that the drainage ways are not steeper than they were prior to mining. Slope steepness should normally always decrease moving downstream. Steeper segments were noted in reclaimed drainageways in the SE1/4 of Section 25 and the northeast corner of Section 25. It may be necessary to calculate the velocities of the reconstructed drainages and to maintain the runoff velocities at a non-erosive velocity. Please review and revise as necessary. (GAW)

**Section 3.1.8 – Pre-Mining Area Slope Map**

170. Please label the section numbers on the Pre-Mining Area Slope Map, Section 3.1.8, and include the township and range listings as required by NDAC 69-05.2-09-02(1). Also, please depict the permit boundary on this map and label and highlight the 20 foot index contours. (GAW)

**Section 3.2.5 – Shop Access Road Box Culvert - Diversion Channel**

171. Please correct the first sentence on page 1 of Section 3.2.5 to state that Coyote Creek is a perennial stream, rather than an intermittent stream, as documented in several places in Section 2.2.1. (WTG)

**Section 3.3.1 – Surface Water Management Plan**

172. Please revise the Surface Water Management Plan to implement what is actually stated in the third paragraph on page 1, that impoundments have been placed as close to the limits of mining disturbance as possible, thereby attempting to minimize the total amount of disturbance occurring within any particular watershed. We believe sedimentation ponds P24-01, P24-02, P24-04, P31-01, P31-02, and P31-04 need to be relocated closer to the mineral removal boundary to avoid mining related disturbances in steep drainages that contain woodlands. Perhaps several smaller ponds will be needed to replace some of the larger ponds and other sediment control measures such as diversions and dikes could be used to control runoff from some of the planned SPGM stockpiles. Pond P24-06 should be moved closer to the pits where mining is currently proposed and should only be considered at the current proposed location once Coyote Creek receives a federal coal lease for the SW¼ of Section 24 and detailed mining plans are added for that tract. We recommend moving Pond P23-02 upstream in the northeast corner of Section 26 and also proposed a diversion to direct some of the runoff to this location. It appears Pond P26-06 may not be needed and runoff from the mined portion of this watershed could be diverted to P26-05. Moving Pond P27-01 upstream to the northwest corner of the SE¼ of Section 27 will avoid tall shrub communities and wetlands in the drainage. The proposed location of Pond P27-03 should be moved upstream to avoid deciduous woodlands and perhaps it should be placed in the northwest corner of Section 35 until Coyote Creek has a federal coal lease for the NE¼ of Section 34 and adds detailed mining plans for that tract. NDAC 69-05.2-13-05 (GAW/JRD)

**Section 3.3.2 – Surface Water Management Plan Map**

173. Please revise Section 3.3.2, Surface Water Management Plan map, to depict all water management features that will be installed including sumps, silt fences, diversions and topsoil dikes. Features are shown around a portion of the downstream side of a number of stockpiles that appear to represent berm or dikes but these features are not labeled or included in the legend. In other instances, the watershed boundary is shown below stockpiles where obviously diversions will be needed to direct runoff to the associated sediment pond. All water management features and measures must also be properly depicted on the Surface Water Management Plan map. NDAC 69-05.2-16-01 and 05 (GAW)

**Section 3.3.7 to 3.3.14 (Structure Design Information)**

174. Please include the proposed field engineered diversions in the design drawings as necessary. The entire field engineered diversion does not need to be shown, but the approximate location where it enters the pond should be shown. We understand that at this point it is an approximate location and will be subject to adjustment in the field. (NDAC 69-05.2-09-09) (FSE)

**Section 3.3.7 Design of Impoundment P30-01**

175. Please provide all of the design data for pond P30-01. Pages 2 through 7 of the design plans for this pond that were included in Permit NACC-1301 were not provided in this submittal. (FSE)

**Section 3.3.9 Design of Impoundment P24-01**

176. Please review the third paragraph of Section 3.3.9 – Design of Impoundment P24-01. A reference is made to pond P19-01. This should be pond P24-01. (BAJ)

177. The capacity of Pond P24-01 appears to include the small basin located approximately 300 feet to the southeast of the large basin in the stage storage calculations. The Reclamation Division believes the small basin should not be included in the storage calculations because storage in the small basin would be “dead storage”, as the design does not show a dewatering method. Also, approximately half of the watershed flows through the southeast basin, which we believe would cause it to quickly fill with sediment. Excluding the storage capacity of the southeast basin (.45 acre-ft.) from the pond routing calculations show that the pond will not totally contain the runoff from a 10yr./24hr. event as required by NDAC 69-05.2-16-09(7). There is also a discrepancy between the pond narrative, Section 3.3.9, that states the pond will be excavated to an elevation of 1864.0 but the pond design drawing, Section 3.3.9.1, shows the bottom elevation as 1868.0. The narrative also states the area between the berm (southeast basin) and pond will be stripped to ensure drainage to the pond, but this is not shown on the design drawing, Section 3.3.9.1. In addition, the barrel length is listed as 120 feet on the design drawing but is listed as 124 feet on the Spillway Information table on page 4, Drop Inlet Spillway Design. The Reclamation Division calculated the storage capacity and routing using the Pond Design in Section 3.3.9.1. Please correct as necessary. (BAJ/FSE)

**Section 3.3.11 Design of Impoundment P30-02**

178. The spillway side slopes are depicted as 3:1 in the Details of Pond 30-2 (3.3.11.1) and they are listed as 4:1 in the *Emergency Spillway Design* table on page 3 of Section 3.3.11. Please review and make appropriate corrections. (FSE)

**Section 3.3.12 Design of Impoundment P30-03**

179. The material proposed to be used for the riser and barrel is depicted differently in the drawing (CSP) and the narrative/table (CMP). Also, the barrel length and barrel outlet invert elevation shown in the spillway information do not match what is depicted in the drawing. Please review and make the appropriate corrections. (FSE)

**Section 3.3.14 Design of Impoundment P31-01**

180. The narrative for the Design of Impoundment P31-01 states: “....will be in place for the life of the mine” while it is scheduled for removal in 2033 in the *Pond Construction and Reclamation Schedule* table (Section 3.3.4). Please clarify the reclamation schedule of this impoundment. (FSE)

**Section 4.1 – Post-Mining Land Use Plans**

181. Please revise the third sentence in the third paragraph on page 1 of Section 4.1.1, Narrative, to clarify all types of changes proposed for tracts containing federal coal. (GAW)
182. A sentence in the second paragraph on page 1 of Section 4.1.1, Narrative, states that native grassland is to be converted to cropland in Section 24 but no changes are being proposed. Please address accordingly. (GAW)
183. The trees narrative on page 3 of Section 4.1.1, Narrative, and on page 1 of Section 4.2.3, Trees and Shrubs, states that shelterbelts and woodlands will be installed within three years of soil respread, unless specifically allowed by the NDPSC. NDCC 38-14.1-24(14) and NDAC 69-05.2-22-04 requires planting during the first normal period for planting after SPGM has been respread and within 3 years of coal removal and it is not clear what is meant by the language “unless allowed by the NDPSC”. Please revise to clarify and if additional time will be needed such that a variance from these regulations should be requested. Please also clarify how these sites will be managed to be protected from erosion if seeding is delayed. (GAW)
184. A single woodland mix consisting of a mixture of trees and shrubs is being proposed to replace all disturbed woodland community types. Please provide an assessment of the habitat value of replacing tall shrub woodland sites, some of which consists of a single species, with a mixed deciduous woodland community. Likewise, scattered small patches of woodlands are being combined and replaced in larger woodland sites. Please provide an evaluation of the habitat value changes of this approach and provide reasoning why it is appropriate to replace tall shrub communities with a mixed deciduous woodland community. (GAW)
185. Please include a surface owner land use preference statement from the ND Department of Trust Lands and any others received since the application was submitted. (GAW)
186. Shawn Unruh requested in his land use preference statement that he be given the opportunity to review Coyote Creek’s plans for replacing his trees. Please clarify (in the permit application) if Mr. Unruh has been given the opportunity to review Coyote Creek’s replacement plans for his pre-mine woodlands and shelterbelts. (GAW)
187. Casey and Julie Voigt requested in their landowner preference statement to “replace trees as in the varieties removed”. Please revise Section 4.1.1 and/or Section 4.2.3 to provide clarity as to what is meant with this request and discuss how Coyote Creek is complying with this request for both shelterbelts and woodlands. (GAW)
188. Please revise Section 4.1, Post Mining Land Use Plans, to include a tract by tract assessment to demonstrate that the pre-mining land use capabilities will be restored based on Coyote Creek’s reclamation plans. This assessment should provide a comparison of the pre-mine topography and soils to the proposed postmining topography and projected SPGM respread depths for each tract. NDCC 38-14.1-14(2)(b) (GAW)

#### **Section 4.1.2 – Post-Mining Topography and Land Use Map**

189. Please label each planned postmine woodland and shelterbelt and either list the acreage on the Post Mine Topography and Land Use Map or provide this information in a table format. (GAW)
190. Please revise the Post Mine Topography and Land Use Map to show properly scaled recreated wetlands as they will be constructed into the reclaimed landscape rather than simply using symbols to show their anticipated locations. (GAW)

#### **Section 4.2.2 – Seed Mixes**

191. Please revise the proposed native grassland seed mixture to include additional species of native grasses and forbs to meet the requirements of NDAC 69-05.2-22-01. The species listed below the mix as potential options should simply be added to the mix, since sandy and clayey areas will probably occur given the pre-mine soils and other species such as needle and thread, prairie junegrass and buffalo grass should be added to the mix. In addition, native forbs are an important functional group that is providing the greatest amount of species diversity in the pre-mine native grassland, therefore, native forbs should be added to the mix. (GAW)
192. In Section 4.1 or 4.2.2, please revise to discuss restoring the pre-mine habitat value of shrubs not considered woodlands, such as western snowberry, silver sagebrush and prairie rose, in the reclaimed native grassland as required by NDAC 69-05.2-22-01. (GAW)

#### **Section 4.2.3 – Trees and Shrubs**

193. There is very little difference between the shelterbelt and windbreak species mixture and the replacement woodland planting mixture. Please provide rationale for the minor differences between these two mixtures. Increasing the amount of American plum in the shelterbelt and windbreak plantings compared to the reclaimed woodland should be reconsidered given that shelterbelts will be planted in more xeric sites and this species has a relatively short lifespan. (GAW)
194. The second paragraph on page 2 of Section 4.2.3, Trees and Shrubs, provides anecdotal evidence that North American Coal Companies can successfully re-establish woodlands based on a visual assessment of a six year old planting at Coteau in 1999. Please revise to provide updated information regarding achieving revegetation success of reclaimed woodlands at North American Coal Company mines in North Dakota. (GAW)

#### **Section 4.4 – Post-Mining Wetlands**

##### **Section 4.4.1 – Narrative**

195. Please revise the end of the first paragraph on page 2 of Section 4.4.1 from *in other permit areas to at other area mines*. (ZAB)
196. A sentence in the second full paragraph on page 1 of Section 4.4.1, Narrative, states that design parameters for reclaimed wetlands are presented in Section 4.4.2.1, but Section 4.4.2.1 is a wetland acreage summary table. Please correct this discrepancy. (GAW)

197. Please include a table in Section 4.4 that makes an accounting of where each pre-mine wetland that is to be disturbed will be replaced. (GAW)
198. Please provide detailed design plans for each wetland that will be disturbed and reclaimed during the first term of the permit. The information in Section 4.4.2.2, Design Parameters for Post Mining Wetland, is too general to show configuration of the wetland and how it will fit into the topography. (GAW)
199. Coyote Creek is proposing to replace more wetland acreage than is going to be disturbed. For example, Section 4.4.2.2 shows that three wetlands will be replaced on Voigt land that will total 6.01 acres but according to the table in Section 4.4.2.1 only 3.95 acres of wetlands on Voigt land will be disturbed by mining activities. Likewise, Section 4.4.2.2 shows that 7.34 acres of wetlands is to be reclaimed on State land but only 2.91 acres is to be disturbed according to Section 4.4.2.1. Please revise to clarify or justify the increased acreage of reclaimed wetlands. (GAW)
200. Please revise Section 4.4.1 to more fully explain Coyote Creek's plans for replacing temporary wetland acreage. The last paragraph on page 1 of Section 4.4.1 states that temporary wetlands will be replaced as a result of the mechanical re-contouring process but it appears temporary wetland acreage will actually be replaced with only differential settling. A sentence in this paragraph states that if differential settling does not occur in sufficient numbers to replace temporary acreage lost through mining, others will be formed by mechanical means. Please explain how this is practical when settling often occurs years after an area is reclaimed. The last sentence in this paragraph states that temporary wetlands that have already been identified on reclaimed tracts in other permit areas (obviously carryover language from another permit). The Reclamation Division believes that temporary wetlands in this permit area should be replaced in similar drainages where they occurred prior to mining rather than on upland sites where differential settling may occur. (Also, considering the steeper slopes at the Coyote Creek site compared to the much gentler slopes on most cropland areas at the Freedom Mine, fewer differential settling features are likely that would function as temporary wetlands.) Please review and revise to provide clarity. (GAW)
201. Please revise to clarify if surface owners will end up with more temporary wetland acreage than they had prior to mining if the plan is to replace all of this acreage through differential settling. (GAW)
202. Please revise to clarify that temporary wetland acreage will not be reclaimed on cropland or hayland land uses. NDAC 69-05.2-21-02(3)(d) (GAW)
203. Note number 2 at the bottom of page 2 of Section 4.4.2.2, Design Parameters, mentions "Proposed Wetland Surface Area" but this heading is not shown in the table. Please review and revise to provide clarity. (GAW)

As of today, 5 days remain of the Commission's 120 day review period specified in NDAC 69-5.2-05-01(3). Upon Coyote Creek's response to this technical review letter, a second 120-day review period will be initiated due to the amount and significance of many of the above items.

Mr. Donn Steffen  
Technical Review of Permit Application No. NACC-1302  
June 17, 2014  
Page 29 of 29

Attached are copies of comments that we have received from Advisory Committee members to date. We are also waiting to hear from OSM and BLM about the surface disturbances that are proposed on the federal coal tracts and the effects on future coal recovery if they are leased in the future.

If you have any questions, please contact this office.

Sincerely,



James R. Deutsch  
Director  
Reclamation Division

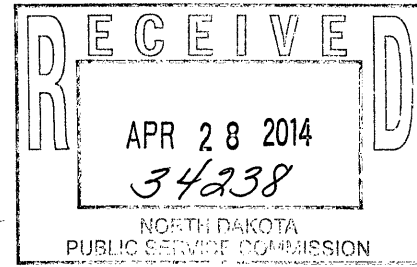
Attachment

cc: Mercer County Auditor

Minedata/Coyote Creek/Permits/NACC-1302/AdminCorr/2014/Tech1\_rvw\_ltr\_6-17-14.docx



United States Department of Agriculture



Natural Resources  
Conservation Service

April 23, 2014

PO Box 1458  
Bismarck, ND  
58502-1458  
Voice 701.530.2000

James R. Deutsch, Director  
Reclamation Division  
600 East Boulevard, Department 408  
Bismarck, North Dakota 58505-0480

Dear Mr. Deutsch:

This letter is in reference to the review of the Coyote Creek Mining Company, L.L.C. application for a Surface Coal Mining Permit NACC-1302, located in Mercer County, North Dakota.

The Soils Report Section 2.5.2 and Prime Farmland Section 2.5.5 have been reviewed by the Natural Resources Conservation Service (NRCS). The Soil Survey and Prime Farmland Map, Section 2.5.6, indicates that there are no areas of prime farmland that are planned to be disturbed by mining. Prime farmland will only be affected by associated disturbance. Therefore, NRCS concurs that separate handling of prime soils is not necessary in this permit area and prime farmland reclamation guidelines will not be required.

Thank you for the opportunity to comment on this issue. If you have additional questions, please contact Steve Sieler, Liaison Soil Scientist, at 701-530-2019.

Sincerely,

MARY E. PODOLL  
State Conservationist