Public Service Commission
State of North Dakota

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June 2, 2014

Mr. Ervin Barchenger,
Acting Regional Director
Western Regional Coordinating Center
Office of Surface Mining
1999 Broadway, Suite 3320
Denver, CO 80202-3050

RE: State Recommendation Letter for the Mine Plan Modification associated with Dakota Westmoreland's Revision No. 27 to Permit KRSB-8603

Dear Mr. Barchenger:

Enclosed are portions of the Secretarial Decision Document prepared by the Reclamation Division for processing the mine plan modification associated with Dakota Westmoreland Corporation's (DWC) application for Revision No. 27 to Surface Coal Mining Permit No. KRSB-8603. This revision application adds 892.2 acres to the permit that includes 390 acres of additional leased federal coal. The additional federal coal tracts are located in the N½S½ of Section 20 and the S½ of Section 22, T143N, R88W. Plans in this revision show that 126 acres of the additional federal coal tracts will be mined. Federal Coal Lease NDM 041765, as modified December 1, 2013 includes all of the remaining federal coal parcels within these sections. A mine plan modification needs to be approved by the Department of the Interior before overburden and coal removal begins on the federal coal tract that was added to Permit KRSB-8603 with Revision No. 27. The Public Service Commission (PSC) conditionally approved the revision on May 28, 2014.

The Bureau of Land Management (BLM) originally issued Lease Number NDM 041765 to the Knife River Coal Mining Company in 1961 that now includes the federal coal tracts added to Permit KRSB-8603 with Revision No. 27. This lease was later transferred to DWC when they purchased the Beulah Mine from Knife River in 2001. Other Federal coal tracts covered by Lease NDM 041765 are located in Permit KRSB-8802 for the Beulah Mine and the Department of the Interior has previously approved mine plans for those federal coal tracts. Acreage with some federal coal was added to Permit KRSB-8603 with Revision 22 in 2009 but that acreage addition was not considered a mine plan modification by OSM. However, the mining of additional federal coal as proposed with Revision 27 was determined to be a mine plan modification as outlined in OSM's letter dated February 25, 2014 to the PSC.

Lease Number NDM 041765 originally included the N½ of Section 22, T143N, R88W, and the NE¼NE¼, NE¼SE¼ and S½NE¼ of Section 20, T143N, R88W that are within Permit KRSB-8603. In late 2008, DWC applied for a lease modification to add 240 acres located in the

NW¼NW¼, S½NW¼, N½SW¼, and NW¼SE¼ of Section 20, T143N, R88W, and BLM approved that lease modification on December 1, 2009. (Acreage in the N½SW¼ and NW¼SE¼ of Section 20 are part of the Revision 27 addition.) BLM issued another lease amendment on December 1, 2013 to add the 320 acres in the S½ of Section 22 to Lease No. NDM 041765. Following that lease amendment, DWC updated the Logical Mining Unit and they also submitted a revised Resource Recovery and Protection Plan (R2P2) to BLM in April 2014. That R2P2 amendment was approved on May 5, 2014. On the Federal coal tracts described above, one hundred percent of the coal interest is federally owned and the surface is under private ownership, with some being owned by DWC.

A condition was attached to the Commission's May 28, 2014 approval of Revision 27 that prohibits any overburden or coal removal from the Federal coal acreage added to the permit with Revision 27 until the mine plan modification is approved by the Department of the Interior. However, DWC will be allowed to conduct surface disturbance on some of the federal coal tracts to the extent necessary for mining on the adjoining non-federal coal tracts and the previously permitted federal coal tracts.

Enclosed are copies of the Commission's May 28, 2014 permit revision approval form that contains the written findings required under the North Dakota regulatory program, the condition that was attached to Revision No. 27, the supplemental report for use in determining NEPA compliance, and a chronology of events that summarizes the processing of Permit KRSB-8603 and Revision No. 27. Also enclosed are two DVD's, one containing the updated version of Permit KRSB-8603 with the Revision 27 changes incorporated and the other is the April 2014 R2P2. In addition, the bond area for this permit was increased as a result of the additional area permitted with Revision No. 27, but no increase in the bond amount was required based on the revised worst-case reclamation cost estimate included in that revision.

We recommend that the Secretary approve the mine plan for the federal coal that will be mined under Lease NDM 041765 in Sections 20 and 22 as proposed by Dakota Westmoreland in Revision No. 27 to Surface Coal Mining Permit KRSB-8603 for the Beulah Mine.

If you have any questions, please contact this office.

Sincerely,

James R. Deutsch
Director
Reclamation Division

Enclosures

cc: Bob Postle, OSM-Denver /with enclosures
Gene Hay, OSM-Denver /with enclosures
Jeffrey Fleischman, OSM-Casper /with enclosures
Jeff Frohlich, Dakota Westmoreland Corporation

Minedata/Beulah/Permits/KRSB-8603/Revisions/No.27/Rev27_OSM_mine_plan_mod_apprvl_rqst_6-2-14

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Dakota Westmoreland Corporation
Revision No. 27, Permit KRSB-8603
Application

Case No. RC-13-70

REVISION OF PERMIT TO ENGAGE IN SURFACE COAL MINING AND RECLAMATION OPERATIONS

May 28, 2014

Based on the application for **Revision No. 27 to Permit Number KRSB-8603** submitted by Dakota Westmoreland Corporation (DWC) for the Beulah Mine on January 31, 2013, and as revised through May 16, 2014, and all information and documentation contained therein, the North Dakota Public Service Commission (Commission) finds that the application meets all applicable requirements of Chapter 38-14.1 of the North Dakota Century Code (NDCC) and Article 69-05.2 of the North Dakota Administrative Code (NDAC). On the basis of the information set forth in the application or from that otherwise available and known by the applicant, the Commission finds that:

Finding No. 1. The permit revision application is accurate and complete and complies with the requirements of NDCC Chapter 38-14.1 and NDAC Article 69-05.2 [NDCC 38-14.1-21(3)(a)].

Revision No. 27 adds 892.2 acres to Permit KRSB-8603, revises mining and reclamation plans, and updates nearly all other sections of the permit with information for the added area. With the added acreage, Permit No. KRSB-8603 will total 3,558.3 acres. The acreage being added to the permit is directly south of the current permit boundary that is located on the west side of State Highway 49 and about five miles southwest of Beulah. Coal removal will occur from a portion of the additional acreage and other areas will be used for soil stockpiles, sedimentation ponds, haul roads and other associated disturbances.

The applicant verified that all information included in the application is true and correct to the best of their knowledge. Commission staff conducted completeness and technical reviews to ensure that the required information was provided and mining and reclamation plans meet all applicable requirements. The Reclamation Division sent completeness and technical review letters to the applicant on March 1, 2013, January 6, 2014, January 29, 2014, March 25, 2014, April 24, 2014 and May 13, 2014. Responses to each letter were reviewed and changes to the application were made to address the concerns that were noted. The Commission concludes that this significant revision application is now accurate and complete. The applicant published the required notices in newspapers and the Commission sent notices to all surface owners of the lands being added to the permit area and to numerous local, state and federal agencies. Advisory committee members also reviewed portions of the application and comments were

received from several agencies. No objections or requests for an informal conference were received on this application.

Much of the land being added to Permit KRSB-8603 with Revision No. 27 contains federally owned coal and DWC plans to mine a portion of the federal coal. The leased federal coal tracts that will be mined as proposed by this revision are located in the N½ of the S½ of Section 20 and the S½ of Section 22, both in T143N, R88W. Federal Coal Lease NDM 041765 was modified by the Bureau of Land Management (within the U.S. Department of the Interior) on December 1, 2013 to add the S½ of Section 22 to the existing lease (NDM 041765). The N½ of the S½ of Section 20 was added to this lease earlier. DWC either owns the surface or has the appropriate surface leases to conduct surface coal mining activities on these federal coal tracts. Therefore, the applicant currently has the legal right to disturb the surface of the federal coal tracts to the extent necessary for conducting mining operations on the adjoining tracts where the coal is privately owned.

On February 25, 2014, the Office of Surface Mining (OSM) determined that the mining of additional federal coal as proposed by Revision 27 constitutes a mine plan modification that needs to be approved by the Department of the Interior. The Bureau of Land Management approved a modification of the Logical Mining Unit on March 11, 2014 and the Resource Recovery and Protection Plan for the additional federal coal tracts was approved on May 5, 2014.

However, before overburden and coal removal is allowed to begin on the federal coal tracts located in the N½ of the S½ of Section 20 and the S½ of Section 22, the Department of the Interior will need to approve the mining plan modification covering all of the federal coal tracts as required by 30 CFR 746.11. This federal regulation states no person shall conduct surface coal mining and reclamation operations on lands containing leased federal coal until the Secretary has approved the mining plans. Condition No. 1 attached to the Commission's approval of Revision No. 27 prohibits any overburden and coal removal from the federal coal tracts as described above until the applicant receives approval of federal mining plan modification from the Department of the Interior. Until that mining plan is approved, surface disturbances on the federal coal tracts will be limited to those activities that are needed for carrying out mining on the adjoining federal coal tracts previously approved for mining or where the coal is private and state owned.

Finding No. 2. The applicant has demonstrated that reclamation as required by NDCC Chapter 38-14.1 and NDAC Article 69-05.2 can be accomplished under the reclamation plan contained in the revised permit application [NDCC 38-14.1-21(3)(b)].

Revision No. 27 adds 892.2 acres to the permit, revises mining and reclamation plans, and updates nearly all other sections of the permit accordingly. Areas that are disturbed will be reclaimed using procedures that have been successful in the past and satisfy the requirements of the North Dakota law and rules.

The proposed postmining topography meets the approximate original contour requirements of NDCC 38.1-14.1-24 (3) and NDAC 69-05.2-21-02. The average postmining slopes of the Silver, Gold and Iron Pit areas are less than that which existed prior to mining as detailed in Section 3.5 of the permit. The applicant has demonstrated that sufficient soil materials are available to meet the soil redistribution requirements of NDAC 69-05.2-15 and the revegetation requirements of NDAC 69-05.2-22. The reclaimed land will be capable of supporting the uses, or higher or better uses, that were

capable prior to mining. Native grassland (406.4 acres) and cropland (356.7 acres) are the predominant pre-mining and post-mining land use for the acreage being added with Revision No. 27 to the permit. Native grassland is the predominant pre-mining and post-mining land use for the entire permit area. Other pre-mining and post-mining land uses occurring in the permit area include hayland, tame pastureland, woodlands, farmsteads, roads, wetlands and developed water resources. Although there are some acreage adjustments, all of these other pre-mining land uses, with the exception of farmsteads, are also proposed after mining.

With regard to the reclamation schedule, DWC has requested additional variances from the contemporaneous reclamation requirements that normally require rough grading to be completed within 180 days of coal removal, NDAC 69-05.2-21-01(2), and that all reclamation efforts through the initial seeding be completed within three years of completion of mining activities, NDCC 38-14.1-24(14). These variance areas and the rationale for them, which are related to final mine closure, are described and justified in the revision application. Variances from the 180 day grading and 3 year seeding requirements were previously granted for portions of the permit area as allowed by NDAC 69-05.2-21-01(2) and NDCC 38-14.1-24(14) and the Commission is approving the additional variances as proposed by Revision No. 27.

Finding No. 3. Based on the assessment of the probable cumulative impact of all anticipated mining in the area, the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area [NDCC 38-14.1-21(3)(c)].

An assessment of the probable cumulative hydrologic impact of all anticipated mining in the area has been made as required by NDCC 38-14.1-14(1)(o). The Commission finds that the proposed operation has been designed to maintain the quantity, quality, and hydrologic regime of surface and ground water systems in the area. The cumulative effects of all existing and proposed mining operations should not damage the hydrologic balance and water availability within or adjacent to the permit area. The original cumulative hydrologic impact assessment (CHIA) for Permit KRSB-8603 was completed in July 1986 and significant updates to the CHIA were incorporated into the document in September 2005 with Revision No. 16 to the permit. Additional updates to the CHIA were for areas added to the permit with Revisions No. 19 and 22. The CHIA was again updated on May 9, 2014 to reflect the addition of 892.2 acres being added to the permit with Revision No. 27. This acreage is contiguous to and directly south of the current mining operations at the Beulah Mine.

Finding No. 4. Lands being added to the permit area are not within an area designated unsuitable for surface coal mining operations, nor within areas under study or administrative proceedings under a petition to have an area designated as unsuitable for surface coal mining operations [NDCC 38-14.1-21(3)(d)].

None of the land being added to the permit area has been designated unsuitable for surface coal mining operations pursuant to NDCC 38-14.1-05, nor are they within an area under study or administrative proceedings under a petition to have an area designated as unsuitable for surface coal mining operations.

Finding No. 5. The proposed mining operation will not interrupt, discontinue, or preclude farming on alluvial valley floors that are irrigated or naturally subirrigated or materially damage the quantity or quality of water in surface or underground water systems that supply these alluvial valley floors [NDCC 38-14.1-21(3)(e)].

Based on an examination of the geologic and geomorphic characteristics, soils, vegetation, landuse, irrigation potential, and the water quality and quantity of streams occurring within and adjacent to the lands being added to the permit area, it has been determined that no alluvial valley floors exist within or adjacent to this area. It was previously determined that Brush Creek, located east of the permit area does not meet the criteria of an alluvial floor and it was also determined that Coyote Creek, located south and west of the permit area, does not meet the criteria of an alluvial valley floor. Otter Creek and the Knife River, located east and north of the permit area respectively, were previously identified as potential alluvial valley floors; however, it was determined that DWC's mining operations will not adversely affect the availability or quality of surface and ground water in these drainage systems.

Finding No. 6. In cases where the mineral estate has been severed from the surface estate, the applicant complied with the requirements of NDCC 38-18 [NDCC 38-14.1-21(3)(f)].

For the areas being added to the permit, the applicant included certified copies of leases and other documents in the application demonstrating compliance with the North Dakota Surface Owners Protection Act, NDCC 38-18. This documentation included the notice that was given to all surface owners before the application was filed with the Commission.

Finding No. 7. Lands being added to the permit area are not within areas subject to the prohibitions or limitations of NDCC 38-14.1-07 unless such areas meet the application review procedures of NDAC 69-05.2-04-01[NDAC 69-05.2-10-03(6)(a)].

Lands being added to the permit area are:

a. Not on any lands within the boundaries of units of the North Dakota Park System, the National Park System, the National Wildlife Refuge Systems, the National System of Trails, the National Wilderness Preservation System, the National Wild and Scenic Rivers System, including study rivers designated under Section 5(a) of the Wild and Scenic Rivers Act, and national recreation areas.

b. Not on any federal lands within the boundaries of any national forest.

c. Not within 300 feet of any publicly owned park or places included in the State Historic Sites Registry or the National Register of Historic Places. UNDAR-WEST and other cultural resource contractors completed several inventories and cultural resource surveys of the areas being added to the permit between 1980 and 2014. The Class III Cultural Resource Inventory was recently completed for areas in the S½ of the S½ of Section 21 that are being added to the permit with Revision No. 27. Several cultural resource sites were identified within the addition area, and all but two were deemed 'insignificant' in terms of National Register Criteria by the North Dakota State Historic Preservation Officer (SHPO). One site was deemed potentially significant by the SHPO. It is identified as cultural resource site 32ME2232 and is located in the SE¼ of Section 20. This site location will be appropriately fenced with a minimum 75-foot setback to ensure avoidance and protection. The other cultural resource site, 32ME2522 has not yet been evaluated for significance and is located on an area that will not be affected by mining activities. The applicant made a commitment to not disturb this site prior to the SHPO making a significance determination. The applicant has also committed to informing the proper authorities

in the event that any previously unrecorded archeological, cultural, or historic materials are discovered.

d. Within 100 feet of the outside right-of-way of several public roads under Mercer County's jurisdiction. However, in January of 2014, the Mercer County Commissioners approved the temporary closure of the section line common to Sections 22 and 23, excluding the north 1400 feet. The road closure process included the publication of a hearing notice and the Mercer County Commission held a public hearing on the matter. Written findings were issued that found the interests of the public and affected landowners would be protected. This section line closure does not deprive adjacent landowner's access to their property. The section lines between Sections 20 and 21 and 21 and 22 were previously closed by Mercer County with Revision 22.

e. Not within 300 feet of any public building, school, church, community, or institutional buildings, nor will mining operations be conducted within 500 feet of any occupied dwelling. The coal removal area does not come within 500 feet of any occupied or utilized farm building.

   No public buildings, schools, churches, or community or institutional buildings are within 300 feet of the area being added to the permit with Revision No. 27. Abandoned farmstead buildings in previously permitted areas are located in the NE¼ of Section 20 and NW¼ of Section 21 and the area being added includes another abandoned farmstead in the SW¼ of Section 21. The applicant owns the abandoned farmstead located in Section 20 and all structures associated with this farmstead will be removed. Additional coal removal is not planned on the abandoned farmstead in the NW¼ of Section 21 but some of these buildings may be affected by a mine haul road. The abandoned buildings located in the SW¼ of Section 21 will not be affected by mining activities but a haul road will be constructed nearby. No coal removal is proposed within 500 feet of two nearby farmsteads that are located outside of the permit area.

f. Not within 100 feet of any cemetery. The Emmaus cemetery is located in the northeast corner of Section 29 adjacent to the permit area and is approximately 400 feet southeast of the final pit planned in the southeast corner of Section 20. County Road 16th Street SW is located along the north side of this cemetery and no disturbances will occur within 100 feet of this road.

Finding No. 8. With respect to prime farmland, the post-mining land use of the reclaimed prime farmland will be cropland, the reclamation plan was reviewed by the Natural Resources Conservation Service and their suggestions were considered, and operations will be conducted in compliance with NDAC 69-05.2-26 and NDCC38-14.1. The applicant has the technological capability to restore the productivity on reclaimed prime farmlands [NDAC 69-05.2-10-03(6)(c) and NDCC 38-14.1-21(6)].

A total of 23.6 acres of prime farmland has been identified within the area being added to the permit with Revision 27. Of this total, 2.1 acres located in the S½ of Section 22, T143N, R88W, will be disturbed by mining activities. This acreage is located near 2.8 acres of prime farmland already in the permit that will be disturbed by mining activities. No disturbance is planned on the prime farmland acreage located in the S½ of Section 21. The applicant has included a prime farmland reclamation plan for the prime farmland tracts subject to the special requirements that satisfies the requirements of NDAC 69-05.2-09-15 and the performance standards of NDAC Chapter 69-05.2-26. The Natural Resources Conservation Service has reviewed the prime farmland

reclamation plan and has determined that it is adequate to restore the productivity of the prime farmland. The reclamation methods that will be used by the applicant have proven to be successful in the past, therefore, the Commission finds that the applicant has the technological capability to restore the productivity of the reclaimed land to a level that is equal to or greater than the non-mined prime farmland in the surrounding area under equivalent management practices. The applicant will segregate prime and non-prime farmland topsoil for stockpile or immediate redistribution, but mix prime and non-prime subsoil as allowed by NDAC 69-05.2-09-15(5). Each landowner will receive the same acreage of reclaimed prime farmland as was present prior to mining and the post-mine land use of the reclaimed prime farmland will be cropland.

Finding No. 9. The operations will not affect the continued existence of threatened or endangered species or result in the destruction of adverse modification of their critical habitats [NDAC 69-05.2-10-03(6)(d)].

Surface coal mining and reclamation activities will not adversely affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitats. No federal threatened or endangered species or designated critical habitats were observed within or contiguous to the areas being added to the permit area.

The permit area is located in the primary whooping crane (a listed species) migration corridor where mining and reclamation activities "may affect, but are not likely to adversely affect" this species. The likelihood of whooping cranes occurring in the study area is very low because desirable habitat does not exist. There are 11 acres of linear wetlands present in drainages within the permit addition area but these types of wetlands are not desirable whooping crane habitat. Based on the small wetland acreage that is not desirable whooping crane habitat, the Commission finds that there is no suitable stop-over habitat for whooping cranes within the permit area. The permit and adjacent area do not contain habitat for other listed species including the Black-footed Ferret, Pallid Sturgeon, Least Tern, Piping Plover or Western Prairie Fringed Orchid. The Gray Wolf could conceivably be an occasional migrant visitor to North Dakota and the permit area.

The permit addition area does not contain high quality habitat for any of the six species listed as Candidate species to the threatened and endangered species act, of which four have been proposed to be officially added as Threatened and Endangered species. Suitable habitat does not exist in or adjacent the permit area for three of these species, Greater Sage Grouse, Rufa Red Knot and Powershiek Skipperling. A Dakota Skipper butterfly survey was completed for the areas being added to the permit area in 2006 and no Dakota Skippers were observed. The survey report concluded that insufficient intact habitat existed for prairie specialist butterflies. Sprague Pipit sightings occurred in 1980 in the wildlife study area but none have been observed since that time. The size and fragmented nature of the tracts of native grassland in the addition area does not provide for desirable habitat for this species. The permit and immediate adjacent area do not contain caves or underground abandoned mines which may function as suitable habitat for the Northern Long-Eared Bat.

The fish and wildlife monitoring plan in the permit includes continued surveys for threatened and endangered species. Also, NDAC 69-05.2-13-08(2) requires the permittee to promptly report to the Commission the presence of any threatened and

endangered species and the Commission must then consult with the USFWS and NDGF department to decide whether and under what conditions the operator may proceed. Therefore, this action will not likely adversely affect listed species or designated critical habitat.

Finding No. 10. The applicant has paid all reclamation fees required by 30 CFR subchapter R [NDAC 69-05.2-10-03(6)(e)].

DWC has paid all reclamation fees required by 30 CFR subchapter R. Records maintained by the Office of Surface Mining's Applicant Violator System show that all fees have been paid.

Finding No. 11. The applicant has satisfied requirements for approving cropland as a post-mining land use [NDAC 69-05.2-10-03(6)(f)].

The applicant has satisfied the requirements for approval of a cropland post-mining land use under NDAC 69-05.2-22-01 for the areas being added to the permit with Revision No. 27. Areas reclaimed to cropland will be seeded to a tame grass/legume pre-cropland mixture before the stand is broke and used for annual crops commonly grown in the area. Approximately 54 acres of pre-mine cropland located in the S½ of the S½ of Section 20 will be reclaimed to hayland, a subcategory of cropland as per the landowner's request. The pre-mine capabilities of all cropland that will be reclaimed to hayland will be restored. The balance of the pre-mine cropland located in the S½ of Sections 21 and 22 will be returned to cropland production. The soils are suitable for cropland in areas that are dedicated to that post-mining land use.

Finding No. 12. All existing structures that will be used to support mining activities within the permit area comply with the application requirements of NDCC 38-14.1-24 and NDAC Article 69-05.2 [NDAC 69-05.2-10-04].

No existing structures in the areas being added to the permit will be used to support mining activities. However, haul roads and other facilities within previously permitted areas of Permits KRSB-8603 and KRSB-8802 will support mining in the area being added to the permit. These previously permitted structures have been found to meet the applicable design and performance standards of NDCC Section 38-14.1-24 and NDAC Article 69-05.2.

Finding No. 13. No drill holes, boreholes or wells will be retained for other uses [NDAC 69-05.2-14-03].

The applicant has not proposed to retain any drill hole, borehole, or well for other uses.

Finding No. 14. No spoil in the permit area is known to cause toxic mine drainage [NDAC 69-05.2-16-11].

The chemical characteristics of the overburden materials in the areas being added to the permit are such that they do not produce toxic mine drainage. The analysis of overburden samples included in the permit application do not reveal any substances that would cause any chemical reactions or physical effects that are likely to kill, injure, or impair biota commonly present in the area.

Finding No. 15. The applicant will not conduct mining activities within one hundred feet of any perennial stream. However, mining activities will occur within and

near intermittent streams, but these activities will not violate applicable water quality standards or adversely affect the quantity and quality of the water and other environmental resources of the streams [NDAC 69-05.2-16-20].

As proposed by Revision No. 27, the applicant does not propose to conduct any mining related activities within one hundred feet of any perennial stream. However, mining activities are proposed within or near streams that have been identified as intermittent streams. An additional segment of the intermittent stream (approximately 200 feet in length) in the SW¼ of Section 22 will be mined through. In addition, water management structures (sedimentation ponds and a diversion) and a haul road will be constructed within 100 feet of the intermittent stream in the SE¼ of Section 20. No disturbances are planned within 100 feet of the streams that are identified as intermittent in the SE¼ of Section 22, SW¼ of Section 21, and SW¼ of Section 20.

The Commission sent a copy of the revision application to the State Engineer and North Dakota Department of Health on February 10, 2014 for review and comment. Operations plans in the permit specifically discuss intermittent stream buffer disturbances and the affected areas are depicted on the pit layout and facilities map. The Commission finds that the proposed disturbances will not cause or contribute to the violation of applicable state or federal water quality standards and will not adversely affect the water quantity and quality of these intermittent streams. All runoff from disturbances planned within 100 feet of an intermittent stream will be controlled through the use of water management structures and best management practices. Areas of intermittent streams that will not be disturbed or affected will be designated buffer zones and marked to exclude mining related disturbance.

Finding No. 16. The applicant does not propose to use any experimental practices in the permit area [NDAC 69-05.2-27-02].

There are no plans included in the revision application to use any experimental practices that may be allowed under NDAC 69-05.2-27-02.

Finding No. 17. The applicant does not control and has not controlled surface coal mining and reclamation operations with a demonstrated pattern of willful violations [NDAC 69-05.2-10-03(4)].

Commission records, and those in the Office of Surface Mining's Applicant Violator System (AVS), do not show that the applicant controls and has controlled surface coal mining and reclamation operations with a demonstrated pattern of willful violations of NDCC 38-14.1 or of other states' laws which are based on P.L. 95-87 (the Federal Surface Mining Control and Reclamation Act), of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of these laws.

An AVS compliance history report that was obtained when this revision application was deemed complete, February 3, 2014, identified 18 outstanding violations that were associated with Mr. Robert P. King. Mr. King has held three positions with Westmoreland Coal Company, the parent company of the applicant, since March of 2012. AVS did not identify the relationships between Mr. King and any of the four companies listed on his history report. An explanation from the AVS office revealed that all violations linked to Mr. King have been settled. The violations linked to Mr. King occurred decades prior due to his association with another company. Commission staff

confirmed that all violations were resolved to the satisfaction of the state regulatory authority.

Finding No. 18. Neither the applicant, nor any affiliated companies, have unabated violations or unpaid civil penalties [NDAC 69-05.2-10-03(1)].

Commission records, and those in the Office of Surface Mining's Applicant Violator System, do not indicate that the applicant, nor any affiliated companies, have any unpaid civil penalties or unabated violations of NDCC 38-14.1 or any other federal or state laws, rules, or regulations pertaining to air or water environmental protection. On May 13, 2014, staff at the North Dakota Department of Health verified that the applicant has no unabated violations with regard to air and water environmental protection standards.

Finding No. 19. A performance bond in the amount of $8,168,895 is sufficient for the proposed surface coal mining operations in this permit area for the Beulah Mine [NDAC 69-05.2-12-07].

An updated worst-case reclamation cost estimate for this permit was prepared with Revision No. 27 and that estimate totals $7,932,555. However, an earlier worst-case reclamation cost estimate included in Revision No. 26 resulted in a determination that a bond amount of $8,168,895 was sufficient to perform the required reclamation, restoration, and abatement work in the permit area. Therefore, the current surety bond in the amount of $8,168,895 remains sufficient for the permit area. However, the applicant filed a stipulation to increase the surety bond area to add the 892.2 acres that is being added by Revision No. 27 to Permit No. KRSB-8603.

Subject to the right of any person with an interest that is or may be adversely affected to request a formal hearing under NDCC 38-14.1-30, **Revision No. 27 to Permit Number KRSB-8603** is hereby granted to **Dakota Westmoreland Corporation** to engage in surface coal mining and reclamation operations, on the following described areas subject to the applicable requirements of the original permit and conditions, Chapter 38-14.1 of the North Dakota Century Code, and the rules promulgated there under. (Attached is a copy of the metes and bounds description of lands being added to the permit area.)

LOCATION

MINE	ADDRESS	ACRES	Sec.	Twp.	Range	County
Beulah	Beulah, ND	892.2	20, 21, 22, 23	143N	88W	Mercer

892.2 acres – Total Area Added

PUBLIC SERVICE COMMISSION

Randy Christmann
Commissioner

Brian P. Kalk
Chairman

Julie Fedorchak
Commissioner

Revision 27 to Permit KRSB-8603 – Metes and Bounds Description

A tract of land situated in Sections 20, 21, 22 and 23, T.143N., R.88W., Mercer County, North Dakota, being more particularly described as follows:

The first tract beginning at a point which is located and established by use of the Dakota Westmoreland Corporation coordinate system, such point also being the east quarter corner of Section 19 and having the coordinates: S 7,879.1 and W 21,024.4; such point also being designated as corner No. 680;
thence S69°10'50"E a distance of 2,822.0 feet to corner No. 681;
thence N89°59'55"E a distance of 2,645.6 feet to corner No. 682;
thence N0°09'58"E a distance of 313.7 feet to corner No. 521;
thence N 89° 49'41"E a distance of 1,000.0 feet to corner 520;
thence N 0° 08'36"W a distance of 400.0 feet to corner 519;
thence S 69° 46'28"E a distance of 482.8 feet to corner 518;
thence N 89° 49'41"E a distance of 720.0 feet to corner 517;
thence S 15° 35'16"E a distance of 240.4 feet to corner 516;
thence N 89° 49'41"E a distance of 3,000.0 feet to corner 515;
thence N 0° 00' 30"W a distance of 680.0 feet to corner 514;
thence S 89° 38'50"E a distance of 5277.9 feet to corner 683;
thence N 11° 23'53" W a distance of 1322.5 feet to corner 685;
thence S 50° 30'23" E a distance of 2040.0 feet to corner 686;
thence S 00°01'13" E a distance of 2643.5 feet to corner 687;
thence N 89°58'25" W a distance of 1305.6 feet to corner 688,
such point also being the East corner of section 22;
thence N 89°41'49"W a distance of 2643.0 feet to corner 689,
such point also being the South quarter corner of Section 22;
thence N 89°42'00"W a distance of 2642.9 feet to corner 690,
such point also being the SE corner of Section 21;
thence S 89°54'44" W a distance of 2615.8 feet to corner 691,
such point also being the South quarter corner of Section 21;
thence S 89°54'44" W a distance of 2615.1 feet to corner 692,
such point also being the SE corner of Section 20;
thence N 89° 46'53" W a distance of 2646.8 feet to corner 693,
such point also being the South quarter corner of Section 20; thence N 89° 46'40"W a distance of 2640.8 feet to corner 694,
such point also being the South East Corner of Section 19;
thence N 00° 00'20"W a distance of 2629.9 feet to corner 680, the original point of beginning.

The above tract of land contains 892.2 acres, more or less.

CORNER NO.	LATITUDE	DEPARTURE
680	S 7,879.1	W 21,024.4
681	S 8,882.1	W 18,386.6
682	S 8,882.0	W 15,741.1
521	S 8,568.3	W 15,742.0
520	S 8,565.3	W 14,742.0
519	S 8,165.3	W 14,743.0
518	S 8,332.2	W 14,290.0
517	S 8,330.04	W 13,570.0
516	S 8,561.6	W 13,505.4
515	S 8,552.6	W 10,505.4
514	S 7,872.6	W 10,505.5
683	S 7,905.1	W 5,227.6

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Dakota Westmoreland Corporation
Revision No. 27, Permit KRSB-8603
Application

Case No. RC-13-70

SURFACE COAL MINING AND RECLAMATION PERMIT CONDITIONS

May 28, 2014

Revision No. 27 to Surface Coal Mining Permit Number KRSB-8603 has been issued to **Dakota Westmoreland Corporation** subject to Chapter 38-14.1 of the North Dakota Century Code, all the rules promulgated thereunder, and the following conditions:

1. No overburden or coal removal may occur in the S½ of Section 22 and the portion of the N½ of the S½ of Section 20 being added to the permit with Revision No. 27 where the coal interests are owned by the United States of America until the U.S. Department of the Interior approves the mine plan modification for these areas as required by 30 CFR 746.11. Until this federal mine modification plan is approved, surface disturbances on the added federal coal tracts must be limited to those activities that are needed for carrying out mining on the adjoining federal coal tracts previously approved for mining or where the coal is private and state owned.

PUBLIC SERVICE COMMISSION

Randy Christmann
Commissioner

Brian P. Kalk
Chairman

Julie Fedorchak
Commissioner

34 RC-13-70 Filed: 5/28/2014 Pages: 1
Surface Coal Mining and Reclamation Permit Conditions
Public Service Commission

SUPPLEMENTAL REPORT

Dakota Westmoreland Corporation
BEULAH MINE

Surface Coal Mining and Reclamation Operations
Permit No. KRSB-8603
Application for Revision No. 27

Prepared By
North Dakota Public Service Commission
Reclamation Division
June 2, 2014

I. DESCRIPTION OF PROPOSED MINING AND RECLAMATION OPERATIONS

A. Proposed Operations, Location, and History

The Knife River Coal Mining Company (Knife River) originally submitted Permit Application No. KRSB-8603 to the North Dakota Public Service Commission (Commission) on January 28, 1986. On August 7, 1986, the Commission issued Permit KRSB-8603 with a five-year permit term and the permit has since been renewed several times. The current five-year permit term expires on August 7, 2016. On June 27, 2001, the Commission approved a permit transfer application that transferred Permit KRSB-8603 from Knife River to the Dakota Westmoreland Corporation (DWC). DWC is a subsidiary of the Westmoreland Coal Corporation and they purchased the Beulah Mine from Knife River, including all leasehold interests formerly held by Knife River. Additional acreage was added to Permit KRSB-8603 with Revisions 16, 19 and 22.

On January 31, 2013, DWC filed the application for Revision No. 27 to Permit KRSB-8603 to add 892.2 acres to the permit area. With the additional area being added with Revision No. 27, the total acreage of Permit KRSB-8603 is 3,558.3 acres. The area added to the permit with Revision 27 includes Federal coal tracts in the N½S½ of Section 20 and S½ of Section 22, T143N, R88W, which total approximately 390 acres. Approximately 70 acres of federal coal area located in N½S½ of Section 20 and 320 acres are in the S½ of Section 22.

The Bureau of Land Management (BLM) issued Lease Number NDM 041765 to Knife River in 1961 and tracts in the original lease included the N½ of Section 22, T143N, R88W, and the NE¼NE¼, NE¼SE¼ and S½NE¼ of Section 20, T143N, R88W, that are within Permit KRSB-8603. Other tracts are located in Permit KRSB-8802 at the Beulah Mine. This federal coal lease was later transferred from Knife River to DWC. In late 2008, DWC applied for a lease modification to add 240 acres of federal coal located in the NW¼NW¼, S½NW¼, N½SW¼, and NW¼SE¼ of Section 20, T143N, R88W. BLM approved that lease modification on December 1, 2009. Another amendment to Lease NDM 041765 was issued by BLM on December 1, 2013 to add the 320 acres in the S½ of Section 22.

The Beulah Mine is an existing surface coal mine located in all or portions of Sections 7, 8, 17, 18, 19 and 20, T143N, R87W, Oliver County and Sections 10, 11, 12, 13, 14, 15 and 24, T143N, R88W, Mercer County (Permit KRSB-8802) and all or portions of Sections 14, 15, 16, 17, 18, 19, 20, 21, 22 and 23, T143N, R88W, Mercer County (Permit KRSB-8603 or otherwise referred to as the West Brush Creek Area). There is approximately 8,464.2 acres

permitted at the Beulah Mine. The mine office and shop is located about three miles southwest of the city of Beulah and about 75 miles northwest of Bismarck, North Dakota.

Knife River owned and operated the Beulah Mine from 1963 to 2001. Dakota Westmoreland Corporation became the owner and operator of the mine in June of 2001. The production history at the mine ranges from about 94,024 tons in 1963 to 3.4 million tons in 1983. Production over the past few years has been approximately 2.5 million tons per year.

For many years coal was removed from two distinct mine areas at the Beulah Mine, the West Brush Creek Area (Permit KRSB-8603) and the East Permit Area (Permit KRSB-8802). Coal from both mine areas was hauled directly to the coal handling facility in Section 11. From there, most of the coal conveyed to the Coyote Power Station just west of the mine office and shop and some is shipped by rail to the Heskett Station near Mandan, North Dakota. However, DWC's contract with the Coyote Station for around 2 million tons of coal per year ends in May 2016, but they are working on a contract extension to continue supplying coal to the Heskett Station for many years. Also, coal removal from Permit KRSB-8802 was discontinued in 2010 and since that time all coal production has come from Permit KRSB-8603, otherwise called the West Brush Creek Permit Area.

As noted above, DWC filed the application for Revision No. 27 to Permit KRSB-8603 with the Commission on January 31, 2013 to add the additional acreage (including additional Federal coal acreage in Sections 20 and 22) to the permit, including the required baseline environmental information and revised mining and reclamation plans. After the revision application was deemed complete in late January 2014, the Commission sent copies of the application to OSM's Denver and Casper offices and BLM offices in Billings and Dickinson.

The area being added to Permit KRSB-8603 adjoins the southern boundary of the existing permit area in Sections 20, 21, 22 and 23 of T143N, R88W, Mercer County. The area covered by Permit KRSB-8603 is located several miles southwest of Beulah and west of State Highway 49. Surface ownership in this permit area is private ownership, with some being owned by DWC. The coal ownership in the permit area is split between private parties, state and Federal.

The Federal coal acreage being added to Permit KRSB-8603 will be mined during the remainder of this permit term which is scheduled to expire August 7, 2016. According to the current mine plan, only 126 acres of additional federal coal will be mined in the area added to the permit with Revision 27. Additional surface disturbance will occur for sedimentation ponds, haul roads and other associated disturbances. Mining is proposed to progress from the northern portion of the area being added to the permit to the south, with all coal removal anticipated to be completed on the added Federal coal tracts by 2016.

DWC previously had an approved Resource Recovery and Protection Plan (R2P2) for most of the Federal coal tracts in Permit KRSB-8603. This approval was based on the R2P2 that had been prepared for mining federal coal tracts in Permit KRSB-8802. DWC filed an updated R2P2 for the Beulah Mine with the BLM's Billings office in March 2009 to include the additional Federal coal tracts in Section 20 that were added to Lease NDM 041765 in 2009. Following the 2013 lease amendment, DWC updated the Logical Mining Unit for the Beulah Mine and they also submitted another amendment to the R2P2 to BLM in April 2014. BLM approved that amendment on May 5, 2014. OSM's Western Regional Coordinating Center determined that the mining of additional federal coal as proposed by Revision 27 constitutes a mine plan modification requiring approval by the Department of the Interior.

The Department of the Interior will need to approve a mine plan modification pursuant to 30 CFR 746.11. A special condition was attached to the Commission's May 28, 2014 approval of Revision 27 prohibiting any overburden or coal removal from the added Federal coal acreage in the S½ of Section 22 and the N½SW¼ and NW¼SE¼ of Section 20 until mine plan approval is granted by the Department of the Interior. However, DWC will be allowed to conduct surface disturbance on these tracts to the extent necessary for mining on the adjoining non-federal coal tracts and on previously permitted federal coal tracts.

A chronology of events for the Commission's processing of the application for Revision No. 27 to Permit KRSB-8603 is attached.

B. Summary Description of the Surface Mining and Reclamation Operations

DWC mined about 2.5 million tons of coal from the existing permit areas at the Beulah Mine in 2012 and 2013, and plans on mining between 2.5 to 3 million tons of coal per year in 2014 and 2015 from Permit KRSB-8603. Coal production in 2016 is estimated at 1.3 million tons and is expected to drop to around 450,000 tons in 2017. The Federal coal tracts in Section 20 are part of the Silver and Iron Pit sequences and the Federal coal tract in Section 22 is part of the Gold Pit sequence. Mining in the Silver Pit area has progressed southward from Section 17 towards a large east-west drainageway in Section 20. No coal removal is planned for the drainageway and only a few pits remain to be mined north of it. The Iron Pit Area will be opened south of this drainageway in Section 20, with coal removal starting in 2014. The Gold Pit sequence will continue advancing southeastward from the N½ of Section 22 into the S½ of Section 22 through 2016. Overburden removal and actual mining of the Federal coal tract in the S½ of Section 22 is expected to begin soon after the mine plan modification is approved by the Department of the Interior. The proposed mining sequence and schedule is shown in the permit on the Extended Mine Plan and 5 Year Subareas Map, Exhibit 3.1.1.

Of the approximately 390 acres of federal coal being added with Revision 27, approximately 126 acres will be mined. Mining on these federal coal tracts is scheduled to be completed by 2016. The estimated recoverable coal from the tract being added in Section 20 is estimated to be approximately 445,000 tons and total recoverable coal from the tract in Section 22 is estimated to be approximately 1,650,000 tons. Only the Beulah-Zap coal seam, and the Schoolhouse Bed where present, is planned to be mined on the federal coal tracts.

Facilities to be constructed in the area being added to the permit area include sedimentation ponds, diversions, haul and access roads, pit ramps and a scoria storage area. Existing structures located in other parts of Permit KRSB-8603 will also support mining operations in the proposed added area as well as part of the mine haul road, access roads, coal handling facilities, and the office/shop complex in Permit KRSB-8802. Some of the box cut spoil from the Iron Pit area will be hauled to fill the final pit area of the Silver Pit sequence. Facility features are shown on Exhibit 3.1.2, Pit Layout and Facilities Map, in the application.

The West Brush Creek Permit Area (Permit KRSB-8603) of the Beulah Mine has been designed as a single-seam stripping operation. The Schoolhouse, or upper bed, is a thin discontinuous seam located 6 to 74 feet below the surface that ranges from 2 to 5 feet thick. This seam of coal is not considered a commercial by itself. The Beulah-Zap Bed is about 12.1 feet thick and is approximately 50 feet below the Schoolhouse Bed. Total overburden depths to the top of the Beulah-Zap Bed within the permit area range from 50 to 120 feet.

Once the necessary surface water control structures are in place, mining and reclamation operations typically occur in a sequence of seven events: suitable plant growth material (SPGM) removal, overburden removal, coal removal, spoil placement in mined-out pits, final grading, SPGM replacement, and revegetation. SPGM removal is accomplished in two separate lifts. Topsoil and subsoil are either stockpiled for future respreading or directly respread on areas ready to receive these materials. Once suitable plant growth material is removed a walking dragline is utilized to remove overburden material. In areas where the overburden thickness is the greatest, the Beulah Mine's truck/shovel fleet may be used to remove some of the overburden to create a dragline bench. After the coal is removed, the next pit is stripped and this material is cast into the empty pit. The resulting spoil piles are leveled to post-mining topography elevations. Once grade approval is obtained for these leveled areas, suitable plant growth material is respread, and the area is tilled, seeded, and mulched. Sufficient topsoil and subsoil is available to adequately reclaim all areas.

II. DESCRIPTION OF THE AFFECTED ENVIRONMENT WITHIN ITS RESOURCE SETTING

The following information is provided for the entire area included in Permit KRSB-8603. The added federal coal tracts located in Sections 20 and 22, T143N, R88W, have environmental resources that are similar to the remainder of the permit area.

A. Topography

The mine site is located on a glacially modified upland of relatively low relief. Some steep areas occur along some of the drainages located along all sides of the permit area.

Maximum relief across the permit area is about 200 feet. Elevations range from about 1870 feet along the haul road crossing of the Brush Creek drainage in the northeastern portion of the permit area in the SE¼NE¼ of Section 15 to about 2075 feet in the SE¼ of Section 22, T143N, R88W. About 42% of the permitted area has slopes of 3% or less; about 31% of the permitted area has slopes of 3 to 6%; and, about 5% of the permit area has slopes of 15% or greater.

There are no important fragile lands as defined by 30 CFR 762.5 containing natural, ecologic, scientific and aesthetic resources or natural systems in the permit and adjacent areas.

B. Geology

The geologic units to be disturbed by mining include the Coleharbor and Sentinel Butte Formations. The Coleharbor Formation of Pleistocene Age occurs as a thin veneer of overburden generally less than 20 feet thick within the permit area. Lithologically the Coleharbor Formation within the mine plan area is a glacial pebble-loam (till) or poorly stratified clastic sediments filling glaciofluvial channels.

The geologic formations of significance to the study area are the Coleharbor Formation and the Sentinel Butte Formation. The lithology of the Coleharbor Formation includes Quaternary age till, gravel, and sand. The Sentinel Butte Formation is Paleocene in age and consists of interbedded silts, clays, sands, and lignites. There are four hydrostratigraphic units of concern in the general mine area, all are lignite beds. The uppermost aquifer in the area is the Schoolhouse Lignite Bed and where present is a thin

and discontinuous aquifer of limited aerial extent occurring on topographic highs. The Beulah-Zap Lignite Bed is the next, lower hydrologic unit and is the deepest unit mined at Beulah Mine. Below the Beulah-Zap Lignite is the Spaer Lignite Bed which averages about three feet in thickness and occurs about 20-40 feet below the base of the Beulah-Zap Lignite. The Beulah-Zap and Spaer Lignite aquifers are continuous over the area except where dissected by larger drainages or removed by mining. The Hazen "B" Lignite occurs throughout the permit area at a depth of between 80 and 150 feet below the Spaer Lignite and several wells within the permit area monitor this unit as well as the Spaer Lignite to assess potential groundwater impacts from mining.

There are no areas of unstable geology in the permit and adjacent areas.

C. Climate

The climate of west-central North Dakota is typically a semi-arid continental type with temperatures having a wide range of values. Cold and dry air masses from the Polar Regions intensify winters in the area. Warm and moist air masses from the Gulf of Mexico dictate most precipitation characteristics. The temperature extremes for the area can range from -40°F to over 100°F. January daily minimums are about -3°F with daily maximum temperatures near 19°F. July daily low temperatures average 55°F with highs near 85°F. A change of 50°F within a 24-hour period can be noted with the passage of arctic cold fronts in winter or with the sudden development of warm, strong westerly winds generally occurring in late winter or spring. The length of the growing season also varies from year to year; however, the average length is near 120 days for the region. Average precipitation is about 16 inches/year at Beulah, with the greatest amounts occurring in the form of showers and thunderstorms in the months of April through July. The prevailing winds are northwesterly and average about 10 mph.

D. Hydrology

The surface and ground water resources of the permit and adjacent areas are discussed in the Commission's cumulative hydrologic impact assessment and it is also included under Section III(C) of this report. The total area of possible impact surveyed in this assessment includes that portion of Mercer and Oliver Counties, North Dakota within the drainage basin of the Knife River from Coyote Creek downstream to the mouth of Antelope Creek east of Hazen. This area includes all existing and foreseeable operations of the Beulah Mine and all groundwater and surface water systems which may be logically impacted by the cumulative effects of Permit KRSB-8603 and other mining operations.

An Alluvial Valley Floor (AVF) investigation was completed for the Revision 27 addition area in 2012. Two previous AVF investigations had been completed in areas within and contiguous to this area. The Revision 27 study area contained streams of ephemeral or intermittent classification, but no perennial streams. None of the areas within or adjacent to the Revision 27 addition area were determined to be surface irrigated, sub-irrigated, naturally flood irrigated or potentially irrigable. The Commission completed a review of Dakota Westmoreland Corporation's Alluvial Valley Floor investigation and based on this review, as well as information obtained during field investigations, determined that all stream channels and drainages located within the investigation area do not constitute an alluvial valley floor as defined by NDCC 38-14.1-02(1) and as further detailed under NDAC 69-05.2-08-13.

E. Soils

The soils of the permit area formed in calcareous glacial till, eolian sediments over glacial till, glacial outwash, local alluvium, and in-situ weathered bedrock. The majority of the soils are in the Mollisol order and represent the following great groups: Haploborolls (Amor, Arnegard, Lihen, Parshall, and Zahl soils), Argiborolls (Flaxton, Krem, and Williams soils), and Natriborolls (Belfield, Daglum, and Rhoades soils). Other soils in the proposed permit area include Entisols in the Ustorthent great group (Cabba soils).

The soils within the proposed permit area exhibit a wide range of chemical and physical characteristics. A Professional Soil Classifier has identified the location and extent of topsoil and subsoil quality materials based on the chemical and physical characteristics pursuant to NDAC 69-05.2-08-10(1)(a) and (b). The majority of the soils on 0 to 9 percent slopes are suited to agricultural production. The steeper soils are best suited to hayland, pastureland, or native grassland. Most of the soils have an agricultural capability subclass classification of "s" or "e", indicating the main limitation is the shallow, stony and/or sodic conditions or the risk of erosion. Except for saline or sodic soils and the soils with gravelly, channery or soft sedimentary bedrock materials within five feet, the majority of the soils within the proposed permit area have five feet of suitable plant growth material available.

In all areas of the permit area, the amount of topsoil and subsoil available to a depth of five feet will be sufficient to meet the required respread thicknesses that are projected. All landowners within this permit area have adequate topsoil and subsoil volumes to respread the projected required depth. Unless mixing agreements are secured, the soil material will be segregated by landowner.

With respect to prime farmland, the Revision 27 addition area contains a total of 23.6 acres of prime farmland soils, of which 2.1 acres are located in the S½ of Section 22 over federal coal. All of this acreage is to be disturbed by mining activities. The majority of the prime farmland acreage being added with Revision 27, 21.5 acres, is located in the S½S½ of Section 21 (a non-federal coal tract) and will not be mined or otherwise affected by mining activities. The 2.1 acres that is projected to be affected consists of two small tracts located in the SE¼ of Section 22 and SW¼ of Section 22. The surface of these two tracts is owned by separate individuals and the prime farmland acreage will be reclaimed by surface ownership accordingly. Special prime soils handling and reclamation plans are provided in the permit for that acreage that is projected to be disturbed by mining activities. The only other prime farmland in Permit KRSB-8603 is 2.8 acres located in the N½ of Section 22.

F. Land Use and Vegetation

The prevailing land uses in the proposed permit area are cropland, native grassland, tame pastureland, wetlands, woodlands, shelterbelts and industrial/commercial (county roads and a gravel pit). For the permit area in Mercer County, the lands are zoned for agricultural and industrial/commercial use. Conditional land use permits have been issued by the Mercer County Commission for the coal mining activities. Pre-mining land uses and approximate acreages in the entire permit area (including the area added by Revision No. 27) are as follows:

Land Use	Acreage	% of Area
Cropland	1205	33.9
Hayland	84	2.4
Native Grassland	2,047	57.5
Tame Pastureland	74	2.1
Fish & Wildlife Habitat (Wetland)	15	0.4
Woodlands	26	0.7
Shelterbelts	4	0.1
Developed Water Resources	5	0.1
Industrial/Commercial	98	2.8
Total	**3,558**	**100.0**

Primary crops grown within the permit area have been wheat and other cereal crops with approximately 84 acres of the cropland being managed for the production of hay. The dominant range (ecological) sites are sandy, silty (loamy), sands, shallow (shallow clayey), thin claypan and thin upland (thin loamy). NRCS production estimates for the dominant sites vary from 1,400 lbs/ac (shallow) to 2,000 lbs/ac (silty). The wetlands in this permit are associated with natural drainageways and springs/seeps within tracts of native grassland. These wetlands are linear in nature and are also referred to as riparian wetlands. Pools of water may pond in the drainages but the drainages tend to be ephemeral in nature. Most of the wetland acreage is located outside of coal removal areas but some of the wetland acreage (NW¼ of Section 22) will be affected by mining activities and the permit includes plans to replace affected wetlands. The woodlands are comprised of naturally occurring shrub and tree communities along the sideslopes and bottoms of the ephemeral draws. The shelterbelts are associated with abandoned farmsteads and there are field windbreaks located on tracts of cropland.

Several potentially poisonous plant species (based on North Dakota State University's Cooperative Extension Bulletin A-471, Plants Which May Be Poisonous) including chokecherry and sweetclover were identified on the proposed permit area. State-listed noxious weeds (NDCC 63-01.1) found include absinthe wormwood (*Artemisia absinthum*), leafy spurge (*Euphorbia esula*), and Canada thistle (*Circium arvense*).

G. Wildlife

Habitat types which are found within and adjacent to the permit include grassland, woodlands, wetland areas, cultivated land, disturbed areas and physical features. The ditches alongside section line trails and county roads also provide habitat for wildlife.

Cropland and grasslands are the major habitat types within and adjacent to the permit area. The majority of grassland habitat type within the permit area was historically managed with livestock grazing but use has been limited in recent years on areas being added with Revision 27. Past periodically heavily grazed and non-use can reduce the value of this habitat type by decreasing native grassland species diversity. Native woodland communities and wetlands are the most important wildlife habitats in the permit area and these habitats constitute only a minor portion of the permit area. Livestock grazing has reduced the value of some of the woodland communities and the wetland sites tend to be riparian areas associated with ephemeral drainages and springs/seeps. Annually cultivated cropland provides relatively little value to wildlife during the spring and early summer but may receive extensive use during the other times of the year. Harvesting of the hayland acreages also reduces the value of this land use to wildlife. The shelterbelt and field windbreak tree plantings in the permit area are quite

old. These plantings make up only a small percent of the habitat acreage, but their value to wildlife is important.

No federally listed threatened or endangered species or designated critical habitats for these species were identified on the permit area. Sprague's pipit is listed as a Candidate species to the Endangered Species Act and it was documented to occur in the area during the original wildlife survey in 1981. This species utilizes large tracts of native grassland and may occasionally be present on native grassland in the permit area but it was not observed during more recent wildlife inventory monitoring. The Dakota Skipper butterfly is also listed as a Candidate species to the Endangered Species Act and specific surveys were completed in the permit area in 2006. The permit area does contain potential habitat for this species but it was not observed during the survey. It is unlikely that this species exists in the permit area. The Regal fritillary (Speyeria idalia) butterfly was identified in 2006 in the permit area and is considered as being rare or uncommon in its range globally (G3 Global Rank) and has an S2 State rank which means it is very rare and imperiled within the state. There are no caves or underground mines in the permit area that may be suitable habitat for the Northern Long-Eared Bat, but it could be a transient visitor through the area. The permit areas does not contain habitat for the other Candidate species to the Endangered Species Act, including Sage Grouse, Poweshiek Skipperling and Rufa Red Knot.

H. Cultural Resources

The prehistoric cultural milieu of the mine plan area can be divided into four major periods: Paleo-Indian (11,500 years B.P. (before present) to 8,000 B.P.); Archaic or Foraging (8,000 B.P. to about 1 A.D.); Plains Woodland (l A.D. to 900 A.D.); and, Plains Village (900 A.D. to 1860 A.D.). A period known as the Plains Nomadic is also linked to the period from 1 A.D. to the Historic.

The historic occupation of the mine area vicinity (Euro-American) is characterized by four major developments: l) exploration and development of the fur trade; 2) development of a military frontier; 3) homesteading and development of agriculture; and, 4) development of the coal industry.

The areas being added to the permit with Revision 27 were included in several cultural resource surveys and inventories that were completed by UNDAR-WEST and other cultural resource contractors between 1980 and 2014. Several cultural resource sites were identified within the addition area, but only two were deemed 'insignificant' in terms of National Register Criteria by the North Dakota State Historic Preservation Officer (SHPO). One site was deemed potentially significant by the SHPO. It is identified as cultural resource site 32ME2232 and is located in the SE¼ of Section 20. This site location will be appropriately fenced with a minimum 75-foot setback to ensure avoidance and protection. The other cultural resource site, 32ME2522 has not yet been evaluated for significance and is located on an area that will not be affected by mining activities. The applicant made a commitment to not disturb this site prior to the SHPO making a significance determination. Neither of these sites is located on the federal coal tracts that were added to the permit with Revision 27. All of the cultural resource sites identified on the federal coal tracts have been determined to be insignificant by the SHPO and cleared for disturbance.

The Emmaus Cemetery is located adjacent to the south boundary of the area added with Revision 27 and it will be avoided.

I. Transportation

Several county roads and section line road right-of-ways are located within the permit area. County Road 12 has been closed and a new road, 16th Street Southwest, that routes traffic around the southwest corner of the permit area has been constructed. A portion of this road passes through the permit outside the planned disturbance boundary. The appropriate approvals were granted by the Mercer County Commission to close the county road and section lines that will be mined through. DWC will not conduct mining activities within 100 feet of other public roads without approval of the appropriate road authority. The Mercer County approval processes include public notice and opportunity for public hearing. The section line between Sections 22 and 23 was closed by the County in January of 2014. A list of the county approvals is included in Exhibits 1.4.4 and 1.4.5 of Permit KRSB-8603.

J. Esthetics

The permit area and adjacent area have no unusual scenic qualities and are similar to surrounding areas. The topography varies from flat to rolling, with several steep drainages. Another existing mining operation is located several miles north of the permit area as well as several small gravel and scoria pits, and pre-law mine spoils in the nearby area, in addition to farming and ranching activities. Sounds are from mining and coal utilization activities, gravel and scoria removal activities, traffic on the county roads, airplanes, railroad traffic, agricultural activities, wildlife and wind.

K. Socioeconomics

The City of Beulah (population 3,142) is located about three miles north of the permit area. This city serves as the local agricultural and commercial center for the area in and around the Beulah Mine. Hazen (population 2,420) is located about ten miles east of Permit KRSB-8603. Stanton is the county seat but Beulah is the largest city in Mercer County.

III. ENVIRONMENTAL IMPACTS OF THE PROPOSED OPERATIONS

Environmental impacts of mining operations on the federal coal tracts proposed by Revision No. 27 will involve disturbing much of the 892.2 acres added to the permit. However, only 126 acres of the added federal coal will actually be mined. In addition, about 20 acres in Section 20 (over federal coal) that were added to the permit with Revision 22 will be mined. This proposed disturbance and DWC's plans for reclamation are similar to those for the entire permit area. Therefore, the following discussion outlines the environmental impacts to the entire 3,558.3 acres now covered by Permit KRSB-8603.

A. Topography and Geomorphology

No significant long-term impacts should occur on the topography and geomorphology of the permit area. DWC's mine plan will create a post-mining topography that is similar to the original contour of the area. Sharp peaks, outcroppings of gravel, clay or stony hills with little or no topsoil will be eliminated and the pre-mining drainage patterns will be reconstructed during the reclamation of the permit area. DWC's reclamation plan will result in an increase in the number of acres of land with slopes less than 3% and decrease the number of acres with slopes of greater than 3%. The general reduction in gradient will help to minimize the short- and long-term effects that erosion will have on reclaimed areas and drainageways.

Short-term impacts will occur on the topography and geomorphology of the permit area during mining activities. Erosion may occur until the disturbed areas are revegetated. Until vegetation can be successfully established on reclaimed areas to bring erosion rates down to pre-mining levels, DWC will control runoff from the disturbed areas. A system of sedimentation ponds and diversions, and the use of Best Management Practices (BMP) will be instituted to control erosion of sedimentation off the permit area. This surface water management plan will be in effect until successful revegetation of all the reclaimed areas is achieved.

B. Air Quality

The applicant employs fugitive dust control measures as an integral part of its current operations. Fugitive dust generated from operations in this permit area is not expected to result in any adverse air quality impacts. The primary sources of fugitive dust will result from windblown sources and from traffic on haul roads. The primary methods to be used to reduce dust emissions include:

1. Controlling dust from access and haul roads by watering and use of dust control amendments;

2. Minimizing the area of disturbance by restricting operations to that acreage necessary to accommodate production needs; and,

3. Stabilizing disturbed areas as soon as possible after operations are completed through replacement of suitable plant growth material, seeding and mulching.

The applicant has an Air Pollution Control Permit to operate as required by the North Dakota State Department of Health. The current permit term will expire May 22, 2016.

C. Hydrology

A Cumulative Hydrologic Impact Assessment (CHIA) for mining within the existing and proposed permit areas was prepared for the original permit application with subsequent modifications as deemed necessary and is discussed below.

Reclamation Division staff made an assessment of the probable cumulative hydrologic impacts of all anticipated mining in the area as required by NDCC 38-14.1-14(1)(o). The Commission finds that operations proposed in the areas covered by Permit KRSB-8603, including the acreage added with Revision 27, have been designed to maintain the quantity, quality and hydrologic regime of surface and ground water systems in the area. The cumulative effects of all existing and proposed mining operations should not damage the hydrologic balance and water availability within or near the permit area.

Permit KRSB-8603 was submitted in January 1986 and approved in August 1986. The original permit covered 1030.2 acres. Additional acreage was added with Revisions 16, 19, and 22 as well as the 892.2 acres being added by Revision No. 27. Monitoring data was collected over an extended period of mine operations to support conclusions reached in the applicant's assessment of probable hydrologic consequences. The neighboring active mine, Freedom Mine, and the reclaimed Indian Head Mine have made assessments of probable hydrologic consequences which serve to confirm DWC's findings and the Reclamation Division's conclusions concerning cumulative impacts.

The total area of possible impact surveyed in this assessment includes that portion of Mercer and Oliver Counties, North Dakota within the drainage basin of the Knife River from Coyote Creek to downstream of the mouth of Antelope Creek east of Hazen. This area includes all existing and foreseeable operations of the Beulah Mine and all groundwater and surface water systems which may be logically impacted by the cumulative effects of Permit KRSB-8603 and other mining operations. Possible impacts are more logically limited to the drainages within the permits and adjacent areas, and these are Coyote Creek, Brush Creek, Otter Creek and several smaller tributaries of the Knife River between and near these streams. Much of the assessment focuses on potential impacts in the permit and adjacent area.

The permit is within the Missouri Slope physiographic area which is characterized by glaciated terrain of moderate relief, stream dissected bedrock and ephemeral and intermittent streams. Over much of this portion of the Knife River drainage, ground moraine is thin, glacial features are few and bedrock topography controls landforms away from larger stream channels.

The assessment area is an established lignite mining district that includes abandoned surface and underground mines as well as active, large scale surface mines. Beulah Mine operations are covered by Permits KRSB-8802 and KRSB-8603, and these represent the only active mining within the assessment area south of Knife River with the exception of pending Coyote Creek Mining Company Permit NACC-1302, which is expected to begin coal removal and reclamation operations in 2016. The Revision No. 27 area and all of Permit KRSB-8603 at Beulah Mine is located east of Coyote Creek while mining operations proposed at Coyote Creek Mine will be limited to those areas within the NACC-1302 permit area west of Coyote Creek. The Freedom Mine is currently the only active surface mining operation located north of the Knife River and is located about 8 miles north of the KRSB-8603 permit area.

The Commission's Abandoned Mine Lands Division lists 24 inactive lignite mines in the assessment area. All but 5 of these were very small mines that operated for local use prior to 1950 and had maximum production of less than 1,000 tons per year. At the larger old sites with underground workings, collapse has caused localized safety problems. The Dakota Collieries Mine was a surface mine started in 1922 and the predecessor to Indian Head Mine. The Dakota Star, later Truax-Traer, Mine operated entirely as a strip mine from 1940 to 1967, and this old mine is included in or adjacent to the area under permit for Freedom Mine. Evidence from over 10 years of hydrologic analysis and monitoring by mines and power plants in the assessment area indicates that effects of these old mine sites on surface and ground water are localized and not significant factors in the hydrologic regime.

The geologic formations of significance to this cumulative assessment area are the Coleharbor Group and the Sentinel Butte Formation. The lithology of the Pleistocene, Coleharbor Group includes Quaternary age till, gravel, and sand. The Sentinel Butte Formation is Paleocene in age and consists of interbedded silts, clays, sands, and lignites. There are four hydrostratigraphic units of concern in the general mine area, three lignite beds and a silty sand unit. The uppermost aquifer in the area is the Twin Buttes Sand/Lignite, a small unconfined aquifer occurring on topographic highs. The Schoolhouse Lignite Bed where present, is the next, lower hydrologic unit and below it occurs the Beulah-Zap Lignite, the deepest unit mined at Beulah Mine. Below the

Beulah-Zap Lignite is the Spaer Lignite Bed. These lignite aquifers are continuous over the area except where dissected by larger drainages or removed by mining.

All four shallow aquifers and the deeper Hazen B Lignite are recharged by infiltration of precipitation or snowmelt and downward movement of water from overlying units, and they discharge at outcrop or subcrop areas and by downward movement of water through aquitards. All have been utilized as private water supplies with the exception of the Spaer Lignite which is the next water-bearing unit below depth of mining in the Beulah Mine area and is 2 to 6 feet thick, split over some of its extent and is not an economically viable coal reserve or water supply.

Agriculture is a significant activity in the assessment area in terms of economic importance and hydrologic impact, but it is a historically established cultural activity and its environmental effects are considered part of the baseline state of the area. The Major Land Resource Area 54 in which Mercer and Oliver Counties are grouped within the 2002 USDA-NRCS inventory system has water erosion of soil from cropland averaging 3.6 tons/acre/year while statewide losses average 2.1 tons/acre/year; however, losses to wind erosion are less than the statewide average.

In 1977-1980, the U.S. Geological Survey gaging stations on Spring Creek at Zap and Knife River at Hazen reported mean Total Suspended Solids values of 90.87 and 144.05 mg/l and average sediment discharge loads of 0.26 and 0.19 tons/acre/year, reflecting the acreage under cultivation in the contributing drainages. Extensive soil conservation and water quality preservation practices are permit requirements, and all surface water leaving the Beulah Mine and other mining permits in the assessment area must meet NDPDES daily average and maximum total suspended solids values of 35 mg/l and 70 mg/l, respectively.

Mining operations within the general mine plan area will remove the Schoolhouse bed where present and the Beulah-Zap Bed. In mined-through areas, these two lignite aquifers will be replaced with a single pit-bottom spoils saturated zone which is inadvertently created by the dragline during overburden removal. The water quality in this saturated zone has typically shown levels of mineralization about 1.5-3 times higher than in the undisturbed lignites. Given the low transmissivity of the spoil material and the low degree of deterioration of water quality, no diminution of ground water quality is anticipated and no deterioration has been recorded by the monitoring program.

Groundwater movement through shallow silts and clays in the Beulah Mine area is generally downward and serves to recharge lignite and sand aquifers. Water movement in the lignites and sands is predominantly lateral flow. Recharge in western North Dakota is infrequent and only occurs during spring runoff and intense precipitation events since potential evaporation exceeds precipitation over most of the year. Groundwater recharge after mining should approximate the pre-mining recharge rate since land use, runoff, retention and infiltration on the postmining topography should approximate that of the pre-mine topography.

Several water wells, along with natural and developed springs, in the assessment area have been mined through and replaced and adjacent domestic wells may experience a lowering of static water levels. Other wells and developed springs exist in the vicinity and mining related activities may potentially affect their water quality or quantity. Dakota Westmoreland has an existing groundwater monitoring plan that should detect

any changes in groundwater quality or quantity which occur as the result of mining. The permit presents monitoring data from operations to date that show water levels in the shallow aquifers have not been affected as close as 1000 feet from active pits. Should any adverse effects occur, Dakota Westmoreland is committed to replacing water supplies. Adequate replacement sources do exist and are discussed in the permit.

The Knife River has its headwaters in west-central North Dakota near Fairfield and drains predominantly agricultural lands throughout its length over a drainage basin of 2,240 square miles, as measured at Hazen, ND. Seasonal variations in flow for the Knife River and its tributaries are primarily influenced by snowmelt runoff and summer thunderstorms. Base flows are generally very low and periods of no flow occur on most streams, including Coyote Creek and the Knife River. There are no large bodies of standing water in the assessment area, and surface water use is largely ponds or stock dams on smaller drainages for livestock watering. The Beulah Mine has had no impact on these uses to date but Dakota Westmoreland is committed to replacing or supplementing any supplies that are diminished by mining.

Cities in the assessment area along the Knife River obtain their municipal water supplies from wells completed in the Knife River alluvial aquifer system as well as from piped rural water supplies. Water wells serving the communities of Golden Valley and Zap are up-gradient from any potential hydrologic impacts of mining in the assessment area. The Beulah Mine has a surface water monitoring program within and adjacent to its permit areas to detect any changes which might occur in water quantity or quality as a result of mining activity. Their summary data shows that the average electrical conductivity of Beulah Mine NDPDES discharges is about the same as that reported for water in Otter Creek, which is located east of Dakota Westmoreland Permit KRSB-8802, but the mine contributes less than 1% of the flow to this stream.

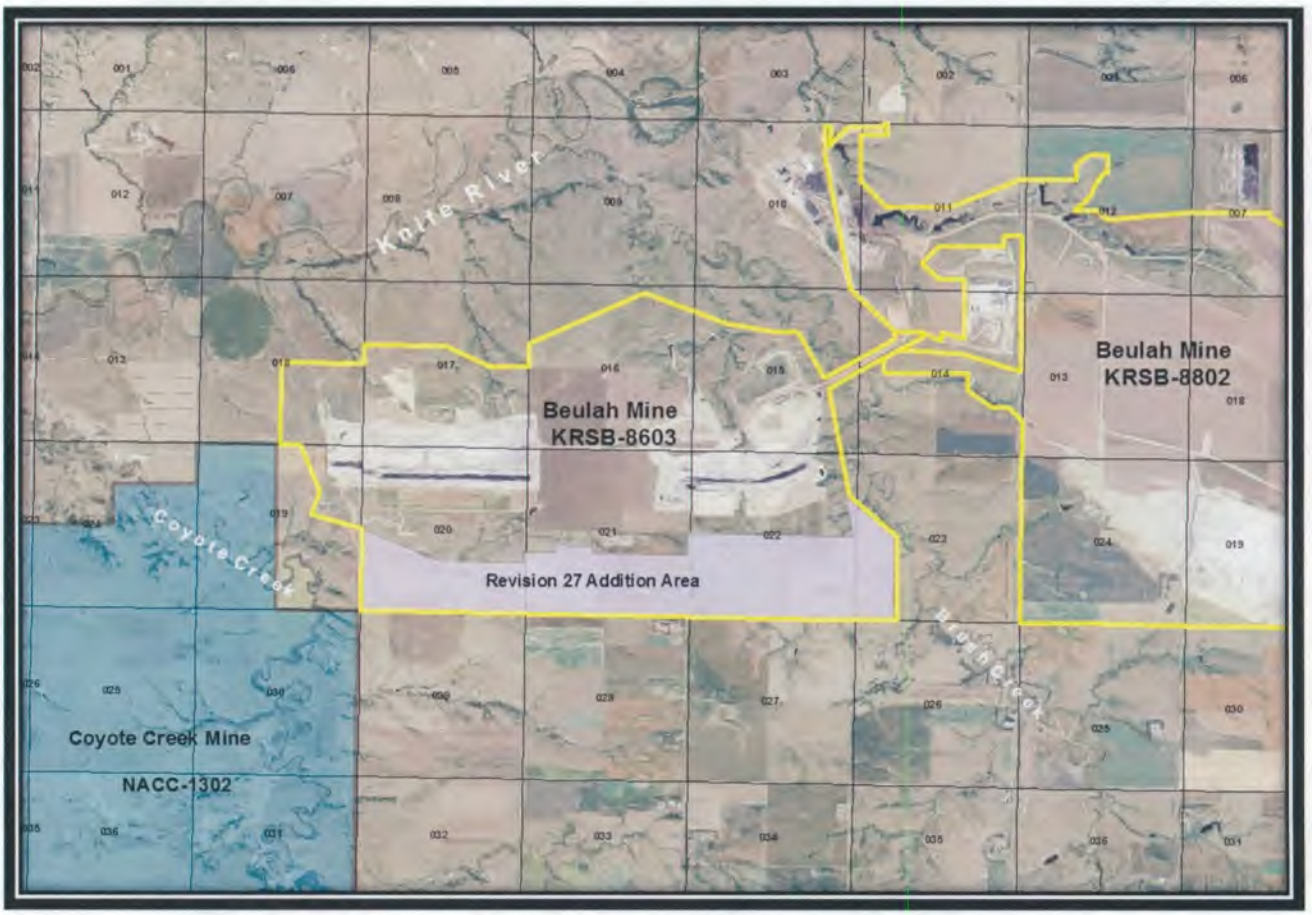
All surface water flows from the mine are less than 1% of the annual flow of the Knife River at Hazen, ND. NDPDES discharge reports show about 176 acre feet of water discharged from Beulah Mine in 1989. Municipal and industrial discharges average about 160 acre feet per year in the assessment area, while the Knife River flowed 44,830 acre feet at Hazen in the year ending in September, 1989. For 2013 reporting year, the total discharge from the Beulah Mine was 1128 acre feet while the annual flow in the Knife River at Hazen was 141,000 acre feet. Over the past six years there have been no adverse impacts detected in the permit or adjacent areas, as monitored by routinely-collected water quality samples.

Livestock watering ponds and dugouts in the permit area that may be destroyed by mining will be replaced with ponds or wells if needed to support the post-mining land uses. Several sedimentation ponds and other Developed Water Resources are proposed to be left as permanent structures after mining and they will probably make a small contribution to ground water recharge and slightly reduced peak flows on Otter Creek, Coyote Creek, Brush Creek, and ultimately the Knife River. They will not significantly divert water from surface or ground water flow systems in the area. Interception of storm runoff and ground water discharged from mining pits by the total surface water management system will result in a net reduction in peak flows from controlled drainage areas. Changes in peak flows on Otter, Coyote, and Brush Creeks and the Knife River immediately below Beulah Mine will be insignificant since only a small percentage of the contributing area of these drainages is controlled by mine sedimentation ponds. In general, a net increase in surface water bodies in the post-mining environment within

permitted areas can be anticipated due to retention of sedimentation ponds and other constructed Developed Water Resources as permanent impoundments. Ground water produced from active pits will make a very small addition to the volume of surface water flows. The shallow aquifers dewatered by pit operations are, under natural conditions, hydrologically connected to the channels of Otter, Coyote, and Brush Creeks and provide a small amount of spring flow and ground water recharge to them. Beulah Mine operations will produce no significant diversion of water from the surface or ground water flow systems of Otter, Coyote, and Brush Creeks.

There are no large permanent wetlands in the immediate vicinity of the permit. Impacts to springs, wells or stock dams are not anticipated other than to those in or adjacent to the permit area discussed in the permit. The Beulah Mine permits review in detail such features as may be destroyed or affected by mining and give plans for appropriate mitigation or replacement. Alternate water sources and appropriate courses of action are available, and Dakota Westmoreland is committed to taking remedial or corrective action if unforeseen impacts occur.

Permit KRSB-8603, including the Revision No. 27 addition area



D. Soils and Overburden

The methods used to identify suitable plant growth material (topsoil and subsoil) and soil handling plans are provided in the permit. DWC has committed to salvage all available topsoil and a sufficient amount of subsoil to adequately respread all disturbed areas.

The total amount of suitable plant growth material to be replaced will be based on the quality of the graded spoil surface pursuant to NDAC 69-05.2-15-04(4)(a)(2). The total suitable plant growth material respread thickness will either be 24, 36, or 48 inches depending on the spoil characteristics as determined by graded spoil sampling. A sufficient amount of suitable plant growth material is available for respreading all areas projected to be disturbed. Topsoil respread thicknesses will be based on the average amount removed by land ownership. The same volume of topsoil and subsoil that was removed from areas of associated disturbance will be evenly respread on these areas. DWC submits an annual soils handling plan to the Commission for review and approval. This annual plan includes a current and projected soil inventory as well as the annual soil removal plans.

An examination of the overburden drill hole data indicates that the spoil material should be non-toxic. If any toxic spoil areas occur after spoil grading, the areas will be identified by sampling the graded spoil and a sufficient non-toxic cover will be provided.

A total of 23.6 acres of prime farmland has been identified within the areas being added to the permit with Revision 27. Of this, 2.1 acres located in the S½ of Section 22 (over federal coal) will be disturbed by mining activities. The 21.5 acres of prime farmland located in Section 21 will not be disturbed by mining activities. The prime farmland soils handling and reclamation plans are addressed in the Section 3.4 of the permit. Prime topsoil will be segregated from nonprime topsoil and prime subsoil will be mixed with nonprime subsoil. Reclaimed prime areas will be respread with a total of 48 inches of SPGM. The Natural Resources Conservation Service reviewed the prime farmland reclamation plan and determined it is adequate for restoring the pre-mine productivity.

Scarification with a disc or a chisel plow may be used to promote adhesion between graded spoil and subsoil in steep or shallow respread areas. This serves to minimize slippage and promote water infiltration. The respread of suitable plant growth material will be of uniform thickness with a topography that promotes effective surface drainage.

E. Vegetation

Seeding will be performed during the first normal period for favorable planting conditions. Prior to seeding, a firm seedbed will be established. Post-mining land use seed mixtures utilized are dependent on post-mining land use. The following mixtures will be used at rates expressed in pounds of pure live seed (PLS) per acre:

1. Native Grassland

Species/Variety	PLS #/acre
Western Wheatgrass	2.0
Green Needlegrass	2.0
Slender Wheatgrass	1.2
Blue Grama	1.2
Sideoats Grama	2.5

Prairie Sandreed	1.0
Little Bluestem	1.0
Switchgrass	1.2
Big Bluestem	1.5
Total PLS #/acre	**13.6**

2. **Pre-Cropland, Hayland, Industrial/Commercial Tame Pastureland, Fish & Wildlife Habitat**

Species/Variety	PLS #/acre
Western Wheatgrass	2.0
Pubescent/Intermediate Wheatgrass	4.0
Tall Wheatgrass	2.0
Alfalfa	7.0 *
Total PLS #/acre	**15.0**

* For Tame Pastureland alfalfa will be seeded at 2.0 PLS #/acre

The appropriate post-mining land use seed mixture will be planted after the topsoil is respread. Seeding will be conducted during times of the year when favorable growing conditions are likely to occur. If conditions are not favorable, a temporary cover crop may be planted for erosion control purposes. Mulch may also be used to control erosion during periods of the year outside of the growing season. Herbicides will be used to control weeds if necessary.

The mining and reclamation operations will not result in a substantial loss or reduction of long range productivity of the lands producing food and fiber products since reclamation practices proposed by the applicant are designed to restore the level of productivity to that which existed prior to mining.

F. Wildlife

Mining will disturb all habitat types occurring in the permit area prior to mining. Any temporary loss of habitat will be partially mitigated by creation of stockpiles with dense cover to provide topographic relief and a food source. Sediment ponds will provide water sources during mining and reclamation. The reclamation plan has been designed to ensure no net loss of wetland acreage. The wetlands that are to be disturbed will generally be replaced in areas where they existed prior to mining, although wetland formed from ground water seeps will be replaced as features that collect and store surface runoff. Shelterbelts and woodlands will be planted to offset the habitat loss associated with old shelterbelts and field windbreaks that existed prior to mining. Establishing perennial vegetation on reclaimed croplands and managing these lands as hayland during the liability period improves the wildlife habitat value of these lands. Favorable wildlife habitat should exist during the vegetation establishment periods of the reclamation phase. Proper management during the liability period should benefit wildlife populations.

Mining and reclamation operations will not create any barriers to wildlife migration routes. No ponds containing toxic material will be created in the permit area. Herbicides may be used to control weeds, but use of insecticides has not been proposed.

No habitat of unusually high value will be disturbed during mining and reclamation activities. Mining will not affect the continued existence of any threatened or endangered species. Three Candidate species to the endangered species act could potentially exist in the Revision 27 addition area. Sprague's pipit has been observed on nearby lands in recent years and this species was detected in the area during the original wildlife baseline surveys for the permit area. Dakota skipper butterfly surveys for this species were conducted in the area and it was not found. The surveyor, Ronald Royer, concluded that insufficient intact habitat existed for prairie specialist butterflies. The Northern Long Ear Bat could be a visitor to the mine area but the permit area does not contain any suitable habitat in the form of caves or abandoned underground mines. Mining is not expected to have any long-term adverse impacts on wildlife populations. Annual wildlife monitoring will document changes in wildlife populations.

G. Cultural Resources

Cultural resource surveys and inventories and the necessary testing and evaluations of the area added to Permit KRSB-8603 with Revision 27 have been completed. A substantial number of sites, both archeological and historic, were identified within the permit area. One site, 32ME2232, located on the SE¼ of Section 20 (off federal coal) was deemed potentially significant by the State Historical Preservation Officer and this site will be avoided by all mining activities. Site 32ME2522 has not been evaluated for significance and mining activities will also avoid this site. All remaining sites were determined to be not significant in terms of national register criteria (36 CFR 60.4) and have been approved for disturbance or will be avoided. DWC has committed to inform the proper authorities in the event that any previously unrecorded archeological, cultural, or historic materials are discovered.

The proposed surface coal mining operations will not adversely affect any significant historic, archaeological, or paleontological sites. Correspondence received to date from the State Historical Preservation Officer (SHPO) regarding cultural resource sites in Permit KRSB-8603 is attached.

H. Land Use

After the land has been mined and reclaimed, it will again be used primarily as agricultural land. In the Revision 27 addition area approximately 54 acres of cropland is being converted to perennial hayland and the other land uses are essentially the same with only minor differences. No unusual environmental impacts are anticipated from the proposed mining operations. Permit wide there is a reduction of about 220 acres of native grassland because surface owners have requested pre-mine native grassland be converted to post-mine cropland and hayland. Overall in the permit there is an increase of about 2 acres of wetlands and an additional 7 acres of developed water resources (stockponds) which essentially functions as wetland habitat and should improve grazing distribution. The woodland acreage remains the same and there is a decrease of about 4 acres of tame pastureland. Disturbed drainages with linear/riparian wetlands will be recreated near their pre-mine locations but coal removal may affect ground water seeps so recreated wetlands will depend on surface water runoff.

Land Use	Acreage	% of Area
Cropland	1008	28%
Hayland	496	14%
Native Grassland	1827	51%
Tame Pastureland	71	2%

Woodlands	26	1%
Wetlands	17	<1%
Shelterbelts	6	<1%
Developed Water Resources	12	<1%
Industrial & Commercial	95	<3%
Total	**3558**	**100.0**

I. Transportation

No long-term impacts will occur to the transportation system in the permit area. However, short-term impacts will occur to section line trails and county roads. Several section line trails and one county road have been closed by the Mercer County Commission. A detour route has been constructed to temporarily re-route traffic around the active mining area. If other section line trails or roads are closed in the future, DWC will follow county road closure procedures that include public notice with opportunity for hearing.

J. Noise, Esthetics, and Safety

Noise associated with operations within this permit area should be similar to that currently occurring with other permitted areas.

Visually, the proposed mining operation will temporarily intrude upon the landscape normally viewed by the people in the surrounding area. However, after mining operations are completed, the topography will be restored to conditions similar to the pre-mine landscape.

DWC will post the necessary signs as needed to minimize the possibility of unauthorized persons entering the mine area. They have also committed to providing safe access to landowners and local farmers in or near the permit area.

K. Socioeconomics

As of May 2014 there are 146 full time employees at the Beulah Mine. The operations proposed by Revision No. 27 are not expected to affect employment levels.

IV. MAJOR ISSUES INVOLVING THE REVISION APPLICATION

No significant issues were raised during the review of the revision application.

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

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Director

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May 14, 2014

Ms. Paula Gores
Permit Coordinator
Dakota Westmoreland Corporation
PO Box 39
Beulah, ND 58523

NDSHPO REF.: PSC/BLM 14-1105 [Also 82-0007]
Dakota Westmoreland Corporation, Mercer County [T143N R88W Section 21, S1/2-S1/2, 160-Acre Parcel] Class III Cultural Resources Inventory Report

Dear Ms. Gores:

We have received and reviewed report: "Dakota Westmoreland Corporation Beulah Mine 2014 Class III Cultural Resources Inventory Mercer County, North Dakota" by Michael A. Jackson, Nathan J. Røkke, and Dennis L. Toom (Anthropology Research, University of Dakota), May 2014, and find it acceptable. If consulted by a federal agency we would concur with "No Historic Properties Affected" and "No Significant Sites Affected" determinations provided the project is of the nature stated and it takes place in the location plotted in the project documentation and that unevaluated site 32ME2522 be avoided from impacts. Also, if consulted by a federal agency we concur that site 32ME2522 is currently unevaluated for significance and should be avoided from impacts, and that site 32ME2523 is not significant and is not eligible for listing in the National Register of Historic Places.

Thank you for the opportunity to review the report. If you have questions please contact Paul Picha ppicha@nd.gov at (701) 328-3574.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director, State Historical Society of North Dakota

c: James Deutsch, Director, Reclamation Division, PSC
c: Justin Peters, BLM

Gores, Paula

To: Frohlich, Jeff
Subject: FW: 32ME438 and 32MEX25

Dear Paula,

I have asked Mr. Paul Picha, chief archeologist of the SHSND and ND-SHPO archeologist, to review their records for cultural resource sites 32ME438, a prehistoric lithic scatter, and 32MEX25, a historic coal mine known as the Schmidt mine, regarding their significance and eligibility for listing on the National Register of Historic Places (NRHP). In his email response below, Mr. Picha concurs with previous UND evaluations of these sites as not significant and not eligible for the NRHP.

Please add this information to your cultural resources site table in your Beulah Mine permit application and note the date of formal SHPO concurrence as 4-30-14. You may use this email correspondence as agency confirmation of the determinations of eligibility for the two sites in question.

Sincerely,

Dennis L. Toom, Ph.D.
Research Archeologist & Program Director
Anthropology Research
University of North Dakota
236 Centennial Drive Stop 7094
Grand Forks ND 58202-7094
701-777-2437 office

From: Picha, Paul R. <ppicha@nd.gov>
Sent: Wednesday, April 30, 2014 5:04 PM
To: Toom, Dennis
Subject: 32ME438 and 32MEX25

Dear Dennis:

We have reviewed documentation for NRHP Eligibility and Significance determinations for 32ME438 (lithic scatter) and 32MEX25 Schmidt Mine pursuant to our telephone conversation earlier today.

Site 32ME438 (lithic scatter) was formally tested for eligibility and reported on by Kuehn (1985), Ms. 3860 on file. We concur that 32ME438 is not significant and not eligible for listing in the National Register of Historic Places. We concur that Site 32MEX25 (Schmidt Mine) is not significant and is not eligible for listing in the National Register of Historic Places, as evaluated with respect to the Hess et al. (1992) Coal Mining context for North Dakota, Ms. 5918 on file.

Sincerely,

Paul R. Picha
Chief Archaeologist
Archaeology and Historic Preservation Division
State Historical Society of North Dakota
612 East Boulevard Avenue
Bismarck, North Dakota 58505-0830
ppicha@nd.gov (701) 328-3574

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

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Grant Levi
Acting Director
Department of Transportation

Merlan E. Paaverud, Jr.
Director

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January 28, 2013

Justin W. Peters
Dakotas Zone Archaeologist
Bureau of Land Management
North Dakota Field Office
99 23rd Avenue West, Suite A
Dickinson, North Dakota 58601

NDSHPO REF. : 82-0007 PSC/BLM Dakota Westmoreland Corporation Report for Evaluation of Five Archeological Sites [T143N R88W Section 22]
BLM: 13-MT030-52
8100-R

Dear Justin:

We have received and reviewed NDSHPO REF. 82-0007 "Dakota Westmoreland Corporation West Beulah Coal Mine Expansion: 2012 Evaluative Testing of Five Archaeological Sites, Mercer County, North Dakota," by Dennis L. Toom and Michael A. Jackson (Anthropology Research, University of Dakota, December 2012), and find it acceptable.

We concur with a ***"No Historic Properties Affected"*** determination provided the project is of the nature stated and it takes place in the location depicted in the project documentation.

Thank you for the opportunity to review the report. If you have questions please contact Paul Picha ppicha@nd.gov at (701) 328-3574.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director, State Historical Society of North Dakota
c: James R. Deutsch, PSC
c: Dennis L. Toom, Anthropology Research, UND
c: Paula Gores, Dakota Westmoreland Corporation

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

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Francis Ziegler
Director
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June 21, 2011

Ms. Paula Gores
Permit Coordinator
Dakota Westmoreland Corporation
PO Box 39
Beulah, ND 58523

NDSHPO REF. : 82-0007u PSC/BLM
Dakota Westmoreland Corporation, Mercer County [T143N R88W Section 27, NE1/4 of NW1/4, 40-Acre Parcel] Class III Cultural Resources Inventory Report Addendum

Dear Ms. Gores:

We have received and reviewed final draft report: "Report Addendum: Dakota Westmoreland Corporation West Beulah Mine Expansion 2010 Class III Cultural Resources Inventory Mercer County, North Dakota" by Michael A. Jackson, Dennis L. Toom, Megan J. Lonski, and Madisson L. Whitman (Contribution 437, Anthropology Research, University of Dakota), June 2011, and find it acceptable.

Thank you for the opportunity to review the addendum report, and we look forward to further consultation on the overall project as outlined in our earlier correspondence of May 20. If you have questions please contact Paul Picha ppicha@nd.gov at (701) 328-3574.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director, State Historical Society of North Dakota

c: James Deutsch, Director, Reclamation Division, PSC
c: Brenda Shierts, BLM

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June 21, 2011

Ms. Paula Gores
Permit Coordinator
Dakota Westmoreland Corporation
PO Box 39
Beulah, ND 58523

NDSHPO REF. : 82-0007t PSC/BLM
Dakota Westmoreland Corporation, Mercer County [T143N R88W Sections 23, 26-30] Class III Cultural Resources Inventory Report

Dear Ms. Gores:

We have received and reviewed final draft report: "Dakota Westmoreland Corporation West Beulah Mine Expansion: Class III Cultural Resources Inventory Mercer County, North Dakota" by Michael A. Jackson, Dennis L. Toom, Megan J. Lonski, and Madisson L. Whitman (Anthropology Research, University of Dakota), April 2011, and find it acceptable.

We concur with the recommendations provided in Table 6.1 (attached), where twenty-six (26) unevaluated sites merit determinations of eligibility and significance based on further testing and/or historical research. Avoidance of Emmaus Cemetery (32ME2323) should be strongly pursued as recommended. Also, if consulted by a federal agency, we concur with determinations of National Register eligibility and significance for the seven (7) isolated finds listed as they are not significant and they are not eligible for listing in the National Register of Historic Places, as recommended in the report (Table 6.1). Thank you for the opportunity to review the project. If you have questions please contact Paul Picha ppicha@nd.gov at (701) 328-3574.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director, State Historical Society of North Dakota
enc. as stated
c: James Deutsch, Director, Reclamation Division, PSC
c: Brenda Shierts, BLM

Chronology of Events
Dakota Westmoreland Corporation
Revision 27 to Permit KRSB-8603
June 2, 2014

Date	Event
January 28, 1986	Knife River submits the application to the North Dakota Public Service Commission (PSC) for Permit KRSB-8603 for 1030.2 acres in portions of Sections 14, 15, 16 and 21 of T145N, R88W, Mercer County. This includes 20.5 acres with federal coal that is used for a mine haul road.
August 7, 1986	Permit KRSB-8603 is approved.
June 27, 2001	PSC approves the transfer of permits for the Beulah Mine to Dakota Westmoreland Corporation (DWC).
September 27, 2005	PSC approves Revision 16 to KRSB-8603 to add 221.2 acres to the permit that are located in Section 15.
March 21, 2007	PSC approves Revision 19 to Permit KRSB-8603 to add 524.3 acres to the permit that are located in portions of Sections 17 and 18.
October 28, 2009	PSC approves Revision 22 to Permit KRSB-8603 to add 890.4 acres to the permit that are located in portions of Sections 15, 19, 20 and 22. This included approximately 640 acres of leased federal coal, about 330 acres in Section 20 and 310 acres in N½ of Section 22. In early 2010, OSM determined that mining on these federal coal tracts as proposed by Revision 22 did constitute a mine plan modification requiring approval of the Secretary of Interior.
August 8, 2012	Commission determined that streams and drainages located within and near an area described as a future addition area (Revision 27 addition) were not alluvial valley floors.
January 31, 2013	DWC submits an application for Revision 27 to Permit KRSB-8603. This revision proposes to add 892.2 acres to the permit area that are located in portions of Sections 20, 21, 22 and 23 of T143N, R88W. This includes portions of the N½ of the S½ of Section 20 and the S½ of Section 22 that contain federal coal.
March 1, 2013	PSC's first completeness letter for Revision 27 sent to DWC. The letter notes that the federal coal in the S½ of Section 20 was not leased and that DWC needs to show the right to mine on this tract.

May 14, 2013	PSC requests a determination from OSM on whether or not Revision 27 will be considered a Mine Plan Modification.
December 1, 2013	BLM modifies Federal Lease NDM 041765 to include the S½ of Section 22, T143N, R88W.
December 10, 2013	DWC submits the response to March 1, 2013 completeness deficiency letter.
January 6, 2014	PSC sends the second completeness letter on Revision 27 to DWC.
January 15, 2014	DWC submits response to second completeness deficiency letter.
January 29, 2014	Third completeness letter for Revision 27 sent to DWC.
January 30, 2014	DWC submits response to third completeness deficiency letter.
January 30, 2014	PSC deems Revision Application No. 27 complete.
February 10, 2014	PSC sends copies of the revision application to state advisory committee members and the Natural Resource Conservation Service (NRCS) for review and comment.
February 12, 2014	PSC sends Notice of Receipt of Permit Revision Application No. 27 to Permit KRSB-8602 to the surface owners and various state, local and federal agencies.
February 26, 2014	PSC received comments from ND State Water Commission in a letter dated February 25, 2014.
February 26, 2014	PSC received comments from the NRCS in a letter dated February 19, 2014.
February 26, 2014	PSC received a letter from OSM's Western Regional Coordinating Center that the mining of additional federal coal as proposed by Revision 27 constitutes Mine Plan Modification requiring approval by the Secretary of the Interior.
March 7, 2014	PSC receives comments from ND Parks and Recreation Department regarding ND Natural heritage biological conservation database.
March 13, 2014	PSC received notice from BLM that the modified Logical Mining Unit (LMU) for the Beulah Mine was approved effective July 19, 2010.

March 14, 2014	PSC requests OSM to reconsider its determination that Revision 27 will be subject to the federal mine plan modification process since only 126 acres of additional federal coal will be mined.
March 25, 2014	PSC sends the first technical review letter to DWC.
March 31, 2014	PSC receives a letter from OSM stating that Revision 27 does not meet exemption criteria and a mining plan modification will be required since the proposed added acreage constitutes more than a 25 percent increase in the amount of coal to be mined in Permit KRSB-8603.
April 11, 2014	PSC received DWC's response to first technical review letter.
April 16, 2014	PSC requests concurrence from the U.S. Fish and Wildlife Service on the proposed finding that Revision 27 will not adversely affect the continued existence of threatened and endangered species or result in adverse destruction of critical habitats.
April 24, 2014	PSC sends the second technical review letter to DWC.
April 24, 2014	PSC sends a second letter to NRCS regarding prime farmland in follow-up to comments received February 26th and an updated copy of the revision application with changes that addressed their concerns.
April 25, 2014	PSC sends a second letter to ND State Engineer and an updated copy of the revision application with changes that addressed their concerns.
April 30, 2014	PSC received DWC's response to the technical review letter.
May 1, 2014	PSC receives a copy of Resource Recovery and Protection Plan (R2P2) for the S½ of Section 22 from DWC, dated April 29, 2014, and a copy of the cover letter that DWC had sent to BLM.
May 5, 2014	PSC receives a copy of a letter from BLM stating that the R2P2 meets all legal requirements and approval is granted.
May 13, 2014	PSC sends a third technical review letter to DWC and asks that the ownership and control information be updated.
May 14, 2014	PSC received correspondence from State Historic Preservation Officer regarding Cultural Resource Report for S½ of the S½ of Section 21.
May 16, 2014	PSC receives DWC's response to third technical review letter.

May 20, 2014	DWC submits a surety bond stipulation to increase the bond area to include the areas being added to Permit KRSB-8603 with Revision 27.
May 21, 2014	PSC requests another update to ownership and control information since a May 28th approval of Revision 27 is planned.
May 23, 2014	DWC responds that the ownership and control information in the application is current and correct.
May 28, 2014	PSC approves Revision 27 with a condition that prohibits overburden and coal removal from the added federal coal tracts until the mine plan modification is approved by the Department of the Interior.