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November 29, 2011

Mr. James R. Deutsch
Reclamation Director
Public Service Commission
600 East Boulevard
Bismarck, ND 58505-0480

Re: Bond Releases 7 and 8 – Permit BCGH-8204

Dear Mr. Deutsch:

Enclosed are 4 copies of pages and Attachments that changed as a result of the Public Service Commission's review dated July 6, 2011. We responded to deficiencies and made changes relative to the requirements of the public notices on August 3rd. The changes provided in this correspondence were the result of additional comments relating to other parts of the application.

If you have questions, please contact me.

Sincerely,

Mike Murray
Property and Right of Way Supervisor

Attachment
cc: Permit BCGH–8204

Permit BCGH-8204
Bond Release 7

Response to PSC Comments 24 - 57
Dated: July 6, 2011

Attachment VI – Tract History, Bonding and Vegetation Data	
24	In Attachment VI, the bond amount to be released is listed as $4,455,299.12. This amounts to $2964.46 per disturbed acre which is similar to the amount requested in pending Bond Release No.8. However, when reviewing Bond Release No. 8, not all 325 acres covered by that application were disturbed. Attachment IX indicates only 256.08 acres were disturbed by mining activities with 68.92 acres being undisturbed. Please recalculate the bond amount which will be released for both Bond Releases No. 7 and 8 to reflect the undisturbed acres in the Bond Release No. 8 area. With this adjustment we have calculated the rate for disturbed acres to be $3076.897 per acre with a rate of $200 being applied to undisturbed acres. Previously approved Bond Release No. 3 established the per acre dollar amount for disturbed and undisturbed areas to be $3,019.67 and $200.00, respectively. Please make the necessary updates to the bond release application including the application form and public notice advertisement. (MDB/GAW)
Response	Changes were made in both bond releases 7 and 8. These changes resulted in a lower total bond release amount for Bond Release 8 and a higher amount for Bond Release 7. This required changes to the first page of the bond release applications (SFN19813) as well as changes to the BCS table that is included with the application documents. Changes will also be made in Attachment VI.
25	In Attachment VI, the Tract 4 Description refers to Sections 31 and 32 being in Tract 4 but does not include Section 30 in the opening paragraph until the end of the paragraph where it is broke into subtracts. Please include Section 30 in the opening sentence as portions of Section 30 are included in Tract4. (MDB)
Response	This change was made.
26	In Attachment VI Tract 4 Description page 21 states "Approximately 11 inches of SPGM was replaced on reclaimed areas of Subtract 1A". Later in the same paragraph, a reference is made to "Subtract 1B". In addition, the same reference was noted on Page 24 under the Summary of Reclamation Success. Please make the necessary corrections as Tract 4 does not include Subtracts 1A and 1B. (MDB)
Response	These changes were made.
27	Page 23 of Attachment VI (Tract 4 Description) discusses the developed water resources but these water resources are actually located in area covered by pending Bond Release No. 8 for industrial land. This should be explained in the Tract 4 description if the ponds will provide a livestock watering source for that tract. Otherwise, this discussion should be removed from this application. (MDB)
Response	This section was clarified. Please note, since part of the watershed includes reclaimed areas in Tract 4A and 4B, reference was made to Bond Release 8 and Appendix XII supporting our statement that suspended solids from these watersheds are not contributing to stream flow or runoff outside the permit area in excess of that allowed by NDAC 69-05.2-

	16-04.
28	In Attachment VI, please provide information indicating that the size of the impoundments are adequate for their intended purposes and that the water levels will be reasonably stable as required by NDCC 38-14.1-24(7)(a)&(d). If this information has been incorporated into Permit BCGH-8204, please provide a reference in the narrative where this information can be found in the permit. (MDB)
Response	Changes were made on page 2 of Attachment VI. A reference to the location of this information was made to the 3rd paragraph entitled **Summary: Reclaimed Water Resources.**
29	In narratives for Tracts 1 and 5, please discuss the field windbreaks that were planted in Sections 4, 13, and 14. This discussion should include species and planting arrangements, whether these are replacement plantings or conservation plantings, and the achievement of the applicable revegetation success standards. (GAW)
Response	A paragraph was added on page 10 (Tract 1) and page 30 (Tract 2).
30	Please review Attachment IXA to ensure that all of the woodland sampling locations are depicted on the map. Woodland sampling data on the CD indicates that Woodlands WD 13-2-92, WD 13-3-93, and WD 13-7-97 were sampled but they are not shown as being sampled on Attachment IXA. We also noted that the woodland data on the CD includes woodland WD 14-3-92 which is located outside of the current permit boundary as it has already been bond released. In addition, please change the color of the woodland identification number on the maps so that it is legible. (GAW)
Response	Changes were made to Attachment IXA to show the location of woodland sample site in these woodlands. WD14-3-92 was deleted from the woodland data on the CD. Removing this site did not change the results.
31	Please provide a brief description of the management used on the hayland and cropland areas within the appropriate tracts as required by NDAC 69-05.2-12-12(8)(b), including any soil testing that was done to determine fertilizer rates. (SAS)
Response	A paragraph concerning the management of hayland/cropland was added to Tracts 1, 3, 4 and 5. Tract 2 seeded to native grassland but managed as hayland.
Tract 1	
32	Please recalculate the adjusted yield standard in Table T1C-7 using the 2009 silty reference yield value of 2,902.3. The yield value from 2008 was used in this table. The summary data in Table 1 will need to be updated. (GAW)
Response	Tables T1C-7 and Table 1 were revised. These changes did not change the result. Reclaimed area yields exceeded the standard.
33	The 2008 and 2009 cover values for Tract 1C, Tables T1C-8 and T1C-9, are listed as being slightly higher than the values provided in the associated excel files. These values are also different in Table 1. Please review and update as necessary. (GAW)
Response	Tables T1C-8 and T1C-9 were revised to reflect minor changes in the total cover value. Although the reclaimed cover value is a few tenths less than the calculated standard for both

	2008 and 2009, it would be considered statistically equivalent both years. Note that in this case minor premine range sites were included in the calculation of the standard. If the premine soils classified as silty range sites (9.7 acres) were assigned the 73% cover value the calculated standard for both years would be 98.7 percent. The revised cover values for the reclaimed area were changed in Table 2. Table 1 contains a summary of production values and comparisons.
34	Please clarify how a direct comparison can be made between the reclaimed warm season hayland in Section 13 and the reference areas as shown in Tables 10A and 10B. It appears that the premine cropland soils (Table 8) should be used to determine the unadjusted standard and the hayland reference or control area yield values should be used to climatically adjust this value. (GAW)
Response	Our concern was that when it is used as a control area and Method 3 is used for the Climatic Correction factor (CF), the result can be misleading. In the year comparisons are made, the CF formula uses the yield from the control area (in this case tall warm season species) and divides this value by the mean yield from the suitability group (in this case -1.2 tons/ac). The yield for the suitability group would probably be derived from yields of mostly cool season grasses and would not attain mean yields known to occur in the warm season hayland stands. Since we are dealing with highly productive warm season grasses the CF can be too high in some years therefore causing the correction factor to be high resulting in an error in the conclusion as to whether or not the standard has been met. We determined it to not be an accurate comparison methodology for warm season hayland fields and should not be used if an adequate Reference Area is available. However, to view the analysis both ways, the yield standard was calculated using the reference area as a Control Area. In the years comparisons to the standard were done, the calculated standard varied little from the actual mean yield of the Control Area (Reference Area) yield. Therefore, for this evaluation, both methods had the same conclusion as the data shows in Tables 10A and 10B.
35	Please show the Warm Season Hayland reference area that is being used to demonstrate success on the warm season hayland in Section 13, T1C, on Attachments IXA and X. The soils and sampling locations of this reference area must also be depicted on the appropriate map. (GAW)
Response	A new plate (Attachment XD) was added to Attachment X. This plate shows the location of the Control Area, soil mapping units and sample transects.
36	Table 2 indicates that Tract 1C, BCS Section 13, consists of 44.2% native grasses in 2008 using relative cover data but the sampling data on the CD indicates that native grasses comprised 49.2% of the relative composition. The 2009 cover data values are also different on Table 2 compared to the sampling data (48.3% natives vs. 49.3 and natives with poa 78.5% vs. 79.6%). Please review and update as necessary. (GAW)
Response	Changes to Table 2 were made.
37	The summary data in Table 2 for Tract 1C, BCS Section 18 - haulroad), does not demonstrate that the diversity standard was met because 5 native species were not present (2008 cover data) and 4 species did not contribute at least 3% each of the relative cover. We realize that a portion of this area is subject to 1975 law reclamation requirements but the law period boundary is not clearly depicted on Attachment VIIC and according to Table 2 a

	portion of this area is subject to our present reclamation law. Please include a discussion on how the required diversity standards have been achieved or explain that it does not need to be achieved (based on law period requirements). Otherwise justify why the Commission should suitably modify the diversity standards with an appropriate demonstration as allowed in the Revegetation Success Standards document. We realize that 7 native species were present in the 2009 cover data and that these native species were likely present in 2008. In addition, the 2008 yield data indicates that 6 native species were present. (GAW)
Response	The section 18 haulroad refers to the disturbance associated with the construction and reclamation of that portion only. The haulroad portion falls under the 1975 law and diversity requirements were not part of the vegetation standards. However, your review of species present using both cover and production data would indicate that a diverse native grassland stand has been achieved exceeding any expectations of what could have been present based on seed mixtures recommended for grasslands for the 1975 reclamation requirements.
Tract 3	
38	There seems to be something missing from the end of first sentence on page 17 dealing with Tract 3. Please complete the sentence. (SAS)
Response	Changes were made to page 17.
39	The yield standard yield was not met for 2010 for Tract 3 when the recently-released Mercer County yield value for 2010 of 1.75 tons/acre and the long-term yield value of 1.50 t/ac were used in Table 13. In addition, the difference between the yields was significant when statistics were applied. Please provide a different year of forage yield data to prove that the required productivity standard has been met. (SAS)
Response	Tract 3 yield data for 2010 were deleted. A hayland Control Area was established and approved for the purpose of calculating a standard for this area. The location of the Control Area and associated soil series and sample site locations are shown on Plate XE in Attachment X.
Tract 4	
40	The 2009 native grassland adjusted yield standards were calculated for Tract 4A in Tables T4A-5 and T4A-7 using Shallow and Thin Claypan reference area yield values from 2008 rather than 2009. Please correct these errors in these tables and in Table 1, yield summary. (GAW)
Response	Changes were made to tables T4A-5 and T4A-7 and Table 1. These changes did not affect the result. Productivity on the reclaimed area exceeded the calculated standards.
41	Tables T4A-4, 5, 8, 9, 12, and 13 are listed as being specific to the 1996 seeding in Section 31; however, a portion of Tract 4A, Part 1, was seeded in 1984. The 1996 and 1984 seedings appear to be combined in Tables 1 & 2 and listed as Section 31 - 1979 law but the values listed appear to be derived from the 1996 seeding only. Please clarify if Tables T4A-4, 5, 8, 9, 12, and 13 also represent 1984 seeded area. (GAW)
Response	Table 1 was changed to show the seeding dates for this tract to be 1984 and 1996. Sampling was conducted in each area and data were combined.

42	Tables 1 and 2 includes Section 31 orphan spoil and redisturbed orphan spoil information for Tract 4A, Part 1, but these areas cannot be located on Attachment VIIIC or IXC. Also, it appears that these areas are named inconsistently between Tables 1 and 2. In addition, it appears that one of these areas should be labeled Part 3 and the other area is included in the Ash Pit Expansion Area, which is pending Bond Release No. 8. Please review and revise as necessary. (GAW)
Response	Some changes were made to Tables 1 and 2 to clarify the location of these sample areas. Tract 4A has 4 sample areas that are identified as four separate line items on Tables 1 and 2. Table 1 has a 5th line item that is the cropland sample site (reclaimed dragline road site) located in section 32. The first line item includes data from reclaimed grasslands subject to the 79 vegetation requirement and were seeded in 1984 and 1996 (Data for BCS (79 law, Part 1). A second small area subject to the 79 law is the Section 31 (pond 005) diversion that was seeded in 1999. The 3rd data line refers to reclaimed rangeland 4A (part 3) which was redisturbed old spoil in section 31 and is shown on Attachment IXC. The fourth data line includes old spoils were redisturbed to construct the dragline road through section 32. This also includes other old spoil in section 32 that was not redisturbed for mining purposes but reclaimed to provide a more productive area. So the forth sample area (data line 4) section 32 data includes cover from redisturbed old spoil and reclaimed old spoil. These areas were seeded in 1995 and 1998.
43	An NRCS value of 2600 lbs/acre was used in Table T4B-3 in the development of the adjusted yield standards for Tract 4B rather than 2500 lbs/acre. Therefore, the adjusted 2008 and 2009 yield standards are actually higher than actually required. This error may be corrected if so desired. (GAW)
Response	Thank you for finding this error. No change was made.
44	Table 2 indicates that native species comprised 74.5% of the composition in 2008 and 83.4% in 2009 on the pond and diversion portion of Tract 4A, Part 1. However, it appears that intermediate wheatgrass was incorrectly considered a native species in the relative species composition percentage values and was included in the native species count column in Table 2. In addition, the percent native composition values listed in the Vegetation section of the CD are not consistent with Table 2. Please review and revise as necessary. Please also provide an explanation why Kentucky bluegrass comprises 18.2% of the live basal cover in 2008 and comprises 0% in 2009 while being detected in every production frame and yielding 132 lbs per acre in 2009. (GAW)
Response	Intermediate wheatgrass was deleted as a species. Changes were made to Table 2 to be consistent with field data on the CD. We do not have an explanation concerning your question about Kentucky bluegrass.
45	In the first paragraph on page 21, Subtracts 1A and 1B are referenced in the first paragraph on page 21. It appears this should actually be Subtracts 4A and 4B. Please correct as necessary. (SAS)
Response	This error was corrected.

Tract 5	
46	A thin claypan yield value of 1,375 lbs/acre was used to calculate the adjusted 2002 yield standard in Table T5-4 rather than the actual yield value (913) and a 1,267 lbs/acre value was used for the Shallow reference area in Table T5-5 rather than the actual yield value of 1,419 lbs/acre. Please review and update these tables and Table 1 as necessary. (GAW)
Response	Tables T5-4 and T5-5 were revised. These changes did not change the result. Reclaimed areas exceeded the calculated standard.
47	The summary data in Table 2 for the native grassland in Tract 5, (BCS Section 4), does not demonstrate that the seasonality standard has been achieved. Table 2 indicates that warm season species only comprised 10.5% of the relative composition in 2009 and the total warm season cover data on the CD is listed as 13.86% even though big bluestem and switchgrass are listed as comprising 30.7 and 5.9% of the relative composition, respectively. In addition, the total percent native species composition values are different on the CD and Table 2. Please review and update the CD and Table 2 accordingly. (GAW)
Response	Thank you for finding this error. Summary formulae on the right side of the excel file were incorrect. The CD was updated and Table 2 was corrected.
48	Table 2 indicates that the native grassland in Section 5, Tract 5 - BCS, had 5 native grass species that each comprised at least 3% of the relative cover composition in 2006. The cover data on the CD shows that only 4 species achieved this standard. Please review and correct as necessary. (GAW)
Response	The CD shows 5 species with relative cover values as follows: Agsm 4.8, Stivi 4.8, Ange 40.8, Scsc 4.0 and Pavi 21.6. Other differences in the descriptive statistics were noted however and Table 2 was changed. These changes did not affect the results. The reclaimed area exceeded the standards.
Attachment IX – Seeding Dates, Vegetation Sampling Transects and Respread	
49	Please revise Attachment IXA to depict the locations where reclaimed native grassland was sampled in Section 18, Tract 1A, Part 3. (GAW)
Response	A transect is present near the center of this subtract and it is shown on Attachment IXA. Production and cover data were collected at random locations along this transect.
Attachment XI – Pond Information & Designs and Water Quality Information	
50	Attachment XI provides three pages of surface water discharge point information and all references to NPDES discharge points should be changed to denote NDPDES which will identify the State Health Department has the regulatory authority of surface water discharges during the times of operation. The same changes to discharge point information provided on the CD need to be made as well. (BEB)
Response	These changes were made.
51	The listing of Ponds in Bond Release 7, Attachment XI, differs from what is presented in the hard copy and the CD. The List of Ponds provided in the CD includes Pond G144-85-24-5A (Stephens) which is not provided in the hard copy. Please address. (BEB)

Response	The list of ponds in Attachment XI was changed. Pond G144-85-24-5A (Stephens pond) should not have been on the list and was deleted. This pond was included in Bond Release No. 6 to BCGH-8204.
52	Table 2 provides a spreadsheet summary of 1997-1998 water quality analyses for the eleven ponds and wetlands to be retained as permanent impoundments within the bond release area. We request that copies of the original water quality analyses documents be provided in the application, along with water quality analyses of the Old East and Old West Pits, which have not been provided. (BEB)
Response	The data summarized in Table 2 was provided and approved in Revision 29 to Permit BCGH-8204. Water quality analysis for the old pits are on the Minnesota Valley report dated 7/2/10 that is included in Attachment XI. Please note that there are many ponds in the old spoils. Water quality data were provided for these old pits for informational purposes only.
53	The application hard copy contains updated (July 2010) water quality analyses for only 6 of the permanent impoundments to be retained and the CD provides water quality analyses for 13 of the permanent impoundments. The same information should be provided in both sets of materials. (BEB/SAS)
Response	All the water quality information that is necessary is provided either in Table 2 or on the Minnesota Valley July 2, 2010 report. We hope this will suffice.
54	Water quality analyses that are provided in the CD provides water quality data for a total of 13 ponds/wetlands but approximately ½ of the ponds/wetlands listed have a different name/identifier than the ponds and wetlands names/locations that are provided in other parts of the application. Water quality analyses are provided for Ponds 31-3H, 143-84-9-3H, WD2 Pond, Rec-SP68, Wetlands 31-A and 31-B and none of these match the listed names of ponds provided in other areas of the application, either in the CD or hard copy. In order for us and other reviewers to correlate updated water quality analyses with the correct pond/wetland, the names of the developed water resources (ponds and wetlands) needs to remain consistent throughout the application. Please address. (BEB)
Response	A list of ponds is provided as the first page in Attachment XI. This list gives the NDPDES No. as well as the Pond No. Both were used as pond identifiers over the course of mining and reclamation operations. Please refer to this list if there is any confusion.
CD – Permanent Pond Designs	
55	Two of the permanent pond designs submitted on the CD are incorrect. PDF's 9GR-7009 18-7b and 9GR-7008 13-8e are drawings of diversions. Please address. (MDB)
Response	The embankment for pond 046 (144-85-13-8E) is in section 13 and the water area is in section 24. Information concerning this pond is provided in Revision 20. Design data is located in Section 4.3 (Volume XII). Pond 045 (144-84-18-7B) was redesigned as a permanent pond and approved in Revision 24. This is found on Plate 4.3.1-16A of Section 4.3 (see volume XII of Permit BCGH-8204.

CD – Vegetation Sampling Data	
56	The 2006 yield value in the summary data for the shallow reference area is listed as being 1419.6 pounds per acre but the sampling data shows that it yielded 1266.8 lbs/acre. Please correct this error if other changes are being made. The correct value was used to demonstrate revegetation success for the reclaimed native grassland. (GAW)
Response	This error was on the summary table for the shallow reference area (Reference Area Historical Data on the CD). Data were in kg/ha. This was changed on the CD.
57	The native grassland in Sections 4 and 5 are listed separately in Tables 1 and 2 but the excel worksheets included on the CD for the native grassland in Tract 5 are labeled as if they are for lands located in Sections 4 and 5. Please edit the worksheet names to clarify the data applies to only Section 5. (GAW)
Response	Worksheets on the CD were corrected.