
Appendix C

Final Scoping Decision Document and Responses to Scoping EAW Comments



August 14, 2006



EQB Monitor

Minnesota Environmental Quality Board Seeks Public Comment on Proposed Rule Amendments

(ST. PAUL) – The Minnesota Environmental Quality Board (EQB) is seeking public comment through Monday, Oct. 16 on proposed amendments to several rules governing the state’s environmental review process.

The EQB has identified about a dozen rule provisions for amendment consideration, including new mandatory environmental assessment worksheet (EAW) and environmental impact statement (EIS) categories for shoreland area development. Other proposed amendments concern the Alternative Urban Areawide Review process and the definition of “sewered area.”

A complete description of the amendments is available online at the EQB web site, www.eqb.state.mn.us or by contacting Gregg Downing of the EQB by e-mail at gregg.downing@state.mn.us, by phone at 651/201-2476, TTY at 800/627-3529, or in writing at 300 Centennial Building, 658 Cedar Street, St. Paul, MN 55155.

The EQB must receive comments by 4:30 p.m. Monday, Oct. 16. Comments should identify the portion of the proposed rule amendment that is being addressed, the reason for the comment and any proposed change to the amendment.

Interested individuals or groups can submit written or oral comments, questions and requests for additional information to Gregg Downing by e-mail at gregg.downing@state.mn.us, by phone at 651/201-2476, TTY at 800/627-3529, or in writing at 300 Centennial Building, 658 Cedar Street, St. Paul, MN 55155.

ABOUT THE EQB MONITOR

The *EQB Monitor* is a biweekly publication of the Environmental Quality Board that lists descriptions and deadlines for Environmental Assessment Worksheets, Environmental Impact Statements and other notices.

The *EQB Monitor* is posted on the Environmental Quality Board home page at <http://www.eqb.state.mn.us/>

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Next issue: August 18, 2006

Submittal deadline: August 21, 2006

CORRECTION

On behalf of Anoka County, SRF Consulting Group, Inc. is submitting a correction to the Anoka County CSAH 78 Reconstruction Environmental Assessment/Environmental Assessment Worksheet (EA/EAW) that was published in the July 31, 2006 *EQB Monitor*.

The public hearing date for the County State Aid Highway (CSAH) 78 Reconstruction Environmental Assessment/Environmental Assessment Worksheet (EA/EAW) has been changed to Thursday, September 21. The public hearing will be held from 6-7 p.m. at the Bunker Hills Activity Center.

Written comments on the EA/EAW should be submitted prior to the close of the 30-day comment period on October 5, 2006.

We apologize for any inconvenience this may have caused.

If you have any questions or concerns, please feel free to contact Jacqueline Corkle at (763) 475-0010 or jcorkle@srfconsulting.com.

CORRECTION

The following is a correction to the October 13, 2005, Final Scoping Document issued for the proposed Minnesota Steel Industries, LLC taconite mine, concentrator, pellet plant, Direct Reduced Iron (DRI) plant, and steel mill project. The Patrick "B" Tailings Basin diversion is identified as a discussion topic on page seven of the final scoping document. This is an error, as there is no Patrick "B" Tailings diversion associated with this project and therefore will not be discussed in the Environmental Impact Statement.

DRAFT AUAR AVAILABLE

Project Title: Creekside Development, Sauk Rapids

Description: The proposed Creekside AUAR study area consists of approximately 692 acres of land located north of County Road 3 and east of County Road 1 in the city of Sauk Rapids and Minden Township, Benton County, Minnesota. Existing land uses include agricultural fields and building sites, rural residential developments, wetlands, grasslands, and Mayhew Creek.

This AUAR includes a review of two development scenarios. Development scenario 1 is consistent with the adopted plans of the city, which primarily identifies single family residential development throughout the AUAR study area. Development scenario 2 is based on conceptual development plans of property owners (developer) within the AUAR area and has a mix of single family, multi-family, and commercial land uses. Scenario 2 allows for a slightly more dense level of residential development with patio homes, townhouses, and apartments.

RGU: City of Sauk Rapids



September 11, 2006



EQB Monitor

ENVIRONMENTAL ASSESSMENT WORKSHEETS

Comments due on: October 11, 2006

Project Title: Otter Tail Ag Enterprises, LLC

Description: Otter Tail Ag Enterprises, LLC, proposes to construct a dry mill ethanol production facility in Otter Tail County, with a maximum capacity of 65 million gallons per year of 200-proof ethanol. The facility will produce 212,220 tons per year of distiller's dried grains with solubles as a co product that would be used as animal feed.

A copy of the Environmental Assessment Worksheet will be posted on the Minnesota Pollution Control Agency Web site, at the following: <http://www.pca.state.mn.us/news/eaw/index.html>.

RGU: Minnesota Pollution Control

Control Person:

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Environmental Review and Operations Section
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Minnesota's Cloquet Forestry Center, located at 175 University Road in Cloquet. To get additional details about the meeting, contact Dick Rossman at (218) 755-4062.

Public Meeting Notice
Minnesota Forest Resources Council
Northern Regional Landscape Committee

The Northern Regional Landscape Committee of the Minnesota Forest Resources Council (MFRC) will meet on Wednesday, September 13, 2006, from 9 a.m. to 2 p.m. in International Falls at the Holiday Inn. For more information, please contact Lindberg Ekola at (320) 256-8300 or go to the calendar on the MRFC Web site at <http://www.frc.state.mn.us>.

CORRECTION

The following is a correction to the October 13, 2005, Final Scoping Document issued for the proposed Minnesota Steel Industries, LLC taconite mine, concentrator, pellet plant, Direct Reduced Iron (DRI) plant, and steel mill project. The Patrick "B" Tailings Basin diversion is identified as a discussion topic on page seven of the final scoping document. This is an error, as there is no Patrick "B" Tailings diversion associated with this project and therefore will not be discussed in the Environmental Impact Statement.

If you have any questions, contact Scott Ek, Minnesota Department of Natural Resources at 651-259-5156 or scott.ed@dnr.state.mn.us.

**Minnesota Steel Industries Taconite Mine, Concentrator, Pellet Plant,
Direct Reduced Iron Plant, and Steel Mill Project
Final Scoping Decision Document**

1.0 INTRODUCTION AND PURPOSE

1.1 BACKGROUND

The Minnesota Department of Natural Resources (DNR) in co-operation with the United States Army Corps of Engineers (USACE) will prepare a joint state and federal Environmental Impact Statement (EIS) for the Minnesota Steel Industries, LLC (Minnesota Steel) Taconite Mine, Concentrator, Pellet Plant, Direct Reduced Iron (DRI) Plant, and Steel Mill project to produce sheet steel from taconite ore. The joint EIS will allow evaluation of the Minnesota Steel project in accordance with the National Environmental Policy Act (NEPA; 42 U.S.C. §§ 4321-4347), and the Minnesota Environmental Policy Act (MEPA; Minn. Stat. Ch. 116D). The proposed Minnesota Steel project is located near the town of Nashwauk, in Itasca County, Minnesota.

Minnesota Steel proposes to reactivate the former Butler Taconite mine and tailings basin near Nashwauk, Minnesota. The proposed project includes the dewatering of existing mine pits in the area and open pit mining operations to remove ore and waste rock. Waste rock would be stockpiled near the mine pit and ore would be hauled to the proposed crusher, concentrator, and pellet plant. Tailings from the concentrator are proposed to be discharged to the existing Butler Taconite Stage I Tailings Basin. Taconite pellets would be delivered to the DRI plant and the DRI product would be delivered to the proposed steel mill that would consist of two electric arc furnaces, two ladle furnaces, two thin slab casters, and a hot strip rolling mill to produce sheet steel.

The Scoping Decision Document is a companion to the Scoping EAW prepared for the project. The purpose of the Scoping Decision Document is to identify those project alternatives and environmental impact issues that will be addressed in the EIS. The Scoping Decision Document also presents a tentative schedule of the environmental review process.

1.2 SELECTION OF APPROPRIATE ENVIRONMENTAL REVIEW DOCUMENT

The EIS is mandatory for this project pursuant to Minnesota Rules part 4410.2000, subpart 2; the rule directs that an EIS shall be prepared if the project meets or exceeds the thresholds of any of the EIS categories listed in part 4410.4400. Minnesota Rules part 4410.4400, subparts 8B and 8C (Metallic Mineral Mining and Processing) indicate mandatory preparation of an EIS for construction of a new facility for mining metallic minerals or for the disposal of tailings from a metallic mineral mine and construction of a new metallic mineral processing facility. The EIS will meet applicable requirements of Minnesota Rules part 4410.0200 to 4410.7800 (Minnesota Environmental Quality Board [MEQB] Rules) that govern the Minnesota Environmental Review Program. The DNR is the responsible governmental unit (RGU) under Minnesota Rules part 4410.4400, subpart 8C. The DNR will engage the services of a consultant to assist in EIS preparation; however, the DNR will retain responsibility for EIS content.

The USACE is serving as co-lead agency in preparation of the EIS with the DNR. The USACE received an application from Minnesota Steel to discharge fill material in waters of the U.S., including wetlands, to develop the Minnesota Steel project. The USACE has determined that its action on the permit would be a major federal action that could significantly affect the quality of the human environment, requiring the preparation of a Federal EIS pursuant to the National Environmental Policy Act (NEPA) (42 U.S.C. §§ 4321-4347) and its implementing regulations (40 C.F.R. parts 1500-1508).

1.3 PURPOSE AND NEED OF THE PROJECT

The purpose and need of the taconite mine and steel mill is to provide increased supplies of steel to the domestic and world markets.

2.0 PROJECT ALTERNATIVES

The MEQB rules require that an EIS include at least one alternative of each of the following types, or provide an explanation of why no alternative is included in the EIS (Minnesota Rules part 4410.2300, subpart G): 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. The alternative of no action shall also be addressed.

Minnesota Rules part 4410.2300, subpart G directs that 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.” Selection or dismissal of alternatives will be documented in the EIS.

2.1 PROPOSED ALTERNATIVE

The EIS will describe the proposed project and the potential environmental and socioeconomic effects outlined in Section 3.0.

2.2 NO ACTION ALTERNATIVE

The EIS will describe the expected condition if the proposed project is not developed, with respect to the potential environmental and socioeconomic effects outlined in Section 3.0.

2.3 SITE ALTERNATIVES

The MEQB rules allow the RGU to exclude alternative sites if other sites do not have any significant environmental benefit compared to the project as proposed, or if other sites do not meet the underlying need and purpose of the project. The MEQB’s Guide to Minnesota Environmental Review Rules lists a number of factors for the RGU to consider when deciding whether alternative sites would meet the underlying need for or purpose of the project.

The DNR and USACE do not propose to evaluate alternative mine pit or processing plant sites for this project. An alternative mine site would not meet the underlying need or purpose of the project. The mineralization of the desired elements within a geologic deposit dictates the location of the mine. An alternative processing plant site would either not have significant environmental benefits over the proposed project or would not meet the underlying need and purpose of the project which includes integrated value added process steps to produce sheet steel.

2.3.1 Alternative Tailings Basin

The EIS will evaluate the benefits, feasibility and impacts of locating a tailings basin to the northwest of the mine site. The location of this tailings basin has been identified as a potential site by Minnesota Steel. Unlike the proposed Existing Stage I Tailings Basin, this location has not been previously disturbed by mining activities.

2.4 TECHNOLOGY ALTERNATIVES

The DNR and USACE do not propose to evaluate alternative mining technologies. The proposed project uses conventional open pit mining technology that has been used in other mining operations. The deposit is not suitable for underground mining. Other mining technologies applicable to the Minnesota Steel deposit would likely have no significant environmental benefit over the proposed technologies.

The DNR and USACE do not propose to evaluate alternative technologies for steel production. Other technologies for steel production would not have significant environmental benefits over the proposed modern steel production technology.

2.4.1 Ore Processing

There are currently two available pellet induration processes that are commercially available – straight grate furnaces and grate kiln furnaces. The EIS will evaluate fuel use and air emissions for both types of indurating furnaces to determine which type will have the least impact on the environment.

2.4.2 Air Pollution Control Technology

The EIS will evaluate alternative air pollution control technologies for both ore processing and the steel mill.

2.5 MODIFIED DESIGNS OR LAYOUTS

The DNR and USACE do propose to evaluate alternative designs and layouts for the processing plant, waste rock stockpiles, and on-site sanitary wastewater treatment.

2.5.1 Processing Plant

The general site of the processing plant has been proposed to minimize transportation and maximize efficiency of the mining/processing operations. However, slight modifications to the overall footprint of the processing plant could result in reduced impacts to wetlands in the area. These modifications will be evaluated for feasibility, benefits, and impacts.

2.5.2 Waste Rock Stockpiles

Alternative design and location of stockpiles will be evaluated for feasibility, benefits, and impacts. Alternative designs could include in-pit stockpiling to create shallow water aquatic habitat or other designs that could have significant environmental benefits.

2.5.3 On-Site Sanitary Wastewater Treatment

The EIS will evaluate the feasibility and environmental benefits associated with an on-site sanitary wastewater treatment system/plant and the potential to reduce nutrient loading to Swan Lake.

2.6 SCALE OR MAGNITUDE ALTERNATIVES

The DNR and USACE do not propose to evaluate alternative scale or magnitude of the project. The infrastructure requirements to mine and process the ore are such that alternative scale/magnitude would not meet the underlying need for or purpose of the project or would likely not have any significant environmental benefit compared to the project as proposed.

2.7 INCORPORATION OF MITIGATION MEASURES IDENTIFIED THROUGH PUBLIC COMMENTS

The EIS will consider all mitigation measures suggested through public comment. Those mitigation measures that were identified but not carried forward for analysis will be discussed briefly as well as the reasons for their elimination.

The mitigation measure of an on-site sanitary wastewater treatment received through public comment was added as a modified design or layout alternative in Section 2.5.

3.0 EIS ISSUES

Issues have been identified and described in the Scoping EAW and are categorized below by significance and amount of additional analysis required in the EIS. Mitigation measures that could reasonably be applied to eliminate or minimize adverse environmental effects will be identified in the EIS.

3.1 TOPIC HAS BEEN ADEQUATELY ANALYZED IN THE SCOPING EAW (*Topic is not relevant or so minor that it will not be addressed in the EIS. The Scoping EAW will be appended to the EIS for reference; the relevant EAW number is provided in parents () after each topic.*)

Water Surface Use (Item 15)

Compatibility with Plans and Land Use Regulations (Item 27)

3.2 SIGNIFICANT IMPACTS ARE NOT EXPECTED (*Information beyond that in the Scoping EAW will be included in the EIS.*)

3.2.1 Land Use (Item 9)

The EIS will discuss potential land use conflicts to nearby residences, water bodies and the cemetery.

These potential conflicts will be addressed with respect to other environmental considerations of the project, including physical alteration of water resources, noise/blasting impacts, traffic, access/haul roads, railroads, natural gas pipelines, and electric transmission lines. The EIS will discuss the compatibility of plans and all required rezoning and variances as they pertain to the Itasca County Land Use Plan.

A proposed mine plan will be available for the use in the EIS. The plan will describe pit geometry and show plans for phasing of pit development. It will also describe necessary mine facilities such as haul roads and ramps.

3.2.2 Cover Types (Item 10)

Specific mining and plant site development details will be developed prior to or during EIS preparation; the EIS will include updated cover type information and "before and after" cover type maps, and will describe the conversion of existing land cover types that will result from project implementation and reclamation.

3.2.3 Threatened and Endangered Species (Item 11b)

The EIS will include the results of the rare plant survey and database search results, describe potential impacts to listed species and suggest mitigation, if warranted. The EIS will evaluate potential impacts to federally threatened and endangered species. Existing information will be evaluated and additional information collected, if necessary, to support federal regulatory requirements for threatened and endangered species (e.g. Canada Lynx). Potential mitigation strategies and alternatives will be evaluated to prevent and minimize any identified impacts.

3.2.4 Water-Related Land Use Management District (Item 14)

The projects relationship to water-related land use management districts will be discussed briefly in the EIS. Itasca County's Shoreland Zoning Ordinance will be reviewed and compared to the project. The status of the project with respect to shoreland zoning of Pickerel Creek will be investigated, and if a variance is needed the feasibility of receiving a variance will also be investigated. Mining in proximity to Snowball Lake has the potential to affect lake water levels; this will be analyzed in the EIS along with other potential surface and groundwater impacts.

3.2.5 Erosion and Sedimentation (Item 16)

The EIS will address runoff from erosion-prone areas of the site, including downstream sensitive areas of Oxhide Creek as part of the larger issue of surface water runoff and overall water quality impacts of the project.

3.2.6 Geologic Hazards and Soil Conditions (Item 19)

The EIS will include a discussion of the potential for groundwater contamination from process chemicals and hazardous materials used or stored at the project site and seepage from tailings basins. Measures to prevent and contain spills from processing materials and maintenance/repair of mining equipment will be identified in the EIS.

3.2.7 Traffic (Item 21)

The EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

3.2.8 Vehicle Related Air Emissions (Item 22)

The EIS will include a qualitative discussion of the effects of mine haul truck emissions on air quality at receptor sites near the mining operation, including carbon monoxide, nitrogen oxides and particulate emissions. The EIS will discuss the effects of mitigation measures on the projected air quality impacts. If the qualitative analysis shows anything other than insignificant impacts, further evaluation will be required.

3.2.9 Archeology (Item 25)

The EIS will include a discussion of archeological, historical, and cultural resources using information presented in the EAW. The EIS will discuss the schedule and requirements for cultural resource investigations (archeological and historical resource studies) through the permitting and construction period.

The EIS will include a map of the snowmobile trails and the Mesabi Trail and will discuss the impacts of the proposed project on their use.

3.2.10 Visual Impacts (Item 26)

Visual impacts are not anticipated to be significant, however limited information beyond what is provided in the EAW will be used to identify potential lighting impacts, visual impacts from proposed facility structures, and mitigation options.

3.2.11 Infrastructure (Item 28)

The EIS will include information on design and potential impacts of constructing a gas pipeline, water/sewer lines, auxiliary road access, and additional railroad lines. The EIS will also include information on conceptual design and the technical and regulatory processes for routing of electric transmission lines. Final design and location of the transmission line will be determined by the Minnesota Public Utilities Commission's site selection process. This process will be described in the EIS as well as potential impacts from the currently proposed location and design.

3.2.12 Socioeconomics

The general social and economic impacts of the project will be studied in the EIS. This will include the direct and indirect effects on local economic development, tax base and demand for public services.

3.2.13 Mineland Reclamation

The EIS will discuss the draft mineland reclamation plans and evaluate practical and reasonable reclamation options as they pertain to identified impacts and mitigation strategies.

3.2.14 Other – 1855 Ceded Territory Treaty

The EIS will include a description of tribal rights reserved as part of the 1855 Ceded Territory Treaty. Impacts to the tribal rights as a result of the project will be evaluated and mitigation proposed as needed.

3.3 POTENTIALLY SIGNIFICANT IMPACTS MAY RESULT *(Information beyond what was in the EAW will be included in the EIS.)*

3.3.1 Physical Impacts on Water Resources (Item 12)

The proposed project has the potential to significantly affect surface and groundwater resources in the project area both during and after mining. A detailed project water balance and watershed yield will be conducted to help quantify impacts on streamflow and lake water levels throughout mining and after closure. The EIS will include a discussion of this topic including:

- Impacts to open water areas and wetlands throughout the project;
- Surface water flows in O'Brien Creek, Pickerel Creek, Snowball Creek, and Sucker Brook;
- Modifications to Oxhide Creek;
- Upper Oxhide Creek diversion;
- Patrick "B" Tailings Basin diversion;
- Potential water level impacts to Little Sucker Lake, Snowball Lake, Swan Lake, Little McCarthy Lake, O'Brien Lake, and Oxhide Lake; and
- Dam safety issues.

A Level 1 Rosgen analysis of Oxhide Creek, Snowball Creek, Pickerel Creek, and O'Brien Creek stream geomorphology will be completed to identify any potential stream reaches that may be sensitive to changes in stream flow. This information will be compared with stream flow change information to identify any stream reaches that require further evaluation for impacts. If this further evaluation identifies any significant adverse impacts due to changes in water flow, monitoring and mitigation will be developed.

Wetland delineations, mitigation sites, and feasibility of wetland mitigation will be evaluated in the EIS. A wetland delineation report with a functional analysis and wetland mitigation plan will be included as part of the EIS. The potential for indirect and secondary impacts (loss, degradation, and change) to wetlands, including changes in wetland hydrology from the proposed project will be addressed in the EIS.

The EIS will suggest monitoring and mitigation where necessary to better define potential impacts and avoid or minimize known impacts to water resources.

3.3.2 Water Appropriations (Item 13)

The EIS will include a detailed water balance for the project including processing plant needs, mine pit dewatering, lake/stream augmentation and tailings basin seepage/discharge. Additional sources of water to supply the processing plant will be identified if the balance indicates a water deficit for the processing plant. The water balance will also consider wastewater discharges from the tailings basin to prevent build up of dissolved solids or other water quality concerns.

This information will be used to model how affected watershed yield and lake water levels would change both during and after mining. Impacts to water bodies will be identified and mitigation/monitoring will be developed to minimize impacts.

Potential quality and quantity impacts to nearby wells due to mine pit dewatering will be evaluated in the EIS by examination of regional stratigraphy and proposed water levels in pits and nearby lakes. The EIS will also evaluate the potential for blasting to adversely impact nearby drinking water wells.

3.3.3 Surface Water Runoff (Item 17)

The EIS will include a watershed balance developed from the project water balance. A model will be developed to predict changes in watershed runoff, watershed yield and changes to affected water bodies. This information will be used to identify potential impacts, mitigation and monitoring to minimize impacts to area water bodies. Potential sources of sediment and pollutant discharges from the site will be assessed and mitigation measures discussed.

3.3.4 Wastewater (Item 18)

The EIS will include a water chemistry balance for processing water and tailings basin seepage/discharges. In addition, the EIS will discuss categorical effluent standards as they pertain to discharges of mixed wastewater. This information will be used to identify potential impacts to receiving waters including increased methylation of mercury due to increased sulfate concentrations. The EIS will include and discuss the Pilot Plant Study data on chemical concentrations in the process water and solids including the impact that the flotation chemicals identified in the EAW (Amine collector (DA-16 or similar) and methyl isobutyl carbinol) will have on the environment.

The EIS will also include an evaluation of nutrient loading changes to Swan Lake resulting from changes to inflow, tailings basin discharge/seepage and increased sewage flow through the Nashwauk sewage treatment plant through a nutrient budget analysis.

The EIS will evaluate the water quality of Snowball Lake, Oxhide Lake, and Swan Lake as it relates to lake productivity, trophic status and potential augmentation needs/requirements.

3.3.5 Solid Waste (Item 20)

The EIS will include design information and engineering studies that will evaluate the tailings basin design for the proposed Expanded Stage I Tailings Basin and the Alternative Tailings Basin to ensure structural stability and safety of the tailings dams.

A development plan will provide a final outline for the basin, geotechnical data, typical cross-sections and preliminary analyses of seepage and slope stability. It will describe initial dike construction, basin phasing and reclaim water management. The EIS will evaluate the feasibility, benefits, and impacts of the proposed tailings basin designs.

A detailed stockpile plan will be available for use in preparing the EIS that will include development plans for stockpiles including geometry, volumes, and locations for placement of waste rock, lean ore, and overburden.

The EIS will discuss process wastes and solid wastes (emission control dust and slag) generated from the entire project including characterization, quantity, storage, handling, treatment & disposal, and best management practices.

3.3.6 Stationary Source Air Emissions (Item 23)

Air emissions and the potential impacts will be a major topic. The following studies will evaluate project related air quality issues and will be included in the EIS.

The EIS will include an emission inventory that lists all possible sources of air emissions from the plant (stack and fugitive). It includes detailed calculations of quantities of emissions of various types, using EPA- and state-approved procedures.

A Best Available Control Technology (BACT) Review will be included in the air permit application and available for use in the EIS to demonstrate that the project will use best available control technology for each source that emits pollutants in quantities exceeding the Prevention of Significant Deterioration (PSD) thresholds. The Minnesota Steel project will evaluate controls for NO_x, SO₂, CO, VOC and particulates.

Compliance with standards requiring Maximum Achievable Control Technology (MACT) for control of hazardous air pollutants such as metals and volatile organic compounds will be incorporated into the air permit application and included in the EIS.

The EIS will include a Class I Area Impacts Analysis using the CALPUFF model to simulate the long-range transport of project emissions. The model will be used to determine the impact of project-related air emissions on visibility and other air quality-related values (AQRVs) for Voyageurs National Park, the Boundary Waters Canoe Area (BWCA), Isle Royale, and Rainbow Lake Wilderness Area. Emission rate inputs to the model are developed in the emission inventory.

The EIS will include a Class II Area Impacts Analysis that will evaluate air quality effects of the project at the project boundary. Dispersion modeling must demonstrate that the increases will not exceed the ambient air quality standards nor the applicable allowable increase above the area baseline concentration (i.e., the PSD increment). An EPA-approved dispersion model will be used for this analysis. Emission rates used by the model are provided by the emission inventory.

The EIS will review estimates of potential mercury emissions (mercury balance) from the project and will also include an evaluation of possible mercury emission reduction alternatives.

A human health and ecological risk assessment of impacts from air emissions and water discharges from the project will be included in the EIS. The risk assessment model evaluates human health impact via inhalation, ingestion, dermal contact, and ecological impact (plant and wildlife) via discharge to or deposition of potential emissions on watersheds, lakes and identified sensitive receptors.

The EIS will include a summary of existing mineralogical data and studies for the west end of the Mesabi Range from Minnesota state agencies, research institutions, and Butler Taconite files. The EIS will also present an analysis of the existing mineralogy and petrology data for the ore body to be mined and identify the presence/absence of amphibole minerals. In addition, samples will be obtained from Minnesota Steel's ore bulk sample and analyzed to confirm the presence/absence of asbestos minerals (Method for bulk sample analysis: EPA/600/R-93-116; Polarized Light Microscopy). Further evaluation will be required if deposits of asbestos or fine mineral fiber bearing materials are discovered.

3.3.7 Cumulative Effects (Item 29)

The following cumulative impact issues, as identified in the scoping EAW, will be addressed in the EIS:

- Potential impacts to air quality in Class I areas within 250 kilometers of the proposed project.
- Acid deposition and ecosystem acidification in Class I areas within 250 kilometers of the proposed project.
- Mercury emissions, deposition, and bioaccumulation
- Visibility impairment or "regional haze"
- Loss of threatened and endangered plant species
- Loss of wetlands
- Wildlife habitat loss/fragmentation and travel corridor obstruction

The cumulative impacts analysis will address the combined environmental effects of the proposed project and of past, present and reasonably foreseeable future actions as they relate to each of the above mentioned issues. These effects are analyzed by evaluating whether the affected resource, ecosystem or human community has the capacity to accommodate additional effects. These include both direct and indirect effects on a given resource, ecosystem and human community and include actions by private and governmental bodies.

The "project impact zone" and the "extent of the resource beyond the zone of direct impact" can be different for each resource. Therefore, the approach to evaluation for each identified resource and the potential for cumulative impacts will be unique and is described in the response to question 29 of the Scoping EAW. The cumulative impacts analysis will only focus on truly meaningful effects to each individual resource.

The cumulative effects analysis for wildlife habitat described in the Scoping EAW has been refined for the scoping decision document. The evaluation of habitat loss/fragmentation and travel corridor obstruction/landscape barriers have been separated and will be evaluated individually. The approach to evaluation for habitat loss fragmentation will assess changes to habitat type and what effect it may have on wildlife species utilizing that habitat type rather than focusing on the specific threatened species.

The geographic scope will include select ecological subsections of the Arrowhead Region instead of counties. The approach to evaluation for travel corridor obstruction/landscape barriers will evaluate the effects on large mammals only, as they are most sensitive to landscape barriers due to the size of the potential barriers (mining operations) and the magnitude of large mammal movement. The small and medium sized mammals previously considered would be greater affected by habitat loss/fragmentation. The geographic scope for this analysis will be smaller than the habitat loss/fragmentation analysis; focusing only on the limits of the Iron Range.

The issues of water quality, loss of aquatic habitat and fisheries, and streamflow and lake level changes have been removed from the cumulative effects analysis. The potential for project specific impacts to water quality, aquatic habitat/fisheries, and streamflow lake level changes will be addressed in Sections 3.3.1 to 3.3.4 and 3.3.8. There are however, no foreseeable significant cumulative impacts that were identified for these issues.

The purpose of the scoping process as provided in Minnesota Rules part 4410.2100, subpart 1 states that, "*The scoping process shall be used before the preparation of an EIS to reduce the scope and bulk of an EIS, identify only those potentially significant issues relevant to the proposed project, define the form, level of detail, content, alternatives, time table for preparation, and preparers of the EIS, and to determine the permits for which information will be developed concurrently with the EIS.*" Therefore, it is appropriate that these items be removed from the cumulative impacts section of the scoping decision document.

3.3.8 Fish and Wildlife Resources (Item 11a)

The EIS will include a qualitative description of fisheries resources and angling activity in the former Butler tailings basin (Big and Little O'Brien Lakes), Swan Lake, Snowball Lake, Oxhide Lake, Little Sucker Lake, Big Sucker Lake, Snowball Lake, O'Brien Creek, Sucker Brook, and Pickerel Creek. The EIS will discuss the potential impacts to fisheries and angling that could result from varying water levels and flows. The EIS will evaluate the feasibility of restoring the O'Brien watershed and the potential benefits to fisheries resources.

The EIS will not address impacts to fish in area mine pits. The EIS will suggest impact mitigation strategies where warranted, and will describe long-term mine pit reclamation strategies to provide fisheries habitat when mining ceases.

The EIS will include a qualitative description of wildlife species and habitat present in the project area and describe potential project impacts.

The EIS will include a biological monitoring study. Aquatic invertebrates will be sampled in streams downstream from the mine pits and proposed tailings basin sites to provide background biological information. Sampling will be conducted at sites on O'Brien Creek, Sucker Brook, Snowball Creek, Oxhide Creek, Pickerel Creek, and Hay Creek. General water chemistry parameters (pH, temperature, conductivity, and dissolved oxygen) will also be collected during the sampling. Results of these studies will be compared to regional data and will be used in conjunction with the water balance and watershed yield to determine mitigation options.

3.3.9 Odor and Noise (Item 24)

Blasting vibrations and air overpressure will be discussed and evaluated in the EIS. A limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS. The EIS will also identify mitigation measures to potential noise and blasting impacts.

4.0 IDENTIFICATION OF PHASED OR CONNECTED ACTIONS

There are several connected actions that would be required to meet the infrastructure needs of the project. These actions include construction of a gas line, electrical power lines, public roadway, railroads and water/sewer lines. Section 3.2.10 of this Scoping Decision Document identifies that the EIS will evaluate these connected actions.

The project is proposed with a 20-year project life. The mineral deposit has enough ore to supply 70 years of ore for steel production. Given the extensive resources needed to construct the ore processing plant and steel mill, it can be assumed that Minnesota Steel would want to extend the life of the plant by utilizing this additional ore supply. Connected or phased actions beyond the proposed 20 year project life or a production trigger of 55 million tons of steel whichever comes first, will be addressed in accordance with Minnesota Rules part 4410.1000, subpart 4 as follows, "In connected actions and phased actions where it is not possible to adequately address all the project components or stages at the time of the initial EAW, a new EAW must be completed before approval and construction of each subsequent project component or stage. Each EAW must briefly describe the past and future stages or components to which the subject of the present EAW is related."

5.0 EIS SCHEDULE (TENTATIVE)

August 2005	Scoping EAW Comment Period (includes public meeting)
October 2005	Final Scoping Decision Document
January 2006	EIS Preparation Notice Published
August 2006	Draft EIS Issued for Public Review (includes public meeting)
December 2006	Final EIS Issued
January 2007	EIS Adequacy Determined

6.0 SPECIAL STUDIES OR RESEARCH

Mine Plan - A proposed mine plan has been completed by Minnesota Steel and will be available for the use in the EIS. It describes pit geometry and shows plans for phasing of pit development. It also describes necessary mine facilities such as haul roads and ramps.

Stockpile Plan - A conceptual stockpile plan was included in the EAW. A more detailed stockpile plan will be available for use in preparing the EIS. It will include development plans for stockpiles giving geometry, volumes and locations for placement of waste rock, lean ore and overburden.

Stage I Tailings Basin Plan - A plan for development of the Stage I Tailings Basin will be available for use in the EIS. The plan will provide a final outline for the basin, geotechnical data, typical cross-sections and preliminary analyses of seepage and slope stability. It will describe initial dike construction, basin phasing and reclaim water management.

Pilot Plant Study & Environmental Data - Data on chemical concentrations in the process water and solids of the pilot plant will be supplied for use in preparing the EIS. Water samples were collected at a variety of points in the pilot plant and are being analyzed for major ions, metals, hardness and total dissolved solids (TDS) and flotation chemicals, including amine collector. Solids samples were collected at various points and are being analyzed for a variety of metals and for chloride. The study will also describe composition of unfired and fired pellets (for use in determining exhaust and scrubber water quality) and DRI pellets. The pellet and DRI samples will be analyzed for the following constituents: percent water, chloride and a wide range of metals.

Project Water Balance and Watershed Yield Model - The water balance will describe the major consumptive uses of water and the net appropriation required for project operation. The abandoned Buter pit system filled with water and began outflowing into Oxhide Lake in 1993. A watershed yield model for Swan Lake will be calibrated using existing water level data to quantify daily Swan Lake outflow and total watershed inflow for the 1993 to 2005 base period. The model will be used to simulate Minnesota Steel's impact on watershed yield to Swan Lake, Swan Lake outflow, and Swan Lake water level changes from the base period. Sub-models will be developed to quantify Oxhide Creek yield for plant use, Oxhide Lake augmentation, and Snowball Lake augmentation. The model will include a simple groundwater model based on past observations of pit drawdown, pumping and recovery. In addition, the watershed yield model and project water balance will be used to prepare estimates of impacts of the project on the elevation-duration relationships for Swan Lake. This will address the probability of changes in the frequency and duration of periods of low- or high-water conditions.

Conceptual Augmentation Plans - A statistical analysis of annual watershed yield as a function of watershed area will be incorporated into the watershed yield study. Using this information, additional runoff yield estimates and the results of the geomorphological and biological monitoring studies, the EIS will address the need for stream and lake augmentation to maintain the flow and water level of Snowball Lake, Snowball Creek, Oxhide Lake, Oxhide Creek, O'Brien Lake and O'Brien Creek. This will include evaluation of timing of impacts and additional monitoring before and during mining.

Nutrient Budget (Swan Lake) - An estimate of the project's effect on the nutrient budget for Swan Lake will be prepared and available for use in the EIS. This will include estimates of loading changes due to the project and estimates of changes in Swan Lake concentrations of phosphorus, chlorophyll a and in the transparency of the lake.

Stream Geomorphology Study - A Phase I geomorphological evaluation will be performed using Rosgen methods. The study will evaluate changes in bankfull flows and base flows and provide information for assessing probable effects of the project on streams.

Biological Monitoring Study - The biological monitoring data will be used to describe the affected environment and used as a resource for the evaluation of potential impacts from flow or quality changes.

Dissolved Solids Balance and Chemical Mass Balance - A model of dissolved solids accumulation in process water will be prepared and available for use in the EIS. It will estimate concentrations of conservative, highly soluble ions including Ca, Na, Mg, SO₄, and Cl as well as TDS. Concentrations of flotation chemical reagents will also be estimated.

Wetland Delineation Report with Functional Analysis - A report showing delineation of wetlands affected by the project will be available for the EIS. It will include general statistics on wetland type and quality and individual data sheets for wetlands giving general assessments of functions and values using the Minnesota Routine Assessment Methodology (MNRAM) for Evaluating Wetland Functions format.

Wetland Hydrology Monitoring Study - In July, 2005 Minnesota Steel installed shallow monitoring wells in 12 wetlands located adjacent to the proposed pits or pit expansions. Water level readings have been made on a weekly basis since then and will be available for use in the EIS. The hydrology monitoring will provide a baseline for evaluation of future impacts and will help evaluate the current wetland hydrology for prediction of impacts.

Wetland Mitigation Plan - A wetland mitigation plan will be available for use in preparing the EIS. The plan will describe specific areas proposed to be used for mitigation and the conceptual plans for accomplishing the restoration or enhancement of wetlands at the restoration sites.

Limited Noise Modeling Study – Evaluate potential noise and blasting impacts.

Emissions Inventory – See Section 3.3.6

Class I Area Impacts Analysis – See Section 3.3.6

Class II Area Impacts Analysis – See Section 3.3.6

BACT Review – See Section 3.3.6

MACT Compliance – See Section 3.3.6

Mercury Balance – See Section 3.3.6

Human Health & Ecological Risk Assessment – See Section 3.3.6

Mineralogical Analysis – See Section 3.3.6

Canada Lynx Survey – A tracking survey will be conducted to assess potential impacts to Canada Lynx.

Cumulative Effects Analysis – See Section 3.3.7

7.0 GOVERNMENTAL PERMITS OR APPROVALS

The EIS will identify all permits and approvals required for this project. While some permit application review may occur concurrently with EIS preparation, the EIS will not necessarily contain all information required for a decision on those permits. No permits have been designated to have all information developed concurrently with the preparation. The U.S. Army Corps of Engineers will prepare a Record of Decision as part of the Clean Water Act, Section 404 permitting process after the Final EIS is issued.

RESPONSES TO EIS SCOPING COMMENTS
MINNESOTA STEEL INDUSTRIES TACONITE MINE, CONCENTRATOR, PELLET PLANT,
DIRECT REDUCED IRON PLANT, AND STEEL MILL PROJECT
ITASCA COUNTY, MINNESOTA

The Department of Natural Resources (DNR) received 45 comment letters on the Scoping Environmental Assessment Worksheet (EAW) and Draft Scoping Decision Document during the 30-day review and comment period.

Comments were received from:

Lori Andresen	Ronald Rich	Blandin Foundation
Tarry Edington	Ken Ricker	Duluth Seaway Port Authority
Jim Fetzik	Mary Lou Roskoski	Grand Rapids Area Chamber of Commerce
David & Kelli Hardy	Steve & Sharon Ross	Itasca Development Corporation
Noreen Hautala	Christel Rowe	Minnesota Department of Transportation
Bill Heig	Richard Savolainen	Minnesota Historical Society
Randall Jacobson	Warren Schaffer	Sierra Club
Robert Johnson	Jan Seal Smith	Swan Lake Association
Bob Kimmes	Betty Toronto	United States Environmental Protection Agency
Tom Larson	Kathy Traczyk	State Representative Loren Solberg
Eddie LeBar	William Tuominen	State Senator Tom Saxhaug
David Lick	David Van Reese	
LeRoger Lind	Donald Vizenor	
Beatrice Milinovich	Barb Walker	
Elanne Palich	Shawne Wright	
Drew Prochazka	Christopher Wright	
William & Marjorie Ress	(1) Anonymous	

Verbal comments from the following were recorded by a stenographer at the August 10, 2005, Public Scoping Meeting: Vincent Austad, Carol Carlson, Anneliese Hayne, Maria Kautto, Bonita Labar, David Lotti, Jack Milinovich, Craig Nelson, Walt Petrusic, and Gregory Walker

The comments relating to the EIS scope are condensed and summarized below. In some cases, similar comments were submitted in multiple letters; these are treated as one. Copies of the comment letters are attached for reference. The comments primarily address issues already proposed for some degree of EIS inclusion in the Draft Scoping Decision. Other comments necessitated additions to, or clarification of, information in the both scoping documents. The responses identify substantive comment-based revisions to the Draft Scoping Decision Document.

COMMENTS RELATING TO THE SCOPING EAW

A number of comments on the Scoping EAW indicated it lacked information in some areas. The EQB's *Guide to Minnesota Environmental Review Rules* advise RGUs that for significant EIS topics, little factual information should be included in the EAW. Instead, the EAW may simply state that the EIS will include a major discussion of the topic and provide a description of its intended scope and study methods. Consequently the EAW contains the least detailed information about issues that will be discussed extensively in the EIS, and more complete information regarding issues that will not be covered in the EIS.

1. **Comment: (AQ-16)** Comment suggests that steel mill process drawings in the EAW leave out emission control systems and are incomplete.

Consideration/Response: The EIS and the air emissions permit application will include analyses of the pollution control technologies appropriate for control of air emissions from the proposed project. All potential control technologies and the expected emission reductions from the use of those technologies will be evaluated for purposes of complying with the requirements of the federal PSD (Prevention of Significant Deterioration) and NESHAP (National Emissions Standards for Hazardous Air Pollutants) programs. The entire facility will be subject to the PSD program which requires the installation of Best Available Control Technology (BACT). The BACT analysis evaluates the available technologies and requires the installation of the best performing equipment taking into consideration several issues including cost.

Portions of the plant will be subject to the NESHAP program (the taconite processing and possibly the iron and steel making portions). The NESHAP program requires installation of Maximum Achievable Control Technology (MACT). The MACT standards require the installation of control equipment that will result in the emissions unit performing at least as well as the top performing twelve percent of similar emissions units.

These analyses will be completed in accordance with federal rules and guidance.

Changes in Scope: No changes in scope.

2. **Comment: (EAW-1)** Comment asserts that text describing impacted residences is not consistent with the tables on Pages 16-21 that identify only two residences.

Consideration/Response: The tables on pages on pages 16-21 of the EAW report the before and after results in number of acres rather than the number of impacted residences. Therefore, the table identifies two acres of residential areas that may be impacted. In addition, the proposed mine boundary is non-authoritative/administrative (planning purposes only) and does not imply ownership or proprietary rights for the operator/developer. Minnesota DNR regulations do not require an uninhabited permit to mine boundary around the facility and property; property owners are not required to sell if located within the boundary.

Changes in Scope: No changes in scope.

3. **Comment: (EAW-2)** Comment asserts that water quality tables 18-2 and 18-3 are unclear with respect to differences in parameters that have data values and why Pit 3 and Pit 6 do not have data for all sampling rounds.

Consideration/Response: The blanks in Table 18-2 are for parameters that were not analyzed (typically after initial sampling showed low concentrations). Additional water quality data are being gathered by Minnesota Steel in 2005 and will be available for use in the EIS.

The commenter requested information on whether Pits 3 and 6 were ever sampled. Pits 3 and 6 do not exist. Pit 3 was to be north of Pit 1 and is not part of the proposed project. Pit 6 will be mined as part of the proposed project but does not exist now.

Changes in Scope: No changes in scope.

4. **Comment: (EAW-4)** Comment suggests clarification of term "unlisted" with respect to the status of Snowball Lake and Snowball Creek.

Consideration/Response: The term "unlisted" refers to the status of these waters as not being identified on the 303d impaired water body list.

Changes in Scope: No changes in scope.

5. **Comment: (EAW-5)** Comment suggests that sewage waste and paint shop waste should be included in Table 20-1.

Consideration/Response: Comment acknowledged. The EIS will include information about management of these wastes.

Changes in Scope: Section 3.3.5 to read: The EIS will discuss process wastes and solid wastes (emission control dust and slag) generated from the entire project including characterization, quantity, storage, handling, treatment & disposal, and best management practices.

6. **Comment: (MISC-13)** EIS should include a figure showing watersheds discussed in EAW (Water Use), including a baseline watershed acreage and percentage impacted.

Consideration/Response: A watershed yield model will be included as part of the EIS. In addition, a water balance is to be conducted for the project and will be used to model how affected watersheds and lake water levels would change both during and after mining.

Changes in Scope: No changes in scope.

7. **Comment: (MISC-16)** The EAW states water quality impacts to Swan Lake will be "small" – define small.

Consideration/Response: Comment noted, the statement was incorrect, as the degree of impact has yet to be determined. Impacts to Swan Lake will be addressed through information obtained during the nutrient budget study and water balance.

Changes in Scope: No changes in scope.

COMMENTS RELATING TO PROPOSED EIS SCOPE

Comments and issues regarding the proposed EIS scope are organized below. The Final Scoping Decision Document was renumbered to reflect changes and the sections where substantive changes were made in the Final Scoping Decision Document are identified.

1. **Comment: (ALT-1)** Comments requested evaluation of a different tailings basin location, although no additional locations were proposed.

Consideration/Response: An alternative tailings basin is proposed for evaluation as part of the EIS. This alternative will not have impacts on the Swan Lake watershed, and is a truly viable alternative with different environmental impacts. No additional alternative tailings basin sites have been identified that could be evaluated for meeting the purpose of the project and significant environmental benefits.

Changes in Scope: No changes in scope.

2. **Comment: (ALT-2)** Comments requested evaluation of different power line alignments. Suggestions were made to evaluate alignments that followed existing public utility right-of-ways, such as roads.

Consideration/Response: One or more transmission lines will be required to supply power to the project. Conceptual plans for connecting to the power grid have been submitted by Minnesota Steel; however these power line routes as displayed on figures in the EAW are preliminary.

Changes in Scope: Section 3.2.11 will indicate that the EIS will include information on conceptual design and the technical and regulatory processes for routing of electric transmission lines. Final design and location of the transmission line will be determined by the Minnesota Public Utilities Commission's site selection process. This process will be described in the EIS as well as potential impacts from the currently proposed location and design.

3. **Comment: (ALT-3)** Comments questioned the reasoning behind the proposed mine boundary, although the comments were not consistent as far as suggestions for relocation of the boundary. The following issues were identified:

- Too much area to the north being included within boundary, preventing public access.
- Boundary should include all of Snowball Lake
- Concern about being just outside of the boundary (i.e. Big Sucker Lake)
- Concern about property ownership within the mine boundary.

Consideration/Response: The proposed mine boundary is non-authoritative/administrative (planning purposes only) and does not imply ownership or proprietary rights for the operator/developer.

Changes in Scope: No changes in scope.

4. **Comment: (ALT-4)** Comment proposed development of on-site treatment for sanitary wastewater.

Consideration/Response: The development of onsite sanitary wastewater treatment will be assessed for the feasibility and potential environmental benefits in reducing nutrient additions to Swan Lake.

Changes in Scope: Onsite sanitary wastewater treatment will be added to Section 2.5 of the scoping decision document as a modified design or layout alternative.

5. **Comment: (ALT-5)** Comments suggest evaluation of alternative plant site. One comment suggested evaluation of a plant site further to the south.

Consideration/Response: A different location for the plant site would only change the location of the environmental impacts, and not provide any additional significant environmental benefit. A different location would also be detrimental to the purpose of the project to develop the value added steel mill as part of the mining project. Evaluation of an alternative layout of the plant site is proposed in Section 2.5.1 of the scoping decision document, and may provide for some environmental benefits such as minimizing wetland impacts.

Changes in Scope: No changes in scope.

6. **Comment: (ALT-6)** Comments request evaluation of alternative mine site.

Consideration/Response: Most properties containing magnetic taconite ore across the Mesabi are either owned by or leased by the mining companies which plan to develop (mine) these ore bodies in the future. Alternative mine sites available for development by Minnesota Steel require a very large magnetic taconite deposit not currently under lease or ownership by other companies. Additionally, the ores of the Butler area are known to contain very little silica relative to other Mesabi ores. This low silica content provides a much more favorable ore for the specific processes planned by Minnesota Steel.

Changes in Scope: No changes in scope.

7. **Comment: (ALT-7)** Comment suggests evaluation of in-pit waste rock disposal and use of horizontal reduction technology to avoid impacts from tall stacks.

Consideration/Response: Section 2.5.2 of the scoping decision document indicates that the prospect of in-pit stockpiling of waste rock will be evaluated in the EIS.

There are two types of horizontal technologies for Direct Reduction Iron (DRI) furnaces – rotary kilns and rotary hearths. The direct reduction processes for rotary kilns and rotary hearths use coal as the primary reductant to convert iron oxide into metallic iron. The use of coal reduction processes results in higher mercury, sulfur dioxide, carbon dioxide, and carbon monoxide air emissions than do natural gas reduction processes such as the Midrex DRI process that is being proposed for use by Minnesota Steel Industries. Natural gas reduction furnaces are vertical because hot gases rise (move upward) naturally. Movement of hot gases horizontally is difficult and requires movement by fans, which increases energy consumption. Fans are also very difficult to seal, which is a safety concern because the primary reducing gas used by reduction furnaces to convert iron oxide to metallic iron is carbon monoxide. The utilization of horizontal reduction technology will not be considered in the EIS, as it would not likely have any significant environmental benefit compared to the project as proposed.

Changes in Scope: No changes in scope.

8. **Comment: (ALT-8)** Comments suggest evaluation of alternative mining technology and processing technology, with emphasis on preventing air emission impacts.

Consideration/Response: The only alternative mining technology that could be evaluated is the use of underground mining technology. The use of this technology would not meet the purpose of the project, as the proposer could not feasibly develop the project in such a way.

There are several types of commercially available taconite-concentrate grinding technologies that can be used in the concentration process. Wet and dry grinding technologies include roller mills, autogenous mills, sag mills, rod mills, vertical ball mills, and standard ball mills. Minnesota Steel Industries is proposing using wet grinding, which will result in lower dust emissions than dry grinding. The impact on the environment will be similar for each type of wet grinding technology. The only commercially available technologies for separating magnetite from gangue minerals after grinding are magnetic separation and flotation.

There are currently two available pellet induration processes that are commercially available – straight grate furnaces and grate kiln furnaces. The EIS will thoroughly evaluate both types of indurating furnaces to determine which type will have the least impact on the environment.

Direct Reduction technologies currently use natural gas or coal as the reductant to convert iron oxide into metallic iron. Natural gas reduction technologies such as the Midrex technology use gas reformers and vertical shaft furnaces.

There are generally two types of steelmaking furnaces, electric furnaces and oxygen furnaces. Oxygen furnaces require a melted iron feed such as melted pig iron from a blast furnace. Oxygen furnaces cannot make a steel melt from cold iron feed because there is no means to introduce external heat into the process. Electric furnaces can make steel melts from cold iron feed by introducing enough electrical energy into the cold iron feed to melt the iron. Once the iron is melted, steel can then be produced. Electric furnace steelmaking technology is currently the only commercially available technology that Minnesota Steel can use.

Changes in Scope: Section 2.4.1 of the scoping decision document will be revised to indicate the EIS will evaluate fuel use and air emissions for both types of indurating furnaces to determine which type will have the least impact on the environment.

9. **Comment: (ALT-9)** Comment suggested evaluation of alternative scale/magnitude of the project. A specific suggestion was made to evaluate magnitude beyond the 20 year proposal and mining at an increased rate within the 20 year time frame.

Consideration/Response: Connected or phased actions beyond the proposed 20 year project life or a production trigger of 55 million tons of steel, whichever comes first, will be addressed in accordance with MN Rules Ch. 4410.1000, Sub. 4 as follows, "In connected actions and phased actions where it is not possible to adequately address all the project components or stages at the time of the initial EAW, a new EAW must be completed before approval and construction of each subsequent project component or stage. Each EAW must briefly describe the past and future stages or components to which the subject of the present EAW is related."

Changes in Scope: Section 4.0 of the scoping decision document will be revised to include reference to Minnesota Rules as they pertain to connected or phased actions, specifically MN Rule Ch. 4410.1000, Sub. 4.

10. **Comment: (ALT-10)** Concern that purpose and need statement is being narrowly construed to prevent evaluation of alternatives. Suggests verification of product need in the EIS.

Consideration/Response: There is no intent to prevent evaluation of alternatives by narrowly construing the purpose statement. To avoid this perception, the purpose statement has been revised to read, "The purpose for the taconite mine and steel mill is to provide increased supplies of steel to the domestic and world market."

Changes in Scope: No changes in scope.

11. **Comment: (ALT-11)** Concern about evaluation of mitigation measures identified through public comment. Suggestion to include a member of the public on EIS review team.

Consideration/Response: All mitigation measures identified through public scoping will be considered during EIS preparation. If any mitigation measures are eliminated from consideration, the reason for elimination will be included in the EIS. The public is encouraged to participate and is given opportunity to participate as defined in the EQB rules.

Changes in Scope: No changes in scope.

12. **Comment: (AQ-1)** Comment asserted that wind direction data was inadequate because it was from 30 years ago.

Consideration/Response: Minnesota Steel is proposing to use the most recently approved meteorological data. Minnesota Steel is currently compiling a data set for Hibbing, 2001 through 2005. At this time, the data set is not approved; however, approval is expected.

Changes in Scope: No changes in scope.

13. **Comment: (AQ-2)** Comment suggests all dust (PM₁₀) needs to be accounted for, including fugitive dust from the tailings basin.

Consideration/Response: Minnesota Steel will prepare an emission inventory that is inclusive of criteria pollutants, hazardous air pollutants (HAPs), and chemicals of potential concern (COPC). The inventory will be inclusive of all sources (e.g., point and fugitive) that are a component of the proposed project. The inventory will differentiate between those emissions that are captured and controlled by air pollution control devices (APCD) and those that are fugitive and being controlled by the application of best management practices. The emission inventory calculations will be incorporated into the permit application and air dispersion and deposition modeling analyses as needed to demonstrate that the facility will: 1) be in compliance with the applicable emission standards and air quality related values (AQRV) and 2) not create an unacceptable level of risks and/or hazards for human health and the environment. The emission inventory and the modeling analyses will be used to complete: 1) Prevention of Significant Deterioration (PSD) review; 2) an evaluation of the Class II areas Significant Impact Levels (SIL) and associated Significant Impact Areas (SIA); 3) a Class I Areas visibility impact assessment; 4) a Human Health Risk Assessment; and 5) an Ecological Risk Assessment.

Air emissions and potential impacts will be a major topic in the EIS. The EIS will include a human health and ecological risk assessment of the project. Minnesota Pollution Control Agency (MPCA) anticipates that a fugitive emission control plan (best management work practices) will be prepared and implemented by Minnesota Steel and that compliance with the applicable standards will be enforced by the MPCA.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

14. **Comment: (AQ-3)** Comment suggests evaluation of potential for project to contribute to acid rain.

Consideration/Response: Section 3.3.6 indicates air emission impacts will be addressed. The Scoping Decision Document will be revised to include additional detail about how air emissions will be evaluated.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

15. **Comment: (AQ-4)** Comment suggests evaluation of mercury emissions.

Consideration/Response: Mercury will be evaluated as a COPC in the risk assessment. The emission inventory will quantify the amount of mercury being emitted from both point and fugitive sources. Available information indicates that mercury emissions, at other taconite ore processing facilities ranges from approximately 16 to 208 pounds per year. It is recognized that this facility will be sized differently and that Minnesota Steel will also include emissions that are derived from the steel making and shaping activities. The EIS evaluations will include review of estimated emissions of mercury from the proposed project as well as reasonably foreseeable projects. This analysis will include the best available estimates of mercury emissions from the proposed facility and an analysis of mercury control technologies for the proposed project.

Changes in Scope: The EIS will include an analysis of mercury control technologies. Section 3.3.6 of the scoping decision document will be revised to reflect this change.

16. **Comment: (AQ-5)** Comment suggests evaluation of fugitive emissions from portions of the processing plant (i.e. vertical shaft reactor).

Consideration/Response: A fugitive emission control plan (best management work practices) will be prepared and implemented for compliance with the applicable opacity standards and will be enforced by the MPCA. Compliance demonstrations and the risk assessment will include both the point source and fugitive emissions. In addition, Minnesota Steel will prepare an emission inventory that is inclusive of criteria pollutants, hazardous air pollutants (HAPs), and other chemicals of potential concern (COPC). The inventory will be inclusive of all sources (e.g., point and fugitive) that are a component of the proposed project. The inventory will differentiate between those emissions that are captured and controlled by air pollution control devices (APCD) and those that are fugitive and being controlled by the application of best management practices. The emission inventory calculations will be incorporated into permits applications and air dispersion and deposition modeling analyses as needed to demonstrate that the facility will: 1) be in compliance with the applicable emission standards and air quality related values (AQRV) and 2) not create an unacceptable level of risks and/or hazards for human health and the environment. The emission inventory and the modeling analyses will be used to complete: 1) Prevention of Significant Deterioration (PSD) review; 2) an evaluation of the Class II areas Significant Impact Levels (SIL) and associated Significant Impact Areas (SIA); 3) a Class I Areas visibility impact assessment; 4) a Human Health Risk Assessment; and 5) an Ecological Risk Assessment.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

17. **Comment: (AQ-6)** Comment suggests evaluation of (asbestos) fibers.

Consideration/Response: The proposed Minnesota Steel facility is to be located near Nashwauk, MN, on the west end of the Mesabi Range. The available information to date indicates that no asbestos fibers or amphibole minerals have been detected on the west end of the Mesabi Range. However, the presence of asbestos minerals in the ore body will be further investigated in the EIS.

Minnesota's environmental review process includes evaluation of potential risk to human health and the ecology that is represented by new projects. Minnesota Steel will prepare a human health and ecological risk assessment for the proposed facility for use in the EIS and air quality permit. The objectives of the risk assessment are:

1. To evaluate the potential human health and ecological risk associated with potential emissions to ambient air from the proposed Minnesota Steel facility under routine operating conditions; and

2. To characterize potential human health and ecological risks associated with tailings basin discharge to land, groundwater, and surface water.

Changes in Scope: Section 3.3.6 of the scoping decision document will be revised to indicate that the EIS will include a summary of existing mineralogical data and studies for the west end of the Mesabi Range from Minnesota state agencies, research institutions, and Butler Taconite files. The EIS will also present an analysis of the existing mineralogy and petrology data for the ore body to be mined and identify the presence/absence of amphibole minerals. In addition, samples will be obtained from Minnesota Steel's ore bulk sample and analyzed to confirm the presence/absence of asbestos minerals (Method for bulk sample analysis: EPA/600/R-93-116; Polarized Light Microscopy). Further evaluation will be required if deposits of asbestos or fine mineral fiber bearing materials are discovered.

18. **Comment: (AQ-7)** Comments expressed general concern about air quality impacts.

Consideration/Response: Minnesota Steel will prepare a comprehensive emission inventory that is inclusive of all on site project related emission sources (e.g., stationary and fugitive) that have the potential to emit criteria pollutants, hazardous air pollutants (HAPs), and other chemicals of potential concern (COPC). Dust emissions will be evaluated as part of the facility's air permitting. Air emissions and potential impacts will be a major topic in the EIS. The EIS will include a human health and ecological risk assessment of the project. The EIS will also evaluate cross-media impacts from various air quality control devices that may be used at the processing plant.

As stated in the Scoping EAW, the entire facility is subject to the requirements to install and operate Best Available Control Technology (BACT). The taconite portion of the facility is subject to the National Emissions Standard for Hazardous Air Pollutants for Taconite Iron Ore Processing. The iron and steel making portion may be subject to the requirements of the National Emissions Standard for Hazardous Air Pollutants for Iron and Steel Foundries. The emission limits will be established in accordance with the state and federal processes established for setting limits.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

19. **Comment: (AQ-8)** Comment suggests evaluation of existing mercury levels in the local area human population.

Consideration/Response: The human health and ecological risk assessment proposed in Section 3.3.6. will include mercury. The comment implies that the EIS should include an epidemiological study, which is the study of disease in human populations. Epidemiology studies to determine existing levels of mercury and cancer rates in the area are beyond the scope and intent of this EIS.

Changes in Scope: No changes in scope.

20. **Comment: (AQ-9)** Comment suggests evaluation of electricity co-generation from heat recapture.

Consideration/Response: Co-generation requires a high-temperature, high volume gas stream. Potential gas streams include:

- Pellet plant,
- DRI reformer,
- EAFs and ladle furnaces, and
- Transfer table and tunnel furnaces.

The stacks on the pellet plant and DRI reformer will be equipped with wet scrubbers that will cool the waste gas to very low temperatures. The electric arc furnaces and ladle furnaces will not have steady exhaust streams and will not be suitable for cogeneration. The heated transfer table and tunnel furnaces in the steel mill will produce a relatively clean, high-temperature exhaust that could possibly be used for cogeneration using a heat recovery steam generator. The estimated gross heat value of the three exhaust streams is less than 20 megawatts (MW) and reasonable estimates of boiler, turbine and generator efficiency would indicate a generation capacity of less than 3 MW. This is a small portion of overall energy use and does not represent a significant design alternative.

Changes in Scope: No changes in scope.

21. **Comment: (AQ-10)** Comments suggest evaluation of air impacts to watershed and airshed.

Consideration/Response: Potential air impacts to the watershed and airshed will be evaluated in the EIS as provided by the Class I and II Analysis, the Human Health and Ecological Risk Assessment, the Emissions Inventory, and the cumulative effects analysis.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

22. **Comment: (AQ-11)** Comment suggests evaluation on vehicle related air emissions, including mining equipment.

Consideration/Response: Vehicle related air emissions will be intermittent and include emissions from a relatively small number of trucks, bulldozers, loaders and similar earth moving equipment. Such equipment is designed, engineered and must be in compliance with applicable federal emissions standards. Fuels, including sulfur content, must also comply with federal standards intended to limit engine emissions. The EIS will include a qualitative discussion of the effects of mine haul truck emissions on air quality at receptor sites near the mining operation, including carbon monoxide, nitrogen oxides and particulate emissions.

The EIS will discuss the effects of mitigation measures on the projected air quality impacts. If the qualitative analysis shows anything other than insignificant impacts, further evaluation will be required.

Changes in Scope: Vehicle related emissions will be added to the scoping decision document as Section 3.2.8 and will indicate that the EIS will include a qualitative discussion of the effects of mine haul truck emissions on air quality at receptor sites near the mining operation, including carbon monoxide, nitrogen oxides and particulate emissions. The EIS will discuss the effects of mitigation measures on the projected air quality impacts. If the qualitative analysis shows anything other than insignificant impacts, further evaluation will be required.

23. **Comment: (AQ-12)** Comment suggests additional information and evaluation on the use of commercially available control technology.

Consideration/Response: The EIS and the air emissions permit application will include analyses of the pollution control technologies appropriate for control of air emissions from the proposed project. All potential control technologies and the expected emission reductions from the use of those technologies will be evaluated for purposes of complying with the requirements of the federal PSD (Prevention of Significant Deterioration) and NESHAP (National Emissions Standards for Hazardous Air Pollutants) programs. The entire facility will be subject to the PSD program which requires the installation of Best Available Control Technology (BACT). The BACT analysis evaluates the available technologies and requires the installation of the best performing equipment taking into consideration several issues including cost.

Portions of the plant will be subject to the NESHAP program (the taconite processing and possibly the iron and steel making portions). The NESHAP program requires installation of Maximum Achievable Control Technology (MACT). The MACT standard requires the installation of control equipment that will result in the emissions unit performing at least as well as the top performing twelve percent of similar emissions units.

These analyses will be completed in accordance with federal rules and guidance.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

24. **Comment: (AQ-13)** Comment suggests that risk assessment needs to include all sources of health concern, including fibers, vehicle exhaust, and metal processing.

Consideration/Response: The human health and ecological risk assessment will include all appropriate sources of health concern. The reference to fibromyalgia implies conducting an epidemiological study, which is the study of disease in human populations. Environmental epidemiology is the study of the ways things in the environment can be factors in causing disease. Such studies are commonly referred to as disease studies or health studies. Epidemiology studies to determine if there is a significantly higher incidence rate of fibromyalgia among citizens of the iron range are beyond the scope and intent of this project. A mineralogical analysis will be conducted as part of the EIS to determine the presence, if any, of asbestos and other fine mineral fibers.

Mining equipment units are classified as area sources of pollutants. Area sources are associated with a geographical area(s) where onsite activities cause pollutants to become airborne. Emissions from area sources will be included in the application. The EIS will include a qualitative discussion of the effects of mine haul truck emissions on air quality at receptor sites near the mining operation, including carbon monoxide, nitrogen oxides and particulate emissions. The EIS will discuss the effects of mitigation measures on the projected air quality impacts. If the qualitative analysis shows anything other than insignificant impacts, further evaluation will be required.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

25. **Comment: (AQ-14)** Comment suggests the air emission analysis should include PM/PM₁₀ emissions that would not be captured by the baghouse collection system.

Consideration/Response: The EIS and air emissions permit will include all air emissions including those not captured by control equipment.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

26. **Comment: (AQ-15)** Comment states that descriptions of proposed control equipment are inconsistent in the EAW, and that the EIS should evaluate controls prior to proposing specific controls.

Consideration/Response: The EIS and the air emissions permit application will include analyses of the pollution control technologies appropriate for control of air emissions from the proposed project. All potential control technologies and the expected emission reductions from the use of those technologies will be evaluated for purposes of complying with the requirements of the federal PSD (Prevention of Significant Deterioration) and NESHAP (National Emissions Standards for Hazardous Air Pollutants) programs.

The entire facility will be subject to the PSD program which requires the installation of Best Available Control Technology (BACT). The BACT analysis evaluates the available technologies and requires the installation of the best performing equipment taking into consideration several issues including cost.

Portions of the plant will be subject to the NESHAP program (the taconite processing and possibly the iron and steel making portions). The NESHAP program requires installation of Maximum Achievable Control Technology (MACT). The MACT standard requires the installation of control equipment that will result in the emissions unit performing at least as well as the top performing twelve percent of similar emissions units.

These analyses will be completed in accordance with federal rules and guidance.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation of air emission impacts.

27. **Comment: (B-1)** Comments state concerns about noise and structural damage from project blasting.

Consideration/Response: The EIS will evaluate blasting vibration and noise impacts.

Changes in Scope: Section 3.2.9 Odor and Noise will be moved under Section 3.3 of the Scoping Decision Document and will indicate that blasting vibrations and air overpressure will be discussed and evaluated in the EIS. A limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS. The EIS will also identify mitigation measures to potential noise and blasting impacts.

28. **Comment: (B-2)** Comment suggests that EIS should evaluate blasting impacts on drinking water wells.

Consideration/Response: Comment Noted.

Changes in Scope: Section 3.3.2 to indicate that the EIS will evaluate the potential for blasting to adversely impact nearby drinking water wells.

29. **Comment: (B-3)** Comment suggests that EIS should address onsite explosive storage.

Consideration/Response: Section 2.1 of the Scoping Decision Document identifies that the EIS will describe the proposed project. Any information about the project that was incomplete in the EAW will be included in EIS project description.

Changes in Scope: No changes in scope.

30. **Comment: (CE-1)** Comment suggests the cumulative effects analysis should include energy projects (i.e. Mesaba Energy).

Consideration/Response: The Mesaba energy project will be included in the appropriate cumulative effects analyses.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to identify the cumulative effect issues identified in the EAW and include additional information about cumulative effects analysis.

31. **Comment: (CE-2)** Comment suggests evaluation of MPCA ability to meet cumulative workload responsibilities of inspections and oversight of recent projects.

Consideration/Response: Inspection and oversight responsibilities under MPCA permits will be maintained.

Changes in Scope: No changes in scope.

32. **Comment: (CE-3)** Comment suggests the cumulative effects analysis should include Blandin Mill expansion, Coal Gasification (Mesaba Energy), taconite expansion, Mesabi Nugget, and PolyMet as reasonably foreseeable future projects.

Consideration/Response: The Scoping EAW identifies that Blandin, Mesabi Nugget, and PolyMet are included as reasonably foreseeable projects. The Mesaba energy project and future expansion of taconite facilities will be included in the cumulative effects analysis, as appropriate.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to identify the cumulative effect issues identified in the EAW and include additional information about cumulative effects analysis.

33. **Comment: (CE-4)** Comment suggests EIS should evaluate cumulative effect of global warming due to coal gasification because of the projects gas requirements.

Consideration/Response: The projects contribution to global warming due to gas requirements is a very small increment. Any global warming cumulative analysis associated with this project will not be meaningful given the small increment of contribution. The Council of Environmental Quality guidance on assessing cumulative effects identifies the assessments should be limited to those that are meaningful, therefore the guidance indicates it is appropriate not include analysis of effects that would not be meaningful.

Changes in Scope: No changes in scope.

34. **Comment: (CE-5)** Comment suggests evaluation of cumulative effects on air quality in Class I areas.

Consideration/Response: Section 3.3.7 of the Scoping Decision Document identifies that cumulative effects of air quality in Class I areas will be evaluated.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to identify the cumulative effect issues identified in the EAW and include additional information about cumulative effects analysis.

35. **Comment: (CE-6)** Comment suggests cumulative effects analysis should include logging, urbanization, farming, and recreation as past, present, and reasonably foreseeable future impacts.

Consideration/Response: The inclusion of impacts in a cumulative effects analysis is dependent on the impact affecting the resource of concern within the temporal and geographic scope that is appropriate for the project specific impact. For example water quality impacts will only consider other actions that affect the same watershed. To the degree that the comment identifies activities that have an affect on the resource of concern within the appropriate temporal and geographic scope of the specific resource being evaluated, they will be included.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to identify the cumulative effect issues identified in the EAW and include additional information about cumulative effects analysis.

36. **Comment: (CE-7)** Comment suggests cumulative effects analysis to wetlands should consider impacts from access roads, power lines, railway additions etc.

Consideration/Response: Commenter indicates that the cumulative effects analysis should include connected actions. This is appropriate and was envisioned as part of the analysis.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to identify the cumulative effect issues identified in the EAW and include additional information about cumulative effects analysis.

37. **Comment: (CE-8)** Noise from truck traffic should be evaluated as a cumulative impact.

Consideration/Response: The rationale for excluding cumulative effects analysis of noise impacts was given on pages 79 and 80 of the EAW. The suggested analysis of noise impacts does not conform with the Council on Environmental Quality guidance to assessing cumulative effects. The suggested analysis is appropriate for a project specific analysis that is only cumulative in that it included all project related noise impacts. Section 3.3.9 of the Scoping Decision Document will indicate that a limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS. The EIS will also identify mitigation measures to potential noise and blasting impacts.

Changes in Scope: No changes in scope.

38. **Comment: (CE-9)** Comment suggests a cumulative effects analysis for noise sources related to the all sources of project related noise.

Consideration/Response: The rationale for excluding cumulative effects analysis of noise impacts was given on pages 79 and 80 of the EAW. The suggested analysis of noise impacts does not conform with the Council on Environmental Quality guidance to assessing cumulative effects. The suggested analysis is appropriate for a project specific analysis that is only cumulative in that it included all project related noise impacts. Section 3.3.9 of the Scoping Decision Document will indicate that blasting vibrations and air overpressure will be discussed and evaluated in the EIS. A limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS. The EIS will also identify mitigation measures to potential noise and blasting impacts.

Changes in Scope: No changes in scope.

39. **Comment: (CE-10)** Comment suggests cumulative impacts of mercury deposition should include areas within and outside of Minnesota.

Consideration/Response: Due to the long-range transport of mercury in the atmosphere, most of the mercury emitted in Minnesota is deposited outside of the State. Similarly, most of the mercury deposited in Minnesota originates from sources outside of the State. MPCA staff estimates that only about 10 percent of deposition within Minnesota is due to emissions within Minnesota. Although reductions of emissions in Minnesota will have little effect on deposition in Minnesota, it is still important and necessary to reduce the emissions, which in turn reduces deposition in other parts of the region and world, just as reductions are needed from regional and global sources to reduce mercury contamination of fish in Minnesota.

The cumulative approach will attempt to summarize long range transport issues and existing air modeling results both for Minnesota and nationally. Consistent with the approved scope of work for the risk assessment, the air modeling will be performed out to a radius of 10 to 20 kilometers. Maximum deposition around a facility typically occurs within 10 km of an emission source. This distance is wholly within the State of Minnesota. The multi-pathway risk assessment recognizes that there are differential fate and transport mechanisms.

Changes in Scope: No changes in scope.

40. **Comment: (CE-11)** Comment suggests that all affected water bodies in the mine project area should be included as a potentially affected resources

Responses: Further assessment of cumulative impacts to water bodies in the project area has resulted in the determination that the project specific assessment will provide the needed impact information. Additional cumulative analysis will not provide any meaningful information due to the lack or reasonably foreseeable projects that could also impact the resource.

Changes in Scope: Revise Section 3.3.7 of the Scoping Decision Document to remove water quality from cumulative impacts analysis.

41. **Comment: (CE-12)** Comment suggests geographic scope of cumulative wetland/watershed analysis should include the entire Iron Range.

Consideration/Response: Council on Environmental Quality guidance on assessing cumulative effects indicates that geographic scope of the analysis should be related to the resource that is being impacted. The area known as the Iron Range is located within three major watersheds. Impacts from one project in a specific watershed will not have an relationship to impacts in another watershed. It is appropriate to limit the cumulative watershed related impacts to the watersheds that are impacted by the specific project under evaluation.

Changes in Scope: No changes in scope.

42. **Comment: (CE-13)** Comment suggests the cumulative effects analysis should include water quality impacts.

Consideration/Response: Water quality was initially included as a cumulative impacts issue and has since been removed. There is the potential for project specific impacts to water quality that will be addressed in the EIS. There are however, no foreseeable significant cumulative impacts that were identified for this issue.

Changes in Scope: Water quality changes will be scoped-out of the cumulative effects analysis.

43. **Comment: (CR-1)** Comment suggests the EIS should evaluate cultural resources as they relate to the Lake Superior Chippewa Treaty of 1854.

Consideration/Response: The mine site is not located within the 1854 ceded territory, but is within the 1855 ceded territory. Evaluation of impacts to cultural resources identified in the 1855 treaty is appropriate.

Changes in Scope: Section 3.2.14 will be added to the scoping decision document and will indicate that The EIS will include a description of tribal rights reserved as part of the 1855 Ceded Territory Treaty. Impacts to the tribal rights as a result of the project will be evaluated and mitigation proposed as needed.

44. **Comment: (CR-2)** Comment suggests that a survey of the affected area is needed to assess potential impacts to historical/architectural resources.

Consideration/Response: Comment Noted

Changes in Scope: Section 3.2.9 of the scoping decision document was revised to indicate the EIS include a discussion of archeological, historical, and cultural resources using information presented in the EAW. The EIS will discuss the schedule and requirements for cultural resource investigations (archeological and historical resource studies) through the permitting and construction period.

45. **Comment: (CR-3)** Comment suggests tailings basin area within 1,000 feet of O'Brien Lake, Little O'Brien Lake and connecting streams needs to be evaluated for archeological resources.

Consideration/Response: Comment Noted

Changes in Scope: Section 3.2.9 of the scoping decision document was revised to indicate the EIS include a discussion of archeological, historical, and cultural resources using information presented in the EAW. The EIS will discuss the schedule and requirements for cultural resource investigations (archeological and historical resource studies) through the permitting and construction period.

46. **Comment: (CT-1)** Comment suggests that cover types for intermediate and final tailings basin reclamation should be included in the EIS.

Consideration/Response: Before and after cover types associated with the alternative tailings basin are identified under Item 10 of the EAW. In addition Section 3.2.2 of the scoping decision document indicates that specific mining and plant site development details will be developed prior to or during EIS preparation; the EIS will include updated cover type information and "before and after" cover type maps, and will describe the conversion of existing land cover types that will result from project implementation and reclamation. This will include the alternative tailings basin option.

Changes in Scope: No changes in scope.

47. **Comment: (EAW-3)** Comment suggests that water quality and temperature of wastewater discharge needs to be compared to water quality of receiving waters.

Consideration/Response: Section 3.3.4 of the scoping decision document identifies that wastewater discharges from the mine site and the tailings basin will be evaluated for impacts to receiving waters.

Changes in Scope: No changes in scope.

48. **Comment: (ENG-1)** EIS should discuss potential for collapse of saddle dividing pits 1 and 5 and mitigation measures.

Consideration/Response: The width of the saddle will be reduced to ~500 feet during mining. Pit 5 will be totally dewatered. Pits 1 and 2 will likely also be substantially dewatered to supply additional water for augmentation to Oxhide Lake, thereby reducing/eliminating the head differential between Pit 5 and Pits 1 and 2. Thus, the probability for the saddle collapsing is essentially non-existent.

Changes in Scope: No changes in scope.

49. **Comment: (ER-1)** Comment was concerned about notification and public review of scoping EAW and Draft Scoping Decision Document.

Consideration/Response: The notification and public review process was conducted in accordance with MN Rules Ch. 4410.2100. A notice was published in the EQB Monitor and a state-wide DNR press release.

Changes in Scope: No changes in scope.

50. **Comment: (ER-2)** Additional power generation to support the projects needs to be included as a connected action.

Consideration/Response: The power required for the project can be provided from existing sources, from market purchases of power and from power production facilities that are currently planned or proposed. Any new power production facilities would not be a direct result of the Minnesota Steel project and would be built (or not built) independently of the decision on the feasibility of the Minnesota Steel project. Separate environmental review by the PUC may be required for certain aspects of power generation.

Changes in Scope: No changes in scope.

51. **Comment: (ES-1)** EIS should evaluate potential erosion and sedimentation impacts to all affected water bodies in Swan Lake and Prairie River watersheds.

Consideration/Response: Section 3.2.5 proposes to evaluate runoff from erosion-prone areas of the site including downstream sensitive areas of Oxhide Creek. In addition, Section 3.3.1 indicates a study on stream geomorphology will be conducted which will include evaluating potential sedimentation and erosion.

Changes in Scope: No changes in scope.

52. **Comment: (FW-1)** Concern about impacts to spawning in O'Brien Creek.

Consideration/Response: Section 3.2.3 of the draft scoping decision document indicates the EIS will include a qualitative description of fisheries resources and angling activity in O'Brien Creek and will discuss the potential impacts to fisheries and angling that could result from varying water levels and flows.

Changes in Scope: Move Section 3.2.3 - Fish and Wildlife Resources and place under Section 3.3.8 of the final scoping document.

53. **Comment: (FW-2)** Concern about wildlife and wildlife habitat (pollution, habitat barriers, change in species, etc.).

Consideration/Response: The EIS will evaluate wildlife habitat loss and obstructions to habitat corridors as part of the cumulative impacts analysis (Section 3.3.7 of scoping decision document). The EIS will also include a qualitative description of wildlife species and habitat present in the project area and describe potential impacts and mitigation, as warranted (Section 3.3.8 of scoping decision document). The ecological risk assessment will evaluate impacts of emissions from the project on the viability of wildlife and plant species with emphasis on threatened and endangered species.

Changes in Scope: No changes in scope.

54. **Comment: (FW-3)** Consider cover types changes and impacts to wildlife habitat.

Consideration/Response: The cumulative effects analysis section of the EIS will address potential changes in cover type and habitat loss/fragmentation as it pertains to wildlife.

Changes in Scope: No changes in scope.

55. **Comment: (FW-4)** EIS should evaluate air impacts to rare plant species.

Consideration/Response: Air emissions and potential impacts will be a major topic in the EIS. The EIS will include an ecological risk assessment and will evaluate multi-media impacts from various air quality control devices.

Changes in Scope: Revise Section 3.3.6 to include additional detail on approach to evaluation (ecological risk assessment) of air emission impacts as it pertains to plant and wildlife.

56. **Comment: (FW-5)** Marschner's classification is outdated, new classification system used by NRRI and Blandin EIS should be used.

Consideration/Response: Marschner's map is just one of a number of data resources that will be used to aid in classification and will primarily be used to establish a baseline.

Changes in Scope: No changes in scope.

57. **Comment: (FW-6)** EIS should address impacts to fish in area mine pits that are designated recreational or wildlife habitat.

Consideration/Response: The EIS will not address impacts to fish in area mine pits. The EIS will suggest impact mitigation strategies where warranted, and will describe long-term mine pit reclamation strategies to provide fisheries habitat when mining ceases.

Changes in Scope: No changes in scope.

58. **Comment: (FW-7)** Additional endangered species and state listed species surveys should be undertaken so as to have more current data.

Consideration/Response: Section 3.2.3 indicates the EIS will use existing and, if necessary, additional information to support federal regulatory requirements for threatened and endangered species.

Changes in Scope: No changes in scope.

59. **Comment: (FW-8)** EIS should include quantitative assessment of wildlife species impacted.

Consideration/Response: Quantitative estimates will be made of impacts on endangered animal species, focusing on the Canada Lynx. Additional quantitative study will evaluate the effect of habitat fragmentation on sensitive and cover-type sensitive species. Quantitative assessment of general wildlife impacts would require collection of large amount habitat and population data for each species and use of population models for each species; this effort would not be justified for common species.

Changes in Scope: No changes in scope.

60. **Comment: (FW-9)** EIS should evaluate impacts to trout stream designation of Pickerel Creek.

Consideration/Response: The EIS will include a qualitative description and evaluation of the fishery resources of Pickerel Creek (Section 3.3.8 of scoping decision document).

Changes in Scope: No changes in scope.

61. **Comment: (LU-1)** The EIS should evaluate the compatibility of the proposed Expanded Stage I Tailings Basin with current and proposed land use near Swan Lake.

Consideration/Response: The boundaries of the proposed Expanded Stage I Tailings Basin and the north end of Swan Lake share Section 18. The proposed scope of EIS currently does not include the evaluation of the compatibility with plans and land use regulations that pertain to rezoning and variance issues (Item 27, EAW). However, Item 9 of the EAW does describe project compatibility with adjacent and nearby land uses and is proposed to be evaluated further in the EIS. The proposed Stage I Tailings Basin boundaries in relation to Swan Lake are further described in the Tailings Basin section on page 13 of the EAW.

Changes in Scope: The scoping decision document (Section 3.2.1) will be revised to include a discussion of the all required rezoning and variances as they pertain to the Itasca County Land Use Plan.

62. **Comment: (LU-2)** Concerned that the evaluation of potential land use impacts only includes nearby receptors and would like the evaluation to be expanded to a three mile radius from the proposed borders of the site.

Consideration/Response: The potential impacts and various pollutant mediums that may be created by the project have different and varying boundaries. It would not be practical to place a standard boundary when evaluating the various impacts. The specific impacts (e.g. air, water, traffic) will each have specific boundaries with respect to evaluating their meaningful impacts.

Changes in Scope: No changes in scope.

63. **Comment: (LU-3)** The area of potential effect should be determined as it relates to history, architecture, and archaeological resources.

Consideration/Response: Comment Noted.

Changes in Scope: Section 3.2.9 of the scoping decision document was revised to indicate that the EIS will include a discussion of archeological, historical, and cultural resources using information presented in the EAW. The EIS will discuss the schedule and requirements for cultural resource investigations (archeological and historical resource studies) through the permitting and construction period.

64. **Comment: (MISC-1)** Concern about not addressing previous mining activity impacts.

Consideration/Response: The EIS will address cumulative impacts as they relate to past, present, and reasonably foreseeable future actions of not only mining, but other industry and human actions as well.

Changes in Scope: No change in scope.

65. **Comment: (MISC-2)** Concern about nearby residents' property being purchased and changes in current property values.

Consideration/Response: The proposed mine boundary is non-authoritative/administrative (planning purposes only) and does not imply ownership or proprietary rights for the operator/developer. Minnesota DNR regulations do not require an uninhabited permit to mine boundary around the facility and property; property owners are not required to sell if located within the boundary. The following statement on page 12 of the EAW is not correct and should have been deleted: *MNDNR mining regulations require Minnesota Steel to maintain an uninhabited boundary around the facility. Therefore residences and other private property within the Permit to Mine boundary (as shown on Figure 5-4) will be purchased by Minnesota Steel.*

Changes in Scope: No changes in scope.

66. **Comment: (MISC-3)** Would like more information about Minnesota Steel's corporate entity.

Consideration/Response: Minnesota Steel Industries, LLC is a limited liability company registered in the State of Minnesota (Filing # 38432-LLC). Basic business information on Minnesota Steel Industries can be found on the Minnesota Secretary of State's website at www.sos.state.mn.us through their on-line services search.

Changes in Scope: No changes in scope.

67. **Comment: (MISC-4)** Concern about increase in insurance due to proposed road closures.

Consideration/Response: The EIS will not address insurance issues related to road closures. The EIS is intended to provide information about potential environmental impacts and how they may be avoided or minimized, insurance issues are beyond the scope of the EIS. However, the EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

Changes in Scope: No changes in scope.

68. **Comment: (MISC-5)** EIS should include information on wages, working conditions, and benefits.

Consideration/Response: The general social and economic impacts of the project will be studied in the EIS. This will include the direct and indirect effects on local economic development, tax base and demand for public services. The working conditions at the facility are not an impact on the surrounding environment and will not be included as a topic of study in the EIS. These conditions are regulated by the Minnesota Department of Labor and Industry and U.S. Department of Labor.

Changes in Scope: Socioeconomics will be added to Section 3.2 and the general social and economic impacts of the project will be studied in the EIS. This will include the direct and indirect effects on local economic development, tax base and demand for public services.

69. **Comment: (MISC-6)** Would like to see a chart comparing Brazilian air/water quality and pollutant emissions, if the plant is to be modeled after a plant in Brazil.

Consideration/Response: The plant's performance will be required to meet applicable Minnesota and Federal standards, not Brazilian or other standards. Where monitoring data from existing plants of comparable design are available, these may be used to help determine whether the proposed design will meet Minnesota and U.S. requirements.

Changes in Scope: No changes in scope.

70. **Comment: (MISC-7)** The EIS should evaluate cancer rates and causes of cancer in the area, as well as potential health affects of the project.

Consideration/Response: A human health screening-level risk assessment (HHSRA) and ecological screening-level risk assessment (ESRA) will be conducted and included as part of the EIS. The purpose and goal of the assessments are to evaluate the potential human health and ecological risk associated with potential emissions to ambient air from the proposed Minnesota Steel facility under routine operating conditions and to characterize potential human health and ecological risks associated with tailings basin discharge to land, groundwater, and surface water.

Changes in Scope: No changes in scope.

71. **Comment: (MISC-8)** EIS should include monitoring and enforcement for water and air pollution.

Consideration/Response: The project specific permits will provide schedules and specifics of monitoring. Enforcement actions will be taken if permit conditions are not met. A conceptual monitoring plan tied to potential air quality, surface water quality, and groundwater quality impacts will be included in the EIS.

Changes in Scope: No changes in scope.

72. **Comment: (MISC-9)** The EIS should include (make public) all calculations used to estimate air, water, and solid waste emissions.

Consideration/Response: The rules allow companies to maintain some proprietary information as non-public information. The status of information is determined on a case-by-case basis. Because the proposer has stated that the project will consist primarily of "commercially available" technology, it is expected that little if any information will be held as non-public.

Changes in Scope: No changes in scope.

73. **Comment: (MISC-10)** The EIS should evaluate more than 20-years of mining. The EIS should assess the potential 70 year operation of the project.

Consideration/Response: Connected or phased actions beyond the proposed 20 year project life or a production trigger of 55 million tons of steel, whichever comes first, will be addressed in accordance with MN Rules Ch. 4410.1000, Sub. 4 as follows, "In connected actions and phased actions where it is not possible to adequately address all the project components or stages at the time of the initial EAW, a new EAW must be completed before approval and construction of each subsequent project component or stage. Each EAW must briefly describe the past and future stages or components to which the subject of the present EAW is related."

Changes in Scope: Section 4.0 of the scoping decision document will be revised to include reference to Minnesota Rules as they pertain to connected or phased actions, specifically MN Rule Ch. 4410.1000, Sub. 4.

74. **Comment: (MISC-11)** The EIS should include discussion of the dam and basin integrity of the proposed Stage I Tailings Basin.

Consideration/Response: Based on information from the previous mining activities at this location, it is unlikely that any of the currently proposed tailings disposal sites will contain physical attributes from a slope/dam stability or structural integrity point of view that will prove fatally flawed. However, during the EIS process, testing and engineering studies will be required in order to not only prove stability and structural integrity, but also demonstrate that the proposed design, operation, closure and reclamation of the tailings basin and its dams are consistent with prudent engineering practices and comply with regulatory requirements for protection of air, water, and land use. Section 3.3.1 indicates that dam safety is a major issue and the EIS will include the respective engineering studies.

Changes in Scope: Section 3.3.5 of the scoping decision document will be appended to indicate that the EIS will include design information and engineering studies that will evaluate the tailings basin design for the proposed Expanded Stage I Tailings Basin and the Alternative Tailings Basin to ensure structural stability and safety of the tailings dams. The EIS will evaluate the feasibility, benefits, and impacts of the proposed tailings basin designs.

75. **Comment: (MISC-12)** The EIS needs to better address the number of residences that may be bought-out to comply with the permit to mine boundaries.

Consideration/Response: The proposed mine boundary is non-authoritative/administrative (planning purposes only) and does not imply ownership or proprietary rights for the operator/developer. Minnesota DNR regulations do not require an uninhabited permit to mine boundary around the facility and property; property owners are not required to sell if located within the boundary. The following statement on page 12 of the EAW is not correct and should have been deleted: *MNDNR mining regulations require Minnesota Steel to maintain an uninhabited boundary around the facility. Therefore residences and other private property within the Permit to Mine boundary (as shown on Figure 5-4) will be purchased by Minnesota Steel.*

However, Section 3.2.1 of the Scoping Decision Document identifies that the EIS will discuss potential conflicts to nearby residences.

Changes in Scope: No changes in scope.

76. **Comment: (MISC-14)** The EIS should list all necessary individual NPDES permits and their discharge locations.

Consideration/Response: The EIS will list all necessary NPDES permits.

Changes in Scope: No changes in scope.

77. **Comment: (MISC-15)** How will sanitary wastewater be transported to Nashwauk treatment plant from the plant site.

Consideration/Response: A sewer force main would be constructed from the plant along CSAH 58 to an existing lift station in Nashwauk. Section 3.2.11 of the scoping decision document indicates the sewer force main route will be described in the EIS.

Changes in Scope: No changes in scope.

78. **Comment: (MISC-17)** The EIS should describe how many new haul roads are anticipated and their locations.

Consideration/Response: Minnesota Steel intends to use the existing Butler Taconite haul roads and previously disturbed areas to the greatest extent. Due to the compact nature of the mine plan there are no long stretches of haul roads between pits and stockpiles.

Changes in Scope: Section 3.2.1 of the scoping decision document will be revised to include additional haul roads.

79. **Comment: (MISC-18)** The EIS should include a detailed description of the hydrological relationship among all pits and how water will be transferred between them.

Consideration/Response: The proposed project description in Section 2.1 of the scoping decision document will identify area mine pits as they relate to the project and the hydrological relationship between the identified pits will be discussed and evaluated in the water appropriations permit application that will be included as part of the EIS. See Sections 3.3.1 and 3.3.2 of the Scoping Decision Document.

Changes in Scope: No changes in scope.

80. **Comment: (MR-1)** The mineland reclamation plan needs to include the processing facility site. The plan should include a discussion of financial assurances that disturbances and wastes can be mitigated at all steps of the projects life cycle.

Consideration/Response: The mineland reclamation plan will be discussed in the EIS and the plan does include the processing site per DNR deactivation and closure rules (MN Rules 6130.4100, Sub. 2D). Financial assurances are evaluated in the mineland reclamation plan and are defined in MN Rules 6130.6000.

Changes in Scope: Mineland reclamation will be added to section 3.2 of the scoping decision document and will indicate that the EIS will discuss the draft mineland reclamation plans and evaluate practical and reasonable reclamation options as they pertain to identified impacts and mitigation strategies.

81. **Comment: (MR-2)** Concern about reclamation in case of premature closure.

Consideration/Response: The mine shall follow the closure process in accordance with MN Rules 6130.4100.

Changes in Scope: No changes in scope.

82. **Comment: (MR-3)** What is the post-mining fate of Pit 5? Will it be backfilled with tailings or flooded?

Consideration/Response: The watershed and mineland reclamation plans will evaluate the long-term fate of Pit 5. However, it is anticipated that Pit 5 will not ever be completely flooded/backfilled.

Changes in Scope: No changes in scope.

83. **Comment: (N-1)** Noise should be addressed under potentially significant impacts expected. A noise level survey should be conducted to prepare a sound dispersion model.

Consideration/Response: Blasting vibrations and air overpressure will be discussed and evaluated in the EIS. A limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS.

Changes in Scope: Section 3.3.9 of the scoping decision document will indicate that blasting vibrations and air overpressure will be discussed and evaluated in the EIS. A limited noise modeling/study for the proposed project will be conducted in accordance with state noise standards and will be included in the EIS. The EIS will also identify mitigation measures to potential noise and blasting impacts.

84. **Comment: (PU-1)** Concern about high voltage power lines and the path they will be routed.

Consideration/Response: One or more transmission lines will be required to supply power to the project. Conceptual plans for connecting to the power grid have been submitted by Minnesota Steel, however the power line routes displayed on figures in the EAW are preliminary. Section 3.2.11 of the scoping decision document indicates that the EIS will include information on design and routing of electric transmission lines. Additional design and study will be required in the route selection process by the Public Utilities Commission (PUC) and will be discussed in the EIS.

Changes in Scope: Section 3.2.11 will indicate that the EIS will include information on conceptual design and the technical and regulatory processes for routing of electric transmission lines. Final design and location of the transmission line will be determined by the Minnesota Public Utilities Commission's site selection process. This process will be described in the EIS as well as potential impacts from the currently proposed location and design.

85. **Comment: (RA-1)** Recommend using guidance document "Air Toxic Risk Assessment Vol. 1 & 2, instead of Human Health Risk Assessment Protocol for Hazardous Waste Combustion Factors.

Consideration/Response: The Human Health Risk Assessment Protocol for Hazardous Waste Combustion Factors (HHRAP) guidance will be used in preparing the risk assessment for Minnesota Steel's project. The HHRAP guidance is also encompassed within the Air Toxics Risk Assessment Reference Library. Similar to the Air Toxics Risk Assessment Reference Library, the HHRAP guidance brings together information from other risk assessment guidance and method documents prepared by EPA. The HHRAP guidance also contains the latest advancements in risk assessment science and policy, as well as experience gained by conducting and reviewing other risk assessments. The MPCA recognizes there are some differences between the two EPA guidance documents and has determined that the HHRAP guidance is applicable to this project. Minnesota Steel Industries has agreed to identify and justify any changes or modifications between the HHRAP and any values and approaches that they may propose to use in the site specific risk assessment.

Changes in Scope: No changes in scope.

86. **Comment: (SE-1, SE-2, SE-3, SE-4, SE-5)** Include socioeconomic analysis in the EIS.

Consideration/Response: The EIS will address the socioeconomic effects of the project. The EIS however, will not address the economic viability of the project, as the proposer has done an economic analysis of the project and would not be proposing it if it were not economically viable.

Changes in Scope: Socioeconomics will be added to Section 3.2 and the general social and economic impacts of the project will be studied in the EIS. This will include the direct and indirect effects on local economic development, tax base and demand for public services.

87. **Comment: (SW-1)** EIS should disclose environmental impacts of the steel making plant including the use of coal, chemicals, or energy in the process. The EIS must document that "slag" is a non-hazardous waste.

Consideration/Response: Page eight, paragraph two of the EAW specifies slag as a non-hazardous waste product. Table 20-1 further details slag and the proposed waste management options.

Changes in Scope: Section 3.3.5 will indicate the EIS will discuss process wastes and solid wastes (emission control dust and slag) generated from the entire project including characterization, quantity, storage, handling, treatment & disposal, and best management practices.

88. **Comment: (SW-2)** EIS should evaluate tailings disposal for 75 years of mining.

Consideration/Response: Connected or phased actions beyond the proposed 20 year project life or a production trigger of 55 million tons of steel, whichever comes first, will be addressed in accordance with MN Rules Ch. 4410.1000, Sub. 4 as follows, "In connected actions and phased actions where it is not possible to adequately address all the project components or stages at the time of the initial EAW, a new EAW must be completed before approval and construction of each subsequent project component or stage. Each EAW must briefly describe the past and future stages or components to which the subject of the present EAW is related."

Changes in Scope: Section 4.0 of the scoping decision document will be revised to include reference to Minnesota Rules as they pertain to connected or phased actions, specifically MN Rule Ch. 4410.1000, Sub. 4.

89. **Comment: (SW-3)** Concerned about the stability of proposed slope of tailings basin.

Consideration/Response: Tailings basins will be designed in accordance with MN Rules 6130.3000 (Design, Construction, and Operation of Tailings Basins).

Changes in Scope: Section 3.3.5 of the scoping decision document will be appended to indicate that the EIS will include design information and engineering studies that will evaluate the tailings basin design for the proposed Expanded Stage I tailings basin and the Alternative tailings basin to ensure structural stability and safety of the tailings dams. The EIS will evaluate the feasibility, benefits, and impacts of the proposed tailings basin designs.

90. **Comment: (SW-4)** EIS should evaluate handling, treatment and disposal of all process wastes, including quantity, chemical composition, and best management practices.

Consideration/Response: Section 3.3.5 indicates the EIS will characterize solid wastes and the potential impacts of available disposal options. Table 20-1 in the EAW further summarizes project associated wastes and proposed dispositions.

Changes in Scope: Section 3.3.5 will indicate the EIS will discuss process wastes and solid wastes (emission control dust and slag) generated from the entire project including characterization, quantity, storage, handling, treatment & disposal, and best management practices.

91. **Comment: (SW-5)** EIS should evaluate taconite ore and overburden to assess potential impacts to human health and the environment.

Consideration/Response: The EIS will include a human health and ecological risk assessment that will evaluate the potential impacts to human health and the environment from all appropriate aspects of the project, including fugitive emissions from taconite ore and overburden handling.

Changes in Scope: No changes in scope.

92. **Comment: (SW-6)** Unclear as to why small on-site debris landfill can be constructed without environmental review or regulation.

Consideration/Response: An on-site landfill is no longer being considered for this project. However, in accordance with MN Rules Ch. 4410, a mandatory environmental review is not required for a landfill of this type. Should it be determined a landfill is necessary, the permittee will be required to obtain a MPCA solid waste permit for the construction and operation of the landfill.

Changes in Scope: No changes in scope.

93. **Comment: (SW-7)** A time frame should be developed for the onsite storage of slag and BAT developed for erosion control of slag piles.

Consideration/Response: Characterization of the waste will determine how the waste is handled.

Changes in Scope: No changes in scope.

94. **Comment: (SW-8)** Radioactive material should be included in Table 20-1 and impacts discussed.

Consideration/Response: Radioactive materials are used in gauges that measure density of slurries and in monitoring of the operation of the continuous caster mold. The handling of the materials is regulated by the U.S. Nuclear Regulatory Commission. One or more authorized persons at the plant will be licensed by the NRC and will manage the sources in accordance with their rules.

The sources used in the gauges are long-lived and do not need replacement so annual waste quantities should be near zero. If sources are retired they will be disposed of by return to the original instrumentation vendor or through appropriate disposal at a licensed facility for low-level radioactive waste. Section 3.3.5 will discuss process wastes and solid wastes (emission control dust and slag) generated from the entire project including characterization, quantity, storage, handling, treatment & disposal, and best management practices.

Changes in Scope: No changes in scope.

95. **Comment: (T-1)** Concern about increase in traffic and dust from traffic.

Consideration/Response: The EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

Changes in Scope: Section 3.2.7 of the scoping decision document to indicate that the EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

96. **Comment: (T-2)** Impacts as they relate to TH169 and TH65, and CSAH 58.

Consideration/Response: The EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

Changes in Scope: Section 3.2.7 of the scoping decision document to indicate that the EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

97. **Comment: (T-3)** EIS should evaluate additional weight limits on roads, increased traffic and accident rates.

Consideration/Response: The EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

Changes in Scope: Section 3.2.7 of the scoping decision document to indicate that the EIS will evaluate the proposed road access to the plant site and evaluate any potential traffic impacts and mitigation as appropriate. Itasca County has prepared a traffic model of the roads in the area under existing conditions and with the proposed project. The study includes proposed roadway design improvements to mitigate impacts at Highway 169 and Highway 65. Using this study the traffic impacts will be evaluated with respect to change in the level of service provided by the roadway, additional noise and dust, and safety implications.

98. **Comment: (T-4)** Increased rail traffic needs to be evaluated in EIS.

Consideration/Response: Section 3.2.11 of the scoping decision document indicates the EIS will include information on the impacts of additional railroad lines.

Changes in Scope: No changes in scope.

99. **Comment: (V-1)** Prevent light pollution. The EIS should discuss "plume blight".

Consideration/Response: Section 3.2.10 of the scoping decision document indicates the EIS will identify and discuss potential lighting impacts and mitigation strategies. In addition, visibility impacts due to air emissions will be evaluated in the air permitting process and the results of the visibility evaluation will be included in the EIS.

Changes in Scope: No changes in scope.

100. **Comment: (V-2)** Visual impact of 400' tower.

Consideration/Response: Comment Noted

Changes in Scope: Section 3.2.10 will be revised to indicate that Visual impacts are not anticipated to be significant, however limited information beyond what is provided in the EAW will be used to identify potential lighting impacts, visual impacts from proposed facility structures, and mitigation options.

101. **Comment: (WET-1)** How much of the impacted wetlands needs to be replaced?

Consideration/Response: The lost functions and values of the waters of the U.S., including wetlands, directly and indirectly impacted by the project will need to be replaced. The Wetland Conservation Act (WCA) and Clean Water Act (CWA) provides for a no-net-loss provision and a minimum of 1:1 compensatory wetland mitigation replacement ratio. Item #12 of the EAW (p.24-31) describes impacts to wetlands. Mitigation is specifically described under Proposed Mitigation Measures to Compensate for Unavoidable Wetland Impacts (p.29). Section 3.3.1 of the scoping decision document indicates that wetland delineations, mitigation sites, and feasibility of wetland mitigation will be evaluated in the EIS. The potential for indirect wetland impacts will also be included in the EIS. A wetland delineation report with an evaluation of functions and values based on the Minnesota Routine Assessment Methodology for Evaluating Wetland Functions (MNRAM) format and wetland mitigation plan will be included as part of the EIS.

Changes in Scope: Revise Section 3.3.1 and mention the wetland delineation report, functional analysis, and the wetland mitigation plan that will be included in the EIS.

102. **Comment: (WET-2)** The EIS should evaluate wetland impacts from 75 year mine potential.

Consideration/Response: Connected or phased actions beyond the proposed 20 year project life or a production trigger of 55 million tons of steel, whichever comes first, will be addressed in accordance with MN Rules Ch. 4410.1000, Sub. 4 as follows, "In connected actions and phased actions where it is not possible to adequately address all the project components or stages at the time of the initial EAW, a new EAW must be completed before approval and construction of each subsequent project component or stage. Each EAW must briefly describe the past and future stages or components to which the subject of the present EAW is related."

Changes in Scope: Section 4.0 of the scoping decision document will be revised to include reference to Minnesota Rules as they pertain to connected or phased actions, specifically MN Rule Ch. 4410.1000, Sub. 4.

103. **Comment: (WET-3)** The quantity and quality of the impacted wetlands should be evaluated for plant and wildlife use for both the preferred and alternative tailings basins.

Consideration/Response: Section 3.3.8 of the scoping decision document indicates the EIS will include a qualitative description of wildlife present in the project area and will describe potential impacts and suggest mitigation. Section 3.2.3 states the EIS will include results of a rare plant survey and will evaluate potential impacts to listed species and suggest mitigation as warranted. The EIS will include a functional analysis of delineated wetlands in the proposed project areas.

Changes in Scope: Revise Section 3.3.8 to include wildlife species and wildlife habitat.

104. **Comment: (WET-4)** The water balance and watershed yield need to include impacts to wetland hydrology. Analysis of impacts to wetland hydrology and plant communities should be included in EIS.

Consideration/Response: The EIS will address both direct and indirect impacts to waters of the U.S., including wetlands, resulting from the proposed project. Indirect impacts include those from groundwater drawdown and changes to watersheds. Indirect and secondary impacts (loss, degradation, change) to wetlands, including changes in wetland hydrology will be addressed in the EIS as indicated in Section 3.3.1 of the scoping decision document.

Changes in Scope: No changes in scope.

105. **Comment: (WET-5)** The wetland mitigation plan should include mitigation for a 20 year plan not just 5 years.

Consideration/Response: The compensatory wetland mitigation plan will include detailed mitigation plans for impacts to waters of the U.S., including wetlands, which would occur during the first five years of operation. The compensatory wetland mitigation plan will include conceptual mitigation plans for the impacts that would occur during years six through twenty. Minnesota Steel would be required to provide detailed wetland mitigation plans for each remaining five-year increment at least one year before each increment begins.

Changes in Scope: No changes in scope.

106. **Comment: (WQL-1)** General concern about water quality.

Consideration/Response: Sections 3.3.1 to 3.3.4 indicate the EIS will include a water balance that will outline existing and future discharges to surface water bodies and will evaluate water quantity and quality concerns. The water balance will be used to develop a watershed yield and model to predict changes in watershed yield and affected water bodies. A dissolved solids balance will be prepared for tailings basin process water. An analysis of stream sensitivity will be performed to assess how predicted flow changes may affect stream geomorphology. A water chemistry balance and a detailed accounting of the chemicals and wastewater characteristics will be developed and included in the EIS.

Changes in Scope: No changes in scope.

107. **Comment: (WQL-2)** Concern about tailings and tailings dust in Swan Lake and overall water quality of Swan Lake.

Consideration/Response: Section 3.3.4 of the scoping decision document indicates that the EIS will include a water chemistry balance for processing water and tailings basin seepage/discharges. The information will be used to identify potential impacts to receiving waters. The EIS will also include an evaluation of nutrient loading changes to Swan Lake resulting from changes to inflow, tailings basin discharge/seepage and increased sewage flow through the Nashwauk sewage treatment plant through a nutrient budget analysis as well as the evaluation of an onsite sanitary wastewater treatment system to reduce nutrient loading to Swan Lake.

Section 3.3.3 indicates the EIS will include a watershed balance developed from the project water balance and changes in watershed runoff due to mining activities project. A model will be developed to predict changes in watershed yield and affected water bodies. This information will be used to identify potential impacts, mitigation and monitoring to minimize impacts to area water bodies. Potential sources of sediment and pollutant discharges from the site will be assessed and mitigation measures discussed.

The human health and ecological risk assessment will also include an evaluation of tailings and tailings dust and the potential effects to human health and the environment.

Changes in Scope: No changes in scope.

108. **Comment: (WQL-3)** Concern about water quality below Swan Lake.

Consideration/Response: There is no defined need to monitor below Swan Lake. The EIS will address water quality impacts to streams draining into Swan Lake.

Changes in Scope: No changes in scope.

109. **Comment: (WQL-4)** Concern about Snowball water quality.

Consideration/Response: The EIS will evaluate the water quality of Snowball Lake as it relates to lake productivity and potential augmentation requirements.

Changes in Scope: Section 3.3.1 will be appended to indicate that the EIS will evaluate the water quality of Snowball Lake, Oxhide Lake, and Swan Lake as it relates to lake productivity, trophic status and potential augmentation needs/requirements.

110. **Comment: (WQL-5)** Evaluation of groundwater quality impacts to wells.

Consideration/Response: The EIS will include a discussion of the potential for groundwater contamination from process chemicals and hazardous materials used or stored at the project site (Section 3.2.6, scoping decision document). Section 3.3.2 states the EIS will evaluate potential impacts to nearby wells due to mine pit dewatering.

Changes in Scope: Change third paragraph in Section 3.3.2 to read: Potential quality and quantity impacts to nearby wells due to mine pit dewatering will be evaluated in the EIS by examination of regional stratigraphy and proposed water levels in nearby lakes. Add seepage from tailings basins to Section 3.2.6.

111. **Comment: (WQL-6)** Evaluation of chemical fate for flotation chemicals in tailings and tailings basin water.

Consideration/Response: The flotation chemicals (amine collector and methyl isobutyl carbinol) identified in the EAW have been used for nearly 30 years in the taconite industry. Evaluation studies have been performed on the toxicity and the fate of these chemicals in the taconite process. The EIS contractor will use these studies along with other available information on the flotation chemicals to evaluate the impact that the flotation chemicals will have on the environment. Amine collector (DA-16 or similar) and methyl isobutyl carbinol are the flotation chemicals identified in the EAW and will be evaluated in the EIS. If after production begins, Minnesota Steel Industries wants to switch to different chemicals, then the new chemical or chemicals will have to be evaluated prior to use and permitting.

Changes in Scope: Section 3.3.4 of the scoping decision document will be revised to indicate that the EIS will evaluate the impact that the flotation chemicals identified in the EAW (Amine collector (DA-16 or similar) and methyl isobutyl carbinol) will have on the environment.

112. **Comment: (WQL-7)** Mercury impacts to lakes.

Consideration/Response: A water chemistry balance to be included in the EIS will be used to identify potential mercury concerns in receiving waters (Section 3.3.4 of Scoping decision document). In addition, the EIS will include an analysis of mercury control technologies for the project.

Changes in Scope: No changes in scope.

113. **Comment: (WQL-8)** Concern that geographic scope of air & water quality impact analysis is too small.

Consideration/Response: The geographic scope of the various air and water quality studies that are proposed for the project are delineated to evaluate greatest meaningful impacts from the project.

Changes in Scope: No changes in scope.

114. **Comment: (WQL-9)** EIS should evaluate potential impact to groundwater from process water and tailings basin.

Consideration/Response: Section 3.2.6 of scoping decision document indicates that the EIS will include a discussion of the potential for groundwater contamination from process chemicals and hazardous materials used or stored at the project site and seepage from tailings basins.

Changes in Scope: No changes in scope.

115. **Comment: (WQL-10)** Water quality as it pertains to dewatering discharges and the need to sample.

Consideration/Response: Specific monitoring frequency for mine pit dewatering will be determined through the NPDES permit process. Adequate monitoring will be required in order to verify compliance.

Changes in Scope: No changes in scope.

116. **Comment: (WQL-11)** EIS should clarify whether the "no past noticeable effects to local wells from Pits (1,2,and 5) dewatering" includes both water quality and levels.

Consideration/Response: The EIS will evaluate the potential water quality and quantity impacts to nearby wells due to mine pit dewatering. The hydrologic relationships of the mine pits will be discussed in the EIS.

Changes in Scope: Change third paragraph in Section 3.3.2 to read: Potential quality and quantity impacts to nearby wells due to mine pit dewatering will be evaluated in the EIS by examination of regional stratigraphy and proposed water levels in pits and nearby lakes.

117. **Comment: (WQL-12)** EIS should discuss specifics of the NPDES permits (types of effluent, amount, and fate).

Consideration/Response: The EIS will include a list of NPDES permits, general discharge locations, and chemicals of potential concern.

Changes in Scope: No changes in scope.

118. **Comment: (WQL-13)** EIS should evaluate water quality impacts from discharging process water.

Consideration/Response: Section 3.3.4 of the scoping decision document indicates that the EIS will include a water chemistry balance for processing water and tailings basin seepage/discharges. The information will be used to identify potential impacts to receiving waters.

Changes in Scope: No changes in scope.

119. **Comment: (WQL-14)** EIS should discuss categorical effluent standards as they pertain to discharges of mixed waste water.

Consideration/Response: The EIS will discuss categorical effluent standards as they pertain to discharges of mixed wastewater. This discussion will include, at a minimum, a listing of applicable categorical standards as stated in the Code of Federal Regulations, the interaction between applicable guidelines for multiple industrial categories at one facility, and general locations for applying the applicable standards (multiple outfalls, combined outfall, internal outfall).

Changes in Scope: Include discussion of categorical effluent standards as they pertain to discharges of mixed wastewater to Section 3.3.4 of the scoping decision document.

120. **Comment: (WQL-15)** EIS should address impacts to Oxhide Lake.

Consideration/Response: Sections 3.3.1, 3.3.2, and 3.3.8 of the scoping decision document detail how the EIS will address impacts to Oxhide Lake and other surface water bodies.

Changes in Scope: No changes in scope.

121. **Comment: (WQL-16)** EIS should address impacts to Pickerel Creek.

Consideration/Response: Section 3.2.4, 3.3.1, and 3.3.8 of the decision document describe how the EIS will evaluate potential impacts to Pickerel Creek.

Changes in Scope: No changes in scope.

122. **Comment: (WQL-17)** The EIS should include constituents of water discharged from tailings basin seeps.

Consideration/Response: Section 3.3.4 of the scoping decision document indicates that the EIS will include a water chemistry balance for processing water and tailings basin seepage/discharges.

Changes in Scope: No changes in scope.

123. **Comment: (WQN-1)** Flow through (turn over rate) of Swan Lake.

Consideration/Response: The EIS will include an evaluation of nutrient loading changes to Swan Lake resulting from changes to inflow, tailings basin discharge/seepage and increased sewage flow through the Nashwauk sewage treatment plant through a nutrient budget analysis.

Changes in Scope: No changes in scope.

124. **Comment: (WQN-2) Lake levels**

Consideration/Response: Section 3.3.1 of the decision document indicates that the EIS will evaluate lake levels.

Changes in Scope: No changes in scope.

125. **Comment: (WQN-3) Use of Canisteo Pit as water source for project.**

Consideration/Response: The distance from the proposed project prohibits use of this pit.

Changes in Scope: No changes in scope.

126. **Comment: (WQN-4) Need to evaluate impacts to Big McCarthy Lake.**

Consideration/Response: A detailed project water balance and watershed yield will be conducted to help quantify impacts on stream flow and lake water levels throughout mining and after closure. However, very little potential impact is anticipated to Little McCarthy Lake, therefore the potential for impact to Big McCarthy Lake is even less.

Changes in Scope: No change in scope.

127. **Comment: (WQN-5) Concern about dewatering impacts to water table/wells.**

Consideration/Response: Section 3.3.2 states the EIS will evaluate potential impacts to nearby wells due to mine pit dewatering by examination of regional stratigraphy and proposed lake levels in nearby lakes.

Changes in Scope: Change third paragraph in Section 3.3.2 to read: Potential quality and quantity impacts to nearby wells due to mine pit dewatering will be evaluated in the EIS by examination of regional stratigraphy and proposed water levels in pits and nearby lakes.

128. **Comment: (WQN-6) Concern about impact to Big Sucker Lake.**

Consideration/Response: A detailed project water balance and watershed yield will be conducted to help quantify impacts on stream flow and lake water levels throughout mining and after closure. However, very little potential impact is anticipated to Little Sucker Lake which flows into Big Sucker Lake. Therefore the potential for impact to Big Sucker Lake is even less.

Changes in Scope: No change in scope.

129. **Comment: (WQN-7) Biotic needs should be used as a basis for determining the threshold for augmentation.**

Consideration/Response: Comment Noted.

Changes in Scope: Section 3.3.8 of the scoping decision document to indicate that the EIS will include a biological monitoring study. Aquatic invertebrates will be sampled in streams downstream from the mine pits and proposed tailings basin sites to provide background biological information. Sampling will be conducted at sites on O'Brien Creek, Sucker Brook, Snowball Creek, Oxhide Creek, Pickerel Creek, and Hay Creek. General water chemistry parameters (pH, temperature, conductivity, and dissolved oxygen) will also be collected during the sampling. Results of these studies will be compared to regional data and will be used in conjunction with the water balance and watershed yield to determine mitigation options.

130. **Comment: (WQN-8)** EIS should include a figure showing water routes and quantity diverted to Pits 1 and 2.

Consideration/Response: The EIS will define the routes for internal management of water and transfers between ponds and pits.

Changes in Scope: No changes in scope.

131. **Comment: (WQN-9)** Concern about water quantity impacts to Snowball Lake and augmentation needs.

Consideration/Response: The EIS will include a detailed water balance for the project including processing plant needs, mine pit dewatering, lake/stream augmentation and tailings basin seepage/discharge. Additional sources of water to supply the processing plant will be identified if the balance indicates a water deficit for the processing plant. The water balance will also consider wastewater discharges from the tailings basin to prevent build up of dissolved solids or other water quality concerns. This information will be used to model how affected watershed yield and lake water levels would change both during and after mining. Impacts to water bodies will be identified and mitigation/monitoring will be developed to minimize impacts. In addition, Section 3.2.4 of the scoping decision document indicates that mining in proximity to Snowball Lake has the potential to affect water levels and will be analyzed in the EIS along with other potential surface and groundwater impacts.

Changes in Scope: No changes in scope.

132. **Comment: (WQN-10)** "Significant impact" should be better defined as it relates to impacts to Little Sucker Lake and Little McCarthy Lake and the reduced watershed by the plant facilities.

Consideration/Response: The EIS will address all potential impacts (significant or not) to Little Sucker Lake and Little McCarthy Lake through the proposed water balance and watershed yield analyses.

Changes in Scope: No changes in scope.

133. **Comment: (WQN-11)** EIS should include quantity of water discharged from tailings basin seeps.

Consideration/Response: The EIS will include estimates of the quantity of water discharged from tailings basin seeps through the proposed water balance.

Changes in Scope: No changes in scope.

134. **Comment: (WQN-12)** EIS should quantify changes in flow of O'Brien Creek and other water bodies.

Consideration/Response: Sections 3.3.1, 3.3.2, and 3.3.8 of the scoping decision document detail how the EIS will address impacts to O'Brien Creek and other surface flows and water bodies.

Changes in Scope: No changes in scope.

135. **Comment: (WQN-13)** EIS should evaluate all creeks that drain to northern Swan Lake (Hay and Hart Creeks) as well as impact to Lake levels and Swan River Dam.

Consideration/Response: The EIS will evaluate creeks that drain into northern Swan Lake using a detailed project water balance and watershed yield will be conducted to help quantify impacts on stream flow and lake water levels throughout mining and after closure. Hay and Hart Creeks flow into the southern portion of Swan Lake and will not be impacted.

Changes in Scope: No changes in scope.