

PUBLIC SERVICE COMMISSION

Reclamation Division

Memorandum

TO: Commissioners Christmann, Fedorchak and Kroshus
Darrell Nitschke, Executive Secretary
Illona Jeffcoat-Sacco, General Counsel

FROM: ^{DKM} Dean Moos, ^{ZAB} Zanna Brinkman and ^{RK} Randy Kowalski

DATE: August 9, 2017

SUBJECT: Falkirk Mining Company bond release applications:
Bond Release No. 4 for Permit NAFK-9601, Case No. RC-16-655
Bond Release No. 1 for Permit NAFK-8405, Case No. RC-16-656

Summary

On September 23, 2016, The Falkirk Mining Company filed applications for Bond Release No. 1 to Surface Coal Mining Permit NAFK-8405 and Bond Release No. 4 to Surface Coal Mining Permit NAFK-9601. Together, the two applications contain a land area totaling 628.1 acres located about 3 miles southeast of Underwood, North Dakota. Most of the land included in these bond release applications is within the Coal Lake Wildlife Management Area that is open to the public for limited recreational uses.

The application for Bond Release No. 1 to NAFK-8405 requests the release of all reclamation liabilities on 200.1 acres of land. The bond release area contains approximately 52.0 acres of reclaimed land approved for recreational land use. The reclaimed area includes a 5.7 acre reclaimed seasonal wetland. This bond release application contains 148.1 acres of land that was not disturbed by mining activities (74% of the bond release tract).

The application for Bond Release No. 4 to NAFK-9601 requests the release of all the remaining reclamation liabilities on 428.0 acres of land. The bond release area contains approximately 136.5 acres of reclaimed land approved for recreational land use. The reclaimed area includes 2 developed water resource ponds and a 1.1 acre reclaimed seasonal wetland. This bond release tract includes 291.5 acres of land that was not disturbed by mining activities (68% of the bond release tract).

The Falkirk Mining Company has demonstrated that all applicable bond release standards for the approved post mine land use have been met for the tracts described in these bond release applications. The Reclamation Division recommends approval of both bond release applications. Each of the bond release applications is discussed in greater detail in the following narrative. A map of the bond release tracts is attached to the end of this memo.

Discussion – Bond Release No. 1 to NAFK-8405

Bond Release Application No. 1 to NAFK-8405 contains 200.1 acres of land located in portions of Sections 26 and 35, T146N, R82W, McLean County. The property ownership in this tract is as follows:

Missouri River Sanitation, Inc. (Richard Huschka)	8.0 acres in NE1/4 Section 26	Not disturbed by Falkirk
State of North Dakota (State Historical Board)	46.1 acres in NE1/4 of Section 26	Not disturbed by Falkirk
State of North Dakota (Department of Transportation)	146.0 acres in Sections 26 and 35	52.0 acres disturbed

Falkirk transferred ownership of the 46.1 acres in the S1/2NE1/4 of Section 26 to the State Historical Society in 1989 to preserve an important prehistoric cultural resource site described in pre-mining resource inventory for this permit area. The cultural site contained within this tract is now known as the Pulver Mounds State Historic Site. No mining related disturbance took place in this tract or the 8.0 acre tract in the NE1/4 of Section 26 owned by Missouri River Sanitation.

The 146 acres of land owned by the North Dakota Department of Transportation (NDDOT) is part of a larger land transfer agreement known as the “Coal Lake Transfer” in the mining permit and bond release documents. Falkirk entered into an agreement in 2009 to donate 729.40 acres of land bordering Coal Lake to the Department of Transportation. The transfer allowed the establishment of the Coal Lake Wildlife Management Area to mitigate No-Mow/Managed-Mow acres within the rights-of-way of the state highway system in McLean County. A zoning change from agricultural and industrial zone to recreational zone for primitive recreational use was granted by the McLean County Board of County Commissioners in 2008 for the lands described in the transfer. The Coal Lake Wildlife Management Area is operated by the North Dakota Game and Fish Department.

The post-mining land use and reclamation plan changes necessary to accommodate the Coal Lake Transfer in the surface mining permit were addressed in Revision 33 to NAFK-8405. The documentation for the transfer agreement along with preference statements from the eventual land owner and wildlife area manager were provided with the revision. Revision 13 changed the post-mine land use to recreational on the acreage included in this bond release.

The areas disturbed by mining within the bond release tract are all located on land now owned by the NDDOT. The 52.0 acres of reclaimed land in this tract have a post-mine land use of recreational. The reclaimed recreational areas within this tract include approximately 5.7 acres of seasonal wetlands, 0.2 acres of temporary wetlands, 14.4 acres seeded to native grassland, 30.6 acres seeded to pre-crop grass and legume cover and about 1.1 acres of roads and trails.

Coal removal occurred from 1992 to 1993 in the northern portion of this tract and the backfilling, grading and soil respread was completed on the area in 1994. Seeding was completed on the mined area in 1995. An area of associated disturbance for a coal haul road constructed in the

S1/2 of Section 26 was reclaimed and seeded in 2008. There have been no previous bond releases on this tract of land. Therefore, first (backfilling and grading), second, (soil respread) third (vegetation establishment) and fourth stage (demonstration of revegetation success) bond release is being requested for all reclaimed acreage.

The reclaimed areas in Bond Release 1 to NAFK-8405 were probed by Commission staff to verify topsoil and subsoil respread thickness. The actual topsoil and subsoil respread thicknesses verified by the soil probing were similar to the approved respread thicknesses and variations were within acceptable limits.

Reclaimed land approved for long-term recreation land use is required to have adequate vegetative cover to control erosion at the time of final bond release. Vegetation cover sampling data from 2015 and 2016 is included in the bond release application. The reclaimed native grassland in the S1/2 of Section 26 exceeded 99% cover in both years. The reclaimed land seeded to pre-cropland cover measured slightly more than 96% in each year. The percent cover on the reclaimed areas exceeds the applicable numeric standard of 73% total cover referenced in our Revegetation Success Standards document. The reclaimed native grassland area was used for livestock grazing in 2014 through 2016. Prior to grazing the native grassland area was used for hay production from 2010 through 2013. The reclaimed pre-cropland areas were cut for hay annually from 1998 through 2015 and were idle in 2016.

Discussion – Bond Release No. 4 to NAFK-9601

Bond Release Application No. 4 to NAFK-9601 contains 428.0 acres of land located in portions of Sections 25, 26 and 35, T146N, R82W, McLean County. The property within this bond release tract is owned by the NDDOT and is part of a larger land transfer agreement (Coal Lake Transfer). As described previously, Falkirk donated 729.40 acres bordering Coal Lake to the NDDOT for the purpose of establishing the Coal Lake Wildlife Management Area to mitigate No-Mow/Managed-Mow acres along the state highway system. The McLean County Board of County Commissioners granted a zoning change in 2008 to designate this area a recreational zone for primitive recreational use.

The post-mining land use and reclamation plan changes necessary to accommodate the Coal Lake Transfer in the surface mining permit were addressed in Revision 13 to NAFK-9601. The documentation for the transfer agreement along with preference statements from the eventual land owner and wildlife area manager were provided with the revision. Revision 13 changed the post-mine land use to recreational on the 428 acres included in this bond release.

Approximately 136.5 acres of land within this tract were disturbed and reclaimed during Falkirk's surface coal mining operations. The post-mine land use for reclaimed land in this tract is recreational. The reclaimed recreational areas within this tract include approximately 1.1 acres of seasonal wetlands, 28 acres seeded to native grassland, 80 acres seeded to pre-crop grass and legume cover, 21 acres seeded to grass cover, 2.5 acres for roads and trails, and two ponds totaling about 4 acres for wildlife habitat and water storage.

Coal removal occurred from 1999 to 2002 in the northeast portion of this tract and the backfilling, grading and soil respread was completed on the area in 2004/2005. Seeding was

completed on the mined area in 2006. Partial bond release was granted on this portion of the tract for backfilling and soil respread (first and second stage bond release) as part of Bond Release 3 to NAFK-9601. Falkirk is requesting third and fourth stage bond release for this portion of the tract. There have been no other bond releases for the remainder of this tract. An area of associated disturbance for a coal haul road crossing Coal Lake in the southern portion of the bond release area was reclaimed and seeded in 2013 and Falkirk is requesting first (backfilling and grading), second, (soil respread), third, (vegetation establishment), and fourth stage, (demonstration of revegetation success) bond release on this portion.

The reclaimed areas in Bond Release 4 to NAFK-9601 were probed to verify topsoil and subsoil respread thickness for partial Bond Release 3 to NAFK-9601 that was approved on December 10, 2009. The associated disturbance areas in Bond Release 4 to NAFK-9601 that were not part of a previous partial bond release were checked with a tile spade during the bond release inspection to verify the topsoil respread thickness. The topsoil respread depths were in general agreement with the approved respread thickness.

Reclaimed land approved for long-term recreational land use is required to have adequate vegetative cover to control erosion at the time of final bond release. Vegetation cover sampling data from 2015 and 2016 is included in the bond release application. The total (live and litter) basal cover averaged over 96% on the reclaimed areas both years. The cover exceeds the 73% benchmark for basal cover sampling referenced in our revegetation standards document. The reclaimed native grassland and pre-cropland areas in Section 25 have been cut for hay annually from 2007 through 2015. The vegetation on the associated disturbance areas along the access road in the southern portion has been managed with mowing from 2014 through 2016.

Reclaimed Wetlands and Water Resources

The 5.7 acre reclaimed seasonal wetland R-E26-01 in Bond Release No. 1 to NAFK-8405 is a wildlife habitat enhancement feature that was not present before mining. Reclaimed seasonal wetland W-SW25-1 in Bond Release No. 4 to NAFK-9601 replaces 1.1 acres of pre-mine wetlands. The bond release applications contain three years of wetland data including aerial photography showing the size and vegetation zones, a complete species list of the vegetation established and water quality test results. The wetland areas meet the performance standards for reclaimed wetland habitat.

Although not identified as a separate land use, the bond release tracts contain about 0.3 acres of temporary wetlands (0.2 acres in NAFK-8405 and 0.1 acres in NAFK-9601) that may be the result of differential settling. These features are small in size and hold water during the early part of the growing season.

The two developed water resource ponds located in the NAFK-9601 bond release tract are modified sediment ponds that provide water storage and wildlife habitat. NDDOT requested that the ponds be retained and accepted responsibility for maintenance of the ponds. The ponds meet the requirements for permanent ponds. Pond DWR-I25-04 has a design storage capacity of 11.3 acre-feet and pond DWR-I35-01 has a design capacity of 17.8 acre-feet. Falkirk filed an Application for Conditional Water Permit on behalf of the Department of Transportation for pond DWR-I35-01 since it is capable of impounding more than 12.5 acre-feet of water.

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Falkirk completed a surface and ground water post-mine hydrologic assessment for this bond release request. No pre-mine water supplies were affected by mining related activities and the Reclamation Division concludes that there was not material damage to the hydrologic balance off-permit due to the mining and reclamation activities on these tracts. A number of existing ground water monitoring wells located within or adjacent to the bond release tracts will be retained for continued observations as part of the mine-wide ground water monitoring plan.

General Information

The formal bond release inspection of both bond release requests was conducted on November 10, 2016. The surface owners, McLean County Commissioners, and several state and federal agencies were invited to participate in the bond release inspection. The surface owner of most of the land in the bond release tracts was represented by Paul Moch and Cassandra Torstenson from the ND Department of Transportation. Dan Halstead and Casey Anderson from ND Game and Fish Department, participated in the inspection and were available to answer questions regarding the operation of the wildlife management area. A letter supporting the bond release was received from Terry Steinwand, Director of the ND Game and Fish Department. Richard Huschka from Missouri River Sanitation, the owner of the undisturbed land not within the wildlife management area, also participated in the inspection and he did not express any concerns.

The public notice for both of these bond release applications was published in the official county newspaper, the McLean County Independent, as well as the Bismarck Tribune for four consecutive weeks, October 27, November 3, 10 and 17, 2016. No objections or concerns were received regarding this bond release application. No other concerns were identified during the bond release inspection that required additional follow-up or that would prevent final bond release approval.

Falkirk did not request any reduction in the bond amount for Bond Release No. 1 to NAFK-8405 since this area is currently covered by a worst-case reclamation condition that still exists at the mine. This area is part of a consolidated bond area that includes two other permits at the Falkirk Mine. If Bond Release No. 1 to Permit NAFK-8405 is approved, Falkirk will be released of all reclamation liabilities on the acreage within the bond release request.

Permit NAFK-9601 is covered by a separate surety bond specific to the reclamation liabilities for land within this permit area. Falkirk is requesting a reduction in the bond amount for Bond Release No. 4 to NAFK-9601 in the amount of \$ 277,832.45. An adequate amount of bond will remain to cover any liabilities for the remaining acreage in this permit area.

If approved, both bond releases will become effective September 18, 2017, unless a formal hearing is requested.

Attached are the motions and award forms for consideration at the August 16, 2017 Commission meeting.

Figure 1 – Bond release area overview map for BR1 to NAFK-8405 and BR4 to NAFK-9601
(2015 NAIP Aerial Image)

