

Application of Region 5’s CWA 401(a)(2) “May Affect” Screening Analysis for PolyMet’s NorthMet Mining Project , June 4, 2021

On March 8, 2021, the U.S. District Court for the District of Minnesota granted the U.S. Environmental Protection Agency’s request for a voluntary remand in *Fond du Lac Band of Lake Superior Chippewa v. Cheryl L. Newton, et al.* (Case No. 0:19-cv-02489-PJS-LIB), ECF No. 89 (“*FDL v. Newton*”). EPA sought this remand to reconsider its lack of notice to the Fond du Lac Band of Lake Superior Chippewa (“Fond du Lac Band” or “Band”) under Section 401(a)(2) of the Clean Water Act (“CWA”). 33 U.S.C. § 1341(a)(2).¹

This case arose in connection with permits issued for PolyMet Mining, Inc.’s (“PolyMet”) proposed NorthMet mining project, including the CWA Section 404 Permit issued by the U.S. Army Corps of Engineers (“Corps”), and a state certification issued by the Minnesota Pollution Control Agency (“MPCA”). Pursuant to CWA Section 401(a)(2), the Corps must provide EPA with notice of any CWA Section 404 permit application and CWA Section 401 state certification for discharges from a project. The statute then provides that “[w]henver such a discharge may affect, as determined by the Administrator, the quality of the waters of any other State” the Administrator shall “so notify such other State” within 30 days of receiving notice. 33 U.S.C. § 1341(a)(2). If the Administrator provides notice to the other State or jurisdiction, it may determine “that such discharge will affect the quality of its waters so as to violate any water quality requirements in such State,” and it may object to the Corps and request a public hearing on that objection. *Id.*

Following the Court’s remand, EPA reviewed the PolyMet CWA Section 404 permit application (“Permit Application”) and the CWA Section 401 Minnesota certification (“401 Certification”) regarding potential downstream effects from discharges from the project. By letter of March 26, 2021, EPA provided an opportunity for the Band and PolyMet to provide additional materials for EPA’s consideration. The materials provided by the parties are listed in Appendix 1. EPA has considered these additional materials as well.

Pursuant to CWA Section 401(a)(2) EPA has determined that the PolyMet project “may affect . . . the quality of the waters” of the Band and the State of Wisconsin. Our analysis is set forth below.

I. Background

Section 401(a)(2) of the CWA requires federal licensing and permitting agencies to immediately notify EPA when they receive a license or permit application to conduct any activity which may

¹ In its Order of February 16, 2021, the District Court ruled that EPA had a non-discretionary duty to make a “may affect” determination pursuant to CWA Section 401(a)(2) in this matter. Due to the unique circumstances of this matter, EPA has chosen to invite stakeholders to submit relevant information and to explain the basis for its notification in the enclosed Decision Document. The CWA provides a limited (30 day) time frame for EPA to make a “may affect” decision and provide appropriate notice. EPA is under no obligation to solicit such information or develop and publish a Decision Document. EPA reserves the right not to do either (or both) in the context of future CWA Section 401(a)(2) reviews.

result in any discharge into the navigable waters and a water quality certification for that license or permit from the state in which the discharge originates. 33 U.S.C. § 1341(a)(2). If, within thirty days of the date of that notice, EPA determines that the discharge “may affect” the quality of the waters of any other State,² EPA is required to notify such other State (also referred to in this document as a “neighboring jurisdiction”), the licensing or permitting agency, and the applicant. *Id.*

The CWA provides that “If, within sixty days after receipt of such notification, such other State determines that such discharge will affect the quality of its waters so as to violate any water quality requirements in such State, and within such sixty-day period notifies the Administrator and the licensing or permitting agency in writing of its objection to the issuance of such license or permit and requests a public hearing on such objection, the licensing or permitting agency shall hold such a hearing. *Id.* At the hearing, EPA is required to submit its evaluation and recommendations concerning the objection. *Id.* The federal licensing or permitting agency, based upon the recommendations of the neighboring jurisdiction, EPA, and any additional evidence presented at the hearing, shall condition the license or permit as necessary to ensure compliance with applicable water quality requirements. If the imposition of such conditions cannot ensure compliance, the federal licensing or permitting agency shall not issue the license or permit. *Id.*

II. EPA’s 401(a)(2) Review Process

EPA’s *Best Practices for EPA’s Implementation of Clean Water Action Section 401(a)(2)* (“*Best Practices Document*”)³ recommends that EPA Regional offices use a screening process that focuses “primarily on the location of the discharge with respect to any neighboring jurisdiction and whether the discharge ‘may affect’ the water quality of that jurisdiction.” *Id.* The *Best Practices Document* provides that factors relevant to EPA’s consideration of water quality requirements of neighboring jurisdictions include the following:

- a. Location of the Discharge and Proximity to Other Jurisdictions: EPA Regions should ask whether the jurisdictional water into which the project would discharge, or a downstream jurisdictional tributary, flows through multiple jurisdictions (such as the Mississippi River or the Columbia River). If the answer is “yes,” the Region should consider the distance between the discharge location and the nearest downstream state or authorized tribal border. Finally, the Region should consider whether the discharge may affect the quality of the neighboring jurisdiction’s water quality. For example, does the discharge cause or contribute to water quality degradation or impact or impair the designated use(s) of another state’s water(s)?

² “Any other State” can be a state or a tribe with “Treatment in a Manner as a State” (TAS) status under CWA Section 518(e). Amendments to the CWA, after Section 401 was enacted, provide that tribes can seek TAS. As a result, when Section 401(a)(2) uses the word “state” or “states,” this includes tribes with TAS status for section 401. Tribes with TAS for Section 401 are also referred to as “authorized tribes.” The Band is approved for CWA Sections 303 and 401 TAS.

³ https://www.epa.gov/sites/production/files/2020-12/documents/best_practices_for_cwa_401a2_process_508.pdf. (last visited April 10, 2021). This is not a legally binding document, rather as noted in its disclaimer, “This internal document includes suggested best practices for EPA’s implementation of Section 401(a)(2) of the Clean Water Act.”

b. Neighboring Jurisdiction Water Quality Requirements: EPA Regions should ask whether the potentially affected neighboring jurisdictions have different water quality requirements, including water quality standards, than the state or authorized tribe that issued the certification for the federal license or permit, and whether these requirements are more or less stringent? For example, could the neighboring jurisdiction’s designated uses for the portion of the waterway within its border be impaired by the certified discharge? Is the portion of the waterway within the neighboring jurisdiction’s border included on that state’s CWA Section 303(d) impaired waters list, or is there a TMDL established for a segment in the neighboring jurisdiction?

Id.

The *Best Practices Document* describes general elements that EPA may consider in reaching a “may affect” decision. If EPA determines that the discharge “may affect” the quality of the waters of any other State, EPA is required to notify such other State, as described above.

III. Additional Information Relevant to this Determination

As noted above, on March 8, 2021, the U.S. District Court for the District of Minnesota granted EPA’s request for a voluntary remand in *FDL v. Newton*. On March 10, 2021 and March 24, 2021, the Band sent letters⁴ requesting that EPA initiate consultation pursuant to EPA’s 2011 policy on *Consultation and Coordination with Indian Tribes*.⁵ This policy sets forth EPA’s intent to consult on a government-to-government basis with Tribes when EPA actions may affect tribal interests. On March 26, 2021, EPA invited the Band to consult on EPA’s “may affect” determination.⁶ EPA also invited the Band to provide written comments “so that we may consider tribal interests which may be affected by the proposed action.” A consultation conference call was held on April 23, 2021. The Band provided further information in a letter of April 30.⁷ Subsequently, the Band provided documents and information to EPA, as noted in Appendix 1.

On March 26, 2021, EPA sent a letter to PolyMet that stated that “In recognition of the particular circumstance of this remand [in *FDL v. Newton*] and PolyMet Mining, Inc.’s (“PolyMet”) participation in this litigation as an intervenor, I am inviting you to provide information to us as we reconsider our action under CWA Section 401(a)(2).”⁸

⁴ Letter from Chairman Kevin DuPuis, Sr., Fond du Lac Band of Lake Superior Chippewa, to Cheryl Newton, Acting Regional Administrator, March 10, 2021; Chairman Kevin DuPuis, Sr., to Michael Regan, Administrator, March 24, 2021.

⁵ <http://www.epa.gov/tribal/consultation/consult-policy.htm> (last visited April 10, 2021).

⁶ Letter from Tera Fong, R5 Water Division Director, to Chairman Kevin Dupuis, Sr., Fond du Lac Band of Lake Superior Chippewa, March 26, 2021.

⁷ Letter from Chairman Kevin Dupuis, Sr., Fond du Lac Band of Lake Superior Chippewa, to EPA Administrator Regan and Acting Regional Administrator Newton, April 30, 2021; Re: Federal Court Remand for CWA Section 401(a)(2) Determination in Fond du Lac Band of Lake Superior Chippewa v. Newton, No. 19-cv-2489-PJSEIB (D. Minn.).

⁸ Letter from Tera Fong, R5 Water Division Director, to Brad Moore, Regulatory Consultant, PolyMet Mining Inc., March 26, 2021.

In response to this invitation to provide information, PolyMet provided information found in Appendix 1. PolyMet representatives also met with representatives of the Office of International and Tribal Affairs on April 16, 2021 and provided a technical overview of the project. Information provided by PolyMet during this meeting is also included in Appendix 1.⁹

With respect to EPA’s review of the submitted materials, we note that PolyMet asserts that it has addressed the numerous water quality concerns the Band has identified, beginning with the earliest efforts to develop an Environmental Impact Statement for this project and extending through the CWA Sections 402 and 404 permitting phases.¹⁰ The Band disagrees.¹¹ In particular, PolyMet, together with MPCA, asserts that there will be no “measurable” effects from the mine within possibly 50 miles downstream of the mine site, 60 miles above the boundary of the Band’s reservation.¹² The Band disagrees, pointing to concerns about cumulative loading to the St. Louis River that might affect their downstream waters, and the risk of a disproportionate impact to the Band’s population and treaty resources as a result of the project.¹³ Both MPCA and PolyMet concede that they can only assume that the project and the hydrology of the area will perform in accordance with their modeling and that the modeling chosen for the project was adequate.¹⁴ For that reason, the State included monitoring and adaptive management requirements in its 401 Certification to address the potential that the modeling was not accurate.¹⁵ For its part, the Band asserts that the modeling was not adequate and that monitoring

⁹ PolyMet, PolyMet Presentation – 2021-03 – EPA Final v2-pdf.pdf (April 16, 2021).

¹⁰ See Poly Met Mining, Inc. “Comments Regarding Downstream Water Quality,” April 30, 2021, at 1, 12-16; PolyMet Cross Media Analysis at A3, A14-15, and noting “All of the scientists, engineers, modelers, and other experts involved in the Cross-Media Analysis recognized that there are some uncertainties inherent in their predictions. That is the nature of complex scientific analysis. But the agencies took multiple measures to address these uncertainties.” *Id.* at A15-A17, noting role of “true-up” provisions that “require PolyMet to compare predicted water quality and quantity values against actual observed values for surface water, groundwater, and wastewater from major Project features and baseline data against observed values for groundwater levels, wetlands water levels, and wetland boundaries, among other things. If there are significant departures from those modeled outcomes or baseline measurements, adaptive management measures may be required.”; see also PolyMet submission, Appendix B, “Responses to Fond du Lac Band and Branfireun Comments,” and PolyMet submission, Exhibit 1, Declaration of Cliff Twaroski, April 23, 2021.

¹¹ See, e.g., Letter from Kevin R. Dupuis, Sr., Fond du Lac Band, to Karl Jansen, U.S. Army Corps of Engineers, March 15, 2021, at 4, 6-10.

¹² See, e.g., PolyMet “Comments Regarding Downstream Water Quality,” at 7-12; MPCA, Final PolyMet 401 Certification Fact Sheet, at 14.

¹³ See, e.g., Dupuis to Jansen at 6-10; FDL submission, Exhibits 1-32, including in particular, Exhibits 30 (Dr. Brian Branfireun, Re: Polymet NorthMet 401(a)(2) Certification remand,” April 28, 2021), 31 (Matthew Schweisberg, “Polymet NorthMet 401(a)(2) Certification Remand,” April 29, 2021), and 32 (Janssen, et al., “Examining historical mercury sources in the Saint Louis River estuary: How Legacy Contamination Influences Biological Mercury Levels in Great Lakes Coastal Regions” (2021)).

¹⁴ See, e.g., PolyMet “Comments Regarding Downstream Water Quality,” at 12; PolyMet submittal to EPA, Appendix B - Responses to Fond du Lac Band and Branfireun Comments; MPCA, Findings of Fact, Conclusions of Law, and Order, Attachment A, 401 Certification Response to Contested Case Hearing Requests at 8-11, e.g., “The MPCA determined the mass balance method to evaluate mercury is appropriate given the data available. In addition, the conceptual model used is more transparent and relies on fewer untested assumptions than a complex model that incorporates input and removal processes for methylation.” *Id.* at 10.

¹⁵ MPCA, Final PolyMet 401 Certification Fact Sheet, at 10 (modeling uncertainty regarding mine site); 14-16 (uncertainty regarding modeling relating to wetland hydrology, indirect impacts, and need for monitoring); 17 (uncertainty relating to stream hydrology impacts and need for monitoring); 17-18 (uncertainty regarding indirect wetland impacts and potential need for additional wetland mitigation/replacement).

and adaptive management requirements will be too little and/or too late to address potential impacts to their water quality and resources.¹⁶ While due to the unique circumstances of this matter EPA is in possession of far more information than we would typically have in hand prior to making a “may affect” determination (see Attachment 1), we believe that our role in this matter remains tethered to the framework of CWA Section 401(a)(2), which leaves to the downstream state the responsibility for demonstrating that an upstream discharge will, in fact, affect its water quality requirements. In light of the uncertainties presented by the information before us, EPA has determined that discharges from the PolyMet project “may affect” the Band’s and Wisconsin’s downstream waters and, through the notice mechanism of 401(a)(2), it is appropriate to afford the Band and State the opportunity to demonstrate to the Corps that such discharges “will affect” their downstream water quality.

IV. EPA Region 5’s “may affect” Screening Analysis

EPA Region 5 reviewed the PolyMet project for purposes of implementing Section 401(a)(2) by analyzing several water quality parameters of potential impact. EPA believes these parameters are consistent with the elements of a “may affect” determination as identified in the statute, EPA’s implementing regulations, and EPA’s Best Practices Document. As such, our aim was to review the information before us to determine if discharges from the project “may affect” neighboring jurisdictions’ water quality. We are not required to and did not attempt to weigh competing claims about the “overall” or “net impact” of the project. Accordingly, we reviewed the 404 Application and 401 Certification, together with the additional materials referenced herein, in light of the considerations below.

A. Does the project have a discharge with the potential to affect water quality?

Response: According to the 404 Application, the NorthMet Mining Project will include discharge of dredged or fill material into 901.24 acres of wetlands and indirectly impact an additional 26.93 acres of wetlands that will become fragmented as a result of the direct impacts from the project. These wetlands are adjacent and hydrologically connected to the Partridge River and the Embarrass River, which are direct tributaries to the St. Louis River which flows through the Fond du Lac Reservation and Wisconsin.

Both the 404 Application and 401 Certification indicate that there is the potential for groundwater drawdown impacts to wetlands surrounding the mine pits. Mining, which involves large-scale, ground-disturbing activities, can impact hydrological systems. Processes included in the proposed PolyMet project require large quantities of water that can divert and disrupt surface water and groundwater flows. The removal of water from mine workings can result in drawdown of groundwater. Such drawdown can result in mobilization and/or transformation of pollutants present in the impacted wetlands that can be transported downstream by way of the St. Louis River and affect water quality in neighboring jurisdictions.

¹⁶ See Note 13.

The PolyMet project proposes to reuse an existing tailings basin which is unlined and currently discharges pollutants directly to surface waters and indirectly through groundwater and surface waters. Rain and/or groundwater percolating through or over disturbed rock, waste piles and tailings and then flowing off of the site can become contaminated with heavy metals and dissolved salts, such as sulfates. This water can migrate off site and contaminate both groundwater and surface water. In recognition of the presence of these waterborne pollutants, the PolyMet project includes plans for construction of a seepage collection system as part of the reuse of the existing tailings basin for the purpose of capturing and treating polluted wastewater.¹⁷ Any contaminated water not captured by that system has the potential to enter the surrounding groundwater and surface waters.

The 404 Application itself states that the project “may cause indirect wetland impacts due to potential change in wetland watershed areas, stream flow, groundwater drawdown, wetland fragmentation, or wetland water quality related to dust or railcar spillage.”¹⁸ The 401 Certification does not demonstrate that Minnesota considered the potential impacts on downstream water quality from anticipated changes to wetlands or other hydrology due to the project.

B. Is there a potential hydrologic connection that could allow transport of pollutants or pollution from the site of the project to waters of a neighboring jurisdiction?

Response: The PolyMet Mine is located within the Embarrass River and Partridge River Watersheds,³ both of which are located within the St. Louis River 8-digit hydrologic unit code (USGS HUC: 0410201)⁴ and are tributaries to the St. Louis River. The mine is upstream of both Wisconsin and the Fond du Lac Reservation by way of the St. Louis River and its tributaries. EPA mapped the continuous hydrologic connection between the project site and the Fond du Lac Reservation, and from the project site to the Wisconsin border using StreamStats: Streamflow Statistics and Spatial Analysis Tool.¹⁹ We note:

The scientific literature unequivocally demonstrates that streams, individually or cumulatively, exert a strong influence on the integrity of downstream waters. All tributary streams, including perennial, intermittent, and ephemeral streams, are physically, chemically, and biologically connected to downstream rivers via channels and associated alluvial deposits where water and other materials are concentrated, mixed, transformed, and transported... Contaminants are commonly transported from tributaries to downstream rivers bound to sediments... Because movement of water is the primary

¹⁷ PolyMet CWA 404 Permit Application Narrative at 24.

¹⁸ PolyMet CWA 404 Permit Application Narrative at 6. The narrative goes on to explain: “The documents prepared during the Environmental Review Process describe the range of possible indirect impacts and indicate that the Project could potentially indirectly impact up to approximately 7,350 acres of wetlands located within and around the Project area based on the method of wetlands crossing analog impact zones, or potentially indirectly impact up to 6,498 acres of wetlands located within and around the Project area based on the method of wetlands within analog impact zones.” *Id.* at 6-7. The Application estimates that 65% of the directly impacted wetlands are considered “high quality.” *Id.* at 6.

¹⁹ See <https://streamstats.usgs.gov/ss/>.

mechanism by which chemical substances are transported downstream, quantifying chemical connectivity is closely related to quantifying hydrologic connectivity.²⁰

Thus EPA finds that there is a potential hydrologic connection between the project site and the downstream neighboring jurisdictions that could transport of pollutants or pollution.

C. Are the water quality requirements of the neighboring jurisdiction/s more stringent than, or different from, the water quality requirements of the certifying State?

Response: There are differences between the certifying State’s water quality requirements and those of downstream states. Examples include:

- The Band’s mercury criterion of 0.77ng/L for human health is more stringent than the most stringent mercury criterion in Minnesota.²¹
- The Band has a numeric criterion for specific conductance of 300 pS/cm to protect aquatic life; Minnesota’s water quality standards lack a corresponding criterion to protect aquatic life.²²
- The Band has a numeric criterion for sulfate of 10 mg/L for any “lake or stream which supports wild rice growth.” While Minnesota has an identical sulfate criterion of 10 mg/L, we note that the PolyMet project is located high in the watershed whereas the Band’s waters are at the bottom of the watershed where the impact of cumulative loadings from the multiple sources of sulfates in the Embarrass and Partridge rivers may have an additive impact on water quality. Similarly, because the waters within the State of Wisconsin’s jurisdiction are at the very bottom of the watershed, the cumulative impact of loadings of conservative pollutants, such as mercury, metals and dissolved ions, may also result in loadings that affect Wisconsin’s water quality even if the water quality criteria of the upstream and downstream states are similar.

https://docs.legis.wisconsin.gov/code/admin_code/nr/100/105

In addition, the Band has asserted that the protection of its downstream waters is integral to protection of its treaty rights to water-dependent resources that have been reserved by the Band and other Chippewa/Ojibwe tribes.²³ EPA recognizes the importance of respecting tribal treaty

²⁰ U.S. EPA, *Connectivity of Streams and Wetlands To Downstream Waters: A Review and Synthesis of the Scientific Evidence (Final Report)*. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-14/475F, 2015.

²¹ The State further references its analysis of its own criterion in its Findings of Fact Conclusions of Law and Order for the Denial of a Contested Case Hearing, at 18. *See* <https://www.pca.state.mn.us/sites/default/files/wq-wwprm1-51kk.pdf> (last visited May 20, 2021).

²² Fond du Lac Band of the Minnesota Chippewa Tribe Water Quality Standards (Effective October 5, 2020), <https://www.epa.gov/sites/production/files/2014-12/documents/chippewa-tribe.pdf> (last visited June 2, 2021).

²³ The Band is a federally recognized Indian tribe and a member band of the Minnesota Chippewa Tribe (“MCT”). The Band retains hunting, fishing, and other usufructuary rights that extend throughout the entire northeastern portion of the state of Minnesota under the 1854 Treaty of LaPointe [citation omitted] (the “Ceded Territory”).

rights and its obligation to do so. The U.S. Constitution defines treaties as part of the supreme law of the land, with the same legal force as federal statutes. Treaties are to be interpreted in accordance with the federal Indian canons of construction, a set of long-standing principles developed by courts to guide the interpretation of treaties between the U.S. government and Indian tribes.²⁴

EPA has recognized that certain types of EPA actions, namely those that are focused on a specific geographic area, are more likely than others to have potential implications for treaty-protected natural resources. EPA's *Guidance for discussing Tribal Treaty Rights*²⁵ provides that where, as here, an EPA action that has the potential to affect a specific geographic area, such as the St. Louis River, which forms a border of the Band's reservation,

EPA will consider all relevant information obtained [during consultation] to help ensure that EPA's actions do not conflict with treaty rights, and to help ensure that EPA is fully informed when it seeks to implement its programs and to further protect treaty rights and resources when it has the discretion to do so.²⁶

The Band asserts that their reservation and their federally approved water quality standards which protect water-based treaty resources may be potentially affected by the proposed PolyMet project:

The Fond du Lac Band also holds and occupies a Reservation established as the Band's permanent home by Treaty with the United States. The Fond du Lac Reservation is hydrologically connected to the Project area via the St. Louis River. In 1996, EPA affirmed the Band's jurisdiction over waters of the Reservation when it approved the Band's Treatment as a State status under the CWA. . . . The Band accordingly has legal rights and interests in ensuring that Reservations lands and waters, as well as natural resources, on which Band members depend are not adversely affected by activities on or off the Reservation.²⁷

The Band further asserts that:

The Band has spent considerable time and resources over the past decade to ensure that the Project complies with the Band's downstream water quality standards. Those

Fond du Lac Band members rely on those rights to harvest and gather natural resources in the Ceded Territory for subsistence, cultural and religious purposes. The Band accordingly has a legal interest in protecting natural resources on which those rights depend. All federal agencies share in the federal government's trust responsibility to the Band to maintain and protect those treaty resources [citation omitted]. Letter from Chairman DuPuis to Cathy Stepp, Regional Administrator, EPA; and Chad Konickson, Regulatory Branch Chief, COE, February 6, 2019, at 2; *see also* Tribal Cooperating Agencies Cumulative Effects Analysis NorthMet Mining Project and Land Exchange, September 2013 (Exhibit 7, FDL submission).

²⁴ *Minnesota v. Mille Lacs Band of Chippewa*, 526 U.S. 172 (1999).

²⁵ *EPA Policy on Consultation and Coordination with Indian Tribes: Guidance for Discussing Tribal Treaty Rights*, February 19, 2016, https://www.epa.gov/sites/production/files/2016-02/documents/tribal_treaty_rights_guidance_for_discussing_tribal_treaty_rights.pdf (last visited April 10, 2021).

²⁶ EPA Administrator, December 1, 2014 Memorandum, Commemorating the 30th Anniversary of the EPA Indian Policy.

²⁷ Letter from Chairman DuPuis to Cathy Stepp, Regional Administrator, EPA; and Chad Konickson, Regulatory Branch Chief, COE, February 6, 2019, at 2.

standards protect Band members in the exercise of their Treaty rights and the use of water for subsistence purposes and to maintain their cultural and religious traditions. Historical and current effects from a lack of enforcement against mining activities upstream of the Reservation have led [to] a situation where the Band's water quality is impaired because the fishery Band members rely on is now so high in mercury that members cannot safely feed fish to their children.²⁸

We note that the 404 Application and the 401 Certification do not specifically address the potential water quality impacts of the project to the Band's treaty rights as described above. The 404 Application contains a narrative description of the Project's potential impacts on wildlife, including migration corridors, and, additionally, the Project in the context of the general development of the Iron Range that it notes has been progressing for decades.²⁹ MPCA's response to comments on its 401 Certification include this summary of comments raised by Minnesota tribes and the State's response:

Comment: Comments regarding responsibility of Indian tribes including state coordination efforts, tribal sovereignty, usufructuary rights, effects over waters downstream of the project within reservation boundaries, tribal fisheries, traditional/cultural properties, human health concerns of bioaccumulation to populations, and the effects on tribal rights to lands affected by the project.

MPCA Response: Comment noted. The MPCA's policy is to consult on a government-to-government basis with the eleven Minnesota Indian Tribes when MPCA actions and decisions may directly affect tribal interests. The DNR, USACE and USFS were the co-lead agencies on the PolyMet environmental review, with Bois Forte, Grand Portage, Fond du Lac, Great Lakes Indian Fish & Wildlife Commission, and the 1854 Treaty Authority represented as Tribal Cooperating Agencies. Additionally, the MPCA participated in a state/tribal consultation meeting on March 1, 2018 to hear tribal government concerns with the draft air and water permits and draft 401 Certification. The consultation included representatives from the Minnesota Chippewa Tribe, the Fond Du Lac Band of Lake Superior Chippewa, 1854 Treaty Authority, the Bois Forte Band of Chippewa, the Red Cliff Band of Lake Superior Chippewa, and the Grand Portage Band of Lake Superior Chippewa.

Some of the comments specifically seek protection of downstream tribal waters. The MPCA prepared a fact sheet that was public noticed with the draft 401 Certification, which describes the cross-media analysis used in developing the draft 401 Certification and the MPCA's conclusions and recommendations from that analysis. The fact sheet notes that the project will not result in any measurable changes to water quality downstream of the project in the St. Louis River.³⁰

²⁸ *Id.* at 2-3; Letter from Chairman DuPuis to Administrator Regan and Acting Regional Administrator Newton, April 30, 2021 at 2.

²⁹ PolyMet CWA 404 Permit Application Narrative at 58-64.

³⁰ MPCA, CWA 401 Certification, Attachment B, General 401 Certification comments received and MPCA 401 thematic response," at Water-Air-401-06D, Scope-Tribes.

As noted above, despite the unqualified statement (and reference to no “measurable changes”) in MPCA’s response to tribal comments, in its other certification documents, MPCA has repeatedly stated that it lacks certainty regarding whether its projected expectations regarding the Project’s impacts to water quality will be realized.³¹ Thus we believe that the materials submitted demonstrate uncertainty regarding whether the Project will or will not impact downstream water quality related to the reserved hunting, fishing, and gathering rights of the Chippewa-Ojibwe peoples and what measures, if any, are included to address such potential impacts.³²

D. Are there other water quality concerns in the St. Louis River Watershed?

- The St. Louis River estuary is an “Area of Concern” (AOC). The [U.S.-Canada Great Lakes Water Quality Agreement](#) (Annex 1 of the 2012 Protocol; <https://www.epa.gov/glwqa>) defines AOCs as “geographic areas designated by the Parties where significant impairment of beneficial uses has occurred as a result of human activities at the local level.” An AOC is a location that has experienced environmental degradation (<https://www.epa.gov/great-lakes-aocs>). The St. Louis River AOC encompasses waters under the jurisdiction of Minnesota, Wisconsin and the Band. Identified impairments of beneficial uses include: restrictions on fish and wildlife consumption, degraded fish and wildlife populations, degradation of benthos, restrictions on dredging activities, beach

³¹ See MPCA Fact Sheet for Certification at 10 (“Site conditions at the Mine Site preclude the use of computer modeling to predict the groundwater cone of depression and resultant impacts around the mine pit. . . . The probability of accurately specifying the location, extent, or degree of wetlands impacts from the drawdown effect of the proposed mine pit prior to construction is very low. If the Project is authorized, these impacts would ultimately be identified through various types of monitoring. Impacts would likely range from small changes to hydrology resulting in a change in wetland type to the complete loss of wetland hydrology. It is likely that data from several growing seasons would be necessary to draw definitive conclusions regarding these potential wetland impacts.”); *see also id.* at 14-15 (“The MPCA did conclude that there is sufficient uncertainty that additional monitoring is necessary to confirm the expected outcomes and ensure that actual water quality will conform with the water quality expected by MPCA.”); *id.* at 16 (“Should any impacts attributable to the Project become apparent, adaptive management must be implemented to prevent or reverse impacts. If those methods cannot avoid impacts, minimization and/or replacement will be required in accordance with applicable statutes and regulations.”); 401 Certification at 2-6 describing adaptive management, mitigation, and potential loss of beneficial uses.

³² See, e.g., PolyMet CWA 404 Permit Application narrative at 58-67. We note that concerns raised by Minnesota Treaty tribes during the EIS process regarding potential impact to water quality, cumulative effects, effects of water drawdowns, and impact to wildlife and wild rice resources were categorically addressed in the Final EIS for this project with assurances that the permitting process and/or plans for adaptive management would address impacts; while other impacts required no mitigation. We believe that the analysis presented in the FEIS and attendant documents presents uncertainty regarding whether the Project will impact treaty-based water quality concerns of the Fond du Lac Band and Minnesota Treaty tribes generally. See, e.g., *Final Environmental Impact Statement NorthMet Mining Project and Land Exchange, at 8.0, Major Difference of Opinion* (October 15, 2015). See https://files.dnr.state.mn.us/input/environmentalreview/polymet/feis/012_chapter_8_major_differences_of_opinion.pdf (last visited May 28, 2021).

closings, and loss of fish and wildlife habitat (<https://www.epa.gov/great-lakes-aocs/st-louis-river-aoc>).³³

- The St. Louis River segment at the exterior boundary of the Fond du Lac Reservation is listed for mercury on Minnesota's 2020 CWA section 303(d) impaired waters list. (<https://mywaterway.epa.gov/waterbody-report/MNPCA/MN04010201-517/2020>).
- The St. Louis River is listed on Wisconsin's 2020 CWA section 303(d) list for Fish and Aquatic Life, Fish Consumption, and Public health and welfare due to metals, PAHs, mercury, PCBs, Dioxin, DDT, and Dieldrin. (<https://mywaterway.epa.gov/waterbody-report/WIDNR/WI10005776/2020>).

E. Do the CWA Section 401 application/certification and CWA Section 404 application include conditions adequate to meet the water quality requirements of the neighboring jurisdiction?

Response: The 401 Certification did not address the potential impact of this project on downstream neighboring state water quality. Moreover, the conditions in the 401 Certification consist of monitoring requirements and potential responses to water quality effects if and when they are detected, suggesting that MPCA thought it possible that such effects may occur. There are no conditions reflected in either the 404 Application or 401 Certification that address water quality requirements of the Band or Wisconsin; instead the 404 Application and 401 Certification contain provisions to attempt to remedy effects once they are detected.

Potential water quality effects of the project include mercury mobilization and transport downstream due to removal and storage of peat and overburden/topsoil from wetlands prior to commencement of mining. These water quality effects may include: increases in mercury methylation due to changes in wetland water levels, increases in mercury methylation due to increased loading of sulfates to downstream waters, and impacts to wild rice due to sulfates and

³³ The St. Louis River AOC is one of the 31 U.S.-based Areas of Concern (AOC) across the Great Lakes created under the 1987 Great Lakes Water Quality Agreement. Draining 3,634 square miles of watershed and encompassing a 1,020 square-mile area, the St. Louis River is the second largest U.S.-based AOC. It crosses state boundaries, including both the states of Minnesota and Wisconsin. As the largest tributary to Lake Superior, the St. Louis River is vital to the regional economy and encompasses the Port of Duluth-Superior, an essential port for Great Lakes shipping. The AOC also includes Superfund sites, large boat slips, important fish spawning habitat and Spirit Lake - a site with spiritual significance to the Fond du Lac Tribe. Historical industrial use of the river, before the onset of modern pollution laws, resulted in sediments contaminated with mercury, dioxins, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs) and other toxins.

Pollutants in the AOC are also the result of historical discharges, discharges from wastewater and landfills and other point source discharges within the AOC. Great Lakes AOCs, <https://www.epa.gov/great-lakes-aocs/st-louis-river-aoc> (last visited June 2, 2021).

impacts to aquatic life due to changes in specific conductance. We note that MPCA's Fact Sheet for the 401 Certification specifically states:

The probability of accurately specifying the location, extent, or degree of wetland impacts from the drawdown effect of the proposed mine pit prior to construction is very low. If the Project is authorized, these impacts would ultimately be identified through various types of monitoring. Impacts would likely range from small changes to hydrology resulting in a change in wetland type to the complete loss of wetland hydrology. It is likely that data from several growing seasons would be necessary to draw definitive conclusions regarding these potential wetland impacts.³⁴

The 401 Certification asserts that monitoring will detect impacts such that adaptive management steps may be implemented to address any effects detected before they become impairments. This indicates that there is at least the potential for effects and the need to respond after the fact. Moreover, the 401 Certification contains no information addressing the time likely needed for adaptive management strategies to address impacts if and when identified. As noted above, the 401 Certification does not address the Band's more stringent water quality standards.³⁵ As also noted above, the 401 Certification and 404 Application do not address specifically the treaty reserved rights of the Fond du Lac Band that are protected by the Band's more stringent water quality standards. MPCA asserts that any change to water quality would happen so gradually that there would be time for adaptive management to provide adequate mitigation. MPCA also states that if impacts cannot be avoided, "minimization and/or replacement will be required in accordance with applicable statutes and regulations."³⁶ Both of these statements recognize the potential for downstream water quality effects from the mine project.

F. Does the record conclusively demonstrate that either the distance to neighboring jurisdiction waters or anticipated processes of pollutant/pollution uptake or transformation will prevent pollutants discharged as a result of the project from reaching the waters of the Band and Wisconsin?³⁷

Response: The pollutants of concern for this project are metals and dissolved ions such as sulfate. These pollutants are not subject to appreciable biological degradation in surface water.

³⁴ MPCA Fact Sheet for Certification at 10.

³⁵ See, e.g., MPCA Fact Sheet for Certification at 14: "The Project will not result in any measurable changes to water quality downstream of the Project in the St. Louis River, including downstream locations at Forbes (upper St. Louis River)." The Fact Sheet goes on to note, however, "The MPCA did conclude that there is sufficient uncertainty that additional monitoring is necessary to confirm the expected outcomes and ensure that actual water quality will conform with the water quality expected by the MPCA." *Id.* at 14-15. We note that PolyMet's submittal to EPA, "Appendix A - the Cross-Media Analysis," notes that PolyMet and MPCA did examine the potential for downstream water quality impacts and determined that downstream effects would not be "measurable" beyond an estimated 50 miles downstream from the project. *Id.*, at A9-A15. We note that "measurable effect" and "measurable changes" are not terms recognized by the CWA; thus we cannot conclude that the analyses relied upon by MPCA would preclude the possibility that the project would potentially affect downstream neighboring state water quality requirements.

³⁶ See, e.g., MPCA Fact Sheet for Certification at 16.

Given the hydrologic connection between the site of the project and the waters of the Band and Wisconsin, and the lack of a physical barrier or fate and transport characteristics preventing potential migration, there remains a potential for metals and sulfates released into surface waters as a result of the project to reach the waters of the Band and Wisconsin. As noted above, Minnesota asserts that there will be no “measurable” change in water quality downstream of the project in the St. Louis River. However, MPCA’s prediction of no “measurable change” is merely its assessment of what might happen as a result of project discharges. This is not the same as a determination of “no effect,” especially given the observed water quality impairments downstream (reflected in the listing of the St. Louis River for the parameters described above and in the designation of the St. Louis River AOC, also described above), the cumulative effect of the other loading sources upstream, and the historic water quality impacts in the downstream segments. Based on the record before us, including the Fact Sheet’s statement that “there is sufficient uncertainty that additional monitoring is necessary to confirm the expected outcomes and ensure that actual water quality will conform with the water quality expected by the MPCA,” we cannot conclude that either distance or processes of pollutant/pollution uptake or transformation will prevent pollutants from reaching these downstream neighboring jurisdictions’ waters. Accordingly, we cannot conclude that MPCA’s *prediction* of no measurable effect supports a negative 401(a)(2) determination for Wisconsin’s or the Band’s downstream waters.

G. Is EPA aware of any neighboring jurisdiction's concern over this or a similar project?

Response: The Band has repeatedly expressed concerns regarding water quality and has specifically and repeatedly requested that EPA make a “may affect” determination. The State of Wisconsin has expressed no concern to date.

EPA notes that an additional concern raised by the Band as a neighboring jurisdiction, is the potential impact of the project in light of environmental justice concerns. EPA actively seeks to incorporate the principles of environmental justice at all levels of the Agency. Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. EPA aims to take affirmative steps to incorporate environmental justice considerations into the Agency’s work, including assessing impacts to pollution-burdened, underserved, and Tribal communities affected by agency rulemakings, permitting and enforcement decisions, and policies.³⁷

During consultation, the Band noted a specific connection between its environmental justice concerns and potential water quality impacts of this project:

For years, including throughout the NEPA review process, the Band has raised environmental justice concerns because the Project would allow a company to enjoy

³⁷ EPA, *EPA Administrator Announces Agency Actions to Advance Environmental Justice*, April 7, 2021, <https://www.epa.gov/newsreleases/epa-administrator-announces-agency-actions-advance-environmental-justice> (last visited April 10, 2021).

substantial financial gains while creating a disproportionately high and adverse human health and environmental effects on minority and low-income populations. . . the impacts from the Project will only exacerbate legacy mining impacts that adversely affect the Reservation and the St. Louis watershed today and result in the Band and its members once again being disproportionately affected given their reliance on the waters and related natural resources.³⁸

Further documentation of the Band’s environmental justice concerns are detailed in its letter and other submittals.³⁹

H. For existing facilities, does the facility have current water quality violations that may be made worse by the proposed CWA 404 Permit?

Response: There is no record in Echo because PolyMet is a new facility. The existing Cliffs Erie-LTV Steel Mining Company Tailings Basin proposed for re-use by PolyMet has a legacy of known and unaddressed water quality violations (Cliffs Erie entered into a 2010 Consent Decree with MPCA to address permit exceedances. This agreement provides for study of effluent discharges and methods of treatment).

https://www.lrl.mn.gov/docs/2015/other/150681/PFEISref_2/State%20of%20Minnesota%20v.%20Cliffs%20Erie,%20LLC%202010.pdf

I. If there was a previous review by EPA, did EPA highlight potential water quality impacts during the NEPA or Public Notice review?

Response: EPA provided written comments regarding water quality in response to NEPA documents and 404 Public Notices. Examples include:

³⁸ Letter from Chairman DuPuis to Administrator Regan and Acting Regional Administrator Newton, April 30, 2021, at 5.

³⁹ Letter from Chairman DuPuis to Administrator Regan and Acting Regional Administrator Newton, April 30, 2021, at 5-10; *see also* Tribal Cooperating Agencies Cumulative Effects Analysis NorthMet Mining Project and Land Exchange, September 2013, Exhibit 7 of FDL submission, at 3 (“We have observed that current, historic, and ‘reasonably foreseeable’ mining activities have profoundly and, in many cases permanently, degraded vast areas of forests, wetlands, air and water resources, wildlife habitat, cultural sites and other critical treaty-protected resources within the 1854 Ceded Territory.”); *id.* at 11 (“To date, virtually all required wetland mitigation for mining impacts has been implemented out of the basin, representing a permanent loss of high quality ecological resources and functions.”); Fletcher, A., Christin, Z, Earth Economics, June 2015, The Value of Nature’s Benefits in the St. Louis River Watershed, Exhibit 9 of FDL submission, at 33 (“St. Louis County has the greatest concentration of wild rice lakes in Minnesota, (Minnesota DNR, 2008b) and there are 118 wild rice locations within the St. Louis River watershed alone (1854 Treaty Authority, 2014). Due to development and other activities, these harvest locations are threatened within the watershed and Minnesota. Any factor that negatively affects water quality can also result in the decline of wild rice (Minnesota DNR, 2008b).”); *id.* at 61 (“The St. Louis River watershed provides between \$5.0 billion and \$13.7 billion in benefits to people each year (see Table 11 and Table 12). These numbers are important and significant annual economic benefits. They indicate that investment in natural capital can provide vast and long-term benefits if these assets are conserved or enhanced.”); *id.* at 63 (“We estimate the asset value of the ecosystems of the St. Louis River watershed to be \$273 billion to \$687 billion. This calculation does not include market values for property or built infrastructure in the watershed.”).

- February 18, 2010 EPA comment letter to the Corps, Re: NorthMet Project - Draft Environmental Impact Statement CEQ# 20090387
- August 7, 2013 EPA comment letter to MNDNR, USFS, and the Corps, Re: Preliminary Supplemental Draft Environmental Impact Statement for the NorthMet Mining Project and Land Exchange, Hoyt Lakes, St. Louis County, Minnesota
- March 13, 2014 EPA comment letter to MNDNR, USFS, and the Corps, Re: Supplemental Draft Environmental Impact Statement for the NorthMet Mining Project and Land Exchange, Hoyt Lakes, St. Louis County, Minnesota CEQ No. 20130361
- June 9, 2005 EPA comment letter to the Corps Re: Public Notice No. MVP-1999-5528-JKA
- March 1, 2014 EPA comment letter to the Corps Re: Re: Supplemental Public Notice No. MVP-1999-5528-JKA, Polymet Mining Inc.