

May 9, 2018

Governor Mark Dayton  
130 State Capitol  
75 Rev. Dr. Martin Luther King Jr. Boulevard  
St. Paul, MN 55155

RE: Implementation of Existing Sulfate Water Quality Standard in Wild Rice Waters

Dear Governor Dayton,

WaterLegacy greatly appreciates your veto of HF 3280. Thank you on behalf of our members and all the citizens who have spoken out with passion to protect wild rice, clean water and the developing brains of Minnesota fetuses, infants and children.

Your veto letter and your letter to conference committee members on May 3, 2018 raised questions about implementation of the existing sulfate standard. We and other Minnesota environmental groups had a chance to discuss implementation issue in a meeting with Commissioner John Linc Stine and members of your staff yesterday. It seems to us that there are real opportunities to make progress, whether or not state legislators manage to reach an agreement this session.

WaterLegacy believes that the first principal of implementation must be to protect water quality from sulfate pollution. Workable implementation strategies will vary based on the type of discharge facility, whether it is a new or existing source of sulfate pollution, and whether it is a privately owned or a municipal wastewater facility.

### **1) New Sulfate Pollution Sources – Proposed Copper-Nickel Mining**

Copper-nickel mining projects proposed by foreign companies to discharge sulfates to the Lake Superior, Boundary Waters (Rainy River), and Mississippi River watersheds are a potential new source of sulfate pollution of great concern. WaterLegacy believes that strict conformity with the existing 10 milligrams per liter (mg/L) sulfate standard is required for new sulfate pollution sources under the Clean Water Act, according to promises made by the copper-nickel mining industry, in accordance with environmental review, and under analysis performed by the Minnesota Pollution Control Agency (MPCA). It seemed from our discussion yesterday that Commissioner Stine shares this perspective.

Throughout environmental review, the PolyMet Mining Corp. (PolyMet) promised to treat its wastewater by reverse osmosis to comply with Minnesota's existing sulfate standard both during operations and in long-term closure.<sup>1</sup> The MPCA, in proposing a draft wastewater permit for the PolyMet copper-nickel mine project, concluded that a combination of nanofiltration and reverse osmosis was feasible and effective, and would be required to protect water quality:

One of the outcomes of the modeling was a determination of the optimal proportion of membrane types (i.e., reverse osmosis (RO) or nanofiltration (NF)) that would result in the treated effluent meeting the 10 mg/L sulfate treatment target.<sup>2</sup>

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<sup>1</sup> MDNR et al., Final Environmental Impact Statement (FEIS), PolyMet NorthMet Mining Project and Land Exchange (Nov. 2015), see e.g. p. 3-17, "Water treatment using reverse osmosis as long as required in accordance with permits until if, and when non-mechanical treatment is proven effective for meeting water quality requirements."

<sup>2</sup> MPCA, National Pollutant Discharge Elimination System /State Disposal System (NPDES/SDS) Permit Program Fact Sheet, MN0071013 PolyMet NorthMet Project (Jan. 2018), p. 32.

The selected design utilizes the proven technologies of mechanical filtration followed by reverse osmosis and nanofiltration membrane filtration and has been demonstrated to be effective in project-specific pilot testing.<sup>3</sup>

Future proposed copper-nickel mines, such as the Twin Metals proposal affecting the Boundary Waters watershed, must also be required to treat sulfate pollution with modern reverse osmosis treatment. Whether in legislation or in communications by your Administration, we would request a clear statement that any new source of sulfate discharge to wild rice waters for which no final permit was issued prior to May 1, 2018 will be required to comply in full with Minnesota's existing 10 mg/L wild rice sulfate standard.

## **2) Existing Sulfate Pollution Sources – Taconite Mining Facilities**

Although there are other sources of sulfate pollution, existing taconite mining facilities upstream of wild rice waters have been identified by MPCA and by tribal communities as a particularly salient source of pollution that degrades wild rice and impairs water for fish and benthic macroinvertebrates. Data also suggests that these existing sulfate sources have contributed to impairments due to elevated mercury in fish tissue in Northeastern Minnesota lakes and streams.

Control of existing sources of sulfate pollution from private industry is technologically feasible. In U.S. Steel's recent application for a variance from the sulfate standard for the Minntac tailings facility, the company acknowledged the technological feasibility of compliance.<sup>4</sup> What U.S. Steel argued is that implementation should not be required, since its profits would be affected.<sup>5</sup>

To date, existing dischargers, such as taconite mining facilities, have not been required to demonstrate that their revenues could not support nanofiltration and reverse osmosis technologies. Neither have any loan programs been implemented through the IRRRB or other funding sources to address financial impediments to investing in the technology needed to comply with water quality standards.

We strongly believe that no categorical variance for industry would protect either water quality or jobs. We are also unaware of any authority under the Clean Water Act that would support such a categorical variance for industrial dischargers, particularly for a conventional pollutant governed by a water quality standard enacted in 1973.<sup>6</sup>

However, a program requiring compliance with the 10 mg/L sulfate standard and maintenance of taconite mining jobs over a period of years in order to qualify for a forgivable loan to build a modern treatment plant could accomplish both critical objectives. Whatever happens at the Legislature this year, we would ask that your Administration develop a framework that would both require and support the existing mining industry's compliance with Minnesota's 10 mg/L standard for sulfate discharge to wild rice waters.

## **3) Existing Sulfate Pollution Sources – Municipal Wastewater Treatment Facilities**

WaterLegacy believes that municipal wastewater treatment facilities may require financial assistance or relief to comply with Minnesota's 10 mg/L sulfate standard in wild rice waters. However, at this point little is known about the real problems or their potential solution for this sector. This issue has only been discussed through highly charged political rhetoric, not careful

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<sup>3</sup> *Id.*, p. 34

<sup>4</sup> U.S. Steel, Application for a Variance from Water Quality Standards for Groundwater, DRAFT NPDES/SDS Permit No. MN0057207 (Dec. 2016), *see e.g.* p. 10, "A variance on the grounds that compliance is not technologically feasible is not being sought."

<sup>5</sup> *Id.*, p. 9.

<sup>6</sup> *See* 33 U.S.C. §1311(b).

factual assessment. Until the scope and nature of sulfate standard compliance problems facing municipalities is analyzed, any solution chosen is apt to be either ineffectual or unwise.

The MPCA has begun the needed analysis, but it is not complete. The Agency has identified approximately 70 municipal dischargers within 25 miles of a wild rice water, but has not determined which of these facilities would need to control existing sulfate discharge to comply with the 10 mg/L sulfate standard.<sup>7</sup> In order to know whether a facility would need to control sulfate discharge, at a minimum the amount, concentration, and location of the discharge; the volume of water into which this discharge is being released; and the distance to the downstream designated use must be analyzed. At this point, we don't know how many municipal facilities, if any, would have difficulties complying with Minnesota's existing sulfate standard for wild rice waters.

We also have no data on alternatives for compliance, which might include rerouting of discharge or requiring sulfate pretreatment of wastewater by industrial users. The MPCA is conducting a study to analyze alternatives for sulfate treatment at municipal facilities.<sup>8</sup> Additional direction or funding may be needed now to provide an analysis sufficient for the Agency to work with municipal facilities to identify facility-specific concerns, potential solutions and costs.<sup>9</sup>

WaterLegacy believes that supporting both the existing MPCA study and a more facility-specific analysis for municipal wastewater facilities would be an excellent start to determine how best to protect water quality and avoid unreasonable costs to municipalities. Rather than allow lobbyists' assumptions to drive policy, the Administration should conduct the factual analysis to determine the nature and scope of compliance problems so that an appropriate solution can be implemented.

### **Conclusion**

WaterLegacy and the thousands of Minnesota citizens who have participated in the process of evaluating the existing sulfate standard over the past seven years share the optimism of other stakeholders that we can protect water resources and existing jobs that support families and sustain communities. We believe that these important goals can be furthered through Administrative leadership working with Minnesota environmental advocates, affected tribes, labor, scientists, downstream communities, and businesses, even if the Legislature does not act this session.

Once again, we thank you for your veto of HF3280. Moving forward, we hope we can count on you and your Administration to preserve and implement Minnesota's standard limiting sulfate pollution in wild rice waters to protect water quality, human health and the public trust.

Respectfully yours,



Paula G. Maccabee  
WaterLegacy Advocacy Director/Counsel

cc: Commissioner John Linc Stine

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<sup>7</sup> MPCA, Statement of Need and Reasonableness Amendment of the sulfate water quality standard applicable to wild rice and identification of wild rice waters, Minn. R. chapters 7050 and 7053 (July 2017), pp. 137, 147

<sup>8</sup> *Id.*, p. 166.

<sup>9</sup> *Id.*