

DRAFT December 31, 2020

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RE: DRAFT 2015-02528-DWW 401 Northshore Mining Company
Lake County, Minnesota
Section 401 Water Quality Certification

Dear Chad Konickson and Andrea Hayden:

This letter is submitted by the Minnesota Pollution Control Agency (MPCA) under authority of Section 401 of the Clean Water Act (CWA) (33 U.S.C. § 1251 et seq.), Minn. Stat. chs. 115 and 116 and Minn. R. 7001.1400 to 7001.1470, 7050, 7052, and 7053 in response to the request for Section 401 Water Quality Certification by Northshore Mining Company (applicant) for the West Ridge Railroad Relocation and Tailings Basin Progression Project (project).

Section 401 of the CWA requires that before a federal permit may be issued for an activity potentially discharging into Waters of the United States (WOTUS), the applicant must provide to the federal permitting agency a Certification (or Waiver of Certification) from the state in which the discharge originates that the discharge will comply with state water quality standards. Any conditions included in a state certification then become conditions of the federal permit. Section 401 does not limit the MPCA to review of discharges solely within WOTUS, but rather opens the project to review of impacts to all areas subject to applicable state water law.

The applicant proposes to directly impact 264.08 acres of wetland and deepwater Waters of the State (WOTS) (193 acres of WOTUS); indirectly impact 45.49 acres of WOTS (33.16 acres of WOTUS) by inundation and watershed alteration (a total of 309.57 acres of WOTS); and directly impact 5,150 feet of Big Thirtynine and 3,420 feet of Little Thirtynine (both streams are WOTUS and WOTS). These impacts are in the Lake Superior South (#2) (HUC 04010102) major watershed, with most of the impacts in the Lower Beaver River minor watershed, and the remainder of the impacts in the Thirtynine Creek minor watershed, and East Branch Beaver River minor watershed, and constitute the "project site." The applicant has secured the purchase of 264.27 credits from Wetland Bank Account 1609, located in Bank Service Area 1, in the St. Louis River (03) watershed, consistent with the U.S. Army Corps of Engineers (USACE) Final St. Paul District Policy for Wetland Compensatory Mitigation in Minnesota (2009); and restoration of 5,700 feet of the Little Thirtynine Diversion site, 1,700 feet of the Big Thirtynine Diversion site, 3,000 feet of the East Branch Beaver River and Culvert Replacement site, 4,855 feet of the East Branch Tributaries sites, 2,766 feet of the Berm Removal site, and 3,501 feet of the White Rock Creek site, and constitute the "mitigation sites." The applicant must purchase a total of 309.57 (an additional 45.3) acres of wetland bank credits to offset wetland impacts due to the tailings basin expansion. No temporary or permanent direct or indirect wetland impacts are authorized by this Certification for the purpose of stream mitigation.

The project is located near Silver Bay, in Lake County, Minnesota in the following sections: Sections 6, 20, 21, 28, 29, 30, 31, and 32, Township 56 North, Range 8 West.

Decision:

The MPCA has examined the Final Environmental Impact Statement (EIS), dated March 1977; Mile Post 7 Railroad Realignment and Tailings Basin Progression Assessment of EIS Supplement Requirement, dated March, 2017; Project Joint Application Form for Activities Affecting Water Resources in Minnesota, dated June 2018 (“Wetland Replacement Plan”); the U.S. Environmental Protection Agency response to USACE public notice, dated November 2018; MPCA Northeast Watershed response to USACE public notice, dated November 2018; Wetland Conservation Act Notice of Decision, dated May 2019; USACE request for additional information, dated May 2019; Watershed Assessment: Tailings Basin Progression and West Ridge Railroad, dated April 2020; Technical Memo on Diversion Ditch/Wetland 17b Characterization, dated 2020; Response to Denial without Prejudice, dated June 2020; Antidegradation Assessment, dated June 2020; and dated August 2020; Stream Mitigation Plan, dated June 2020; and updated August 2020; and other information furnished by the applicant, or otherwise available to MPCA that is relevant to water quality considerations. The MPCA has reviewed these documents under the federal and state statutes and rules in place at the time of application, and determined there is reasonable assurance that the activities proposed in the Wetland Replacement Plan; the Response to Denial Without Prejudice, dated June 2020; the Antidegradation Assessment, dated August, 2020; and the Stream Mitigation Plan, dated August 2020 will be conducted in a manner that will not violate applicable water standards, including antidegradation standards, should this Certification be issued as crafted by MPCA, and certifies the project with the following conditions:

1. Best Management Practices (BMPs)

- A. The applicant shall update and maintain a Stormwater Pollution Prevention Plan.
- B. The applicant shall identify and implement BMPs to ensure runoff and/or erosion from the project and mitigation sites do not cause or contribute to a water quality impairment of any WOTS. These BMPs must be implemented prior to commencement of the project and mitigation and maintained until the sites are stabilized.
- C. The applicant shall operate under approved public waters work permits.
- D. The applicant shall follow stream mitigation Environmental Assessment Worksheet recommendations.

2. Stream Water Chemistry Monitoring (for potential basin contributions)

- A. Stream monitoring must be conducted in accordance with the requirements of the National Pollution Discharge Elimination System (NPDES)/State Disposal System (SDS) Permit MN 0055301.
- B. From upstream and downstream of the tailings basin at MPCA approved locations, the applicant must collect pH, dissolved oxygen, total suspended solids, total dissolved solids, specific conductivity, total sulfate, and water temperature.
- C. Parameters must be tested once a month, but not more than once in a seven-day period from project commencement through one year after cessation of mining operations.
- D. Sampling shall occur at the designated monitoring stations including when this requires removing ice to sample the water. Should a station be completely frozen or dry, reasonable attempts should be made to return to check for water throughout a designated sampling period.

3. Stream Mitigation Sites

- A. The applicant shall submit clear and measurable milestones for each stream mitigation site for MPCA approval within six months of the receipt of this Certification.
- B. The applicant shall submit a plan to collect data on stream mitigation progress and post-construction stream mitigation quality in sufficient quantity and quality to meet MPCA standards within six months of the receipt of this Certification.
- C. Plan proposals must include control of sediment, erosion and invasive species, etc.
- D. No activity affecting the bed of the protected water may be conducted between September 15 and April 30, to minimize impacts on fish spawning and migration. If work during this time is essential, it shall be done only upon written approval of the Minnesota Department of Natural Resources (DNR) Area Fisheries Manager and a copy of this approval shall be sent immediately to MPCA.

4. Wetland Monitoring

- A. Wetland monitoring (delineation, hydrologic regime, and community) must be evaluated along the stream mitigation sites before stream mitigation work begins, and five years after stream mitigation work is complete.
- B. Wetland monitoring (delineation, hydrologic regime, and community) must be evaluated at the project site every five years, beginning in 2035, until five years after the project is complete.
- C. Impacts must be compared to wetland impacts approved by this Certification. Additional direct or indirect impacts to WOTS must be mitigated.
- D. Wetland community stress in areas without mitigation approved in this Certification may require adaptive management strategies, and/or mitigation for indirect impacts.

5. Data Quality

- A. For all laboratory results, a laboratory certified by the Minnesota Department of Health and/or registered by the MPCA must conduct analyses required by this Certification.
- B. For all field results, industry standard field sampling, collection and analysis protocols must be consistently used. Field analysts must be trained and experienced in field data collection. The applicant must monitor in accordance with written Standard Operating Procedures. All field instrumentation and ancillary equipment must be properly calibrated and maintained in accordance with manufacturer's specifications. At a minimum, field instruments must be inspected and calibrated weekly and calibration results documented. All water sample handling and laboratory analytical results must comply with Minn. R. 4740.2010, and Minn. R. 4740.2050 to 4740.2120.

6. Reporting

- A. General:
 - 1) Reports must be submitted annually by January 31, for the preceding calendar year (or partial year), with the first report arriving January 31, 2022.
 - 2) Raw data in Microsoft Excel (or a comparable tabular spreadsheet format, as approved by the MPCA) for each active monitoring site;
 - 3) Documentation of any hydrologic conditions that prevented collection of any required sample [Minn. R. 7001.0150, subp. 2(B)];

- 4) A description of any work near monitoring sites that could impact monitoring results;
 - 5) Shapefiles of project progression with sampling locations;
 - 6) Analysis of data including any statistical assumptions and methodologies;
 - 7) Identification, interpretation, explanation and significance of data trends or abnormalities;
 - 8) Comparison of data to water quality standards in effect at the time of sampling;
 - 9) Reports on water quality must include a comparison of upstream values to downstream values, and temporal changes; and
 - 10) Conclusions regarding monitoring results and recommendations for any necessary adaptive management, which could include additional monitoring locations and/or frequencies and mitigation (either treatment, or, in the case of physical alterations, potential compensatory mitigation) methods (collectively herein “adaptive management”).
 - a. Should the state adopt water quality standards during the life of this Certification that MPCA determines to be relevant to this project, the MPCA shall require the applicant to alter monitoring to show compliance, and the applicant shall implement said monitoring;
 - b. The MPCA will review and approve or disapprove recommendations for adaptive management in writing.
 - If approved, the applicant must implement the proposed strategy in accordance with the schedule provided in the written approval from the MPCA.
 - If the proposed adaptive management strategy is disapproved by the MPCA, the applicant must provide a modified plan addressing the MPCA comments within 30 days of receipt of such comments.
- B. Specific to stream mitigation sites:
- 1) Must contain information approved in condition three above.
 - 2) Geographic Information System shapefile (or a comparable format approved by MPCA) with an as-built of the stream mitigation sites.
 - 3) Must contain an evaluation five years post-construction.
 - 4) Must contain a narrative explaining deviations from the approved plan, data and calculations quantifying mitigation, and as appropriate, adaptive management strategies to meet mitigation goals.
 - 5) Must be submitted by January 31, 2032.
- C. Specific to wetlands (at the tailings basin and stream mitigation sites):
- 1) Must contain Geographic Information System shapefile (or a comparable format approved by MPCA) of the most recent delineation, with wetland labels consistent with the pre-project delineation.
 - 2) Must contain FQI or Rapid FQI (observations of wetland community condition/integrity), including an analysis of whether the existing and beneficial uses of each wetland has been affected, and a proposal for mitigation, as appropriate, to address any loss of existing use(s). Examples of wetland stressor indicators include changes in hydrology indicators, and/or additional presence

of: non-native species, facultative or non-wetland plant species, and stressed or dying vegetation.

- 3) It is expected the first project site wetland report will be submitted by January 31, 2036.
- 4) It is expected the stream mitigation sites will be completed in 2026, their five year post-construction wetland delineations will be completed by 2031, and the report for those wetlands will be submitted by January 31, 2032.
- 5) If timelines require modification, contact MPCA for an extension.

7. Adaptive management

- A. If monitoring indicates a measurable change in water chemistry parameters between the upstream and downstream monitoring sites, or temporally; wetland stressors; or stream degradation the applicant must submit an analysis of whether the existing and beneficial uses of the waterbodies have been affected. The MPCA will determine if additional monitoring (such as biological, hydrological, chemical, wetland delineation, stream survey), an adaptive management plan, and/or a proposal for mitigation to address any loss of existing and beneficial use(s) is necessary to quantify and/or prevent additional impacts, as further described in Standard Conditions below.
- B. The applicant must implement the adaptive management strategy and/or existing and beneficial use mitigation as directed by the schedule included in the written approval from the MPCA. If the adaptive management strategy and/or existing and beneficial use mitigation is disapproved by the MPCA, the applicant must provide a modified plan addressing the deficiencies identified in the MPCA's comments within 30 days of receipt of such comments.

8. Compensatory Mitigation

- A. This Certification prohibits the loss of existing uses resulting from physical alterations to a surface water unless appropriately replaced through mitigation. To ensure compliance with Minn. R. 7050.0186 and 7050.0265, the applicant must provide compensatory mitigation in advance of all direct and indirect surface water impacts.
 - 1) It is expected that the project's impacts will begin in early 2021, with the dam construction (stream impacts) beginning in 2024. It is expected all wetland mitigation will be completed by bank purchase before project commencement, and two to four stream mitigation sites are complete before the start of stream impacts, with mitigation credits remaining ahead of stream impact throughout the project.
- B. Any deviations from the proposed Wetland Replacement Plan and Stream Mitigation Proposal as listed in the examined documents above must be approved by the MPCA in writing.
 - 1) The MPCA understands the applicant will purchase 264.27 acres of wetland Mitigation from Wetland Bank Account 1609, located in Bank Service Area 1, in the St. Louis River (03) watershed. The applicant must purchase a total of 309.57 acres for the project impacts, plus at least 1:1 wetland mitigation credits for any wetland impacts from stream mitigation.
 - 2) Wetland impacts must be mitigated in accordance with USACE's Final St. Paul District Policy for Wetland Compensatory Mitigation in Minnesota (2009).

- 3) Stream mitigation must be at least 21,522 feet of total mitigation.
- 4) The MPCA must be notified within 30 days of changes in replacement credits available to the applicant.

9. Standard Conditions

- A. The applicant must inform all employees and/or contractor(s) who will be performing this project's construction activities of the need to comply with all conditions of this Section 401 Water Quality Certification from the MPCA.
- B. The MPCA must be notified within 30 days of a violation of this Certification, such as unauthorized direct or indirect impacts to state jurisdictional waters. The MPCA must be notified of any proposed additional water quality impacts this project or mitigation may have, before they occur, to determine if further review or modification of this Certification is required. This includes any additional proposed surface water impacts resulting from dredging, excavation, fill, additional structures, and temporary impacts not shown in the final plans or expressly authorized by the USACE Section 404 permit or the Section 401 Certification from the MPCA.
- C. Should monitoring data indicate that the project or mitigation has caused or contributed to a violation of a water quality standard contained in Minn. R. chs. 7050 and 7052, the applicant must report to the MPCA as follows: a violation that could endanger human health or the environment must be reported within 24 hours; other violations must be reported within 30 days. Also, within 30 days of discovery of a violation, the applicant must submit to the MPCA for review and approval an adaptive management plan to monitor and remedy the cause of the violation and a proposal to mitigate any lost existing and beneficial use(s).
- D. The applicant shall grant access to the site at all reasonable times during and after construction to authorized representatives of the MPCA Commissioner for inspection of the work authorized hereunder.
- E. This Certification includes and incorporates by reference the general conditions of Minn. R. 7001.0150, subp. 3 and 7001.1080 subp. 2 to 9.
- F. If the applicant wishes to modify any monitoring plans or procedures approved pursuant to this document, the applicant must obtain written approval from the MPCA.

The MPCA coordinates with several regulatory programs to review the impacts of mining operations. A Section 401 Certification does not release the applicant from obtaining all necessary federal, state, and local permits, nor does it limit more restrictive requirements set through any such program. It does not eliminate, waive, or vary the applicant's obligation to comply with all state water statutes and rules through the construction, installation, and operation of the project or mitigation, including, but not limited to, the NPDES/SDS permitting program, and Minn. R. ch. 7050.

USACE has stated that projects shall be reviewed under the federal rules in place at the time the application is received. This project and its mitigation were reviewed under the federal and state statutes and laws in place at the time the application was received. If the USACE determines any part or condition of this Certification is not lawful or is waived and unenforceable, the determination shall apply only to the part or condition so determined. The determination shall not apply to nor invalidate any remaining parts or conditions of this Certification. If the USACE makes such a determination, the

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applicant remains responsible for meeting state water quality statutes and rules, and, if a violation occurs, may be subject to state enforcement.

The MPCA decision is based, in part, on the applicant's representations that environmental review under the Minnesota Environmental Quality Board's rules, Minn. R. ch. 4410, is not needed, or that all necessary environmental reviews and related decisions have been completed. If environmental review for this project is needed and not complete, the MPCA does not have the legal authority to issue a Section 401 Certification. In that situation, the MPCA reserves the right to make a Section 401 Certification decision after completion of the environmental review process.

This letter does not release the applicant from any liability, penalty, or duty imposed by Minnesota or federal statutes, regulations, rules or local ordinances, and it does not convey a property right or an exclusive privilege.

If you have any questions or require additional information regarding this Certification, please contact Jen Oknich at 651-757-2886.

Sincerely,

Anna Hotz
Supervisor
Agency Rules Unit
Resource Management and Assistance Division

AH/JO:ds

cc: Colleen Sullivan, DNR
Ryan Malterud, USACE
Jen Oknich, MPCA