



**Paula Goodman Maccabee, Esq.**

*Just Change Law Offices*

1961 Selby Ave., St. Paul, Minnesota 55104, [pmaccabee@justchangelaw.com](mailto:pmaccabee@justchangelaw.com)

Ph: 651-646-8890, Fax: 651-646-5754, Cell 651-775-7128

<http://justchangelaw.com>

September 5, 2012

Lisa Fay, Planner Principal ([environmentalrev.dnr@state.mn.us](mailto:environmentalrev.dnr@state.mn.us))

Minnesota Department of Natural Resources

500 Lafayette Road, Box 25

St. Paul, MN 55155-4032

RE: U.S. Steel Corp. Minntac Taconite Mine West Pit “Extension”  
Comment Requesting Preparation of Environmental Impact Statement

Dear Ms. Fay:

These comments are submitted on behalf of WaterLegacy, a Minnesota non-profit organization formed in 2009 to protect Minnesota water resources and the communities that rely on them. WaterLegacy has more than 3,000 members throughout the State of Minnesota, including members who reside, hunt, canoe, fish, and gather wild rice in areas affected by the proposed project and by the cumulative impacts of U.S. Steel Corporation’s Minntac mine and tailings basin.

Pursuant to Minnesota Statutes 116D.04 and Minnesota Rules Chapter 4410 and based on documents cited below, including the Minnesota Department of Natural Resources Minntac Mine Extension Environmental Assessment Worksheet (“MDNR Extension EAW”) noticed for public comment on August 6, 2012, WaterLegacy requests that the MDNR prepare an environmental impact statement (“EIS”) for the Minntac Mine “Extension.”

An EIS is required since the Minntac Mine “Extension” has the potential for significant environmental effects on streams, wetlands, water quantity, water quality, public health and habitats and due to the significant cumulative impacts of the project and Minntac mining activities on these resources. In addition, the EAW has neither provided specific targeted mitigation measures to eliminate the risk of potential environmental harm nor alternatives to the proposed project that would be evaluated in an EIS.

For decades, Minntac’s phased expansion and destruction, pollution and appropriation of water resources has evaded detailed environmental review. The permit process has neither protected Lake Superior Basin and Rainy River Basin water resources, allowed a comprehensive examination of the effects of Minntac’s facilities, nor required selection of alternatives to minimize and mitigate those effects. An EIS is needed to address the cumulative potential effect of the Minntac Mine “Extension” and minimize the environmental effects contributed by the project.

## Environmental Effects of the Proposed Minntac Mine Extension

U.S. Steel's proposed Minntac Mine "Extension" would have the following scope and effects:

- Conversion of 483.2 acres of land to open-pit mining, including 369.1 acres of vegetated land. (MDNR Extension EAW, p. 11)
- Movement of nearly 2 billion tons of material from this 483-acre extension, including 1,009,568,000 long tons of ore, 836,716,000 long tons of waste rock and 134,059,000 long tons of surface overburden. (*Id.*, p. 28)
- Extension of mine life and taconite production to 2031, resulting in increasing duration of impacts to water quality and quantity. (MDNR Extension EAW, p. 3)
- Removal of approximately 4,002 linear feet of streams and impacts to 470 acres of watershed contributing area. (*Id.*, p. 43)
- Direct loss of 66.7 acres of wetlands and indirect loss of an additional 5.4 acres of wetlands from alteration of hydrology. (*Id.*, p. 46)<sup>1</sup>
- Increasing mine dewatering by 5 percent, potentially effecting up to 57 municipal or private wells within a half-mile of the West Pit, East Pit or roadway relocation. (*Id.*, p. 25)
- Continued appropriation of 8,798 million gallons per year from the West Two River Reservoir and the Mountain Iron Pit for another 19 years. (*Id.*, p. 24)
- Increasing waste rock stockpiles by up to 170 feet to accommodate waste materials. (*Id.*, p. 4)
- Addition of approximately 550,000,000 cubic yards of tailings to the Minntac tailings basin. (*Id.*, p. 4)

Cumulative impacts of the Minntac "Extension" and existing and past mining activities at Minntac include the following:

- In addition to the 4,002 linear feet of stream that would be removed through the proposed Minntac "Extension," approximately 45,123 linear feet of stream (8.5 miles of stream) has already been removed due to past mining activity. (*Id.*, p. 43).

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<sup>1</sup> U. S. Steel received a permit (2007-01868-TWP) from the U.S. Army Corps of Engineers (Army Corps) on April 20, 2009 that includes 5.1 acres of wetlands located within the Extension area, so the area of direct wetland impact requiring Army Corps permit approval for the "Extension" is 60.7 acres. (MDNR Extension EAW, p. 17)

- In addition to the 470 acres of watershed contributing area that would be impacted by the Minntac Mine “Extension” approximately 10,052 acres of watershed have already been impacted or will be, due to past or current mining activities. (*Id.*, p. 43)
- In addition to approximately 72 acres of wetlands that would be lost through the Minntac Mine “Extension,” cumulative wetlands impacts include 251 acres from Minntac’s 1996 mine expansion and 21 acres permitted in 2009 (U.S. Steel Corp, Minnesota Ore Operations Minntac Mine Western Progression Environmental Assessment, USACE, July 2011, “Minntac Pit Progression EA”<sup>2</sup> p. 1), along with another 76 acres proposed in Minntac’s 2011 “Western Pit Progression,” (USACE Public Notice of Application for Permit, MVP-2010-04976-JCC, “USACE Pit Progression Notice,” April 5, 2011, p. 1)
- In addition to the 483 acres that would be converted to open-pit mining in the Minntac Mine “Extension,” approximately 20,000 acres of land use has been permanently converted to mining through past Minntac activities. (Minntac Pit Progression EA, p. 14). This is an area of 31.25 square miles.

### **Minnesota Statutes and Rules Require Preparation of an EIS and Consideration of Alternatives where there is Potential for Significant Environmental Effects**

Preparation of EIS is required under the Minnesota Environmental Policy Act (“MEPA”). “Where there is potential for significant environmental effects resulting from any major governmental action the action shall be preceded by a detailed environmental impact statement prepared by the responsible governmental unit.” Minn. Stat. 116D.04, Subd. 2a. An EIS provides an independent analysis of environmental impacts and also “discusses appropriate alternatives to the proposed action and their impacts, and explores methods by which adverse environmental impacts of an action could be mitigated.” *Id.*

Minnesota Rules mandate that an EIS be prepared when a responsible governmental unit (RGU) “determines that, based on the EAW and any comments or additional information received during the EAW comment period, the proposed project has the potential for significant environmental effects.” Minn. R. 4410.2000, Subp. 3. “Multiple projects and multiple stages of a single project that are connected actions or phased actions must be considered in total when determining the need for an EIS and in preparing the EIS.” Minn. R. 4410.2000, Subp. 4.

The RGU must consider cumulative potential effects in deciding whether a project has the potential for significant environmental effects:

The RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to

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<sup>2</sup> Although the West Pit Progression EA is titled as if it were a U.S. Army Corps of Engineers (“USACE”) document, Jill Bathke, staff to the USACE, confirmed in a September 5, 2012 phone conversation that this document was prepared by consultants for U.S. Steel Corp., not by the USACE.

which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project. Minn. R. 4410.1700, Subp. 7.

In addition, “Connected actions and phased actions shall be considered a single project for purposes of the determination of need for an EIS.” Minn. R. 4410.1700, Subp. 9.

The Minnesota Supreme Court reversed a negative determination on the need for an EIS in *Citizens Advocating Responsible Development, et al., vs. Kandiyohi County Board of Commissioners*, 713 N.W.2d 817 (Minn. 2006) ruling that the purpose of the “cumulative potential effects” criterion is to put the proposed project into context with other impacts in the geographic area:

The criteria aims to determine whether the project, which may not individually have the potential to cause significant environmental effects, could have a significant effect when other local projects already in existence or planned for the future are considered. *Id.* at 829.

In the *CARD v. Kandiyohi* case, the Court also explained that an RGU may not rest its EIS determination decision on mitigation that amounts to only "vague statements of good intentions." *Id.* at 834. “When an RGU considers mitigation measures as offsetting the potential for significant environmental effects under *Minn. R. 4410.1700*, it may reasonably do so only if those measures are specific, targeted, and are certain to be able to mitigate the environmental effects.” *Id.* at 835.

An EIS serves a very different function from an EAW. Unlike an EAW, an EIS must consider alternatives that minimize and mitigate environmental impacts of a proposed project and compare the impacts of the proposal to other reasonable alternatives. Environmental Quality Board Rules state:

**Alternatives:** the EIS shall compare the potentially significant impacts of the proposal with those of other reasonable alternatives to the proposed project. The EIS must address one or more alternatives of each of the following types of alternatives or provide a concise explanation of why no alternative of a particular type is included in the EIS: alternative sites, alternative technologies, modified designs or layouts, modified scale or magnitude, and alternatives incorporating reasonable mitigation measures identified through comments received during the comment periods for EIS scoping or for the draft EIS. . . The alternative of no action shall be addressed. Minn. R. 4410.2300, Subpart G

Under applicable law, the Minntac Mine “Extension” and the cumulative contributions of Minntac mining activities have the potential to result in significant environmental effects requiring an EIS.

**The Mine “Extension” and Cumulative Minntac Mining Activities have the Potential to Result in Significant Environmental Effects on Streams and Watersheds**

The MDNR EAW details the potential significant environmental effects of the Minntac Mine “Extension” on streams and watersheds. The Minntac expansion project would impact Kinney Creek, tributaries of West Two River, and Parkville Creek - a tributary to the West Two River Reservoir in the St. Louis River Watershed of the Lake Superior Basin. (MDNR Extension EAW, p. 12). The project would eliminate 4002 linear feet of streams. (*Id.*, p. 43)

Both Kinney Creek and West Two Rivers are designated trout streams pursuant to Minnesota Rules. Minn. R. 6264.0050, Subp. 4 (Y)(37) and Subp. 4 (PP)(82)(2012); Minn. R. 7050.0470, Subp. 1A (116) and Subp. 2A (62) (2012).<sup>3</sup> Although the EAW does not discuss the trout stream designation, the MDNR does note that tributaries to Kinney Lake and the West Two River Reservoir “may support seasonal fish populations” and that Parkville Creek is a “major tributary.” (MDNR Extension EAW, p. 12).

The EAW details the potential for significant environmental impacts on fish resulting from stream and watershed impacts:

Tributary streams and adjacent flooded wetlands are critical spawning habitat for northern pike in the spring. Groundwater level changes, loss of wetlands, loss of headwater stream portions, and alteration of sediment transport contribute to hydrological and habitat change in tributaries such as the West Two Rivers and Parkville Creek. Decreased flow in the spring in particular can negatively impact northern pike spawning success. Changes in sediment transport, from either increased or decreased flow, can alter the geomorphology and stream habitat. Increased sedimentation usually results in a decrease in quality fish habitat. . .

Fisheries data from these stations indicate that the small streams within the mine extension area could contain brook stickleback, central mud minnow, creek chub, mottled sculpin, fathead minnows, golden shiner, Iowa darter, northern redbelly dace, tadpole madtom, white sucker, and yellow perch. The larger systems of the East and West Two Rivers had similar assemblages, but also included sunfish, northern pike, black bullhead, black crappie, and shorthead redhorse. . .

Loss of habitat in the tributaries can impact the resident fish but also can negatively impact downstream fisheries. Northern pike and white sucker populations may be impacted as they likely move between the West Two Rivers Reservoir and the tributaries, particularly for spawning. Fish movement, i.e. immigration into the reservoir, is prevented by the reservoir dam so the upstream habitat is especially important for maintaining the population of these two species and others. . .

Stream habitat impacts will occur due to excavation of the extension area for mining activities. . . In addition to the direct loss of stream habitat, impacts to downstream

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<sup>3</sup> Although the MDNR 1996 Record of Decision rejecting the Need for an Environmental Impact Statement for U.S. Steel - Minntac’s Proposed Mine Extension Project, Trout Stream Diversion (June 10, 1996) states that the MDNR removed Kinney Creek from the designated Trout Stream list in December 1995, this “delisting” is not reflected in Rule. Removing this designated use could violate state and federal non-degradation laws.

water bodies (including downstream public waters) will also occur as the natural hydrology of the area is changed.

While mine pit dewatering discharge will replace some of the natural flow that is lost, downstream water bodies may also be impacted by the “cone of depression” that results from pumping, particularly groundwater-fed streams and water bodies. All of these changes could impact fisheries in the streams to be removed as well as in downstream waters. (MDNR Extension EAW, p. 12)

The EAW further explains “Contributing watershed areas can be severed or completely removed due to mining activity, directly affecting runoff from precipitation and resultant streamflow.” Although mine pit dewatering discharge will replace some of the natural flow that is lost, “dewatering flows do not mimic the natural hydrologic processes, chemically or physically (including high flows and low flows), that occurred prior to mining.” (*Id.*, p. 19)

The EAW details the cumulative impact of extension and past Minntac mining on specific streams and tributaries: 1) nearly 100 percent destruction of Parkville Creek (100 percent of stream contributing area, 100 percent of stream segment channel length - 29,813 feet, and 99.7 percent of the total streamflow); 2) complete 100 percent destruction of McQuade Creek, a Kinney Creek Tributary (100 percent of stream contributing area and 100 percent of streamflow); 3) complete 100 percent destruction of Kinross Creek Tributaries (100 percent of stream contributing area, 100 percent of streamflow); and complete 100 percent destruction of West Branch Two River Tributaries (100 percent of stream contributing area for the two remaining tributaries and 100 percent of streamflow for all three tributaries). (*Id.*, pp. 20-21)

The EAW demonstrates the potential for significant and cumulative environmental effects on the health of river systems and downstream fish populations:

Stream habitat loss from past, current and future mining activities has a cumulative effect. The health of a river system is dependent on connectivity and access to diverse habitat is important for game fish populations as well as their prey. The West Two Rivers Reservoir dam is a barrier to fish passage, and since the fish and mussel populations in the reservoir are already disconnected from downstream waters and populations, loss of upstream tributary habitat is important. As indicated in Item 12, approximately 4,002 linear feet of stream would be removed through the proposed Extension Project. Approximately 45,123 linear feet (8.5 miles) of stream has already been removed due to past mining activity.

In addition to the direct loss of stream habitat, cumulative effects to downstream public waters and other water bodies will also occur as the natural hydrology of the area is changed. Contributing watershed areas can be severed or completely removed due to mining activity. The proposed Extension Project will impact 470 acres of watershed contributing area. Approximately 10,052 acres of watershed have already been impacted or will be, due to past or current mining activities. (*Id.*, p. 43, see also pp. 45-46)

Mitigation cannot be used to discount the potential for significant and cumulative environmental effects on streams and watersheds. The EAW demonstrates that there are no specific, targeted and certain mitigation measures for stream impacts of the Minntac Mine “Extension.” Instead of a specific plan, the EAW says, “U.S. Steel will work with the DNR, USACE, and MPCA to address stream impacts and mitigation during the wetland permitting process.” (*Id.*, pp. 19-20)

The EAW confirms that basic research needed to assess stream function that would be lost through the project and evaluate mitigation measures has not yet been done, “Information gathered during these studies will be used to characterize the stream and evaluate mitigation alternatives that would best replace the stream functions and values lost due to the extension project.” (*Id.*, p. 20). Under *CARD v. Kandiyohi*, where there are only good intentions but no specific mitigation plan, an EIS must be prepared.

### **The Mine “Extension” and Cumulative Minntac Mining Activities have the Potential to Result in Significant Environmental Effects on Wetlands**

The proposed Minntac Mine “Extension” would result in a direct loss of 66.7 acres of wetlands and indirect loss of an additional 5.4 acres of wetlands from alteration of hydrology. (MDNR Extension EAW, p. 46).

Records were not available to document the total cumulative destruction of wetlands resulting from Minntac mining activities. However, various documents suggest that wetlands loss from Minntac’s 1996 expansion, Minntac’s projects in 2009, 2010 and 2011, its unpermitted encroachment and the proposed Minntac Mine “Extension” project would be at least 433 acres.

Minntac’s consultants reference 251 acres of wetlands impacts permitted at the time of Minntac’s 1996 mine expansion and 21 acres permitted in 2009 (Minntac Pit Progression EA, p. 1). U.S. Steel obtained another wetlands destruction permit in June 2010 to fill 8.75 acres of wetlands associated with construction of the SC&R (seep collection and return) system. (Minntac Pit Progression EA, p. 7) and is seeking another 76 acres of wetlands dredge and fill in its 2011 “Western Pit Progression.” (USACE Pit Progression Notice, p. 1). In addition to these permitted losses, U.S. Steel apparently filled another 4.82 acres of wetlands without a permit.

These losses have environmental significance. This past year, the U.S. EPA fined U.S. Steel \$161,000 for violation of Section 301 of the Clean Water Act resulting from filling 4.82 acres of wetlands without a permit. The EPA’s Notice for the Final Order from this violation underscored the environmental significance of wetlands destruction at the Minntac site, stating, “The alleged violations are of environmental significance because the activities resulted in a loss the biological integrity and biodiversity of the impacted watersheds.” (U.S. EPA Public Notice of Intent to file Proposed Consent Agreement and Final Order against U.S. Steel Co. for Violations of Section 301 of the Clean Water Act, Jan. 13, 2012)

The above estimates of wetlands loss primarily reflect direct impacts, rather than indirect

impacts from mine dewatering. Depending on whether wetlands are fed from groundwater or precipitation, “there is the potential that mine pit dewatering could indirectly impact wetlands as the cone of depression from mine dewatering extends further to the south and lowers groundwater levels.” (MDNR Extension EAW, p. 17)

The EAW contains no analysis of wetlands functionality that may be lost to watersheds resulting from wetlands destruction. The MDNR explained that the EAW did not contain information on indirect wetlands impacts, stating “No studies of the indirect wetland impacts from the current mine have been completed.” (*Id.*, p. 17) This gap in analysis is particularly striking since the EAW documents that dewatering from Minntac’s East and West pits is quite significant -- 20.5 million gallons per day. (*Id.*, p. 13)

The proposed compensatory mitigation plan for wetlands loss neither analyzes project impacts on the watershed if wetlands are replaced outside the area nor reflects an approved replacement location. Although U.S. Steel has proposed wetlands replacement at the Palisade Bank in Aitkin County, this site has not yet been approved. (MDNR Extension EAW, p. 19) The Palisade Bank project would construct wetlands in a former corn and soybean operation. (USACE Pit Progression Notice, p. 2) Review of this proposal is in progress and no wetland credits have been released for use to date. (USACE Public Notice of Application for Permit, MVP-2012-00415-JCB, July 3, 2012, “USACE Extension Notice,” p. 3)

In communications with the Army Corps, the U.S. EPA has expressed concern about the lack of detail in the compensatory mitigation plan, stating,

More details on the compensatory mitigation proposed is needed. The mitigation plan must meet the requirements set forth in the 2008 Compensatory Mitigation Rule (33C.F.R. § 332.1-332.7 and 40 C.F.R. 230.91 – 230.97). Currently, it is unclear whether the Palisades III bank will provide the type of wetland replacement needed for this project and there is some concern about obtaining credits outside the Bank Service Area where the impacts occurred. (Email of Kerryann Weaver, U.S. EPA to Jill Bathke, USACE, Request to Review U.S. Steel EIA for Minntac Extension, Aug. 3, 2012, “USEPA Extension Email”).

The environmental effects of direct and indirect wetlands loss on watershed functionality have not been analyzed and the mitigation plan is too speculative to reduce the potential that this loss would result significant environmental effects. An EIS is needed due to the potential for significant environmental effects from direct and indirect wetlands loss from the Minntac Mine “Expansion” and cumulative Minntac mining activities.

### **The Mine “Extension” and Cumulative Minntac Mining Activities have the Potential to Result in Significant Environmental Effects on Water Quantity**

Minntac appropriates 8,798 million gallons of water per year or 27,000 acre feet per year from the Mountain Iron Pit and the West Two Rivers Reservoir for the purpose of process makeup water for the taconite processing facilities. (Minntac Pit Progression EA, p. 9) Permitted appropriation for Minntac facilities is 11,415 million gallons of water per year (*Id.*, Appx. F,

Permit 80-2085) equivalent to 35,000 acre-feet per year.

What is the scale of Minntac's water appropriation? Existing water appropriation would cover a 27,000-acre lake with a foot of water per year, and permitted appropriations would cover a 35,000-acre lake with a foot of water per year. As points of reference, Lake Calhoun in Minneapolis is 401 acres; Birch Lake in St. Louis County is 5628 acres; and Lake Kabetogama, in Voyageurs National Park, Minnesota's 6<sup>th</sup> largest lake is a 25,000-acre lake. Minntac's existing appropriations reflect a volume of water sufficient to cover 67 Lake Calhouns or more than four Birch Lakes with a foot of water every year.

The Minntac mine is located along the Laurentian Divide, and lies along two major watersheds. The East and West Pits are located within the St. Louis River watershed in the Lake Superior Basin. The Minntac tailings basin is located within the Little Fork River watershed (major watershed number 76), which drains north to the Rainy River Basin. (MDNR Extension EAW, p. 16).

In evaluating Minntac's 2011 expansion, described as the "West Pit Progression," Minntac's consultants acknowledged that water-related impacts of Minntac expansions "have included the transfer of water between watersheds, most notably from the St. Louis River watershed, where the dewatering occurs, to the Rainy River watershed, where the tailings basin is located due to the appropriation of process makeup water." (Minntac Pit Progression EA, p. 31).

Minntac's EA noted that, "The current Water Appropriations Permits for Minntac do not contain maps of the sump and discharge locations." (*Id.*, p. 9) It is thus not possible to determine how much water is appropriated from which watershed, how much water is diverted to another watershed and how much water is consumed by the Minntac facilities.

In its comments on last year's Minntac expansion, the U.S. EPA raised concerns about the transfer of water out of the St. Louis River watershed, stating:

The St. Louis River watershed is part of and contributes to the Lake Superior basin. The 1986 Federal Water Resources Development Act (Amended 2000) requires approval by all Great Lakes governors for any exports or diversions of Great Lakes water out of the basin. The 2005 Great Lakes Water Resources Compact prohibits most new diversions and exports of water out of the Great Lakes basin, including those used for non-public water supplies. (U.S. EPA, Ken Westlake letter to USACE, Jill Bathke re Western Progression, Apr. 5, 2012, "USEPA Western Progression Letter", p. 4)

The Great Lakes St. Lawrence River Basin Water Resources Compact ("Great Lakes Compact") referenced by the U.S. EPA prohibits all new or increased diversion of water from any Great Lakes Basin. Pub. Law 110-342 – Oct. 3, 2008, 122 Stat. 3739, Art. 4, Sec. 4.8. Only limited exceptions apply to allow such appropriations if there is a new or increased withdrawal from the basin of 100,000 gallons per day or greater average over any 90-day period (none of which appear to apply to Minntac). *Id.*, Sec. 4.9 (b). If a proposal results in a new or increased consumptive use of 5 million gallons per day or greater average over any

90-day period, the proposal shall also undergo regional review. *Id.* Sec. 4.9(c).

Minntac's consultants assert that 0.86 million gallons per day of surface seepage enters watersheds of the Rainy River Basin from the west side of the Minntac tailings basin perimeter dike in the Lake Superior Basin. (*Id.*) This assertion is likely to be an understatement of the consumption and diversion of Great Lakes waters.

MDNR has documented that the current average rate of discharge for all dewatering installations in the East and West Mine Pits is 20.5 million gallons per day, with a maximum level as high as 30 million gallons per day. (MDNR Extension EAW, p. 13). MDNR has also estimated that increased area subject to surface water runoff and groundwater inflow from the Minntac Mine "Extension" is likely to increase by approximately 5 percent as a result of the proposed project, with a resulting potential increase in dewatering discharges by up to 5 percent. (*Id.*) Using simple arithmetic, the new or increased dewatering from the project estimated by MDNR would be 1,025,000 gallons per day, more than ten times the threshold where new consumption and diversion are prohibited under the Great Lake Compact.

Although U. S. Steel may want to suggest that its consumption and diversion of Lake Superior Basin waters is "grandfathered" by prior permits and need not be analyzed, protection of Lake Superior Basin through international agreement dates back to at least 1985. The Great Lakes Charter, Principles for the Management of Great Lakes Water Resources ("Great Lakes Charter") was signed by Minnesota, along with other States and Canadian provinces on February 11, 1985. The Great Lakes Charter states "diversions of Basin water resources will not be allowed if individually or cumulatively they would have any significant adverse impacts on lake levels, in-basin uses, and the Great Lakes Ecosystem" and requires prior notice and consultation with all affected States and Provinces if any new or increased diversion from one watershed to another or consumptive use exceeds 5 million gallons per day average in any 30-day period. (Great Lakes Charter, pp. 2-3)

Both the Great Lakes Charter and the Great Lakes Compact address actual use, rather than permitted appropriations. The Charter defines "consumption" and "diversion," respectively as the withdrawal of water not returned to the Great Lakes Basin and the transfer of water to another watershed, not the "permitted" withdrawal or "permitted" transfer. (1985 Great Lakes Charter, pp. 6-7). The Compact states "Impacts can result from individually minor but collectively significant Withdrawals, Diversions and Consumptive Uses taking place over a period of time" (Great Lakes Compact, Sec. 1.2) and requires that cumulative impacts on Great Lakes Basins be evaluated periodically (*Id.*, Sec. 4.15).

It is likely that Minntac's increased consumption and diversion of Great Lakes waters proposed by the "Extension" project would be inconsistent with the Great Lakes Compact.

In addition, both the increased volume of dewatering and the extension in duration of Minntac's massive water appropriation for another 19 years have the potential for significant environmental effects on watersheds. As Minntac's consultants acknowledged in analyzing last year's Minntac expansion:

Dewatering of the mines, which is required for continuing operations, has altered the surface water characteristics of the immediate watersheds. Historically, the watersheds contained numerous small streams which were supported by surface water runoff or discharge from wetlands. Dewatering activities have reduced the watershed areas, which reduces the volume of water available for baseflow. Discharge of the groundwater collected through dewatering has altered historic flow patterns. (Minntac Pit Progression EA, p. 31)

Dewatering from the Minntac Mine “Extension” also has the potential to impact wells, including 57 municipal or private wells within a half-mile of the West Pit, East Pit or roadway relocation for the project. (MDNR Extension EAW, p. 25) The EAW notes that existing wells beyond the mine’s buffer zone “may experience some drop in water levels as the cone of depression from mine pit dewatering moves to the south.” The EAW then states, “Though not anticipated, if maintaining adequate water levels in the wells becomes problematic, U.S. Steel will work with the well owners on an appropriate course of action to address the issue.” (*Id.*)

U.S. Steel’s good intentions to work on an appropriate course of action if wells run dry is not sufficient to analyze or mitigate potential impacts on private and municipal wells. The U.S. EPA raised a similar concern with last year’s Minntac expansion:

There are a number of wells identified in and south of the western mine expansion. It is possible that some or all of these wells will experience drawdown as a result of mine dewatering, however, the details remain unknown, including potential impacts to private drinking water wells. This issue needs to be further examined and the effects of potential dewatering need to be better defined. (USEPA Western Progression Letter, p. 4)

Potential effects of the Minntac Mine “Expansion” on appropriation and diversion in violation of the Great Lakes Compact and potential significant environmental effects on watersheds and wells is exacerbated since Minntac may yet request additional water appropriations as a result of the proposed project. As explained in the EAW, “Any changes in water appropriations, as a result of the proposed project, would be based on a preliminary mine plan, mine extension, and additional dewatering requirements.” (MDNR Extension EAW, p. 25)

An EIS is needed to create a water budget and maps showing the source of Minntac’s water withdrawals, the volume of its water consumption, and the location and volume of Minntac’s water diversions between various sumps and watersheds and between the Lake Superior and Rainy River Basins. An EIS would permit a thorough analysis of whether Minntac’s withdrawal of waters from the Lake Superior Basin is consistent or inconsistent with the Great Lakes Compact.

In addition, an EIS is needed to evaluate potentially significant environmental effects on surface water characteristics of watersheds on both sides of the Laurentian Divide and upon water levels in municipal and private wells resulting from the predicted 5 percent increase in mine and a 19-year extension in the duration of Minntac’s appropriation, consumption and diversion of waters.

## **The Mine “Extension” and Cumulative Minntac Mining Activities have the Potential to Result in Significant Environmental Effects on Water Quality**

In determining whether emissions will cause pollution, impairment or destruction of the environment, total facility emissions are considered. *In re Univ. of Minnesota*, 566 N.W. 2d 98, 104 (Minn. Ct. App. 1997). Courts then evaluate whether a facility’s emissions comply with all state and federal standards to determine whether a facility would adversely affect the environment. *Id.* at 105.

Minntac’s wastewater discharge currently violates applicable permits and state water quality standards approved by the U.S. EPA under the Clean Water Act. Among other constituents discharged to receiving waters, the proposed Mine “Expansion” will increase the level of sulfates and hardness, which already exceed permitted levels and applicable standards.

Lacking the customary shield that allows discharge of additional pollution when a facility is in compliance with all permits and standards, any expansion or extension in duration of Minntac’s discharge of sulfates and hardness will allow pollution exceeding permits and water quality standards -- by definition, a significant environmental effect on water quality. Minntac’s Mine “Extension” project requires an EIS due to the potential for significant environmental effects resulting from excessive sulfates and hardness, among other pollutants.

The EAW acknowledges, “sulfate levels in the tailings basin have become problematic for seepage discharged to the environment.” (MDNR Extension EAW, p. 33). In fact, the Minnesota Pollution Control Agency (“MPCA”) has documented Minntac’s violation of state sulfate discharge standards since at least 1987. A February 2000 letter from the MPCA regarding the Minntac Tailings Basin states:

As you know, *NPDES/SDS* permit MN0057207 expired in 1992, although its provisions remain applicable . . . the existing [tailings basin] facility, which is presently violating water quality standards for sulfate, as well as to the proposed new discharge. . . Sulfate has been identified as a pollutant of concern at the tailings basin since at least 1987.” (Letter Douglas Hall, MPCA to David P. Johnson, USX-Minnesota Ore Operations, Feb. 16, 2000)

In reviewing a proposal by Minntac to siphon tailings basin discharge to various locations, the MPCA concluded in 2005 with respect to sulfates and specific conductance, “elevated levels of these constituents have been noted such that violations of state water quality standards have occurred in the surface receiving waters downstream of the tailings basin.” (MPCA Approved EIS for the proposed U.S. Steel – Minntac Water Inventory Reduction Project, Findings and Conclusions, Nov. 30, 2005, “MPCA Water Inventory FEIS,” p. 2)

The Multi-Media Schedule of Compliance signed by US. Steel with the MPCA in 2011 documented years of discharge of sulfates and hardness from the Minntac tailings basin in violation of permits. From 2006 through 2010, the total mass of sulfate exceeded permitted limits each year, with a total exceedance for these four years of 281,355 pounds of excess sulfates. (Schedule of Compliance, Multi-Media Pollutant Reduction U.S. Steel & MPCA,

June 9, 2011, “Multi-Media SOC,” p. 8). Similarly, from 2007 through 2010, the total mass of hardness (CaCO<sub>3</sub>) added to process wastewater exceeded permitted limits each year, with a total exceedance for these three years of 1,364,893 excess pounds of hardness. (*Id.*, pp. 8-9).

The Minntac Mine “Extension” will result in extension of taconite production and tailings basin use until 2031 (MDNR Extension EAW, p. 3) and in the addition of 550,000,000 cubic yards of tailings to the tailings basin (*Id.*, p. 4). Given a quarter of a century of documented violation of water quality standards at the Minntac tailings basin, it should be presumed that this increase in duration and volume of tailings would result in additional and cumulative pollution from the tailings basin in excess of water quality standards. An EIS is required to analyze and propose alternatives and mitigation for the highly probable if not certain significant environmental effects of this pollution.

In particular, an EIS is needed to evaluate impacts on aquatic systems and wild rice in downstream receiving water from the Minntac tailings basin. The U.S. Army Corps of Engineers, in its Public Notice pertaining to the Minntac “Extension” highlighted this potential impact, stating, “The Sandy River is located adjacent to Minntac’s tailings basin. *The Sandy River, and its downstream receiving water, the Pike River, are both designated wild rice waters. The traditional ricing of these waters is well known.*” (USACE Extension Notice, p. 9, emphasis added). The EAW did not discuss any potential impacts on wild rice from additional discharge of tailings and additional duration of sulfate discharge due to the proposed project.

In addition to increasing pollution from the tailings basin, the Minntac Mine “Extension” will result in increased discharge of sulfates and other dissolved contaminants from in-pit disposal and waste rock stockpiles impacting the St. Louis River Watershed. The EAW explains,

Increased in-pit disposal may result in runoff, and therefore mine sump dewatering discharges, with elevated concentrations of certain dissolved constituents (e.g., sulfate, hardness, alkalinity, chloride). This could result in an increase of these constituents in downstream receiving waters. (MDNR Extension EAW, p. 29)

With respect to stockpiles and the new mine pit area, “The extension will expose additional materials in stockpile areas as well as in the new pit area. Future increases in sulfate levels could potentially be associated with the accumulation over time of additional materials and areas exposed to the elements.” (*Id.*, p. 45).

This potential increase in sulfate levels is environmentally significant since mine pit area sumps in the St. Louis River Watershed already discharge elevated levels of sulfates. The EAW reports that monitoring data over the last five years show sulfate levels discharging to the Two West River in the St. Louis River Watershed ranging from 371 mg/L to 501 mg/L (SD001) and from 261 mg/L to 358 mg/L (SD004). Sulfate levels in sump SD003 to Kinney Creek in the St. Louis River Watershed have ranged from 126 mg/L to 154 mg/L. (*Id.*)

The potential for significant environmental effects on aquatic life and wild rice from sulfate, hardness, alkalinity and chloride discharge is exacerbated since the Mine “Extension”

proposal does not include a mine stockpiling plan, so locations and stockpile designs are unknown. (*Id.*, pp. 3-4) An EIS is needed both to analyze environmental impacts of tailings basin and mine site pollution and to provide alternatives to prevent, minimize and mitigate that harm.

### **The Mine “Extension” and Cumulative Minntac Mining Activities have the Potential to Result in Significant Public Health Effects due to Mercury Contamination of Fish**

In addition to the potential for significant environmental impacts on wild rice and aquatic life, the Minntac Mine “Extension” has the potential for significant impacts on public health due to increased sulfate levels, increased duration of sulfate discharge over time and increased mercury methylation contaminating fish in downstream receiving waters.

In studying U.S. Steel’s proposal to siphon off tailings basin discharge to reduce impacts of chemical constituents, the MPCA had the opportunity to examine the relationship between sulfate and promotion of mercury methylation, the mechanism by which inorganic mercury interacts with bacteria, leading to bioaccumulation of bioavailable toxic mercury in fish tissue. The MPCA concluded:

[R]ecent research has shown that sulfate addition may promote the methylation of mercury. Under anaerobic conditions, sulfate provides one of several components needed for the growth of a certain type of bacteria responsible for methylation of mercury in the environment. Therefore, increased sulfate concentrations associated with the proposed project could result in an increase in methylmercury and fish tissue mercury concentrations in the impacted downstream waters. (MPCA Minntac Water Inventory Reduction Project Draft EIS, September 2004, “MPCA Water Inventory DEIS,” p. S-10)

The Minntac Water Inventory DEIS reported research in the Sandy and Pike Rivers supporting the conclusion “that high sulfate concentrations are currently resulting in high methylmercury concentrations downstream of the tailings basin seepage points.” The MPCA hypothesized that “increased sulfate concentration associated with the proposed project would result in an increase in the pool of sulfate available to enter the sediments where methylation occurs, leading to an increase in methylmercury concentrations in the impacted downstream waters.” (*Id.*, p. 5-35).

U.S. Steel objected to portions of the Minntac Water Inventory DEIS that discussed the relationship between sulfates and mercury methylation. In response to U.S. Steel’s challenge, the Final EIS affirmed, “The available information and evidence on the relationship of sulfur and fish mercury levels lead to the reasonable conclusion that increased sulfate mass discharges downstream of the Minntac tailings basin would cause increased fish mercury levels, as discussed in the Mercury and Methylmercury Impact Assessment Technical Memorandum.” (MPCA Water Inventory FEIS, p. 25)

The DEIS for this possible siphoning project at Minntac documented the potential for significant environmental impacts on angling and fisheries due to sulfates and mercury

methylation, stating “If increased concentrations of sulfate lead to methylation of mercury and increasing accumulations of mercury in fish tissue, there could be continued impacts to the economic activities related to recreational angling and the commercial fishery.” (MPCA Water Inventory DEIS, p. S-21). In addition, the MPCA explained, “potential increases in the methylation of mercury due to increased sulfate levels may impact other recreational and fisheries activities within the Sandy/Pike River and the Dark River, as well as Pike Bay and Lake Vermilion more generally.” (*Id.*)

Increased mercury methylation from the Minntac Mine “Extension” has the potential to adversely effect public health as well as angling and recreation. Methylmercury is a known neurotoxic affecting the human fetus, infants and children as well as wildlife at the top of the food chain.

Receiving waters downstream of Minntac tailings basin are already impaired for fish consumption due to methylmercury contamination. Such impaired waters include Dark Lake and the Sturgeon River on the Dark River side of the discharge and Little Sandy Lake, the Pike River and Lake Vermilion on the Sandy River side. Receiving waters downstream of the mine site are also impaired for fish consumption due to methylmercury contamination. These impaired waters include West Two Rivers Reservoir and the St. Louis River in the Lake Superior Basin. (MPCA Water Inventory DEIS, p. 5-25).

Minnesota Department of Health (“MDH”) researchers recently looked at blood samples from 1,465 newborn infants in the Lake Superior area of Minnesota, Wisconsin and Michigan from 2008 through 2010. The MDH found that one of every 10 babies born in the Lake Superior region of Minnesota has unsafe levels of toxic mercury in his or her bloodstream. (J. Meyers, “Study: 1 in 10 babies in Lake Superior region are born with high levels of mercury,” Duluth News Tribune, Feb. 3, 2012).

An EIS is required due to the potential for significant environmental and public health effects resulting from increased discharge of sulfates promoting mercury methylation. Adverse impacts on angling and commercial fisheries and adverse impacts on the neurologic development of human fetuses, infants and children must be assessed and minimized.

### **An Environmental Impact Statement is Needed because Tailings Basin Failure and Leachates have the Potential to Result in Significant Environmental Effects**

The EAW reveals additional potential for significant environmental effects that require additional analysis and consideration of alternatives in an EIS process.

First, although mining within the Minntac “Extension” will require future storage capacity for approximately 550,000,000 cubic yards of tailings, Minntac has not demonstrated that “adequate factors of safety will result” when these additional tailings are stored. (MDNR Extension EAW, p. 4). The Minntac tailings basin is currently classified as a class iii or “Low Hazard” Dam. But U.S. Steel and its consultants have not provided borings, soundings, testing and an updated stability analysis to show that dam failure won’t result in loss of tailings containment:

This classification may no longer be appropriate and a hazard class review is needed. As part of that review, Minntac or its consultant will need to demonstrate, through completion of a dam breach analysis on the existing and proposed dams, that a failure of an interior dam will not cause a perimeter dam to be overtopped. (*Id.*)

Second, although the nature of fill materials used to construct the proposed segment of the mine access road that crosses the Wacootah Pit would impact the chemical composition of leachate and the effects on water quality in the Wacootah pit from leaching of chemical constituents, Minntac has not identified the nature of materials that would be used. (*Id.*, p. 5) In commenting on Minntac's 2011 expansion proposal, the U.S. EPA expressed concern that taconite tailings not be used as building materials for roadways, explaining, that "normal roadway wear-and-tear will ultimately erode taconite tailings, leading to leaching and atmospheric entrainment and deposition of mercury and possibly asbestiform fibers, causing acidification of surface waters and potential human health impacts." (USEPA Western Progression Letter, p. 2)

Finally, Minntac has not provided basic information regarding waste rock stockpiles from which impacts on soils and surface water could be determined, avoided and mitigated. The EAW suggests that "Methods for stockpiling, volumes, and stockpile locations" and "discussion of measures to prevent or minimize potential environmental problems associated with the proposed extension and roadway relocations" will be relegated to the Permit to Mine Amendment. (MDNR Extension EAW, p. 34)

An EIS is needed to provide an assessment of the complete Mine "Extension" project, including its effects on dam safety and design, its effects on leachate from road construction fill and its effects on soils and surface waters from stockpile design and location. Each of these aspects of the proposed expansion project have the potential for significant adverse effects on water quality.

### **An Environmental Impact Statement is Needed to Consider Potential Alternatives to Minimize and Mitigate Potential Harm**

An EIS should be prepared for the Minntac Mine "Extension" to ensure that alternatives are considered to avoid, minimize and mitigate environmental and human health effects of the mine expansion.

The only alternatives proposed by U.S. Steel in the U.S. Army Corps of Engineers or the MDNR permit processes are a no-build alternative and the proposed plan for continued southern advancement of taconite mining in both the east and west pits. (USACE Extension Notice, p. 3; MDNR Extension EAW, p. 30).

U.S. EPA, in communicating with Army Corps regarding this project, explains that alternatives should be analyzed whenever a proposed project would adversely impact aquatic resources:

The 404(b)(1) Guidelines (Guidelines) require that the applicant demonstrate there are no practicable alternatives available that would have a less adverse impact on the aquatic environment for non-water dependent activities. The Guidelines presume that less damaging upland alternatives are available for these activities unless demonstrated otherwise by the applicant. The applicant has only provided two alternatives, the no build alternative and the proposed plan. EPA requests more detailed information which justifies the applicant's inability to seek additional avoidance and minimization of impacts to aquatic resources under the proposed plan. (USEPA Extension Email).

To date, the MDNR has accepted without independent review that avoidance of impacts to streams and watersheds “is not feasible because of the location of the ore.” (MDNR Extension EAW, p. 30) No independent analysis has been provided to date of the alleged economic consequences of the no-build plan claimed by Minntac, and no assessment has been made of alternatives, designs or technologies that would minimize adverse environmental effects of Minntac’s expansion proposal.

An EIS for the Minntac “Extension” would address the requirements of the Clean Water Act Guidelines cited by the U.S. EPA and provide an opportunity to consider alternatives that would avoid and mitigate adverse environmental and health effects of Minntac’s proposed mine expansion.

### **An Environmental Impact Statement is Needed Due to Piecemeal Expansions and the Inadequacy of Permitting to Analyze Alternatives or Address Cumulative Impacts**

WaterLegacy could not find any place in any record where overall environmental effects of Minntac’s mine and tailings basin were reviewed and alternatives considered to avoid and minimize environmental harm.

According to the EAW prepared by the MDNR, the proposed Mine “Extension” would be the second significant amendment of U.S. Steel’s Permit to Mine for the Minntac facility. For the prior significant expansion in 1996 no EIS was prepared. (MDNR Extension EAW, p. 6)

Records from the 1996 expansion indicate that no public comments were received relating to Kinney Creek impacts. In fact, it appears that no comments at all were received from the public, environmental stakeholders or tribes. (MDNR Record of Decision in the Matter of Need for an EIS for U.S. Steel - Minntac's Proposed Mine Extension Project, June 10, 1996, “MDNR 1996 Extension ROD,” pp. 1, 3).

In approving the 1996 expansion, the MDNR anticipated that within 20 to 25 years of the expansion, the project area would be completed, reclaimed and revegetated. (MDNR 1996 Extension ROD, p. 3). Minntac’s history, instead, reflects continuing expansion, in inexorable phased segments, each of which alone may seem insufficient to require review.

Minntac's environmental assessment prepared last year for the "West Pit Progression" suggests that U.S. Steel's incremental expansions are planned in advance, so each may have its own separate review process:

In 2007, Minntac began planning for an extension to taconite mining beyond the current MNDNR permitted mining limits in the East and West Pits. This extension area is the subject of a separate Environmental Assessment Worksheet (EAW) process with the MNDNR and will be subjected to separate permit review processes by the USACE and other regulatory agencies. (Minntac Pit Progression EA, p. 2).

Since 2007, when planning for this year's Mine "Extension" admittedly began, Minntac obtained a permit in 2009 for 21 acres of wetlands destruction in the East Pit (*Id.*, p. 1) and another permit in 2010 allowing approximately 8.75 acres of wetlands destruction associated with construction of the SC&R (seep collection and return) system. (*Id.*, p. 7). In a separate process, in 2011, Minntac is seeking a permit from the U.S. Army Corps of Engineers for the "West Pit Progression," which proposes 497 acres of expansion and impacts on 5,000 feet of streams and 70 acres of wetlands. (USACE Pit Progression Notice, p. 1)

Like the present Minntac "Extension" proposal, last year's "Progression" proposal suggested no alternatives other than the no-build and U.S. Steel's proposed project. (Minntac Pit Progression EA, pp. 2-3). No determination has yet been made whether a federal EIS will be required for last year's "West Pit Progression" or this year's Minntac Mine "Extension." Up until now, each Minntac expansion and each additional encroachment on streams, wetlands and habitats has been separately reviewed, with no comprehensive analysis of cumulative impacts or analysis of alternatives to mitigate adverse impacts.

In addition to Minntac's segmented environmental review processes, the permitting systems controlling Minntac's impacts on water quantity and water quality are fragmented, precluding a comprehensive review of water resource impacts through a permitting process. U. S. Steel is currently permitted to pump water from the mine area in order to conduct mining operations, facilitate the disposal of tailings, and maintain surface waters under eight separate permits. Minntac has five separate MNDNR water appropriations permits (Permit Nos. 63-0846, 80-2084, 80-2085, 98-2002, and 99-2063) and three National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permits (Permit Nos. MN0052493, MN0057207 and MNC050504). (Minntac Pit Progression EA, p. 7)

Under these various permits, U. S. Steel is authorized to discharge mine dewatering water to numerous receiving surface water systems: unnamed wetlands and ditches tributary to the east Two River; Parkville Creek; West Branch of East Two Rivers; East Branch of West Two Rivers; two unnamed creeks tributary to the West Two River Reservoir; an unnamed tributary to Kinross Creek; unnamed creeks and wetlands tributary to Kinney Lake; Kinney Creek; Kinney Lake; Forsyth Pit Lake (no longer in existence); Western Drainage Ditch; an unnamed tributary to Kinney Creek; and unnamed wetlands. (Minntac Pit Progression EA, p. 8)

Since Minntac's existing permitted appropriation of water is a staggering 11,415 million gallons per year (Minntac Pit Progression EA, Appx. F), even actual increases in

appropriation of several hundred millions of gallons per year could avoid review in any permitting process.

None of Minntac's permits and none of the Environmental Assessment documents at either the state or federal level contain a water budget, analyzing where waters are appropriated from, consumed, and diverted by Minntac within and across watersheds. In addition, there has never been an overall assessment of the volume of water and mass of chemical constituents released by Minntac through its variety of discharge points in various permits. An EIS is critical to provide this long overdue examination of the significant effects of Minntac's mining facilities on water quantity and quality.

Cumulative impacts of habitat destruction are also certain to be discounted if viewed piecemeal. The EAW for the proposed Minntac Mine "Extension" suggests that removing 227 acres of forested upland would have little impact on wolf habitat. (MDNR Extension EAW, p. 15). The EAW does not analyze cumulative impacts of Minntac's habitat destruction on the wolf, lynx, other large mammals or other wildlife. A hint of the environmental significance of this cumulative change in land use is contained in the EAW from Minntac's 1996 expansion:

The project will greatly modify nearly 1000 acres of wildlife habitat . . . Through die-off and lower reproduction, local wildlife populations will decline until compatibility with the remaining habitat is reached. Smaller mammals, amphibians and reptiles will likely perish as mining advances . . . This development pattern may prevent large mammals such as deer, bear, and wolves from moving north-south through the project area. (MDNR, Minntac Extension Environmental Assessment Worksheet, May 1, 1996).

However, the cumulative impacts of Minntac's conversion of forests and wetlands to mining land use are larger still. As Minntac's consultants noted in summarizing last year's proposed expansion,

Cumulative impacts to habitat include habitat lost to date from previous mining activities as well as future plans to extend the permitted mine limits . . . *Approximately 20,000 acres of land use has been permanently converted through past Minntac mining activities.* (Minntac Pit Progression EA, p. 14, emphasis added).

How significant is the cumulative expansion of the Minntac facilities to encompass 20,000 acres of land? In terms of size, Ely is 2.7 square miles, Hibbing is 4.8 square miles and Duluth contains 68 square miles of land. Minntac's land use conversion is equivalent to more than seven times the size of Ely, more than four times the size of Hibbing or nearly 30 percent of the size of Duluth.

Despite the magnitude of Minntac's overall impacts on water resources and land usage, Minntac has, to date, avoided the scrutiny of an EIS and any legal obligation to provide alternatives to prevent, minimize or mitigate environmental effects of its mining facilities.

A poem by John Ciardi (attached) tells the story of a child who asks for more and more “little” pieces of pie until the pie is all gone. The cook in the poem Little Bits reflects on the cumulative impacts of consumption:

By little-bit and little-bit  
You’ve eaten all there was of it.  
I know that little-bit are small.  
But a lot of little-bits is all.

### **Conclusion Requesting EIS for Minntac Mine “Extension”**

WaterLegacy requests that an EIS be prepared for the Minntac Mine “Extension” under applicable law because the proposed project and cumulative impacts of Minntac mining activities have the potential for significant adverse environmental effects on streams, wetlands, water quantity in the Lake Superior Basin, watersheds and wells, and water quality as it effects aquatic life, wild rice, fish and public health. Environmental impacts on streams and wetlands cannot be discounted by the good intention to mitigate harm, since the proposed mitigation of environmental effects is neither specific nor certain. Minntac’s history of violation of permits and water quality standards demonstrates that additional sulfates and other chemicals released due to the proposed expansion will constitute pollution, impairment and destruction of water resources constituting a significant environmental effect.

WaterLegacy requests that an EIS be prepared to ensure that Minntac’s expansion plan and mining facilities receive a comprehensive review and consideration of alternatives. An EIS would allow an overall assessment of Minntac’s impacts on water resources and habitats and provide an opportunity to determine the balance of water appropriation, consumption and diversion between watersheds. An EIS would allow comprehensive assessment of pollutants and would ensure consideration of alternative sites, designs and layouts, technologies, scale adjustments, reclamation plans, limits on water use and discharge and other mitigation alternatives to reduce the impacts of the Minntac taconite mine, processing facility and tailings basin on the environment and public health.

WaterLegacy would welcome the opportunity to discuss our comments and would be pleased to provide electronic copies of any cited documents not already in your files. Please do not hesitate to call me at 651-646-8890 if you have any questions.

Sincerely yours,



Paula Goodman Maccabee  
Counsel/Advocacy Director for WaterLegacy

Enclosure

## LITTLE BITS

“Will you have some pie?”  
Said Jane. Said I,  
“Well, just a little. Just a bit.”  
But I found when I had eaten it  
That just *one* little bit wouldn’t do.  
So I told Jane to make it *two*.

Then was I happy with what I got?  
Well, little-bits can’t make a lot.  
For little-bits are small, you see.  
So I told Jane to make it *three*.

*Three* little-bits are not much more  
Than *two*. So I said, “Make it *four*.”

And I ate them up. Then asked for *five*.  
Then *six*. Till Jane said, “Sakes alive,  
Here are two more and that makes *eight*.  
If you don’t stop you’ll eat the plate!”  
“*Eight* little-bits,” I said, are fine.  
But would you care to make it *nine*?”

Said Jane, “I’d make it *forty-four*.  
But, sad to say, there are no more.  
By little-bit and little-bit  
You’ve eaten all there was of it.

I know that little-bit are small.  
But a lot of little-bits is all.  
And little by little by little, you see,  
Gets down to none at all for me!

That’s why I hope that when I bake  
Another pie, you will just take  
One great big fat thick lot of it,  
And let me have a little-bit!”

John Ciardi, You Read to Me, I’ll Read to You