

STATE OF MINNESOTA

DEPARTMENT OF NATURAL RESOURCES

In the Matter of the NorthMet Project Permit
to Mine Application Dated December 2017
(A18-1952, A18-1958, A18-1959), and In
the Matter of the Applications for the
NorthMet Mining Project (A18-1953,
A18-1960, A18-1961)

ORDER OF COMMISSIONER

The above-entitled matter came before the undersigned Commissioner of the Department of Natural Resources, pursuant to Relators' Request for Reconsideration submitted by WaterLegacy, Minnesota Center for Environmental Advocacy, Duluth for Clean Water, Center for Biological Diversity, Friends of the Cloquet Valley State Forest, Save Our Sky Blue Waters, Friends of the Boundary Waters Wilderness, and the Fond du Lac Band of Lake Superior Chippewa (collectively "Relators").

Permittee Poly Met Mining, Inc. and PolyMet Mining Corp. submitted a timely response to Relators' Request for Reconsideration. After review and consideration of the parties' submissions, and based upon the files, records, and proceedings in this matter, the Commissioner now enters the following:

ORDER

1. Relators' Request for Reconsideration of Dam Safety Permit 2016-1380 and the Permit to Mine is **denied**.
2. Relators' Request for Reconsideration of the January 30 Order of Commissioner denying their requests to stay permits is **denied**.
3. The attached Memorandum is incorporated as if fully set forth herein.

Dated: August 07, 2019

/s/ Sarah Strommen
SARAH STROMMEN
Commissioner
Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55155

MEMORANDUM

I. INTRODUCTION

Relators' Requests for Reconsideration asks the Minnesota Department of Natural Resources ("DNR") to reconsider its November 1, 2018 decisions issuing Dam Safety Permit 2016-1380 and a nonferrous Permit to Mine to Poly Met Mining, Inc. and PolyMet Mining Corp. ("PolyMet") for the NorthMet copper-nickel mining project ("NorthMet Project").¹ In the alternative, Relators request reconsideration of the Commissioner's January 30, 2019 Order denying Relators' prior motion to stay the permit to mine and dam safety permits associated with the NorthMet Project. Because the Request for Reconsideration seeks reconsideration and / or a stay of permits held by PolyMet, the DNR provided PolyMet with the opportunity to respond to the Request.

The DNR has carefully reviewed Relators' requests and PolyMet's response, as well as the exhibits and affidavits submitted therewith. In addition, the DNR independently considered its Findings of Fact for the Permit to Mine and Dam Safety Permits and supporting technical documentation in light of the information cited by Relators. Additionally, the DNR technical staff prepared a technical memo analyzing the concerns raised by the Relators and reviewed the items identified in the bibliography attached to the technical memo. For the reasons discussed below, the DNR denies both the request to reconsider the permitting decisions and the request to reconsider the denial of Relators' stay request.

II. FACTUAL BACKGROUND AND PROCEDURAL POSTURE²

The environmental review for the NorthMet Project—a copper-nickel mining project near Hoyt Lakes—began in 2004. This multi-year review process—which involved collaboration with other government agencies, including the U.S. Army Corps of Engineers, and the U.S. Forest Service, culminated in the release of a Final Environmental Impact Statement on November 6, 2015. The U.S. Environmental Protection Agency, the Bois Forte Band of Chippewa, the Grand Portage Band of Lake Superior Chippewa, and the Fond du Lac Band of Lake Superior Chippewa were cooperating agencies in that process. On March 3, 2016, the DNR issued a Record of Decision ("ROD") deeming the FEIS to be adequate and in compliance with the Minnesota Environmental Policy Act (MEPA). This decision was not challenged.

Following the issuance of the ROD, PolyMet submitted a Permit to Mine Application and applications for Dam Safety Permits for both a flotation tailings basin and a hydrometallurgical residue facility. The DNR hired nationally recognized dam safety experts to assist it in the analysis of both dam safety permit applications. Each of these dam safety permit applications as

¹ In addition to the formal pleading submitted by Relators, the DNR has received multiple letters from individuals, including Vince Leo, Michelle Beddor, Michael Maleska, and Health Professionals for a Healthy Climate asking that the agency stay or reconsider the permits associated with the NorthMet Project. The instant decision applies with equal force to these less formal requests.

² The factual background of the environmental review and permitting processes for the NorthMet Project is further detailed in the Commissioner's Orders granting the Permit to Mine and Dam Safety Permits to PolyMet, available online at: https://files.dnr.state.mn.us/lands_minerals/northmet/final_permit/02-ptm-findings.pdf and https://files.dnr.state.mn.us/lands_minerals/northmet/dam-safety/04-dam-safety-fof.pdf.

well as the permit to mine application were subsequently revised based on review and feedback provided by the DNR and its expert consultants. Following these revisions and the DNR's development of draft permit conditions, the DNR opened a public review period for the draft Dam Safety Permits in September 2017. The DNR likewise opened a public review period for the draft Permit to Mine and special conditions in January 2018. Relators submitted voluminous comments during this public review process. In these submittals, Relators commented on their concerns regarding aspects of the design and construction of the flotation tailings basin associated with the NorthMet Project, including concerns associated with the use of the upstream construction method for dam construction and prior tailings dam failures. The DNR analyzed these comments and made adjustments to the draft permits as a result.

On November 1, 2018, following years of extensive review and an iterative permitting process, the DNR issued PolyMet a Permit to Mine for the NorthMet Project and Dam Safety Permits for the flotation tailings basin and the hydrometallurgical residue facility. The DNR simultaneously issued extensive Findings of Fact for both the Permit to Mine and the Dam Safety Permits.³ These Findings of Fact addressed the comments made by Relators in the permitting process.

On November 8, 2018, Relators requested that the DNR stay the permits pending a final decision in a certiorari challenge to the DNR's decision denying Relators' petitions seeking supplementation of the FEIS. *See In re Applications for a Supplemental Environmental Impact Statement for the Proposed NorthMet Project*, Case Nos. A18-1312, A18-1524, A18-1608. On December 3, 2018, Relators filed multiple certiorari challenges to the DNR's decision issuing the Permit to Mine and Dam Safety Permits for the NorthMet Project.⁴ That same day, the DNR informed Relators that a stay was more properly made in the context of the permit appeals and denied the November 8th stay request. Relators subsequently renewed their stay requests in December 2018. On January 30, 2019, the DNR denied Relators' request to stay the Permit to Mine and the Dam Safety Permits. On May 28, 2019, the Court affirmed the DNR's decision denying Relators' petitions for preparation of a supplemental environmental impact statement for the NorthMet Project.

III. SUMMARY OF RELATORS' RECONSIDERATION REQUESTS

Relators' reconsideration requests are based primarily on concerns stemming from the failure of Vale's S.A. Córrego do Feijão tailings dam near Brumadinho, Brazil (the "Brumadinho Dam") on January 25, 2019, a failure that resulted in the release of large quantities of mine tailings waste and killed 248 people. An additional twenty-two people are still missing. According to Relators, the Brumadinho Dam failure "calls into question the method by which the PolyMet [tailings basin] dam would be constructed and the methods used to evaluate its

³ The Findings of Fact for the Permit to Mine contain approximately 168 pages of substantive factual findings, and the Findings of Fact for the Dam Safety Permits contain approximately 55 pages of substantive factual findings. As noted above, the findings are publicly available on the DNR's website and included within the administrative record in the currently pending consolidated appeal.

⁴ The Court has consolidated Relators' permit appeals into a single proceeding. *See In the Matter of the NorthMet Project Permit to Mine Application Dated December 2017 and In the Matter of the Applications for Dam Safety Permits 2016-1380 and 2016-1383 for the NorthMet Mining Project*, Case Nos. A18-1952, A18-1953, A18-1958, A18-1959, A18-1960, A18-1961. Merits briefing in these consolidated permit appeals is ongoing.

materials strength characterization and its potential for liquefaction and failure.” Relators’ Request at 1-2.

First, Relators assert that the failure of the Brumadinho Dam raises new stability concerns regarding the upstream construction design of tailings basins, which is the method used in both the Brumadinho Dam and the proposed NorthMet tailings basin. As evidence of the stability concerns with upstream dams, Relators note that, in the wake of the Brumadinho disaster, Brazil has banned the construction of any new upstream dams and mandated that all existing upstream dams be decommissioned by 2021. Relators also cite to reports that Vale has announced its intentions to decommission all of its upstream dams in Brazil.

Second, Relators take issue with the Olson Method, a scientific method that was used to analyze the strength, liquefaction, and stability of the NorthMet tailings dam. Specifically, Relators cast doubt on the validity of the Olson Method by claiming that it was used to predict that the Brumadinho Dam would not be susceptible to liquefaction and failure. Relators also cite to the fact that Dr. Scott Olson, the developer of the Olson Method, has performed consulting services for Vale, the owner and operator of the Brumadinho Dam.

Third, Relators claim that recent inspections of the existing LTV tailings basin at the NorthMet site, where the flotation tailings basin will be located, undermine the DNR’s assumptions regarding tailings drainage and the risk of liquefaction. Specifically, Relators contend that because an October 2018 inspection report noted that dewatering of a cell within the LTV tailings basin had not occurred, tailings remain saturated, calling into question assumptions about tailings drainage and materials strength.

As for Relators’ requests that the DNR reconsider its denial of Relators’ prior requests to stay the permits during the pendency of litigation, Relators’ arguments closely track the arguments set forth in their initial stay requests. First, Relators claim that they would be irreparably harmed by construction activities at the NorthMet site due to the adverse effects on Relators’ members’ recreational and property interests. Second, Relators claim that the DNR would benefit from a stay and the opportunity to review questions about the Olson Method and the tailings basin’s stability. And third, Relators claim that the public interest favors a reassessment of the design of the tailings basin.

IV. SUMMARY OF POLYMET’S RESPONSE

PolyMet submitted a response to Relators’ reconsideration request on March 12, 2019, in which PolyMet made a number of procedural and substantive arguments for why the DNR should deny Relators’ request.

First, PolyMet argues that the Permit to Mine and Dam Safety Permits are irrevocable, and that the DNR therefore has no authority to reconsider its decisions to issue the permits. Second, PolyMet asserts that the DNR lacks jurisdiction to reconsider the permits given that its decisions to issue the permits are subject to a pending appeal. Third, PolyMet claims that even if the DNR did have the authority to reconsider its permitting decisions, the request should be denied because Relators have provided no new information that would have a material effect on dam safety.

Specifically, PolyMet notes that the DNR has already determined that the failure of the NorthMet tailings dam is “an extremely unlikely event.” PolyMet Resp. at 7. PolyMet further notes that the DNR reached this conclusion after more than a decade of review involving both DNR dam safety engineers and third-party independent engineers. And PolyMet notes that, as part of its dam safety review, the DNR considered the following:

- failures of other tailings dams, including the Mount Polley dam in British Columbia and the Samarco dam in Brazil;
- concerns regarding the upstream construction method;
- concerns about liquefaction; and
- concerns about a foundation consisting partially of peats and slimes.

PolyMet also notes that the Brumadinho Dam is materially different than the NorthMet tailings dam and that the NorthMet dam’s design and location make it much more stable than the Brumadinho Dam.

As for the Olson Method, PolyMet claims that it was misapplied to the Brumadinho Dam, and that correct application of the Olson Method would have predicted that the Brumadinho Dam was susceptible to liquefaction and critical failure. Moreover, PolyMet asserts that Dr. Olson did not review the safety analysis for the Brumadinho Dam and did not provide consulting services to Vale until 2016, the same year that the Brumadinho Dam ceased receiving tailings. In support of these assertions, PolyMet submitted a declaration from Dr. Olson.

Finally, PolyMet argues that the DNR should deny Relators’ request to reconsider the denial of Relators’ stay request for the same reasons that the DNR denied the stay in the first instance.

V. ANALYSIS

A. The NorthMet Dam Safety Permits Are Not Irrevocable.

As a threshold matter, the DNR rejects PolyMet’s argument that the Dam Safety Permits are irrevocable and not subject to cancelation by the DNR in an appropriate context. In support of its argument, PolyMet cites to Minn. Stat. § 103G.315, subd. 14, which provides that water and dam safety “permits granted in connection with the mining, production, or beneficiation of copper, copper-nickel, or nickel, are irrevocable for the term of the permits without the consent of the permittee, except for breach or nonperformance of any condition of the permit by the permittee.” Because the NorthMet Project entails the mining of copper, copper-nickel, or nickel, PolyMet argues that this statutory provision renders the Dam Safety Permits Irrevocable.

Section 103G.315 does not support the notion that the NorthMet Permits are irrevocable. To the contrary, when read as a whole, § 103G.315 vests the Commissioner with the authority to revoke or modify a permit when deemed necessary to protect the public interest. Section 103G.315, subd. 11, provides: “Except as otherwise expressly provided by law, a permit issued by the commissioner under this chapter is subject to: (1) cancellation by the commissioner at any

time if necessary to protect the public interests” and subd. 11(2) provides the commissioner with the authority to modify a permit by adding “further conditions on the term of the permit.” In making a decision to modify a permit the commissioner applies the standard set forth in, §103G.315, subd. 3, that provides: “If the commissioner concludes that the plans of the applicant are reasonable, practical, and will adequately protect public safety and promote the public welfare, the commissioner shall grant the permit.” And § 103G.315, subd. 5, that provides: “Otherwise the commissioner shall reject the application or may require modification of the plan as the commissioner finds proper to protect the public interest.” Taken together, these statutory provisions vest the Commissioner with broad authority to revoke or modify permits in furtherance of the statutory purpose of protecting the public interest.

The statutory intent behind § 103G.315 is further reflected in Minnesota Rule 6115.0500, which provides that “[t]he commissioner may cancel or modify a permit at any time if the commissioner deems it necessary for any cause for the protection of the public interests.” Although PolyMet is correct in its assertion that “Rule 6115.0500 cannot override section 103G.315,” DNR does not see a conflict between the statute and the rule. Both the statute and the rule are intended to assure that the public interest is protected both prior to and after issuance of a permit by vesting the Commissioner with the authority to revoke or modify permits.

In addition, § 103G.315, subd. 14, provides that permits are revocable “for breach or nonperformance of any condition of the permit by the permittee.” Similarly, Minn. R. 6115.0500, provides that “[t]he commissioner may cancel or modify a permit at any time if the commissioner deems it necessary for any cause for the protection of the public interests.” And the Conditions for both Dam Safety Permits provide: “This permit may be terminated by the Commissioner of Natural Resources at any time deemed necessary for the conservation of water resources of the state, or in the interest of public health and welfare, or for violation of any of the conditions or applicable laws, unless otherwise provided in the permit.” Thus, a finding that the Dam Safety Permits are universally irrevocable would conflict with state law and violate these Conditions.

Finally, PolyMet’s arguments that the DNR is statutorily barred from reconsidering dam safety permits issued in conjunction with metallic mining operations wholly ignores the provisions of Minnesota Statutes § 103G.297, subd. 8, which govern the modification or cancellation of permits “for the diversion, drainage, control, or use of waters of the state” for certain metallic mineral mining projects. *See* Minn. Stat. § 103G.297, subd. 1. Under § 103G.297, subd. 8, the DNR has statutory authority to modify or cancel permits associated with metallic mining activities notwithstanding the language of § 103G.315, subd. 14. *Cf.* Minn. R. 6115.0500 (dam safety permits are subject to § 103G.297).

B. Relators Have Failed to Raise Material New Information Bearing on the Permitting Decisions.

While the DNR rejects PolyMet’s contention that the DNR lacks jurisdiction to reconsider the challenged permits, reconsideration is not warranted as Relators’ contentions do not provide any new information that would materially affect the DNR’s prior analysis and decision. During its thorough dam safety review for the NorthMet Project, and as reflected in its Findings of Fact for the Permit to Mine and Dam Safety Permits, the DNR extensively

considered the risks associated with the tailings dam, including concerns, raised by Relators and others, regarding the upstream construction method and failures at other tailings dams. As explained in the Findings of Fact for the Permit to Mine and Dam Safety Permits, the DNR concluded that use of the upstream construction method for the NorthMet site is permissible under applicable law and that other dam failures are of limited informational value due to their site-specific differences.

Upon learning of the January 2019 Brumadinho Dam failure, the DNR commenced an analysis of the implication of the failure on permitted Minnesota dams. The DNR formalized its analysis related to the NorthMet Project upon receipt of the Relators' Request for Reconsideration. After analyzing the recent failure of the Brumadinho Dam, DNR technical staff determined that this incident raises no new material issues for the Dam Safety Permit 2016-1380 and the Permit To Mine for which Relators request reconsideration. *See* Attachment A (DNR Technical Memo re Relators' Request for Reconsideration). DNR's Dam Safety Technical Team has determined that the Brumadinho Dam differs from the NorthMet tailings dam in a number of material ways, thereby limiting the comparability of the two dams.

First, the Brumadinho Dam was much steeper than the NorthMet tailings dam.⁵ Because the NorthMet dam will be flatter, it is inherently more stable.

Second, the Brumadinho Dam was located on the side of a mountain as a valley dam. The NorthMet tailings dam, on the other hand, will be sited on relatively flat ground. Building a dam on flat ground is more stable than building a dam on a sloped surface.

Third, the Brumadinho Dam has a significant watershed contributing flows to the tailings basin. The waters from the upstream areas of the watershed were captured and removed from the area via a pipeline. There were reports that this pipeline breached just upslope from the Brumadinho basin, resulting in a large inflow of water into the basin for several weeks prior to dam failure. Reports indicated that the toe drains near the base of the dam were running full.

Fourth the Brumadinho Dam was located in an area of greater seismic activity than the NorthMet tailings dam.

Finally, the Brumadinho Dam was located near active mining operations, including blasting, which threatened the stability of the dam. There was reported blasting at the Brumadinho mine site the morning of dam failure. The NorthMet tailings dam, on the other hand, will be located approximately 8 miles from the mine site.

The DNR also concludes that the Brumadinho Dam failure does not call into question the validity of the Olson Method. As Dr. Olson explained in his declaration, the Olson Method was improperly applied to the Brumadinho Dam by Pirete and Gomes. Had the Olson Method been properly applied, it would have predicted that the dam was susceptible to liquefaction. This conclusion is further supported by experts quoted in an article that Relators submitted as an exhibit to their requests for reconsideration. Likewise, the fact that Dr. Olson has provided

⁵ The Brumadinho Dam had a steep slopes ranging between 2H:1V (2 units horizontal to 1 unit vertical) and 3H:1V, with a cumulative slope of approximately 4:1 including setbacks, whereas the NorthMet tailings dam will have flatter 4.5:1 slopes with a cumulative slope of 7H:1V including an intermediate setback.

consulting services to Vale since 2016 has no bearing on the validity of the Olson Method, because Dr. Olson did not review the stability analysis for the Brumadinho Dam.

In addition, the DNR's conclusion that the NorthMet tailings dam is sufficiently safe is not solely dependent on the work of Dr. Olson. Dr. Olson was hired by PolyMet, not the DNR. And while Dr. Olson submitted materials to the DNR on behalf of PolyMet, all of this information was independently reviewed by the DNR's own engineers and independent consultants. Moreover, the DNR applied conservative assumptions regarding liquefaction in its dam safety analysis. For example, the DNR operated under the assumption that all contractive materials will liquefy. Even under that scenario, the DNR concluded that critical failure of the tailings dam is very unlikely.

Finally, recent inspections do not undermine PolyMet's assumptions regarding the drained and undrained strength analyses. Whether cells were drained or not has no bearing on the undrained strength analysis of a dam. Thus, while it is true that at least one cell of the LTV tailings basin did not dewater as the LTV Steel Mining Company (LTVSMC) had expected, all of the material properties in the basin were obtained for the existing conditions and used in the undrained strength analysis undertaken for the Project. Therefore, the current models account for these strengths.

C. Relators Have Failed to Raise Material New Information Regarding Their Stay Request.

Relators have provided no new information that materially bears on the DNR's denial of Relators' request to stay the permits. Relators largely set forth the same arguments they made in their initial stay request. For the reasons set forth in its January 30, 2019 denial of Relators' stay request, which the DNR hereby incorporates by reference, the DNR deems a stay to be unwarranted. To the extent Relators' request for reconsideration of the stay request incorporates information regarding the Brumadinho Dam failure, such information fails to provide a basis for reconsideration for the reasons articulated in Section IV.C. above. As a result, the DNR denies Relators' request to reconsider the denial of Relators' prior stay request.

D. The DNR Lacks Jurisdiction to Reconsider the NorthMet Permits.

Notwithstanding the forgoing, the DNR notes that it currently lacks jurisdiction to reconsider the instant NorthMet permitting decisions, given that those decisions are subject to a pending appeal. Minnesota law is clear that an agency loses jurisdiction to reconsider a decision once that decision is appealed. *In re N. Metro Harness, Inc.*, 711 N.W.2d 129, 135-36 (Minn. Ct. App. 2006); *Indep. Sch. Dist. No. 709 v. Bonney*, 705 N.W.2d 209, 215 (Minn. Ct. App. 2005) (explaining that agency "did not have jurisdiction to reconsider its decision" where the court "granted relator's petition for writ of certiorari" before the relator requested reconsideration); *see also* Minn. R. Civ. App. P. 108.01, subd. 2 ("Except in appeals under Rule 103.03(b), the filing of a timely and proper appeal suspends the trial court's authority to make any order that affects the order or judgment appealed from, although the trial court retains jurisdiction as to matters independent of, supplemental to, or collateral to the order or judgment

appealed from.”)⁶; Minn. R. Civ. App. P. 101.02, subd. 4 (defining “trial court” under the Rules of Civil Appellate Procedure to include the “agency whose decision is sought to be reviewed”).

Here, the DNR lost jurisdiction to reconsider the Permit to Mine and Dam Safety Permits on December 3, 2018, when Relators petitioned for certiorari review of those permitting decisions in the Minnesota Court of Appeals. Because the DNR lacks jurisdiction to reconsider its issuance of the Permit to Mine and Dam Safety Permits, the DNR denies the instant request for reconsideration.

VI. Conclusion

The Relators have failed to raise any new issues that materially affect the DNR’s decisions to issue the Permit to Mine and Dam Safety Permit 2016-1380. As a result, the DNR denies Relators’ requests for the DNR to reconsider its permitting decisions. Relators have likewise raised no new issues that materially affect the DNR’s decision to deny Relators’ prior request for a stay of the permits. As a result, the DNR denies Relators’ request for the DNR to reconsider its stay denial. Finally, even were there merit in the Relator’s claims, the DNR currently lacks jurisdiction to reconsider its issuance of the NorthMet permits given that those permitting decisions are currently on appeal to the Minnesota Court of Appeals.

⁶ The arguments made in the Requests for Reconsideration are bound up with the merits of the ongoing consolidated certiorari appeal of the DNR’s decision issuing the challenged permits, and not merely collateral to the challenged decision. Indeed, Relators’ contentions regarding the implications of the Brumadinho Dam failure and the Olson Method were included within their opening briefs to the Court. *See, e.g.*, Brief and Addendum of Relator WaterLegacy at 12-13, 33-34, Brief and Addendum of Relators MCEA, et al. at 52-53, Brief and Addendum of Relator Fond du Lac Band of Lake Superior Chippewa at 28-29.