

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

RECORD OF DECISION

In the Matter of the Final Environmental
Impact Statement for the United States Steel Corporation,
Keetac Mine Expansion Project,
Itasca County, Minnesota,
Pursuant to EQB Rules,
Parts 4410.0200 to 4410.6500

**FINDINGS OF FACT,
CONCLUSIONS,
AND ORDER**

Based upon, and after having considered, the entire record of the proceeding, including written reports, written and oral data, information, and statements, the Department of Natural Resources (DNR) makes the following:

FINDINGS OF FACT

1. United State Steel Corporation (“Proposer”) proposes to restart an idle indurating line and upgrade plant components as well as expand the mine pit and stockpile areas. The height of the tailings basin would increase and the footprint would increase slightly. New haul trucks and other in-pit mining equipment would be put to use. Additional mine dewatering activities would occur as the boundaries of the mine area expand. These changes would increase taconite pellet production from approximately 6 million tons a year to 9.6 million tons a year.
2. Pursuant to EQB Rules, part 4410.4300, subpart 11, items B and C, the Project exceeds the thresholds for a mandatory Environmental Assessment Worksheet (EAW).
3. Pursuant to EQB Rules, part 4410.2000, subpart 3, item B, the Proposer and the DNR agreed that a discretionary EIS should be prepared and pursuant to 4410.4400, subpart 8, and the DNR would be the Responsible Governmental Unit (RGU).
4. On April 25, 2008, the DNR received the Proposer’s completed data portions of the EAW form to be used for Environmental Impact Statement (EIS) scoping, pursuant to EQB (Environmental Quality Board) Rules, part 4410.1400.
5. A Notice of Intent to prepare a joint state/federal EIS was published in the *Federal Register* (Vol. 73, No. 152) August 6, 2008. The notice specified that the U.S. Army Corps of Engineers (USACE) would be the lead federal agency and that the DNR would be the lead state agency.
6. Pursuant to EQB Rules, part 4410.1400, on August 18, 2008 the DNR determined that the EAW data submittal was complete for scoping purposes.
7. On August 28, 2008 the DNR finalized a Scoping EAW and Draft Scoping Decision Document (DSDD) for the project, pursuant to EQB Rules, part 4410.2100.
8. Scoping EAW Item 8 listed known permits and public approvals required before the project could proceed. The regulatory authorities cited include:

- U.S. Army Corps of Engineers
 - Minnesota Department of Natural Resources
 - Minnesota Pollution Control Agency
 - Minnesota Department of Health
 - St. Louis County
 - Itasca County
 - City of Hibbing
 - City of Keewatin
 - City of Nashwauk
9. Although required to analyze only potentially significant impacts, the DNR determined the EIS would discuss additional issues for which significant impacts were not expected to augment the information contained in the Scoping EAW.
 10. The DNR provided copies of the Scoping EAW and DSDD to all parties designated on the EQB EAW distribution list in accordance with EQB Rules, part 4410.1500, subpart A. The Scoping EAW and DSDD were also made available to the public via posting on the DNR's website.
 11. In accordance with EQB Rules, part 4410.2100, subpart 3, the Notice of Availability of the Scoping EAW and DSDD was published in the EQB *Monitor* (Vol. 32, No. 18) on September 8, 2008, beginning the 30-day scoping period ending on October 8, 2008. The notice included the time, place, and date of the scoping meeting.
 12. Pursuant to EQB Rules, part 4410.1500, subpart B, the DNR supplied a press release to at least one newspaper of general circulation in the vicinity of the project. The press release included the name and location of the project, a brief description of the project, the location at which copies of the Scoping EAW and DSDD were available for review, the date the comment period ends, and the procedures for commenting.
 13. Pursuant to EQB Rules, part 4410.2100, subpart 3, item B, the DNR held a public scoping meeting October 1, 2008, at the Nashwauk-Keewatin High School, 400 2nd Street in Nashwauk, Minnesota from 6:30 p.m. to 8:30 p.m. Approximately 30 people attended the meeting. The attendees received information about the Minnesota Environmental Review Program, the project, the proposed EIS contents, and were given an opportunity to ask questions about the project and the EIS process. The DNR provided a comment form for submitting written comments and a stenographer for oral comments on the proposed EIS scope.
 14. The EQB Rules require the RGU to accept comments on the Scoping EAW and DSDD for a period of 30 days following publication of the notice of availability.
 15. The DNR accepted written and emailed comments on the Scoping EAW and DSDD for 30 days following publication of Notice of Availability (September 8, 2008 to October 8, 2008), in accordance with EQB Rules, part 4410.2100, subpart 3.
 16. The DNR received eight comment letters on the Scoping EAW and DSDD during the 30-day comment period. Letters were received from:

Nick Axtell, 1854 Treaty Authority
Matt Norton, Minnesota Center of Environmental Advocacy
David Olson, Minnesota Chamber of Commerce

Craig Pagel, Iron Mining Association of Minnesota
Nancy Schuldt, Fond du Lac Band of Lake Superior Chippewa
Brandy Toft, Leech Lake Band of Ojibwe
Kenneth Westlake and Sherry Kamke, U. S. Environmental Protection Agency, Region 5
Joy Wiecks, Fond du Lac Band of Lake Superior Chippewa

No oral or written comments were received at the October 1, 2008 public scoping meeting.

17. EQB Rules do not require the RGU to respond to comments received on the Scoping EAW and DSDD, but require the RGU to consider the comments received in developing the Final Scoping Decision Document (FSDD).
18. A memorandum of understanding (MOU) for the purpose of preparing a joint state/federal EIS among the USACE, DNR, and the Proposer was created and entered into on October 14, 2008.
19. The DNR responded to all comments received on the Scoping EAW and DSDD in a November 5, 2008 correspondence entitled, "Responses to EIS Scoping Comments." The response to EIS scoping comments document was sent to all persons who made comment during the EIS scoping comment period, those designated on the EQB EAW distribution list, and was placed on the DNR website.
20. EQB Rules require the RGU to issue a FSDD within 15 working days after the close of the 30-day scoping period.
21. The DNR considered comments received during the EIS scoping period and made substantive revisions to the following sections of the DSDD: Wetlands; Physical Impacts on Water Resources, Other Potential Environmental Impacts, Alternative Technologies, Fish and Wildlife, Stationary Air Source Emissions, and Special Studies or Research.
22. The DNR issued the FSDD on November 5, 2008.
23. The FSDD included the following content in accordance with EQB Rules, part 4410.2100, subpart 6: the issues to be addressed in the EIS; the time limits for preparation; identification of the permits for which information will be gathered concurrently with EIS preparation; identification of the permits for which a record of decision will be required; alternatives that will be addressed in the EIS; identification of potential impact areas resulting from the project itself and from related actions which shall be addressed in the EIS; and identification of necessary studies requiring compilation of existing information or the development of new data that can be generated within a reasonable amount of time at a reasonable cost.
24. The DNR provided copies of the FSDD to all parties designated on the EQB EAW distribution list, to all parties that submitted comments on the scoping documents, and to all parties requesting copies. The FSDD and Scoping EAW were also made available to the public via posting on the DNR's website.
25. Pursuant to EQB Rules, part 4410.2300, subpart G, the EIS included at least one alternative of each of the following types, or provided an explanation of why no alternative 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 EIS scoping and draft EIS comment periods.

26. Pursuant to EQB Rules, part 4410.2300, subpart G, “An alternative may be excluded from analysis in the EIS if it would not meet the underlying need for or purpose of the project, it would likely not have any significant environmental benefit compared to the project as proposed, or another alternative, of any type, that will be analyzed in the EIS would likely have similar environmental benefits but substantially less adverse economic, employment, or sociological impacts. Alternatives included in the scope of the EIS as established under part 4410.2100 that were considered but eliminated based on information developed through the EIS analysis shall be discussed briefly and the reasons for their elimination shall be stated. The alternative of no action shall be addressed.”
27. The FSDD determined the EIS would include discussion of the proposed project alternative, no action alternative, technology, design and layout alternatives, and alternatives incorporating reasonable mitigation measures identified through EIS scoping and Draft EIS comment periods. The EIS documented the basis for dismissal of alternatives where appropriate.
28. On November 17, 2008, the EIS Preparation Notice summarizing the FSDD was published in the *EQB Monitor* (Vol. 32, No. 23). The DNR supplied a press release to at least one newspaper of general circulation in Itasca and St. Louis counties, Minnesota.
29. Pursuant to EQB Rules, part 4410.2300, the DNR and the USACE, with assistance of a consultant, prepared the Draft EIS.
30. Pursuant to EQB Rules 4410.2800, subpart 3, the determination of adequacy of the Final EIS shall be made within 280 days after the Preparation Notice was published in the *EQB Monitor* unless the time is extended by consent of the proposer and the RGU or by the governor for good cause. The Proposer consented to a longer time limit February 12, 2009.
31. Pursuant to EQB Rules part 4410.2300, the DNR, with the assistance of a consultant, prepared the EIS, which included the following components prescribed by the EQB Rules: cover sheet; summary; table of contents; list of preparers; project description; list of governmental approvals; discussion of alternatives, including a discussion of why particular alternatives were considered but eliminated; potentially significant environmental and economic impacts identified in scoping; mitigation measures; and appendices containing material prepared in connection with the EIS or material substantiating analysis fundamental to the EIS. The FSDD did not require permit information to be developed and gathered concurrently with the preparation of the EIS, but the EIS did not include this component as it became available. The EIS’s treatment of these components is detailed in Findings 32 through 46. The required components *per se* are underlined at the beginning of each finding.
32. Cover sheet. The EIS has a cover sheet and certification page.
33. Summary. The EIS contains an executive summary.
34. Table of Contents. The EIS contains a table of contents.
35. List of preparers. This topic is addressed in Chapter 7 of the Final EIS.
36. Project description. The project is described in Chapter 3 of the EIS.

37. Governmental approvals. Governmental permits and approvals, including the governmental unit responsible for each action, are listed in Chapter 2 of the EIS.
38. Alternatives. The topic of alternatives, including alternatives dropped from consideration in the EIS, is discussed in Chapter 3 and 4 of the EIS.
39. Environmental, economic, employment, and sociological impacts: Chapters 4 and 5 of the Final EIS address this topic.
40. Mitigation measures. Measures available to avoid or minimize potential adverse impacts are described in Final EIS Chapters 4 and 5.
41. Appendix. The Final EIS contains a total of 15 appendices.
42. Pursuant to EQB Rules, part 4410.2400, the EIS incorporates material into the EIS by reference to reduce the bulk without impeding governmental and public review of the project. All incorporated material was made available for inspection by interested persons within the time allowed for comment.
43. The EIS collected information on additional issues for which significant impacts were not expected as a means to augment the information contained in the EAW. This information is presented in Final EIS Chapters 4 and 5.
44. Topics determined in the FSDD to receive no additional analysis are found in Chapter 3 of the Final EIS.
45. The Final EIS presents information on public and agency involvement in Chapter 1.
46. References for information cited in the EIS are listed in Chapter 8 of the Final EIS.
47. The EIS evaluated and analyzed effects and alternatives commensurate with their importance as identified by the scoping process and identifies reasonable mitigation opportunities for potential adverse effects.
48. According to EQB Rules, part 4410.2600, subpart 3, on December 7, 2009, the DNR distributed copies of the Draft EIS to all parties designated on the EQB EIS distribution list, government units with authority to permit or approve the project; to the extent known, the Proposer, and to all individuals requesting a copy. Copies of the Draft EIS were also provided to the DNR Library in St. Paul, the Minneapolis Public Library, the Duluth Public Library, the Legislative Reference Library, the Hibbing Public Library, and the Keewatin Public Library.
49. The Executive Summary of the Draft EIS with a data disc of the entire EIS was supplied to all persons who submitted substantive comments on the Scoping EAW and DSDD, and any person requesting the Executive Summary in accordance with EQB Rules 4410.2600, subpart 4.
50. The EQB Rules require the RGU to publish a Notice of Availability of the Draft EIS in the EQB *Monitor*.
51. Pursuant to EQB Rules, part 4410.2600, subpart 5, the Notice of Availability of the Draft EIS was published in the December 14, 2009 EQB *Monitor* (Vol. 33, No. 25). The notice included the

date, time, and location of the public informational meeting, notice of where copies of the Draft EIS were available for public review, and stated the comment period closure date and time (January 26, 2010 at 4:30 p.m.).

52. Pursuant to EQB Rules, part 4410.2600, subpart 6, the DNR supplied a press release on December 14, 2009 to at least one newspaper of general circulation in the vicinity of the Project. The press release included the date, time, and location of the public informational meeting, notice of where copies of the Draft EIS were available for public review, and stated the comment period closure date and time.
53. In accordance with EQB Rules, part 4410.2600, subpart 8, a public informational meeting was held on January 11, 2010, not less than 15 days after publication of the Notice of Availability of the Draft EIS in the EQB *Monitor*. A video of the meeting was made.
54. The EQB rules require the Draft EIS public comment period to remain open not less than 10 days after the public information meeting.
55. The Draft EIS public comment period concluded January 26, 2010.
56. The DNR accepted written comments on the Draft EIS from December 11, 2009 to January 26, 2010.
57. The DNR received 25 comment letters during the public comment period and three transcribed oral comments on the Draft EIS during the public informational meeting. Following is the list of the people who submitted written or oral comments. Some people submitted more than one comment letter and some letters were signed by multiple people.

Paul Aasen, Minnesota Center for Environmental Advocacy
Nick Axtell, 1854 Treaty Authority
Rosemary Berens, Bois Forte Band of Ojibwe
Alan Hodnik, ALLETE
Jason Janisch
Amy Klobuchar, U.S. Senator
David Lotti, Western Mesabi Mine Planning Board
Gary Louzensky
Cory MacNulty, Voyageurs National Park Association
Sam Malloy, Leech Lake Band of Ojibwe
Lynn McClure, National Parks Conservation Association
David McMillan, Minnesota Power and ALLETE
Nathan Miller, National Parks Conservation Association
Claudia Modich
Patrick Mullen, Minnesota Power
James Oberstar, U.S. Representative
David Olson, Minnesota Chamber of Commerce
Craig Pagel, Iron Mining Association of Minnesota
Tom Sampson, City of Keewatin
James Sanders, U.S. Department of Agriculture
Anthony Sertich, Minnesota State Representative
Brandy Toft, Leech Lake Band of Ojibwe
David Tomassoni, Minnesota State Senator

Norm Voorhees
Kenneth Westlake, U. S. Environmental Protection Agency, Region 5
William Whiteside
Joy Wiecks, Fond du Lac Band of Lake Superior Chippewa

58. EQB Rules require the RGU to prepare a Final EIS that responds to timely substantive comments on the Draft EIS consistent with the FSDD and to include any necessary revisions to the Draft EIS.
59. The DNR prepared written responses to comments made at the public informational meeting and to substantive comment letters received during the Draft EIS public comment period. Comment letters and responses are presented in Appendix L of the Final EIS.
60. The DNR prepared a Final EIS comprising changes in response to comments on the Draft EIS. The sections of the Final EIS which have substantial changes are as follows: Modified Designs and Layouts; Wetlands; Wild Rice; Mercury Emissions/Mercury Balance/TMDL Implementation Plan Compliance; Class I Areas—Potential Cumulative Impacts to Air Quality; Class II Impact Analysis; Human Health Risk Assessment; Ecological Risk Assessment; Closure and Reclamation; Noise; Recreational Trails; and Agency Roles and Responsibilities.
61. In addition, the following appendices were added or changed in the Final EIS: Appendix E – Analysis of Stockpile Location Concepts Memorandum; Appendix L – Public Comments and Agency Response to Public Comments Received During the Draft EIS Public Comment Period; Appendix M — Summary of Wild Rice Literature Review and Findings; Appendix N — Programmatic Agreement between the USACE, SHPO, Minnesota Ojibwe Bands and U.S. Steel; and Appendix O — Biological Assessment.
62. The Final EIS comprises the complete EIS for the project.
63. Pursuant to EQB Rules, part 4410.2700, subpart 3, the Final EIS was distributed to all parties that received a copy of the Draft EIS, to all parties that submitted comments on the Draft EIS, and to all parties requesting a copy. The DNR also provided a copy of the Final EIS to the DNR Library in St. Paul, the Legislative Reference Library in St. Paul, the Minneapolis Public Library, the Hibbing Public Library, Duluth Public Library, and the Keewatin Public Library.
64. Pursuant to EQB Rules, part 4410.2700, subpart 4, a notice of Final EIS availability was published in the EQB *Monitor* (Vol. 34, No. 23) on November 15, 2010. The notice included the location of copies of the Final EIS available for review and described the opportunity for public comment on the adequacy of the Final EIS.
65. Pursuant to EQB Rules, part 4410.2700, subpart 5, the DNR supplied a press release on November 12, 2010, to at least one newspaper of general circulation in the vicinity of the Project. The press release included the location of copies of the Final EIS available for review and described the opportunity for public comment on the adequacy of the Final EIS.
66. The EQB *Monitor* notice, cover letters accompanying the Final EIS, and DNR website identified the three criteria used in determining EIS adequacy (EQB Rules, part 4410.2800, subpart 4) and the deadline for submitting comments.

67. EQB Rules, part 4410.2800 require the RGU to accept comments on the adequacy of the Final EIS for a period of not less than ten days following publication in the EQB *Monitor*. Because this EIS is a joint state/federal EIS, the state comment period was extended to a 30-day public comment period pursuant to the National Environmental Policy Act (NEPA).
68. The USACE issued a Notice of Availability for the Final EIS on the November 19, 2010, *Federal Register* (Vol. 75, No. 223) indicating the federal comment period concludes December 20, 2010.
69. The DNR established December 20, 2010, as the deadline for receiving comments on the adequacy of the Final EIS in the EQB *Monitor* notice, the press release, and cover letters accompanying the Final EIS.
70. Written and emailed comments on the Final EIS were accepted from November 12, 2010 through December 20, 2010.
71. Four comment letters were received during the Final EIS comment period.
72. Comment letters and DNR responses to comments on the Final EIS are attached and incorporated as Appendix A to this Record of Decision. Following is a summary of the topics included in the comment letters: biological monitoring; greenhouse gases; groundwater quality; mercury; NOx emissions; particulate matter emissions; wetland; wildlife corridors; and wild rice and sulfate concentrations.
73. Following is a list of those who commented on the Final EIS during the comment period. Two letters were signed by multiple people.
- Darren Vogt, 1854 Treaty Authority
Alan R. Hodnik, Allete-Minnesota Power
Kenneth Westlake, U.S. Environmental Protection Agency
Peter Swenson, U.S. Environmental Protection Agency
Lynn McClure, National Parks Conservation Association
Kevin Reuther, Minnesota Center for Environmental Advocacy
Cory MacNulty, Voyageurs National Park Association
Betsy Daub, Friends of the Boundary Waters Wilderness
74. Comment letters containing comments on Final EIS adequacy were received from the 1854 Treaty Authority, U.S. Environmental Protection Agency, and a joint letter from the National Parks Conservation Association, Minnesota Center for Environmental Advocacy, Voyageurs National Park Association, and Friends of the Boundary Waters Wilderness.
75. Comments received after the close of the Final EIS review period do not bear on the Final EIS adequacy determination. The DNR will provide upon request, copies of any letters received after the close of the comment period to all permitting agencies and to the Proposer for consideration in Project decision-making.
76. Pursuant to EQB Rules part 4410.0300, subpart 3, the Final EIS contains information that addresses the significant environmental issues of the Keetac Mine Expansion Project. This information is available to governmental units, the Proposer, and citizens early in the decision-making process.

77. EQB Rules, part 4410.2800, subpart 3, requires the RGU to determine the adequacy of the Final EIS at least ten days after publication in the EQB *Monitor* of the notice of availability of the Final EIS, and within 280 days after the Draft EIS preparation notice was published unless time is extended by consent of the Proposer and the RGU.
78. By consent of the Proposer and the RGU, the timeframe for completing the Final EIS was extended for good cause.
79. EQB Rules, part 4410.2800, subpart 1, requires the RGU to determine adequacy of the Final EIS unless notified by the EQB that the EQB will make the determination. If the EQB decides to make the adequacy determination, it must notify the RGU of its decision no later than 60 days following publication of the preparation notice in the EQB *Monitor*. The EQB has not given such notification to the DNR.
80. EQB Rules, part 4410.2800, subpart 4, requires the RGU to find the Final EIS adequate if it: a) addresses the potentially significant issues and alternatives raised in scoping so that all significant issues for which information can reasonably be obtained have been analyzed in conformance with EQB Rules, part 4410.2300, items G and H; b) provides responses to the substantive comments received during the draft EIS review concerning issues raised in scoping; and c) was prepared in compliance with the procedures of the Minnesota Environmental Policy Act (Minnesota Statutes, chapter 116D.04) and the EQB Rules, parts 4410.0200 to 4410.6500.

CONCLUSIONS

1. The DNR is charged with determining the adequacy of the Final EIS for the Keetac Mine Expansion Project. The Final EIS meets the content requirements of EQB Rules, part 4410.2300.
2. The DNR prepared the EIS in compliance with the procedures of Minnesota Statutes, section 116D.04 and EQB Rules, parts 4410.0200 to 4410.6500.
3. The public has been afforded opportunities for input to the scope of the EIS, the content of the Draft EIS and Final EIS, and the adequacy of the Final EIS in accordance with all applicable provisions of the EQB Environmental Program Rules.
4. The information presented in the Final EIS adequately addresses the issues identified in the FSDD.
5. The Project is described in sufficient detail.
6. The Final EIS adequately analyzes potentially significant environmental impacts.
7. The Final EIS adequately presents alternatives to the proposed action and their impacts.
8. The Final EIS adequately presents methods by which adverse environmental impacts can be mitigated.
9. The Final EIS adequately presents the economic, employment, and sociological effects that cannot be avoided should the Project or an alternative be implemented.
10. The Final EIS is adequate because it meets the criteria set forth in EQB Rules, part 4410.2800, subpart 4, which require that it:
 - a. addresses the potentially significant issues and alternatives raised in scoping so that all significant issues for which information can be reasonably obtained have been analyzed in conformance with part 4410.2300, items G and H;
 - b. provides responses to the substantive comments received during the draft EIS review concerning issues raised in the scoping process; and
 - c. was prepared in compliance with the procedures of the Minnesota Environmental Policy Act and EQB Rules, parts 4410.0200 to 4410.6500.
11. That any Findings that might properly be termed Conclusions and any Conclusions that might properly be termed Findings are hereby adopted as such.

ORDER

Based upon the Findings of Fact and Conclusions contained herein and the entire record of the proceedings:

The Minnesota Department of Natural Resources hereby determines that the Final Environmental Impact Statement for the proposed Keetac Mine Expansion Project in Itasca County and St. Louis County, Minnesota is adequate.

Approved and adopted this 30th day of December, 2010.

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES



MARK HOLSTEN
Commissioner

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Appendix A

Public Comments and Agency Response to Those Comments Received During the Final EIS Public Comment Period

Description of the Public Comment Period

The Final Environmental Impact Statement (FEIS) was published and released for public review on November 15, 2010. The 30-day public comment period closed on December 20, 2010. Four comment letters were received on the FEIS, which included a federal agency, five non-governmental groups and one private business. Individual comments addressing FEIS adequacy in each comment letter were labeled and responded to by the Minnesota Department of Natural Resources (MNDNR) and the U.S. Army Corps of Engineers (USACE) in this document.

The following text includes responses to comments addressing FEIS adequacy followed by the original comment letters. The responses are organized by commenter and separated into individual comments. All comment letters received are attached to this document in their entirety.

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- (A) Darren Vogt, Environmental Director, 1854 Treaty Authority – December 10, 2010
- (B) Alan R. Hodnik, President and CEO, Allete-Minnesota Power – December 13, 2010
- (C) Kenneth Westlake, Chief of NEPA Implementation Section, and Peter Swenson, Chief of Watersheds and Wetlands Branch, USEPA – December 20, 2010
- (D) Lynn McClure, National Parks Conservation Association (NPCA); Kevin Reuther, Minnesota Center for Environmental Advocacy; Cory MacNulty, Voyageurs National Park Association (VNPA); and Betsy Daub, Friends of the Boundary Waters Wilderness – December 20, 2010

Responses to Public Comments received during the Final EIS Public Comment Period

COMMENT LETTER RECEIVED FROM: Darren Vogt, Environmental Director, 1854 Treaty Authority (A)

Comment A-1: *At the end of section 4.7.2.2 it states that "A listing of designated wild rice waters can be found in Minnesota Rules, part 7050.0470. None of the water bodies affected by the Proposed Project are listed as wild rice waters in Minnesota Rules." We would like to note that these rules do not attempt to identify all wild rice waters, so care should be taken on how this list is referenced or utilized. This clarification should have been included in the EIS.*

RESPONSE: No additional clarification was needed in the Final EIS. The intent of the wild rice waters listing in Minnesota Rules, part 7050.0470 was not to be a comprehensive list of all waters in the state that have wild rice present, but as stated in the Section 4.7.3, to be a special designation for waters recognized to be of ecological importance for its wild rice resources, as selected, "in conjunction with Minnesota Indian tribes" (Minnesota Rules, part 7050.0224, subp. 1).

Additionally, as stated in Section 4.7.3 of the FEIS, MPCA staff has reviewed and considered the available information for the Proposed Project, including site specific wild rice data and water quality data. Based on the information and data received to date, MPCA staff has determined that it cannot at this time support a sulfate value other than 10 mg/L as the applicable ambient standard for waters used for the production of wild rice that may be impacted by the Proposed Project.

MPCA's support of the 10 mg/L sulfate standard in waters not listed in Minnesota Rules, part 7050.0470 is clear indication that the list is not comprehensive.

Comment A-2: *In several sections (4.7.5, 5.4.2, 5.4.5), text within the document and/or side boxes is included stating that "naturally occurring wild rice stands have been found growing in waters with sulfate concentrations between 50 and 282 mg/L." We have commented that these statements should be revised or removed. Impacts to wild rice growth and success may be or even are occurring in this range. In fact, recent work completed at the University of Minnesota Duluth indicates impacts on wild rice from elevated sulfate levels. Further, naturally occurring stands are also found (and more likely found) in areas less than the 50 mg/L. In other words, wild rice is more commonly found in 0-50 mg/L, not only in the 50-282 mg/l indicated in the document. Natural stands in northeastern Minnesota that we have investigated are typically growing in less than 10 mg/L. As written the EIS implies that 50-282 mg/l is the typical or optimal range for wild rice, and that impacts are not occurring in that range. This information is misleading as presented in the EIS.*

Revision or removal of these statements should have been made to clear up the confusion without affecting the information that the document provides. Natural wild rice not receiving discharges by industrial releases grows in water with low sulfate levels. This is the fact that should be highlighted. Any statements saying wild rice has been found growing in concentrations between 50-282 mg/L should clearly be qualified by stating that impacts may be occurring at this range but may not be understood.

RESPONSE: The statement, “naturally occurring wild rice stands have been found growing in waters with sulfate concentrations between 50 and 282 mg/L” in the DEIS and FEIS was made based on the literature reviewed for the development of the FEIS document. As referenced in sections 4.7 and 5.4 of the FEIS, Appendix M provides a summary of over 40 documents related to wild rice research on which the statement is based, including the University of Minnesota Duluth study that is referenced in the comment. The lower range (50 mg/L) given in the FEIS represents the sulfate concentrations that exist in Hay Lake and Hay Creek (48-55 mg/L). Studies completed for the FEIS and in the literature review indicate that wild rice has been shown to exist in water bodies with sulfate concentrations higher than the current state standard of 10 mg/L. However, this does not obviate the fact that there is a state water quality standard, and that the state agencies, as indicated in Section 4.7.3, “...cannot at this time support a sulfate value other than 10 mg/L as the applicable ambient standard for waters used for the production of wild rice that may be impacted by the Proposed Project.”

Section 4.7.2.4 contains text with the 50-282 mg/L sulfate range and also states, “...the effects of sulfate on wild rice growth and production at the concentrations similar to those sampled for the Proposed Project are unclear; no long-term studies over the natural-cycle of wild rice have been carried out examining this question (Bavin and Berndt, 2008B; Moyle, 1944a; Peden, 1982; Minnesota Power).” Sections 4.7.5.1 and 5.4.2 of the FEIS have text following the 50-282 mg/L sulfate range statement that says, “...there are no conclusive studies which demonstrate what the impacts to wild rice stands are based on increases in sulfate concentration” and, “...it is difficult to predict what effect changes in sulfate concentrations would have on wild rice’s geographic extent, stem density or seed productivity in Hay Lake.”

Other sections of the FEIS (i.e., 4.4.1.2.1, 4.7.4.3, 4.7.5.1, 4.7.5.2, 4.7.6, 4.7.6.1, 4.18.3.1, 5.4.5.1, 5.4.6, and 5.4.6.2) indicate that the effects on wild rice from sulfate concentration changes are unknown or uncertain. It is not the intent, nor does the FEIS imply that the 50-282 mg/L sulfate concentration is the typical or optimal range for growing wild rice. Based on the literature review completed for the FEIS, it is uncertain what the optimal sulfate concentration range is for wild rice. The literature review indicated that wild rice can tolerate sulfate concentrations greater than 10 mg/L, but that the effects are uncertain. The literature review also indicated that many factors influence wild rice health and that sulfate toxicity is influenced by other water quality parameters. These concepts were conveyed in the FEIS text.

The FEIS reviews and evaluates the existing Keetac facility, and therefore the affected environment described in the FEIS examines the water bodies and surrounding resources of that facility, not an unaltered environment. The affected environment of the Proposed Project includes water bodies that already have sulfate concentrations that exceed the state water quality standard of 10 mg/L. Sampling data shows that stem densities in Hay Lake are 61-184 stems/m² with sulfate concentrations ranging between 48-55 mg/L, while stem densities in Swan Lake ranged between 33-80 stems/m² with sulfate concentrations ranging between 25-30 mg/L (main lake) and 3.9-26.1 mg/L (southwest bay). This established the baseline from which the FEIS evaluated potential effects on wild rice with the understanding that permitting would require state standards to be met. It is also understood that the magnitude of potential effects and potential benefits to wild rice from changes in sulfate concentrations in the affected water bodies are unknown and uncertain at this time, and therefore monitoring would be required as part of any permits issued for the Proposed Project. Further investigation and/or mitigation may be required if monitoring determines there are impacts to wild rice.

The MNDNR and USACE believe that information presented in the FEIS is not misleading, and that the FEIS is clear that the potential effects sulfate can have on wild rice are uncertain with currently available data and information.

Comment *Finally, we remind the U.S. Army Corps of Engineers of their trust responsibility to properly address concerns and interests of bands. Further, as a cooperating agency in the development of the EIS, the Bois Forte Band should have had an opportunity to understand how comments were or were not addressed. The 1854 Treaty Authority provided technical support to the Bois Forte Band through the process, and we believe that the lead agencies fell short of their responsibilities in relation to these particular wild rice comments.*

A-3:

RESPONSE: In light of the responses given to Comments A-1 and A-2 above, the MNDNR and USACE believe that we addressed concerns brought forward by the bands. Comments on the FEIS and DEIS provided by the 1854 Treaty Authority and the Bois Forte Band were reviewed by the lead agencies and given careful consideration. Draft responses to their comments on the DEIS were provided to them for their review prior to the release of the FEIS. As indicated in the responses above, the MNDNR and USACE believe that the FEIS presented information on wild rice in a clear and factual manner.

COMMENT LETTER RECEIVED FROM:

**Kenneth Westlake, NEPA Implementation Section, and Peter Swenson,
Watersheds and Wetlands Branch, USEPA (C)**

Comment

C-1:

According to the public notice, the applicant is proposing to fill 635 acres of wetlands and 25 acres of open water. According to the FEIS at page 4-89, the "Proposed Project" would result in the filling of 736.33 acres of wetland impacts and 24.98 acres of open water. The discrepancy between the proposed numbers in the public notice and the FEIS should be resolved before the issuance of a Section 404 permit and a Record of Decision (ROD).

RESPONSE:

As stated in Section 6.2 of the FEIS, the Project Proposer "...intends to pursue the East Stockpile Alternative in the permitting process." The Project Proposer has submitted the Section 404 application with the East Stockpile Alternative which would impact approximately 100 acres less than the Proposed Project as defined in the FEIS, for a total wetland impact of 635 acres. There is no discrepancy between the FEIS and the Public Notice for the Section 404 permit.

Comment

C-2:

According to the public notice, there are "about 450 acres of wetlands adjacent to mining features that could be indirectly affected through lateral drainage/or inundation." This number is inconsistent with the numbers included in the FEIS, which refer to 174.6 acres of potential indirect impacts that will be monitored if the Proposed East Stockpile configuration is permitted and 275 acres of potential indirect impacts that would be monitored if the East Stockpile Alternative (a second alternative) is permitted. The discrepancy between the proposed numbers in the public notice and the FEIS should be resolved before the issuance of a Section 404 permit and a Record of Decision (ROD).

RESPONSE:

The Public Notice for the Section 404 permit application incorrectly reported 450 acres of wetlands could be indirectly affected. The correct number is 275 acres as reported in the FEIS.

Comment

C-3:

In general, it was difficult to confirm the amount of wetlands that would be indirectly impacted and the number of wetlands that would be monitored and whether these two sets of wetlands were overlapping or if they were exclusive of one another.

Page 4-90 of the FEIS states that the Project Proposer was directed to address the potential for future wetland impacts other than the direct impacts to wetlands. As a result, an "Indirect Wetland Impact Study" was conducted. That study concluded, "potential indirect wetland impacts exist from alterations to groundwater and surface water surrounding the Proposed Project boundaries. However, the study was inconclusive to quantify the impacts, and therefore wetland monitoring would be conducted as part of the Proposed Project." This section continues to state that wetlands that have been monitored since 2008 would continue to be monitored and this ongoing monitoring would be included as a requirement of the Section 404 permit.

RESPONSE:

The acreage of wetlands that would be indirectly impacted by the Proposed Project is currently unknown, but some indirect impacts are anticipated. Therefore, monitoring of 275 acres of wetlands adjacent to the Proposed Project would occur to determine future impacts and inform any necessary mitigation.

Comment

C-4:

The FEIS makes the following statements regarding portions of the site near or in the Lake Superior basin (Section 4.4.2.1.1): "A small portion of the proposed east stockpile and existing tailings basin exterior dam is located in the Lake Superior Watershed." The next paragraph states, "The tailings basin has discharge from seeps, which has altered the water flow to watersheds and water bodies around the site." The ROD should clarify that any potential for impacts within the Lake Superior basin have been studied and that none are anticipated.

RESPONSE:

The active portion of the tailings basin is not within the Lake Superior Watershed. Additionally, the East Stockpile Alternative boundary is not within the Lake Superior Watershed (see Figure 4.1.1 FEIS). Additional information regarding this issue is addressed in the Response to DEIS Comments Document (FEIS, Appendix L) in responses to comments S-6 and U-43.

Comment

C-5:

The expected increased hydrologic pressure has the potential to overcome natural conditions resulting in groundwater migration into the Lake Superior basin. Groundwater basin boundaries at times do not align directly with watershed boundaries, especially in more karst-like aquifers, and can be overcome due to situations as stated above. Determining groundwater flow in this area would be a simple matter and would both alleviate concerns and more fully support the conclusion that all potential impacts from the proposed project would occur within the Mississippi River basin. Potential impacts on the east edge of the project area are an important consideration because water quality within the Lake Superior basin is protected through the Great Lakes Initiative and Minnesota's rules at Minn. R. ch. 7052. We believe it is important to clarify that the more stringent criteria often associated with the Lake Superior basin are not applicable to the project, if that is indeed the case.

RESPONSE:

This comment has been addressed in the FEIS Response to DEIS Comments Document (FEIS, Appendix L) in responses to comments S-6 and U-43.

Comment

C-6:

Although anticipated impacts on residential wells in the area were considered during the scoping for the Keetac expansion and determined not to be a significant issue that needed to be included in the EIS process, EPA considers this a shortcoming of the FEIS analysis and recommends that this area be further investigated. The reason for this concern is that little ground water quality data exist or have been presented in the FEIS. Contamination by any number of chemicals can pose a direct impact on human health given the location of many residential groundwater wells which are scattered throughout the site and some in extremely close proximity of the tailings basin, mine pits and other areas that could be impacted. We recommend that the responsible agencies re-evaluate the status of the residential wells in light of this concern.

RESPONSE:

Evaluation for potential effects to private wells in the area is discussed in Section 4.21.2.5 of the FEIS, which says, "All but two wells are less than 200 feet deep and screened in the overburden aquifers." Figure 4.13.1 of the FEIS depicts the location of known private wells which are generally located north of the tailings basin. Discharges from the tailings basin are shallow and to the south (see FEIS Figure 3.1.3) and potential effects to private wells are not anticipated. This is because the primary transport of water from the tailings basin is through the surrounding wetlands. The groundwater component of flow is horizontal through the shallow perched aquifers and surface soil horizons (generally 0-5 feet deep), then into the wetlands. The soils around and below the tailings basin are low permeability clay tills, which restrict vertical flow. Interaction with the deep groundwater (>50 feet), which is typically where private wells are drilled, is not expected to be significant. There is no present indication of adverse water quality impacts from the existing tailings basin. Additionally, the handling of solid wastes, hazardous wastes, and storage tanks are discussed in Section 4.14 of the FEIS. Tailings basin disposal is regulated by an MPCA NPDES/SDS permit, rather than an MPCA solid waste permit.

Comment**C-7:**

The EPA is currently working with MPCA on the draft permit for the Keetac expansion and has discussed Greenhouse Gases (GHGs) and Mercury Controls. The ROD for this project should mention that a Best Available Control Technology (BACT) analysis is being done for GHGs as well as the Criteria Pollutants. Our discussions have indicated that BACT for GHG will discuss available technologies, GHG mitigation, and energy efficiency, which were all considered at the facility for this project.

RESPONSE:

A BACT analysis for GHGs is required during the permitting process. At the time of FEIS preparation (ending October 2010) federal guidance on GHG BACT had not been issued. Additional GHG BACT is scheduled to be available in January-May 2011.

COMMENT LETTER RECEIVED FROM:

National Parks Conservation Association, Minnesota Center for Environmental Advocacy, Voyageurs National Park Association, and Friends of the Boundary Waters Wilderness (D)

Comment**D-1:**

Additionally, the FEIS does not adequately address Keetac's contribution of sulfates to receiving waters that already exceed the State's water quality standards. It errs in establishing the baseline ("no action alternative") sulfate concentrations in relevant receiving waters at levels consistent with business as usual, which is unreasonable. Keetac's current operation violates state water quality standards. There is no basis on which the FEIS can assume that Keetac would be allowed to continue to discharge sulfates at levels far in excess of Minnesota's sulfate standard. Indeed, the Clean Water Act plainly prohibits the reissuance of a National Pollutant Discharge Elimination System (NPDES) permit where the discharge has the reasonable potential to cause or contribute to the exceedence of a state water quality standard. 40 C.F.R. 122.44(d)(1). Instead, the Act requires the permitting authority to calculate a permit limit that will ensure the water body meets water quality standards. Id. Therefore, the "no action alternative" will not result in a baseline that reflects business as usual. The MNDNR and USACE should correct this error in order to provide an accurate assessment of the impact on sulfate concentrations in the relevant waters from the proposed project.

RESPONSE:

The FEIS assumes and depicts a worst-case scenario for potential impacts to nearby water bodies from sulfate discharges where the MPCA does not apply the 10 mg/L sulfate water quality standard, to either the No Action Alternative or the Proposed Action Alternative. The rational application of the assumption the commenter suggest is to the entire analysis—both to the No Action Alternative and Proposed Action Alternative. Under this analytic assumption, there would be no change to sulfate concentrations with the implementation of the Proposed Project once the standard is met.

Comment

D-2:

It is also clear from the discussion of sulfates in the FEIS that the Minnesota Pollution Control Agency cannot issue an NPDES permit for the project as proposed. The FEIS concludes – despite the error noted above – that the predicted concentration of sulfate in Swan Lake will increase by 2.6 mg/l from the proposed project. FEIS, 4-60, 4-108. As noted in the FEIS, Swan Lake contains wild rice stands, meaning that the applicable water quality standard for sulfates in the lake is 10 mg/L – a standard which is already exceeded in Swan Lake. Minn. R. 7050.0224, subp. 2; FEIS 4-108. Under the Clean Water Act regulations, when a discharge has “the reasonable potential to cause, or contribute to an excursion above any State water quality standard,” a permit for the discharge cannot issue unless it contains requirements and limitations “necessary to . . . achieve water quality standards.” 40 C.F.R. § 122.44(d). The NPDES permit issued to Keetac would have to contain a water quality-based effluent limit calculated for the receiving waters to meet the 10 mg/L water quality standard. There is no indication in the FEIS that this is either contemplated or feasible at the existing and proposed discharge outlets. Keetac will have to seek an alternative discharge location. See Minn. Stat. § 116D.04, subd. 6 (the State may not permit an activity that causes pollution, impairment or destruction of the environment where there is a feasible alternative); see also Minn. Stat. § 116B.01 et seq. The alternative discharge location is mentioned as a possible “mitigation” in the FEIS, 4-110. However, finding an alternative discharge location will be a requirement for permitting the project and the environmental effects of the new discharge – the location of the alternative, water quality impacts to that receiving water, effects of associated construction and operation, etc. – must be disclosed and evaluated in the EIS.

RESPONSE:

The sulfate reduction strategy determined during the compliance schedule period may or may not include an alternative water discharge location. If an alternative water discharge location is selected additional environmental review may be required as stated in Section 4.7.6.1.2 of the FEIS.

Comment

D-3:

Based on responses to comments, we continue to have strong concerns about the individual and cumulative impacts of increased air pollutant emissions from the expanded Keetac facility in light of the three affected Class I areas (Voyageurs National Park, Boundary Waters Canoe Area Wilderness, and Isle Royale National Park). We also acknowledge and support the new inclusion of a 24-hour block average limit for nitrogen oxides (NOx) from the existing and new indurating line, as the impacts of NOx on visibility occur over a short time period.

First, the FEIS includes additional information about the baseline used in the netting calculations for NOx which calls to question the legitimacy of the netting exercise. The selected baseline is the two year period ending on November 1, 2001, meaning that part of the baseline period is over a decade ago. Although possibly legal, this choice of a baseline makes a mockery of the netting process and means that only paper reductions of NOx will occur as part of this project. The baseline from 2001 is much higher than emissions from the Keetac facility in the more recent past, which are very close to the “lower” emission level of 3,500 tons per year (TPY) agreed to in the FEIS. There are no actual emission reductions occurring in relation to the emissions of the past four or more years. This is highlighted by the fact that no modifications appear to be planned for the existing equipment – the proposed “lower” limit can already be met.

Second, in several instances, the project was shown to have negative impacts without clearly identified or clearly effective mitigation measures; we continue to have concerns about the reliance on unproven technologies for emissions reductions and mitigation. For instance, this expansion was shown to have impacts on visibility in nearby Class I areas, and may well have impacts higher than those documented in the FEIS.⁵ A low NOx burner on the new line is proposed as mitigation for visibility and used to avoid other impacts; yet, the application of low NOx technology at another U.S. Steel facility, Minntac, has been riddled with challenges and delays. It seems imprudent at best to rely on uncertain mitigation for certain detrimental impacts. Although we raised questions in our comments on the draft EIS as to the reliance on uncertain NOx reduction technologies (Comment Q-4), the response did not address the issue at hand (certainty of anticipated NOx reductions from the cited controls), instead focusing on the agreed-upon permit limit. Also, alterations to the existing facility and additional lower limits on NOx emissions have not been discussed as potential mitigation strategies.

RESPONSE:

The Proposed Project was modeled to meet NOx emission limits. FEIS Section 4.9.1.2.1 states, “Continuous emissions monitors would be used to directly measure emissions of NOx from both the existing furnace and the new line to determine compliance with the NOx emission limits.”

Comment

D-4:

Finally, we appreciate the consideration of greenhouse gas (GHG) emissions in the FEIS and the project proponent's stated interest in achieving GHG emission reductions; however, the FEIS does not contain a BACT analysis for GHG emissions, and the description of the emissions avoided by the project's proposed design, FEIS 3-26, is apparently based on technologies selected without the benefit of such an analysis. This omission should be corrected. The FEIS itself notes that as of January 2, 2011, new or modified sources with the potential to emit more than 75,000 TPY of GHGs and already subject to Prevention of Significant Deterioration (PSD) regulations trigger the PSD BACT requirement for GHG under Clean Air Act regulations. FEIS 5-27. The potential to emit (PTE) for the Keetac project appears to be well over the threshold. FEIS 3-26. A BACT analysis for GHGs or, at a minimum, a netting analysis showing dramatically different GHG emissions than those recorded in the FEIS, must be performed. As with the other PSD-regulated pollutants, the public is entitled to an evaluation in the FEIS of the environmental consequences likely to result from the project with BACT-selected technologies required by the Clean Air Act.

RESPONSE:

A BACT analysis for GHGs is required during the permitting process. At the time of FEIS preparation (ending October 2010) federal guidance on GHG BACT had not been issued. Additional GHG BACT is scheduled to be available in January-May 2011.

