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Erik Smith (erik.smith@state.mn.us)
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road N
Saint Paul, MN 55155

RE: Application of U.S. Steel Minntac for a Variance to Water Quality Standards
Industrial Wastewater Permitting NPDES/SDS Permit MN0057207

Dear Mr. Smith,

The comments below are submitted on behalf of WaterLegacy, a Minnesota non-profit organization founded in 2009 to protect Minnesota's water resources and the communities that rely on them. WaterLegacy opposes U.S. Steel's requests for variances from Minnesota groundwater and surface water quality standards for the Minntac tailings basin.

U.S. Steel has requested the following variances:

- Minnesota groundwater standards for sulfate and total dissolved solids (TSD) would not be applied for 20 years. U.S. Steel would be "in compliance" with its permit obligations if the company monitored for these groundwater pollutants.
- Minnesota surface water quality standards for sulfate, specific conductance, total dissolved solids (TDS), hardness and bicarbonates would not be applied at any time to SD001 discharge. U.S. Steel would maintain existing concentrations - which exceed water quality standards - until a seepage collection and return system (SCRS) was operational on the Dark River (west) side of the tailings basin, no date for which is set. After the SCRS was in place, no surface water quality standards would be applied to SD001 discharge.
- Minnesota surface water quality standards for sulfate, specific conductance, total dissolved solids (TDS), hardness and bicarbonates would not be applied at any time during the next 20 years at any surface water monitoring location impacted by tailings basin discharge and seepage. U.S. Steel would be "in compliance" with its permit obligations if the company monitored for these surface water pollutants.

In effect, U.S. Steel has proposed that the State of Minnesota completely abdicate its responsibilities under both State law and the federal Clean Water Act to regulate Minntac tailings basin pollution that impacts groundwater, surface water, aquatic life, wild rice and other wildlife uses.

None of U.S. Steel's claims of entitlement to variances from Minnesota water quality standards meet the minimum requirements of applicable law.

- 1. U.S. Steel's request for a variance from Minnesota groundwater standards at the Minntac Tailings Basin must be rejected as a matter of law pursuant to Minnesota Rules.**
- 2. U.S. Steel's request for a variance from Minnesota water quality standards at surface discharge SD001 of the Minntac Tailings Basin must be rejected as a matter of law pursuant to Chapter 7050 of Minnesota Rules and the Clean Water Act.**
- 3. Minntac Tailings Basin discharges to groundwater are directly hydrologically connected to surface water and are point source pollution subject to the Clean Water Act and Minnesota Chapter 7050 variance rules.**
- 4. U.S. Steel's sweeping request for a variance from Minnesota surface water quality standards at surface water locations impacted by Minntac Tailings Basin pollution must be rejected as a matter of law pursuant to Chapter 7050 of Minnesota Rules and the Clean Water Act.**
- 5. The Minnesota Pollution Control Agency (MPCA) is obligated under Minnesota law and the Clean Water Act to require U.S. Steel to control pollution from the Minntac Tailings Basin in compliance with Minnesota numeric and narrative water quality standards.**

There are no material facts in dispute, and U.S. Steel has asserted no basis for a contested case. The MPCA must deny U.S. Steel's proposed variances as a matter of law. After more than a quarter century of violations, the MPCA must require that water pollution be controlled at U.S. Steel's Minntac tailings basin to comply with Minnesota law and the federal Clean Water Act.

- 1. U.S. Steel's request for a variance from Minnesota groundwater standards at the Minntac Tailings Basin must be rejected as a matter of law pursuant to Minnesota Rules.**

U.S. Steel seeks a variance from Minnesota groundwater standards pursuant to Chapter 7000 of Minnesota Rules, which apply unless variances are otherwise specified in statute or rule, on the grounds that compliance with groundwater standards is "economically infeasible."¹ Chapter 7000 states two grounds for a variance and the requirements for each. If an applicant seeks a variance "primarily on grounds of economic burden," its written application for a variance must contain

financial statements prepared or approved by a certified public accountant, or other person acceptable to the agency, which shall fairly set forth the status of the business, plant, system, or facility for each of the three financial years immediately preceding the

¹ Application for a Variance from Water Quality Standards for Groundwater DRAFT NPDES/SDS Permit No. MN0057207, Prepared for U. S. Steel Minntac, Dec. 2016 ("Groundwater Variance App."), see p. 1 for U.S. Steel's claim. However, U.S. Steel has also stated it does not seek a variance from compliance with Minnesota groundwater standards "primarily on the grounds of economic burden."

year of the application, and an analysis of the effect of such financial status if the variance is not granted.²

U.S. Steel's application for variance doesn't provide the required documents analyzing the effects on its financial status if the variance from groundwater standards is not granted.³

The second basis for variance provided in Minnesota Rules 7000.7000 is technological feasibility, which requires a report from a registered professional engineer "stating fully the reasons why compliance is not technologically feasible."⁴ U.S. Steel does not claim technological infeasibility in seeking a variance from Minnesota groundwater standards.⁵

Minnesota Rules Chapter 7000 provides no grounds for U.S. Steel's requested variance from Minnesota groundwater standards.

U.S. Steel also requests a variance from groundwater standards based on Minnesota Rules Chapter 7060, which allows the MPCA to grant a variance if it finds

. . . that by reason of exceptional circumstances the strict enforcement of any provision of these standards would cause undue hardship, that disposal of the sewage, industrial waste, or other waste is necessary for the public health, safety, or welfare, or that strict conformity with the standards would be unreasonable, impractical, or not feasible under the circumstances, the agency in its discretion may permit a variance therefrom upon such conditions as it may prescribe for prevention, control, or abatement of pollution in harmony with the general purpose of these standards and the intent of the applicable state and federal laws.
Minn. R. 7060.0900.

Although US Steel has claimed that its profits would be affected,⁶ the company has made no showing of "undue hardship." As noted above, the company has explicitly said that it does not claim that compliance is not feasible.⁷

Several of U.S. Steel's arguments that its compliance with Minnesota groundwater standards would be "unreasonable" are, in effect arguments that groundwater standards need not be enforced. These arguments are inconsistent with the purpose of Chapter 7060, which is "to preserve and protect the underground waters of the state by preventing any new pollution and abating existing pollution."⁸

The MPCA rejected U.S. Steel's argument that the groundwater standards derived from U. S. Environmental Protection Agency (EPA) secondary drinking water quality standards need not be enforced⁹ as inconsistent with Minnesota Rules. The Commissioner determined, "The drinking water quality standards in question have been adopted as water quality standards by Minnesota in

² Minn. R. 7000.7000, Subp. 2, Item E.

³ U.S. Steel only submittals were generic Annual Reports and 10-K forms from 2013-2015, a paragraph about the costs of water quality treatment and a sentence, at p. 9 of its Groundwater Variance Application, that its "profit test showed a significant reduction in profits when the water treatment costs are factored in."

⁴ Minn. R. 7000.7000, Subp. 2, Item F.

⁵ Groundwater Variance App., p. 10.

⁶ *Id.*, p. 9.

⁷ *Id.*, p. 10.

⁸ Minn. R. 7060.0100.

⁹ *See* Groundwater Variance App., p. 17.

Minn. R. 7050.0221, subp. 1(B). As a result, the standards receive the same treatment as all other water quality standards and are enforceable under state law.”¹⁰

U.S. Steel further claimed that natural background concentrations of elevated iron and manganese should allow U.S. Steel to exceed Minnesota groundwater standards for total dissolved solids and sulfate.¹¹ U.S. Steel’s assertion conflicts with Chapter 2060, which states, “The ready availability nearly statewide of underground water constitutes a natural resource of immeasurable value which *must be protected as nearly as possible in its natural condition.*”¹² The Commissioner also explained that under Minnesota Rule 7060.0400, natural groundwater can be “suitable” for drinking water use if it can be used after purification or treatment prescribed by the Department of Health. The MPCA found, “naturally occurring iron and manganese are more easily treatable with an inexpensive, in-situ device (e.g., water softeners or sand filters) than sulfate and TDS. As a result, the waters in their natural conditions (elevated iron and manganese) could still be used for drinking water.”¹³

U.S. Steel’s next argument, that ownership of property prevents use of drinking water and the application of water quality standards¹⁴ is inconsistent with the intent of applicable Minnesota law. “It is the policy of the agency to consider the actual or potential use of the underground waters for potable water supply as constituting the highest priority use and as such to provide maximum protection to all underground waters.” Minn. R. 7060.0200. The MPCA noted that groundwater migrates over time and property ownership boundaries are easily changed, which could result in access to affected groundwater in the future. Minn. R. 7060.0400 expressly states that groundwater should be classified “now or in the future” to protect drinking water, among other purposes.¹⁵

Finally, U.S. Steel claims that sulfate and total dissolved salts should only be monitored - rather than limited - for the next 20 years because groundwater standards compliance at the property boundary is impractical.¹⁶ But, this claim is undermined by the company’s own statements that Tetra Tech has determined the treatment technologies and costs needed to treat process water sulfate to 350 milligrams per liter (mg/L) within 5 years “in order to meet the groundwater sulfate standard of 250 mg/L at the property boundary.”¹⁷ U.S. Steel has admitted that compliance is attainable, but has failed to demonstrate “undue hardship” as required by rule.¹⁸

U.S. Steel’s prior broken promises undermine its claims that further delay is justified. On June 9, 2011, U.S. Steel agreed with the MPCA that the company would perform the modeling to determine “what concentrations are necessary in the tailings basin to ensure compliance with the groundwater standard at the current property boundary” by January 5, 2012.¹⁹ U.S. Steel also agreed that if it failed to do so, the MPCA would set the tailings basin concentrations needed to

¹⁰ MPCA, Fact Sheet Public Notice of intent to deny the Application of U.S. Steel Minntac for a Variance to Water Quality Standards, NPDES/SDS Permit MN0057207, Dec. 2017 (“MPCA Variance Fact Sheet”), p. 4.

¹¹ See Groundwater Variance App., pp. 16, 19.

¹² Minn. R. 7060.0200 (emphasis added).

¹³ MPCA Variance Fact Sheet, p. 4.

¹⁴ See Groundwater Variance App., p. 19.

¹⁵ MPCA Variance Fact Sheet, p. 4.

¹⁶ Groundwater Variance App., p. 18.

¹⁷ *Id.*

¹⁸ Minn. R. 7060.0900.

¹⁹ U.S. Steel and MPCA, Schedule of Compliance Multi-Media Pollutant Reduction, June 9, 2011, p. 24, Part 7, ¶ mmm, attached as Exhibit 1.

comply with groundwater standards and could enforce any non-compliance detected through monitoring.²⁰

Seven years after deadlines in its own written agreement, after promising and failing to deliver on either a Process Water Treatment System to lower tailings basin sulfate or a phased installation of dry controls to reduce tailings basin sulfate,²¹ U.S. Steel has no basis to claim that compliance with groundwater standards is unreasonable. The only unreasonable circumstances here are U.S. Steel's violations of water quality standards over a period of decades and its continual default on its own promises to remedy these violations.

U.S. Steel's request for a variance from groundwater standards must be denied as a matter of law.

2. U.S. Steel's request for a variance from Minnesota water quality standards at surface discharge SD001 of the Minntac Tailings Basin must be rejected as a matter of law pursuant to Chapter 7050 of Minnesota Rules and the Clean Water Act.

U.S. Steel has requested variances at surface discharge station SD001 so that interim limits for sulfate and specific conductivity would be no more stringent than maintaining existing concentrations; interim limits for total dissolved salts, hardness and bicarbonates would be removed; and no final limits would apply for any of these parameters.²²

Although U.S. Steel claims that it is entitled to a variance from Minnesota water quality standards for surface water pursuant to Minnesota Rules, Part 7000.7000,²³ variances from surface water quality standards must comply with Minnesota Rule 7050.0190, the variance rule applicable under the Clean Water Act.²⁴

Under both Minnesota Rule 7050.0190 and corresponding federal regulations an applicant must cross two hurdles in order to be eligible for a variance.

First, to be eligible for a Minnesota surface water quality standards variance, a permittee "must demonstrate to the agency that . . . the variance would not remove an existing use."²⁵ Second, to be eligible even for a preliminary determination by the MPCA to grant a variance, the permittee must "demonstrate to the agency that *attaining the water quality standard* is not feasible" because:

- (1) naturally occurring pollutant concentrations prevent attainment of the water quality standard;
- (2) natural, ephemeral, intermittent, or low-flow conditions or water levels *prevent*

²⁰ *Id.*, p. 25, Part 7, ¶ 000 and p. 32, Part 23.

²¹ MPCA, Fact Sheet for NPDES/SDS Permit Reissuance MN0057207 U.S. Steel Corp. Minntac Tailings Basin Area, Nov. 2016 ("MPCA Minntac Permit Fact Sheet") p. 6, excerpt attached as Exhibit 2.

²² Application for a Variance from Water Quality Standards for Groundwater DRAFT NPDES/SDS Permit No. MN0057207 Prepared for U. S. Steel Minntac, Dec. 2016 ("SD001 Variance App."), pp. 1, 14 at Table 2-1, explained at p. 34, "The proposed alternate interim permit limits (as presented in Table 2-1) are the highest attainable condition for the SD001 discharge identified at this time. This highest attainable condition is based on the existing water quality of the discharge at SD001."

²³ SD001 Variance App., p. 2.

²⁴ See 40 C.F.R. §131.14 setting requirements for state water quality standards variances.

²⁵ Minn. R. 7050.0190, Subp. 1, Item C. See also 40 C.F.R. §131.10(g) and (h)(1) and 40 C.F.R. §131.3.

attainment of water quality standards, unless these conditions may be compensated for by discharging sufficient volume of effluent to enable water quality standards to be met without violating the water conservation requirements of Minnesota Statutes, chapter 103G;

(3) human-caused conditions or sources of pollution *prevent attainment of water quality standards*, and the conditions or sources cannot be remedied or would cause more environmental damage to correct than to leave in place;

(4) dams, diversions, or other types of hydrologic modifications preclude attainment of water quality standards, and it is not feasible to restore the water body to its original condition or to operate the modification in a way that would result in attainment of the water quality standard;

(5) physical conditions related to the natural features of the water body, such as the lack of a proper substrate cover, flow, depth, pools, riffles, and the like, unrelated to chemical water quality, preclude attainment of aquatic life protection uses; or

(6) controls more stringent than those required under sections 301(b) and 306 of the Clean Water Act, United States Code, title 33, sections 1311(b) and 1316, would result in substantial and widespread negative economic and social impacts.²⁶

U.S. Steel has not met the requirements for a variance from water quality standards under Minnesota Rules Chapter 7050 or the Clean Water Act.

First, U.S. Steel has not demonstrated that the proposed variances would not remove existing uses. Under the Clean Water Act, “existing uses” means “those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.”²⁷

Under Minnesota law, use of waters for the production of wild rice is a wildlife use, protected under the Clean Water Act.²⁸ U.S. Steel has not demonstrated that its proposed variance from Class 4A sulfate standards would not remove existing wild rice uses of Dark Lake, a receiving water downstream of SD001. The University of Minnesota field survey done as part of the MPCA’s wild rice sulfate standards study shows that Dark Lake is a wild rice water. Dark Lake was surveyed on four occasions in 2013, and wild rice was present on each occasion. The greatest density in these relatively sparse wild rice beds was found on September 5, 2013, when Dark Lake had 12.8% wild rice cover and 11.8 stems per square meter.²⁹ A 2012 Minnesota Department of Natural Resources (MDNR) survey conducted for the Minnesota Biological Survey also identified the presence of wild rice in the northeast bay of Dark Lake.³⁰ Photographs taken by a University of Wisconsin student in 2016 also document the presence of small stands of wild rice in Dark Lake.³¹

²⁶ Minn. R. 7050.0190, Subp. 4, Item A (emphasis added). *See also* 40 C.F.R. §131.10(g).

²⁷ 40 C.F.R. §131.3. This definition applies to Minnesota’s variance rule Minn. R. 7050.0190; *see* Minn. R. 7050.0210, Subp. 6c; Minn. R. 7001.1080, Subp. 2, Item B (2).

²⁸ Minn. R. 7050.0224, Subp. 1. Wildlife, aquatic life, and recreation uses are protected under Section 101(a)(2) of the Clean Water Act, 33 U.S.C. §1251(a)(2).

²⁹ U of M Field Survey Data for MPCA Wild Rice Sulfate Study, Feb. 6, 2015, Exhibit 3.

³⁰ MPCA, Gerald Blaha emails to MPCA, Stephanie Handeland and Darren Vogt, 1854 Treaty Authority regarding Dark Lake wild rice, June 20, 2013- September 6, 2013, p. 2, provided in Exhibit 4.

³¹ Dark Lake Photos by Scott Cardiff, University of Wisconsin, on July 31, 2016, sent to GLIFWC on August 8, 2016, provided in Exhibit 5.

Recent sampling found an average concentration of 175 mg/L of sulfate in Dark Lake,³² more than seventeen times the Minnesota wild rice sulfate standard. U.S. Steel hasn't demonstrated that wild rice in Dark Lake was no more abundant at any time since November 28, 1975 or that its sulfate pollution exceeding water quality standards is not continuing to impair an existing Class 4A use of Dark Lake for wild rice.

U.S. Steel has also failed to demonstrate that the proposed variances won't remove fish, wildlife and drinking water uses existing at some time since November 28, 1975.

From November 2011 through October 2016, average concentrations of SD001 surface discharge included 1,015 mg/L of sulfate, 2,593 µS/cm of specific conductance, and 2,215 mg/L of total dissolved salts.³³ EPA reports and peer-reviewed literature document that salts and ionic pollutants in these highly elevated concentrations are toxic to benthic invertebrates (aquatic insects) and fish and may be harmful to wildlife as well.³⁴

U.S. Steel claims that, since wildlife and fish remaining today are "acclimated" to current pollution, continuing exceedances of water quality standards would not affect existing uses.³⁵ The company has cited data suggesting that the lower Dark River downstream of Dark Lake still has a fish assemblage that includes trout.³⁶ However, U.S. Steel has provided no evidence that benthic invertebrates, fish and wildlife survive, let alone thrive, in the upper Dark River or that sensitive genera of invertebrates have not been extirpated, fish populations altered and wildlife impaired since November 28, 1975 in both upper and lower Dark River receiving waters as a result of Minntac SD001 pollutants for which variances are proposed.

The Clean Water Act precludes variances that would remove use of waters by both pollution-tolerant and pollution-intolerant genera of wildlife, fish and other aquatic biota since November 28, 1975. The Act protects more than just the biological communities that have survived more than 40 years of pollution from the Minntac tailings basin since 1975.

Next, since trout are an existing use in the lower Dark River, Minnesota rules protect that stream segment for Class 1B drinking water use. Under Minnesota law, Class 1B waters should be potable, in conformity with EPA drinking water standards, with simple disinfection.³⁷ Although water quality in the lower Dark River *currently* violates Class 1B sulfate standards of 250 mg/L,³⁸ U.S. Steel has not shown that at all times since November 28, 1975, this trout stream water was so contaminated by sulfate discharge that it was not a Class 1B existing use.

³² U of M Field Survey Data, *supra*, Exhibit 3.

³³ SD001 Variance App., p. 14, Table 2-2.

³⁴ See e.g., EPA, A Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams, Final Report, EPA/600/R-10/023F, March 2011; See M.B. Griffith, L. Zheing, S.M. Cormier, Using Extirpation to Evaluate the Ionic Tolerance of Freshwater Fish, *Env. Tox. & Chem.*, Vol. 9999, Number 9999, pp. 1013, 2017 (accepted for publication Oct. 2017); S.A. Mitcham & G. Wobeser, Effects of sodium and magnesium sulfate in drinking water on mallard ducklings, *J. Wildlife Diseases*, Jan. 1988, Vol. 24, No. 1, pp. 30-44.

³⁵ SD001 Variance App., pp. 17, 26,

³⁶ *Id.*, p. 18

³⁷ Minn. R. 7050.0221, Subp. 3.

³⁸ Application for a Variance for Select Surface Waters and Surface Water (SW) Monitoring Locations for upper Dark River, Timber Creek, Sand River, Admiral Lake, Little Sandy Lake, and Sandy Lake from Select Constituents for Class 1 B, Class 3, and Class 4 Water Quality Standards, DRAFT NPDES/SDS Permit No. MN0057207 Prepared for U. S. Steel Minntac, Dec. 2016, ("Surface Water Variance App."), p. 14, indicating that sulfate concentrations at monitoring station D-1A located within the trout stream segment of the Dark River averaged 320 mg/L from November 2011 to November 2016.

In its variance application, U.S. Steel makes no effort to demonstrate that *attaining surface water quality standard* for which a variance is requested is not feasible as required under Minnesota's variance rules.³⁹

U.S. Steel appears to allege that low flow conditions make the company eligible for a variance.⁴⁰ However, its only arguments about low flow conditions pertain to the likelihood that the MDNR would allow water appropriations sufficient for an industrial or irrigation use.⁴¹ Despite U.S. Steel's use of the word "attain" in speculating about future MDNR water appropriations permits, its arguments are irrelevant to the Minnesota requirement that a permittee seeking a variance demonstrate that "natural, ephemeral, intermittent, or low-flow conditions or water levels *prevent attainment of water quality standards.*"⁴²

U.S. Steel's assertions that human-caused conditions make the company eligible for a variance⁴³ are even more tenuous and misplaced. The company alleges that the current patterns of adjacent property ownership, trails and roads do not facilitate uses for industry, agricultural irrigation, livestock watering or domestic consumption of water.⁴⁴ Whether or not these allegations are credible, they are wholly beside the point. Minnesota rules require a permittee seeking a variance to demonstrate that "human-caused conditions or sources of pollution *prevent attainment of water quality standards.*"⁴⁵

Finally, although U.S. Steel appears to claim that its compliance with water quality standards at SD001 would "result in substantial and widespread negative economic and social impacts,"⁴⁶ the company provides no evidence that this is the case. U. S. Steel only repeats the same cost numbers for water quality treatment described in connection with groundwater standards compliance, claims that such water treatment costs would result in a "significant reduction of profits" and summarizes the employment and tax benefits its Minntac facility provides to the community.⁴⁷

The variance application also provides no analysis at all of impacts of compliance on revenues, profits, liquidity or other tests of the extent to which existing or planned activities and/or employment would be reduced as a result of meeting water quality standards at SD001.⁴⁸ At most, this discussion demonstrates that U.S. Steel would have the power to create significant negative economic and social impacts on the community where Minntac is located should the company at any point choose to do so.

³⁹ Minn. R. 7050.0190, Subp. 4.

⁴⁰ SD001 Variance App., p. 2.

⁴¹ *Id.*, pp. 18, 19, 20, 36, 37.

⁴² Minn. R. 7050.0190, Subp. 4(2); see also 40 C.F.R. §131.10(g)(2).

⁴³ SD001 Variance App., p. 2

⁴⁴ *Id.*, pp. 36-37.

⁴⁵ Minn. R. 7050.0190, Subp. 4(3); see also 40 C.F.R. §131.10(g)(3).

⁴⁶ SD001 Variance App., p. 2. Applicable requirement under Minn. R. 7050.0190, Subp. 4(6); 40 C.F.R. §131.10(6).

⁴⁷ *Id.*, p. 12, repeated with similar text at pp. 28-29.

⁴⁸ Compare claims with EPA, Interim Economic Guidance for Water Quality Standards, Chapter 3 Evaluating Substantial Impacts: Private Sector Entities, EPA-823-B-95-002, March 1985 ("EPA Economic Impact Guidance") available at <https://www.epa.gov/sites/production/files/2016-03/documents/econworkbook-complete.pdf>.

The MPCA proposes to modify Minntac tailings basin permit conditions to render the variance unnecessary.⁴⁹ WaterLegacy opposes this approach as contrary to law and insufficiently protective of surface water quality.

Interim effluent limits should be maintained since there is no assurance, given decades of agreements and lack of follow-through⁵⁰ that U.S. Steel will construct and operate a Dark River Seepage Collection and Return System (SCRS) by any specific deadline, even if such deadlines are set in the final NPDES/SDS permit.⁵¹ In addition, effluent limits should be maintained even after the SCRS is functioning. The track record for the Minntac tailings basin Sand River SCRS shows not only that two-thirds of the discharge on the west side of the tailings basin still seeps to the Sand River watershed,⁵² but that there are several areas of shallow seepage near the discharge point that directly discharge to adjacent surface waters and along the exterior toe of outer basin dykes.⁵³

U.S. Steel's request for variance from surface water quality standards at SD001 should be denied as a matter of law.

3. Minntac Tailings Basin discharges to groundwater are directly hydrologically connected to surface water and are point source pollution subject to the Clean Water Act and Minnesota Chapter 7050 variance rules.

Under the Clean Water Act, once pollutants have been collected and channelized, their conveyance to surface waters whether through a pipe or through groundwater is a point source discharge. This is only common sense. Whether a processing facility collects wastewater above impervious liners and pipes it to a stream or collects wastewater behind dams on a pile of dirt so that it seeps into streams, the culpable discharge and impact on waters of the United States is the same.

It is undisputed that the Minntac tailings basin collects and channels U.S. Steel wastewater and discharges its pollutants to surface waters of the United States in the Dark River and Sand River watersheds through discharge to groundwater that is directly hydrologically connected to these surface waters.

In its variance applications, U.S. Steel admits that discharge to groundwater at the Minntac tailings basin has polluted hydrologically connected surface waters in the Dark River and Sand River watersheds:

Some of the tailings basin water enters the surficial aquifer beneath the basin and flows as groundwater from the basin to the west and east. This deep seepage has resulted in

⁴⁹ MPCA Variance Fact Sheet, p. 4.

⁵⁰ See MPCA Commissioner John Linc Stine letter to Iron Range Legislators, Nov. 15, 2016, attached as Exhibit 6.

⁵¹ In its variance application for SD001, U.S. Steel states with respect to the Dark River SCRS that "the exact timeframes for commencement of operation is uncertain" so that interim permit limits should not be tied to a specific date. SD001 Variance App., p. 16.

⁵² Groundwater Variance App., p. 11. The Sand River SCRS captures 700 gallons per minute or gpm) of the total seepage headed east from the Minntac tailings basin (2150 gpm), while 1450 gpm seeps unabated to the Sand River watershed despite the SCRS.

⁵³ MPCA Minntac Permit Fact Sheet, p. 11; GLIFWC email, Pre-public notice review: US Steel Minntac tailings basin draft water permit reissuance, Dec. 19, 2014, p. 1 and photo at p. 3, attached as Exhibit 7.

elevated solutes in groundwater and the downstream surface waters, the Dark River and the Sand River.⁵⁴

MPCA has also acknowledged that Minntac tailings basin discharge through hydrologically connected groundwater is resulting in exceedances of surface water quality standards:

The MPCA recognizes that basin-impacted groundwater is currently reaching surface waters and having an impact on those surface waters.⁵⁵

The mitigation efforts and investigations conducted at the basin have shown that there is significant seepage escaping the basin over its 8000+ acre footprint and that this seepage is causing exceedances of water quality standards in surface water and groundwater in a broad area surrounding the basin.⁵⁶

Monitoring results and the configuration of the local water table indicate that pollutants enter the Dark River from the tailings basin via surface flow, which originates at seeps such as SD001, and groundwater flow that enters the Dark River as baseflow both near the basin and at unknown distances downgradient from the basin.⁵⁷

The Clean Water Act prohibits “the discharge of any pollutant” except in compliance with certain sections of the Act, including section 1342, which is applicable to NPDES permits.⁵⁸ The Act defines “discharge of a pollutant” as “any addition of any pollutant to navigable waters from any point source.”⁵⁹ A “point source” is

any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.⁶⁰

Under the Clean Water Act, discharge from the Minntac tailings basin through ground water is subject to regulation and control under the Act. “As a legal and factual matter, EPA has made a determination that, in general, collected or channeled pollutants conveyed to surface waters via ground water can constitute a discharge subject to the Clean Water Act.”⁶¹ In addition, “The majority of courts have held that groundwaters that are hydrologically connected to surface waters are regulated waters of the United States, and that unpermitted discharges into such groundwaters are prohibited under section 1311.”⁶²

⁵⁴ Groundwater Variance App., pp. 3, 13 (verbatim repetition)

⁵⁵ U.S. Steel Minntac Tailings Basin Area Draft NPDES/SDS Permit MN0057207 (November 2016), (“Minntac Draft NPDES/SDS Permit”), p. 22, provided as Exhibit 8.

⁵⁶ MPCA Minntac Permit Fact Sheet, *supra*, Exhibit 2, p. 6.

⁵⁷ *Id.*, p. 16.

⁵⁸ 33 U.S.C. §1311(a).

⁵⁹ 33 U.S.C. §1362(12)

⁶⁰ 33 U.S.C. §1362(14).

⁶¹ U.S. EPA, *Proposed National Pollutant Discharge Elimination System Regulations for Concentrated Animal Feeding Operations*, 66 Fed. Reg. 2960, 3016 (Jan. 12, 2001), *cited e.g.* in *Hawai'i Wildlife Fund v. County of Maui*, 24 F. Supp. 3d 980, 995 (D. Haw. 2014).

⁶² *Williams Pipe Line Co. v. Bayer Corp.*, 964 F. Supp. 1300, 1319 (S.D. Iowa 1997).

Courts have emphasized that Clean Water Act control of pollutants discharged through groundwater is just common sense. A Hawaii court recently explained “it would make no sense to exempt a polluter from regulation simply because its pollution passes through a conduit . . . when it is established that groundwater is a conduit for pollutants, liability may attach to a discharge into that groundwater even if the groundwater is not itself protected under the Act.”⁶³ Pollutants dumped into a man-made settling basin must also be covered by the Act:

[I]t would hardly make sense for the CWA to encompass a polluter who discharges pollutants via a pipe running from the factory directly to the riverbank, but not a polluter who dumps the same pollutants into a man-made settling basin some distance short of the river and then allows the pollutants to seep into the river via the groundwater.⁶⁴

Cases involving tailings ponds and similar mining impoundments have held that an NPDES permit is required for discharge to groundwater with a demonstrated hydrological connection to surface waters. In *Washington Wilderness Coalition v. Hecla Mining Co.*,⁶⁵ the court allowed plaintiffs to pursue a claim for discharge without a NPDES permit against the mining company for seeps and leaks from a tailings pond into groundwater where pollution could be traced to a hydrologically connected creek and lake. Recently, a North Carolina court allowed a claim under the Clean Water Act for a utility’s failure to obtain an NPDES permit for seepage from a coal ash lagoon impoundment point source into groundwater that was hydrologically connected to a lake and a river, thus serving as a conduit to navigable waters.⁶⁶ In West Virginia case, the court ordered a coal mining company to apply for an NPDES permit for discharge from a sedimentation pond which leached pollutants into a hydrologically connected receiving stream, resulting in elevated levels of conductivity, sulfates, calcium, magnesium, and TDS.⁶⁷ This year, a Tennessee court also held that a complex of coal ash ponds which is a “discernable, discrete and confined impoundment” that is “unlined and leaking pollutants” through groundwater to navigable waters is a “point source” governed by the Clean Water Act.⁶⁸

The surface waters potentially impacted by the Minntac Tailings Basin are waters of the United States. Sand River and Dark River are navigable in fact and are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce.⁶⁹ Dark River is a headwater tributary of the Little Fork River and Sand River is a major tributary of the Pike River, which flows into Lake Vermillion’s Pike Bay in the Vermillion River Watershed. Both the Little Fork River and the Vermillion River watersheds are in the Rainy River Basin, whose waters flow north into Canada, eventually arriving in Hudson Bay.⁷⁰ Sandy Lake, Little Sandy Lake, Dark Lake, Admiral Lake, Timber Creek and the wetlands adjacent to the Minntac Tailings Basin are tributaries of the Sand River or Dark River or lakes or wetlands adjacent to these rivers.⁷¹

⁶³ *Hawai’i Wildlife Fund v. County of Maui*, *supra*, 24 F. Supp. 3d at 998.

⁶⁴ *N. Cal. Riverwatch v. Mercer Fraser Co.*, No. C-04-4620 SC, 2005 U.S. Dist. LEXIS 42997, 2005 WL 2122052 (N.D. Cal. Sept. 1, 2005) at *7-8; *see also Tenn. Clean Water Network v. TVA*, No.3:15-cv-00424, 2017 U.S. Dist. LEXIS 135312; 85 ERC (BNA) 1525 M.D.Tenn., Aug. 4, 2017) at *126-128.

⁶⁵ *Washington Wilderness Coalition v. Hecla Mining Co.*, 870 F. Supp. 983, 990-991 (E.D. Wash., 1994).

⁶⁶ *Yadkin Riverkeeper, Inc. v. Duke Energy Carolinas, LLC*, 141 F. Supp. 3d 428, 444-446 (M.D. N. Car. 2015).

⁶⁷ *Ohio Valley Envtl. Coalition v. Pocahontas Land Corp.* 2015 U.S. Dist. LEXIS 59910, at *22-23; 80 ERC (BNA) 2193; 2015 WL 2144905 (S. D. W. Va., May 15, 2015).

⁶⁸ *Tenn. Clean Water Network v. TVA*, *supra*, at *131-132, 134-138.

⁶⁹ 40 C.F.R. §230.3(o)(1)(i).

⁷⁰ *See* Basins and Major Watersheds in Minnesota map, shoring Rainy River Basin, Little Fork River and Vermillion River watersheds, available at <https://www.pca.state.mn.us/sites/default/files/wq-ws1-01.pdf>

⁷¹ 40 C.F.R. §§230.3(o)(1)(v) and (iv); 230.3(o)(3)(i), (iii) and (iv).

As with the tailings pond in the *Hecla Mining Co.* case, the coal ash ponds and lagoons in the *Duke Energy Carolinas* and *Tennessee Clean Water Network* cases and the sedimentation pond requiring an NPDES permit in the *Pocahontas Land Corp.* case, the Minntac Tailings Basin has contained, channeled and impounded wastes so as to constitute a point source. As the Minntac tailings basin Draft NPDES/SDS Permit explained, an average of 35 million long tons per year of tailings are disposed of each year in the tailings basin.⁷² Surface runoff water enters the basin through four culverts; stockpile runoff seeps through the perimeter dam; and wastewater is impounded in various basin cells by dams.⁷³ Wastewater is channeled into the tailings basin: “The agglomerator process water, sewage plant discharge, laboratory wastewater, plant non-process water and surface runoff from the plant area enter the south side of the basin through a series of pipes and ditches.”⁷⁴

The EPA has determined that NPDES requirements apply to seepage from the Minntac tailings basin to groundwater that is hydrologically connected to surface waters. Discussing impacts of the Minntac tailings basin on the Sand River and Dark River in 2013, the EPA emphasized, “EPA has consistently interpreted the Clean Water Act (CWA) to apply to discharges of pollutants from a point source to surface water that occur via directly connected ground water.”⁷⁵

The EPA cautioned that, based on surface water monitoring in the Sand River watershed, both the seep collection and return system (SCRS) already installed in the Sand River watershed and a similar system proposed for the Dark River watershed “may not be inclusive of all the seepage discharging” from the tailings basin.⁷⁶ The EPA stated that Minntac discharge through ground water with a direct hydrological connection to surface water would require an NPDES permit to comply with the Clean Water Act:

EPA understands that USS may have installed the seep collection and return system as an approach to eliminate the surface discharge . . . Section 301 of the CWA prohibits point source discharges to surface waters, either directly or via directly connected ground water, unless the discharge is in compliance with an NPDES permit . . .

To the extent that USS may only be converting the path through which pollutants are discharged to surface water or reducing the volume of the discharge, EPA expects that the discharges will continue to be subject to NPDES permit requirements. If a permit is terminated (or a discharger decides not to seek renewal of a permit) without permanent elimination of the entire discharge, the discharger would risk being found in violation of the CWA for discharge without a permit.⁷⁷

In December 2014, in response to a pre-public notice draft Minntac Tailings Basin Permit, the EPA clearly stated that the Clean Water Act required an NPDES permit to apply to *all* discharges from the tailings basin causing exceedances of surface water:

⁷² Minntac Draft NPDES/SDS Permit, *supra*, p. 5, Exhibit 8.

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ EPA Region 5, letter of Peter Swanson, Chief Watersheds and Wetlands Branch to Tamara Cameron, U.S. Army Corps St. Paul District (May 15, 2013), p. 4, attached as Exhibit 9.

⁷⁶ *Id.*

⁷⁷ *Id.*, p.5

We are concerned that this draft permit as written does not address, under MPCA's approved National Pollutant Discharge Elimination System (NPDES) program and in accordance with the Clean Water Act (CWA), all discharges to surface waters from this tailings basin. MPCA acknowledges in the fact sheet that discharges from this 8,000 acre tailings basin are causing exceedances of surface water quality standards. Based on this and facts supporting this conclusion, the CWA requires an NPDES permit for all such discharges to surface waters from the tailings basin.⁷⁸

The Clean Water Act requires that Minntac tailings basin discharge to surface waters in the Dark River and Sand River watersheds through hydrologically connected groundwater be controlled through an NPDES permit in compliance with both state and federal law.

4. U.S. Steel's sweeping request for a variance from Minnesota water quality standards at various surface water locations impacted by Minntac Tailings Basin pollution must be rejected as a matter of law pursuant to Chapter 7050 of Minnesota Rules and in order to comply with the Clean Water Act.

U.S. Steel has made a sweeping request for a variance from Class 1B, Class 3 and Class 4 Minnesota water quality standards at surface water locations demonstrably impacted by Minntac tailings basin pollution including: a segment of the upper Dark River, Timber Creek, a segment of the upper Sand River, Admiral Lake, Little Sandy Lake, and Sandy Lake.⁷⁹ As compared with the draft NPDES/SDS permit, the proposed variance would remove effluent limits for specific conductance, total dissolved salts, bicarbonates, sulfate and hardness. U.S. Steel's only permit obligation for the next 20 years with respect to these surface water quality would be to monitor the extent of its pollution.⁸⁰

This is a striking and extreme request for exemption from compliance with Minnesota water quality standards and the Clean Water Act.⁸¹

U.S. Steel claims the following grounds for its variances: that attaining the designated use and criterion is not feasible under federal variance regulations due to low flow and human-caused conditions,⁸² and that attainment of surface water quality standards is economically infeasible under Chapter 7000 of Minnesota Rules.⁸³

The Minntac tailings basin is a point source, and the Clean Water Act applies to discharge of pollutants from the tailings basin to surface water that occur through directly connected groundwater. It is undisputed that contaminants collected and channeled in the Minntac tailings

⁷⁸ EPA Region 5, letter of Kevin Pierard, Chief, NPDES Programs Branch, to Ann Foss, Minnesota Pollution Control Agency (December 19, 2014), p. 1, attached as Exhibit 10.

⁷⁹ Surface Water Variance App., pp. 1-2, 5. Variances were requested for SW003, SW005, SW006, SW007 and SW008; the surface water locations for which the MPCA proposed limits in its draft NPDES/SDS permit. The draft NPDES/SDS permit did not propose limits for the Sand River further downstream at SW001 or the trout stream segment of the Dark River, monitored at D-1A where the Dark River crosses County Road 165. Monitoring locations are mapped on pp. 8-9 of the Minntac Draft NPDES/SDS Permit, Exhibit 8.

⁸⁰ Surface Water Variance App., pp. 2-3, 20.

⁸¹ Compliance with a weak permit could be argued to block enforcement of water quality standards. 33 U.S.C. §1342(k) "Compliance with a [NPDES] permit issued pursuant to this section shall be deemed compliance . . . with sections 1311, 1312, 1316, 1317, and 1343 of this title."

⁸² Surface Water Variance App., pp. 11, 20, citing sub-paragraphs of 40 C.F.R. §131.10(g).

⁸³ *Id.*, pp. 20, 11, seeking relief under Minn. R. 7000.7000, Subp. E.

basin have directly caused exceedances of Minnesota water quality standards in the surface waters where the variances are requested. U.S. Steel's variance application admits the following:

Some of the tailings basin water enters the surficial aquifer beneath the basin and flows as groundwater radially from the basin to the west and east. This deep seepage has resulted in elevated solutes in groundwater and the downstream surface waters, the Dark River and the Sand River.⁸⁴

[S]urface water chemistry on the Sand River, Admiral Lake, Little Sandy Lake, and Sandy Lake is impacted by groundwater seepage originating from the eastern side of the Minntac tailings basin, while surface water chemistry on the Dark River and Timber Creek is impacted by both groundwater seepage from the western side of the Minntac tailings basin and SD001 surface seepage during the interim period.⁸⁵

U.S. Steel's variance application acknowledges that the "quantity of materials being discharged to surface waters" can be calculated from the "discharge rate of surface seepage from SD001 and rate of seepage to groundwater from the tailings basin."⁸⁶ The variance application then quantifies the contribution of groundwater seepage to violations of water quality at surface water monitoring sites. It states, "the current estimate of total seepage that is not captured and returned to the basin is 3,210 gpm, with 1,450 gpm seeping to the east to the Sand River watershed and 1,760 gpm seeping to the west to the Dark River watershed. Note that this does not include the 700 gpm of seepage that is captured by the existing SCRS (seepage collection and return system)."⁸⁷

Monitoring by the 1854 Treaty Authority since the 2010 installation of the Sand River SCRS confirms that Minntac tailings basin discharge through groundwater with a direct hydrological connection to Sandy Lake and Little Sandy Lake continues to impact surface waters despite the SCRS system. Although there is no longer any observable flow at SD002 with the Sand River SCRS in operation, "concentrations of water quality parameters impacted by the tailings basin are greatest at the upstream Twin 1 location and decrease at each successive downstream sampling location."⁸⁸ In addition, although there was a decrease in sulfate concentrations in Sandy and Little Sandy Lakes after the first year of seep collection operation, since then, "sulfate levels in 2011-2016 have varied and showed a trend upward."⁸⁹

Despite U.S. Steel's assertions to the contrary,⁹⁰ the Minntac tailings basin is a point source discharge to the surface waters that are the subject of its variance requests. Both Minnesota Rule 7050.0190 and federal regulations implementing the Clean Water Act⁹¹ apply to preclude the variances requested by U.S. Steel.

First, U.S. Steel has not demonstrated that the proposed variances from Minnesota surface water

⁸⁴ Surface Water Variance App., p. 4.

⁸⁵ *Id.*, p. 33.

⁸⁶ *Id.*, p. 17.

⁸⁷ *Id.* Neither the existing Sand River SCRS nor the similar proposed Dark River SCRS eliminate discharge of the tailings basin, through groundwater, to their respective watersheds. *Id.*, pp. 18, 20.

⁸⁸ MPCA Minntac Permit Fact Sheet, *supra*, Exhibit 2, p. 17.

⁸⁹ 1854 Treaty Authority, Sandy Lake and Little Sandy Lake Monitoring (2010-2016), Technical Report 16-06, December 2016, autop. 13 ("1854 Treaty Authority Monitoring Report"), attached as Exhibit 12.

⁹⁰ Surface Water Variance App., p. 30.

⁹¹ 40 C.F.R. §131.10(g) and (h)(1).

quality standards would not remove existing uses actually attained since November 28, 1975 in the surface waters affected by the Minntac tailings basin.⁹²

U.S. Steel has not demonstrated that its proposed variances from sulfate water quality standards at SW003, SW006, SW007 and SW008⁹³ would not remove Class 4A wild rice uses in Dark Lake, Sandy Lake, Little Sandy Lake and the Sand River existing since November 28, 1975.

The existing use of Dark Lake for wild rice was explained previously in section 2 of these comments.⁹⁴ It is undisputed that Sandy Lake, Little Sandy Lake and the Sand River have existing Class 4A wild rice uses under the Clean Water Act. The MPCA's proposed wild rice sulfate rule designated Sandy Lake, Little Sandy Lake and the Sand River as wild rice waters,⁹⁵ and the administrative report on the rulemaking found no defect in the proposed listing, so long as all other waters previously identified as wild rice waters by State and tribal agencies were also included.⁹⁶ Both the Minnesota Department of Natural Resources and the 1854 Treaty Authority have identified Sandy Lake and Little Sandy Lake (also known locally as the Twin Lakes) as wild rice waters, and the 1854 Treaty Authority has also identified the Sand River as a wild rice water.⁹⁷ U.S. Steel in its variance application also recognizes the use of Sandy Lake and Little Sandy Lake, the Twin Lakes for wild rice.⁹⁸

U.S. Steel's variance application acknowledges that average existing sulfate concentrations from 2011 to 2016 downstream in the Sand River have averaged 149 mg/L, almost 15 times Minnesota's wild rice sulfate standard.⁹⁹ Monitoring data from the 1854 Treaty shows even higher average sulfate concentrations (207- 460 mg/L) at the inlet to Little Sandy Lake, the wild rice water monitoring site closest to the Minntac tailings basin.¹⁰⁰

In addition to the data on sulfate exceedances, the 1854 Treaty Authority Monitoring Report documents the reduction in historical density in wild rice in Little Sandy Lake and Sandy Lake. From 1966 through 1987, state vegetation surveys showed that little other aquatic vegetation changed in these lakes, but wild rice density was markedly reduced.¹⁰¹

Proposed variances for sulfate at locations in and upstream of Dark Lake, Little Sandy Lake, Sandy Lake and the Sand River wild rice waters must be denied as a matter of law.

⁹² Law preventing removal of existing uses, Minn. R. 7050.0190, Subp. 1, Item C and 40 C.F.R. §131(g) and (h)(1); definition of existing use at 40 C.F.R. §131.3, applicable to State rules see Minn. R. 7050.0210, Subp. 6c; Minn. R. 7001.1080, Subp. 2, Item B (2).

⁹³ See Surface Water Variance App., p. 5. The MPCA's draft NPDES/SDS permit did not include a sulfate limit for SW005, located on Little Sandy Lake or SW001 located in the Sand River.

⁹⁴ See page 6, *supra*.

⁹⁵ Proposed Rule Minn. R. 7050.0471, Subp. 4, Item B (15), (23), (24), available at <https://www.pca.state.mn.us/sites/default/files/wq-rule4-15h.pdf>.

⁹⁶ *In the Matter of the Proposed Rules of the Pollution Control Agency Amending the Sulfate Water Quality Standard Applicable to Wild Rice and Identification of Wild Rice Rivers*, OAH 80-9003-34519 Revisor R-4324, Report of the Administrative Law Judge, Jan. 9, 2018, ("ALJ Wild Rice Rule Report"), p. 69 ¶ 288, attached as Exhibit 11.

⁹⁷ MDNR, Natural Wild Rice in Minnesota, a Wild Rice Study document submitted to the Minnesota Legislature, Feb. 15, 2008, http://files.dnr.state.mn.us/fish_wildlife/wildlife/shallowlakes/natural-wild-rice-in-minnesota.pdf, Appendix B, pp. 80-81; 1854 Treaty Monitoring Report, *supra*, autop. 2, Exhibit 12.

⁹⁸ See Surface Water Variance App., p. 7, which describes the Twin Lakes Wild Rice Restoration plan to look at "what opportunities exist to restore the growth of wild rice in the Twin Lakes."

⁹⁹ *Id.*, p. 14, Table 2-2. The variance application has no data on existing pollution in Sandy or Little Sandy Lake.

¹⁰⁰ 1854 Treaty Authority Monitoring Report, *supra*, autop. 10-14, Exhibit 12.

¹⁰¹ *Id.*, autop. 16.

U.S. Steel has also failed to demonstrate that the proposed variances from surface water quality standards at *all* of its requested variance sites won't remove fish, wildlife and drinking water uses existing at some time since November 28, 1975.

Even the few data points in U.S. Steel's variance application document that surface water affected by Minntac tailings basin discharge have elevated levels of specific conductivity as well as sulfate. In the upper Dark River (SW003), average specific conductance from 2011 through 2016 was 1798 $\mu\text{S}/\text{cm}$ and average sulfate 597 mg/L, with some dilution by the trout stream segment of the Dark River downstream to an average of 1040 $\mu\text{S}/\text{cm}$ of specific conductance and 489 mg/L of sulfate, and at the Sand River specific conductance averaged 619 $\mu\text{S}/\text{cm}$.¹⁰² Data from the 1854 Treaty Authority showed the highest specific conductance nearest the Minntac tailings basin at Little Sandy Lake (Twin 1). In 2015 and 2016, Little Sandy Lake had multiple samples exceeding 1000 $\mu\text{S}/\text{cm}$ of specific conductance.¹⁰³

U.S. Steel doesn't dispute that salts and ionic pollution can alter and remove existing aquatic uses and wildlife uses, as discussed in section 2 of these comments.¹⁰⁴ The company, instead, argues that a fisheries survey of the lower segment of the Dark River has a "healthy" population of fish "acclimated to the conditions of the stream,"¹⁰⁵ that wildlife *currently* using water in the Dark River, Timber Creek, Sand River, Admiral Lake, Little Sandy Lake and Sandy Lake "are acclimated to the water quality," and that impacts to "non-acclimated wildlife need not be considered because these are not existing uses."¹⁰⁶

U.S. Steel has provided no fisheries or benthic invertebrates assessments for the upper Dark River, Timber Creek, Sand River, Admiral Lake, Little Sandy Lake or Sandy Lake to demonstrate existing uses since November 28, 1975 or to demonstrate that pollution-intolerant genera of invertebrates have not been extirpated, fish populations altered and wildlife impaired since November 28, 1975 in all of the surface water monitoring locations for which the company seeks variances.¹⁰⁷

The Clean Water Act precludes variances designed to preserve only the biological communities tolerant of decades of pollution exceeding water quality standards. If a state classifies water for aquatic life use, it should be assumed that the use will support all aquatic life.¹⁰⁸ Federal law also prohibits removing an existing use for wildlife unless more stringent criteria are applied.¹⁰⁹

As explained previously in Section 2, since trout are an existing use in the lower Dark River, Class 1B drinking water standards apply to limit sulfate to 250 mg/L. Average sulfate of 320 mg/L in the lower Dark River exceeds this standard, and average sulfate of 597 mg/L in closer proximity to the Minntac tailings basin, at SW003 on the upper Dark River, is even higher.¹¹⁰

¹⁰² Surface Water Variance App., p. 14.

¹⁰³ 1854 Treaty Authority Monitoring Report, *supra*, Appendix 2, autop. 31-45, Exhibit 12.

¹⁰⁴ See page 7 of these comments.

¹⁰⁵ Surface Water Variance App., pp. 21,22.

¹⁰⁶ *Id.*, p. 26.

¹⁰⁷ No fisheries surveys are provided for surface water locations SW003, SW005, SW006, SW007 or SW008.

¹⁰⁸ EPA, Water Quality Standards Handbook, Ch. 2: Designation of Uses, p. 9, available at

<https://www.epa.gov/sites/production/files/2014-10/documents/handbook-chapter2.pdf>

¹⁰⁹ 40 C.F.R. §131.10(h)(1); see also ALJ Wild Rice Rule Report, *supra*, pp. 68-69, ¶287, Exhibit 11.

¹¹⁰ Surface Water Variance App., p. 14.

U.S. Steel has not demonstrated that its proposed sulfate variance at SW003 would not also remove a Class 1B drinking use from the lower Dark River.

In addition to failing to meet the requirement to preserve existing uses, U.S. Steel's surface water variance request fails to demonstrate that either low flow or human-caused conditions make attaining Minnesota surface water quality standards infeasible. Minnesota Rules and federal regulations implementing the Clean Water Act contain the same requirement that a "discharger and State must be able to demonstrate that attaining the water quality standard is not feasible."¹¹¹

U.S. Steel's assertions that low-flow conditions in the Dark River and Sand River make industrial or agricultural water appropriations permits unlikely¹¹² are not relevant to demonstrate under the Clean Water Act or under Minnesota rules that attaining Minnesota water quality standards is not feasible.¹¹³ Similarly, property ownership¹¹⁴ is irrelevant to a demonstration under federal regulations or state rules that human-caused conditions prevent attainment of water quality standards for industrial or agricultural irrigation uses.¹¹⁵

Finally, U.S. Steel fails to meet applicable requirements to show an economic need for any of its proposed variances. Applicable federal regulations and state rules require an applicant for a variance from surface water quality standards to show that compliance with water quality standards would "result in substantial and widespread negative economic and social impacts,"¹¹⁶ The company does not attempt to make this showing, which would require analysis of impacts of compliance on revenues, profits, liquidity or other tests of the extent to which existing or planned activities and/or employment would be reduced as a result of meeting water quality standards.¹¹⁷

Even if Minnesota Rule 7000.7000 applied to a surface water quality variance, as U.S. Steel suggests, the company has not met the requirement of that rule to demonstrate an "economic burden." U.S. Steel has provided no evidence of hardship other than to allege, without financial disclosures required by rule, that it would see "a significant reduction in profits when the water treatment costs are factored in."¹¹⁸ Second, although Minnesota Rules Part 7000.7000 provides no independent authority for variances from surface water quality standards that are not also in compliance with Clean Water Act regulations and Minnesota Rule 7050.0190 enacted pursuant to the State's Clean Water Act authority, U.S. Steel has failed to meet the Chapter 7000 requirement to support a variance based on the grounds of "economic burden."¹¹⁹

U.S. Steel has failed to demonstrate its eligibility for a variance from surface water quality standards at SW003, SW005, SW006, SW007 or SW008. The company has failed, as a matter of

¹¹¹ MPCA, Guidance for Water Quality Standard Variances, Jan. 2013, p. 1, also stating, "Federal regulations implementing the Clean Water Act (40 CFR 131.13) allow states to adopt variance provisions. These provisions allow granting a variance to a permit holder where it is documented that, despite fully utilizing treatment capabilities as required by the Clean Water Act, the permit holder cannot control a specific pollutant in its discharge to the extent necessary to meet the applicable water quality standard." Guidance available at <https://www.pca.state.mn.us/sites/default/files/wq-wwprm2-10a.pdf>

¹¹² Surface Water Variance App., pp. 23, 24, 25, 35.

¹¹³ 40 C.F.R. §131.10(g)(2); Minn. R. 7050.0190, Subp. 4, Item A (2).

¹¹⁴ See Surface Water Variance App., pp. 25, 36, 37, 38.

¹¹⁵ 40 C.F.R. §131.10(g)(3); Minn. R. 7050.0190, Subp. 4, Item A (3).

¹¹⁶ Minn. R. 7050.0190, Subp. 4(6); 40 C.F.R. §131.10(6).

¹¹⁷ See EPA Economic Impact Guidance, *supra*.

¹¹⁸ Surface Water Variance App., p. 12. Financial requirements to support a variance under Minn. R. 7000.7000, Subp. 2, Item E are discussed on pages 2-3 of these comments.

¹¹⁹ Minn. R. 7000.7000, Subp. 2, Item E, the rule cited by U.S. Steel to support a variance on economic grounds.

law to show that variances would not remove drinking water, aquatic life and wildlife uses existing since November 28, 1975. U.S. Steel has also failed as a matter of law to meet the requirements of the Clean Water Act and State law that a discharger must show that attainment of water quality standards is infeasible for specific clearly-defined reasons.

5. The Minnesota Pollution Control Agency is obligated under Minnesota law and the Clean Water Act to require U.S. Steel to control pollution from the Minntac Tailings Basin in compliance with Minnesota numeric and narrative water quality standards.

Although the MPCA has proposed to deny U.S. Steel's applications for variances, the Agency failed to assert a commitment to control Minntac tailings basin pollution in accordance with the Clean Water Act. MPCA's staff identified substantive grounds for denials of variances: U.S. Steel's failure to demonstrate economic grounds for a variance and the inapplicability of low-flow and human-caused conditions arguments.¹²⁰ However, the Agency chose to deny U.S. Steel's proposed variances on the grounds that an NPDES/SDS permit for the Minntac tailings basin can provide similar deferrals and relief from compliance with water quality standards so that no variance is "necessary."¹²¹

WaterLegacy finds the MPCA's rationale troubling. Federal regulations don't allow schedules of compliance that fail to meet applicable statutory deadlines under the Act.¹²² Section 301(b)(1)(C) of the Clean Water Act sets a deadline for achievement of any applicable water quality standards of not later than July 1, 1977.¹²³ This deadline has been interpreted to allow schedules of compliance for recently adopted standards if states intend to allow them, but not for conventional pollutants regulated under old rules. For NPDES permits, "after July 1, 1977, permits may not contain compliance schedules for effluent limitations based on water quality standards adopted before July 1, 1977."¹²⁴

MPCA's proposal to delay compliance with Minnesota groundwater quality standards until 2025¹²⁵ and to delay compliance with surface water quality standards until at least 2038¹²⁶ is inconsistent with even the most anemic interpretation of the Clean Water Act.

U.S. Steel's failure to comply with water quality standards at the Minntac tailings basin is not a new problem. Since U.S. Steel's NPDES/SDS permit for the Minntac tailings basin expired in 1992, the MPCA has spent more than a quarter of a century temporizing with the company and extending deadlines and schedules for compliance. The Agency may perceive that this makes regulators appear reasonable, but it is more likely that it only makes regulators appear weak.

U.S. Steel is a large and successful company, as well as a significant contributor to Minnesota's economy. In its 2016 annual report to the U.S. Securities and Exchange Commission (SEC), U.S. Steel reported more than \$10 billion in net sales and that it ended 2016 with a total liquidity of

¹²⁰ MPCA, November 27, 2017, Briefing - Preliminary Decision to deny U.S. Steel Minntac request for variances, attached as Exhibit 13.

¹²¹ MPCA Variance Fact Sheet, pp. 4-5.

¹²² 40 C.F.R. §122.47.

¹²³ 33 U.S.C. §1311(b)(1)(C).

¹²⁴ EPA, NPDES Permit Writers Manual, Sept. 2010, Ch. 9, p. 9-9, available at https://www.epa.gov/sites/production/files/2015-09/documents/pwm_chapt_09.pdf

¹²⁵ MPCA Variance Fact Sheet, p. 4.

¹²⁶ *Id.*, p. 5.

approximately \$2.9 billion.¹²⁷ U.S. Steel's SEC disclosures claim, "In pursuing our financial goals, we will not sacrifice our commitment to safety and environmental stewardship."¹²⁸ However, it is abundantly clear that this statement does not mean that the company will volunteer to finance pollution treatment and control if they are not required to do so.

It is the MPCA's obligation to require U.S. Steel to remediate, treat and control Minntac tailings basin pollution in compliance with Minnesota water quality standards and with the Clean Water Act. The MPCA must deny U.S. Steel's requested variances on substantive grounds based on U.S. Steel's lack of eligibility for water quality variances under applicable state and federal law.

The Agency must then proceed to issue a rigorous and enforceable NPDES/SDS permit for the Minntac tailings basin that requires compliance with Minnesota groundwater and surface water quality standards and with the Clean Water Act.

Respectfully submitted,



Paula Goodman Maccabee
Advocacy Director/Counsel for WaterLegacy

Exhibits Attached

cc. Barbara Wester, EPA Region 5
Krista McKim, EPA Region 5

¹²⁷ U.S. Steel, Form 10-K Annual Report to the U.S. Securities and Exchange Commission for the fiscal year ended Dec. 31, 2016, pp. 25, 60, available at https://www.ussteel.com/sites/default/files/annual_reports/USS%20Form%2010-K%20-%202016.pdf

¹²⁸ *Id.*, p. 4; see also p. 16.