

**ESSAR STEEL MINNESOTA MODIFICATIONS PROJECT  
NASHWAUK, MINNESOTA**

**RESPONSES TO SEIS PREPARATION NOTICE COMMENTS  
July 2010**

The DNR received 24 comment letters on the Supplemental Environmental Impact Statement (SEIS) Preparation Notice during the 21-day review and comment period.

Comments were received from:

1. Bobbi Jo Amic, Sr Loan Officer, LendSmart Mortgage
2. Gloria Anderson, Como Oil & Propane
3. Ernest & Kathleen Burns, TCS TV & Video
4. Jim Currie, President, Laurentian Chamber of Commerce
5. Lory Fedo, President, Hibbing Area Chamber of Commerce
6. Jeanine Fox, American Family Insurance
7. Carole Girard, Owner/Broker, RE/MAX Woods to Water
8. Jerry Greene, Owner, Greene Concrete
9. John Heino, President & CEO, Como Oil & Propane
10. Todd & Janet Jaranson
11. Tim Johnson, GABA Community Liaison, Greenway Communities Working Together
12. Reggie Licari, General Manager, AmeriPride Linen & Apparel Services
13. Larry Majewski, Fred's IGA Nashwauk
14. Mary Winston Marrow, Staff Attorney, Minnesota Center for Environmental Adequacy
15. David McMillan, Executive Vice President, Minnesota Power
16. Melissa Milkovich
17. Terry & Tamara Nevalainen
18. Mike Olson, President, Nashwauk Chamber of Commerce
19. Scott Phaneuf
20. Ronald Rich, President, Atmosphere Recovery, Inc
21. Margie Ritter, VP, Decorated Apparel Expo
22. Bud Stone, Grand Rapids Chamber of Commerce, President, Grand Rapids Chamber of Commerce
23. Paul Tufte, Division Manager, Como Oil & Propane
24. Rob West, President & CEO, APEX

The comments relating to the SEIS 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 in the Preparation Notice for some degree of inclusion in the SEIS. The responses identify substantive comment-based revisions to the SEIS scope.

**Comments Relating to Proposed SEIS Scope**

Comments and issues regarding the proposed SEIS scope are organized below by the corresponding section of the Preparation Notice. Responses are numbered according to the alphabetized list of commenters. The Final Preparation Notice will be renumbered as necessary to reflect substantive changes made to the SEIS scope in response to public comments.

## I. Title of EIS being supplemented and dates of completion

The DNR received no comments regarding this section.

## II. Description of Situation Necessitating Preparation of the Supplement

**Comment 12c:** Essar Steel has already completed a prior environmental review and permitting process that included completion of a very comprehensive joint Federal and State EIS. (Licari)

**Consideration/Response:** The commenter correctly notes that a joint State-Federal EIS was prepared for the original project. For the currently proposed action, Minn. Rules part 4410.3000, subp. 3., Supplement to an EIS, states, "An RGU must prepare a supplement to an EIS under any of the following circumstances:

- A. whenever after a final EIS has been determined adequate, but before the project becomes exempt under part 4410.4600, subpart 2, item B or D, the RGU determines that either:
- (1) substantial changes have been made in the proposed project that affect the potential significant adverse environmental effects of the project; or
  - (2) there is substantial new information or new circumstances that significantly affect the potential environmental effects from the proposed project that have not been considered in the final EIS or that significantly affect the availability of prudent and feasible alternatives with lesser environmental effects."

The DNR, as the RGU for the original EIS, made the determination that Essar Steel Minnesota Limited's (ESML's) proposed modifications to the original project warrant preparation of a Supplemental EIS.

**Substantive changes reflecting comments:** None.

**Comment 14b:** The Essar Steel Project SEIS notice states that the life of the project will be 15 rather than 20 years. No justification is provided for the change from a 20-year to a 15-year project. Without further explanation and an independent justification for this change, it appears that it may be intended to avoid analysis of significant increases in real-time pollution resulting from the facility. (Marrow – MCEA)

**Consideration/Response:** The commenter correctly notes the change in the duration of the mine plan between the proposed modifications project and originally reviewed action. The RGU does not determine the length of time being sought in the Permit to Mine; the mine plan time period is set by the project proposer. By reducing the mine plan time period, ESML is proposing to mine the same ore identified in the 2007 EIS, and subsequently approved Permit to Mine, in 15 years instead of 20. The SEIS will evaluate the significant environmental consequences of the proposed modified project. It is noted that a 15 year initial mine plan also means that ESML will be subject to environmental review and permitting for the next mining time period sooner than the originally proposed project.

**Substantive changes reflecting comments:** None.

**Comment 14c:** The Minnesota Department of Natural Resources ("DNR") should request and obtain objective evidence showing the intent of the Essar Steel Project. What, for example, have Essar Steel's investors been told about the life of the project? Without further information and justification, the shortening of the life of the project and the limitation that places in the environmental analysis are arbitrary and capricious, and will render the SEIS inadequate. (Marrow – MCEA)

**Consideration/Response:** Mining operations in Minnesota are typically long-term actions where the life of the mine depends on the volume of economically viable ore resources and the rate of extraction. For this site, Item 6d of the Minnesota Steel EIS Scoping EAW noted the site contained some 900 million tons, or about 70 years of operating capacity. The total ore resource identified within the permit to mine boundary is 1.4 billion tons. The amount of ore needed for the first mine plan time period is 310 million tons, which is what will be evaluated in the SEIS. As noted in the Response 14b, additional mining beyond this level will be subject to modifications to the Permit to Mine and also likely require additional environmental review and permitting at a future date.

Minn. Rules part 4410.3000, subp. 5C dictates the SEIS is required to meet the requirements of Minn. Rules part 4410.2300. Subpart E of the cited rule is the project description, which states “the proposed project shall be described in no more detail than is absolutely necessary to allow the public to identify the purpose of the project, its size, scope, environmental setting, geographic location, and the anticipated phases of development.” DNR will secure relevant information from the proposer and the SEIS will address the point of the comment by satisfying the requirements of Minn. Rules part 4410.2300, subp. E.

**Substantive changes reflecting comments:** None.

**Comment 14d:** Essar Steel’s decision to make a considerable investment in a larger pellet furnace is consistent with a plan to continue mining beyond the initial 15 years of the Essar Steel Project under consideration in the SEIS. The likelihood that mining and processing continue beyond the initial 15 year period must be disclosed. (Marrow – MCEA)

**Consideration/Response:** DNR concurs that the potential for mining beyond 15 years is a reasonable assumption given the total ore resource identified within the permit to mine boundary is 1.4 billion tons. Future activity beyond the 15 year increment is considered to be a phased action, where Minn. Rules part 4410.2000 notes “where it is not possible to adequately address all the project components or stages at the time of the initial EIS, a supplemental EIS must be completed before approval and construction of each subsequent project component or stage.” Under the rule, mining beyond that amount evaluated in the original EIS or subsequent SEISs will require additional State Environmental Review for the component or stage not yet addressed.

The amount of ore needed for the first mine plan time period is 310 million tons. As noted in Response 14b, additional mining beyond this level will be subject to modifications to the Permit to Mine and also likely require additional environmental review and permitting under Minnesota Rules part 4410.

**Substantive changes reflecting comments:** None.

**Comment 14e:** Environmental impacts associated with mining and processing beyond 15 years must be analyzed as a reasonably foreseeable outcome of the investment in a larger pellet furnace. (Marrow – MCEA)

**Consideration/Response:** Comment noted. It is recognized that mining, processing, and pellet production will likely proceed beyond 15 years; see Response 14d. An environmental review evaluates the project, or the stage of a long-term project, that is currently proposed. The potential environmental effects, and available mitigative measures, of mining and processing as a result of the larger pellet furnace will be evaluated in the SEIS. The Permit to Mine is based on the total mining operation, or “life of the mine,” that the company proposes and will be in effect for the life of the operation through closure of the entire facility. By decreasing the timeframe for this stage from 20 years to 15 years, the company will have to go through the requisite environmental review and permitting process again five years sooner than under the original plan, if indeed mining continues.

ESML's currently approved operation underwent a full EIS that was determined adequate in August, 2007. The proposed modifications project will undergo a Supplemental EIS procedure at this time. In total, these two environmental reviews will address mining operations through the proposed 15-year permit to mine amendment. Under the cited rule, expansion of mining operations beyond the currently proposed amount may require additional environmental review, most likely in the form of a Supplemental EIS. It is also possible, depending on the nature and extent of any future proposed action, the mine could change in such a way that the permit to mine (or other permits) may require modification without automatically triggering environmental review.

**Substantive changes reflecting comments:** None.

**Comment 14f:** Essar Steel cannot avoid environmental review of its increased production by condensing the mine plan under review to 15 years if its ultimate intent is to continue mining beyond that time period. The first EIS was based on a 20 year mine plan. If Essar Steel intends to continue mining at this site for 20 years, then that should be disclosed and analyzed as part of this environmental review process. (Marrow – MCEA)

**Consideration/Response:** As the project proposer, ESML is allowed to define the project they are proposing, including the time period it will cover. This noted the RGU is responsible to ensure that connected and phased actions are handled appropriately, in that the proposer is not trying to avoid environmental review in some way by breaking their project into phases.

It is the DNR's position that a 15-year time frame for the Essar Steel Minnesota Modifications Project is reasonable and that later stages of the project are not defined to the extent that meaningful environmental review would be possible. The "life" of a mine may occur over such a long time period (in some cases, 100 years) that doing environmental review for the entire time period is unduly speculative from an assessment of potential environmental effects perspective. Breaking the project (and the mine plan) into shorter time periods, allows potential environmental effects to be more accurately assessed and allows for new issues that arise in later years to be addressed during environmental review of subsequent stages of the mine. If and when a future supplemental EIS is required, it must address the impacts associated with the particular project component or stage that were not addressed in the initial EIS; see Minn. Rules part 4410.2000, subp. 4. This rule further states, "[w]hen review of the total of a project is separated under this subpart, the components or stages addressed in each EIS or supplement must include at least all components or stages for which permits or approvals are being sought from the RGU or other governmental units."

The total ore resource identified within the permit to mine boundary is 1.4 billion tons. The amount of ore planned to be mined within the first mine plan time period is 310 million tons under both the original and modified projects. Additional mining beyond this level will be subject to modifications to the Permit to Mine and will also likely require additional environmental review and permitting. Since ESML is reducing the time frame of this stage from 20 years to 15 years, the company is aware that if they intend to continue mining beyond the 15 year time period, they will need to repeat the environmental review process five years sooner than they had originally planned.

**Substantive changes reflecting comments:** None.

**Comment 15a:** MP understands that the need for the SEIS is tied to the proposal of Essar Steel Minnesota LLC (ESML) to increase the production capacity of the Nashwauk facility's crusher, concentrator, and taconite pellet plant from the currently permitted 4.1 million tons per year (mtpy) to 6.5 mtpy.

MP believes that the preparation of a SEIS is appropriate due to the proposed increase in taconite production. Moreover, the public comment and approval process associated with the EIS process has long demonstrated its ability to identify concerns and issues with proposed projects, and we would expect that a stronger final project will be the outcome of this process. (McMillan - Minnesota Power)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

**Comment 20d:** The original FEIS supposedly covered a 20 year period of time. Essar proposed to continue operating the mine beyond the 20 years covered by the FEIS. Delays by Essar may have reduced the total active life of the mine to 15 years if the initial 2007 time horizon is used. However, if a 20 year time horizon is used starting in 2010 or 11 when the SEIS is final and if Essar mines at the rate indicated, a much greater area than the original 20 year horizon will be impacted. And the impacts beyond 20 years will be MUCH greater. The time horizon of the SEIS must extend 20 years from the conclusion of the SEIS and include the increased mine waste and mining footprints from the higher rates of mining being proposed by Essar. (Rich - Atmosphere Recovery)

**Consideration/Response:** Once the project has completed environmental review, the Permit to Mine would be amended to reflect the new version of the project. The life of the operation will be included in the permit and the permit remains in effect through closure. This amended permit would reflect the updated start date for operations. The total ore resource identified within the permit to mine boundary is 1.4 billion tons. The amount of ore to be mined within the first mine plan time period is 310 million tons. As noted in the Response 14f, additional mining beyond this level will be subject to modifications to the Permit to Mine and also likely require additional environmental review and permitting under Minnesota Rules part 4410.2100, subp. 4.

If and when a company proposes a change to the mine plan that requires a change in permits or environmental review, the impacts of those proposed changes would be evaluated.

**Substantive changes reflecting comments:** None.

### **III. Scope of Supplement: Alternatives, Issues, and Studies**

Minnesota Rules part 4410.3000, subp. 5, requires the scope of a supplement to an EIS to be limited to alternatives, impacts, and mitigation measures not addressed, or inadequately addressed, in the Final EIS.

**Comment 14a:** These comments are submitted on behalf of the Minnesota Center for Environmental Advocacy ("MCEA") regarding the scope of the supplemental Environmental Impact Statement ("SEIS") for the Essar Steel Minnesota Modifications Project at its Nashwauk facility ("Essar Steel Project"). MCEA is a Minnesota nonprofit environmental organization whose mission is to use law science, and research to preserve and protect Minnesota's natural resources, wildlife, and the health of its people. MCEA has state-wide membership. The Essar Steel Project involves environmental impacts in many of the areas of MCEA's work, including water quality, natural resources, public health, and energy. Thank you for the opportunity to offer comments on the scope of the SEIS for the Project.

These comments on the scope of the SEIS for the Essar Steel Project are submitted to identify potentially significant issues relevant to the proposed Project, and help to define the form, level of detail,

content, and alternatives which should be analyzed in the Essar Steel Project SEIS as directed by Minnesota Rules 4410.2100. (Marrow – MCEA)

**Consideration/Response:** DNR appreciates the input provided by MCEA on the proposed SEIS scope as provided in the Preparation Notice. The procedures relevant to scoping a supplemental EIS are contained in Minn. Rules part 4410.3000, subparts 5A and 5B, where the former states: “The scope of a supplement to an EIS must be limited to impacts, alternatives, and mitigation measures not addressed or inadequately addressed in the final EIS.”

**Substantive changes reflecting comments:** None.

## A. Alternatives

**Comment 14p:** In analyzing the electricity needs of the Essar Steel Project, the SEIS should also include an alternatives analysis for the electricity generation required for the entire project, including a direct and indirect impacts analysis and a cumulative potential effects analysis for wind, natural gas, and biomass. (Marrow – MCEA)

**Consideration/Response:** The commenter requests for the SEIS to include an alternatives analysis for electricity generation. The issue was addressed in the originally proposed action in Response ER-2 [for the original EIS’s scoping process], which noted:, “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.” (Minnesota DNR, EIS Scoping Procedures, Minnesota Steel Industries Taconite Mine, Concentrator, Pellet Plant, Direct Reduced Iron Plant, and Steel Mill Project, Itasca County, Minnesota, October 13, 2005).

As stated in the original FEIS (2007), “electrical power providers and/or local public utility providers would be responsible for construction of the infrastructure to supply electricity and natural gas to the facility. Separate permits and environmental review will be required for these infrastructure projects.” An alternatives analysis, if required, would most appropriately be completed during environmental review of the infrastructure projects. The final Scoping Decision Document (SDD) for the original Minnesota Steel project noted that infrastructure impacts from the project were not anticipated to be significant. Section 6.13 (Infrastructure) of the original FEIS discussed in general the anticipated environmental effects of a gas pipeline (Section 6.13.2.4) and electrical transmission lines (Section 6.13.2.6). The FEIS was determined to be adequate under Minn. Rules part 4410.2800, subp. 4 in August, 2007.

See Responses 14l and 14n.

**Substantive changes reflecting comments:** None.

## B. Issues

### 1. *Impacts to Surface Water Quantity*

**Comment 14v:** The Essar Steel project SEIS Preparation Notice indicates that the SEIS will address the quantity of water: 1) needed to satisfy mining, beneficiation, pellet production, and steelmaking; and 2) to be discharged or transferred between waters of the state. The Notice further states that if additional

water required for the Project reviewed in the first EIS is determined to be needed, then the impacts of any changes on surface or groundwater resources and mitigation will be assessed in the SEIS. (Marrow – MCEA)

**Consideration/Response:** The comment correctly notes the proposer will be required to prepare an updated water and chemistry balance for the facility; see Preparation Notice Section III.C.2. It will address a facility production rate of 6.5 million tons per year (mtpy). Results of the study will be discussed in the SEIS. If the analysis indicates additional water will be needed beyond that anticipated for the original project, the SEIS will also assess the impacts of the additional water use and identify mitigation.

**Substantive changes reflecting comments:** None.

**Comment 14w:** The SEIS should analyze the water consumption needs for the Project in the context of how much water will be required per day in comparison to the amount of water required per day in the EIS. In light of the condensed time period and increased output planned for the Project in comparison to that evaluated in the first EIS, there can be little doubt that the Project will require additional water per day than that analyzed in the first EIS. (Marrow – MCEA)

**Consideration/Response:** Comment noted. The DNR will evaluate the current proposed water balance versus the water balance that was reviewed in the first EIS taking into account the difference in projected mine life from 20 years to 15 years. ESML reports it has made changes in the detailed design of the DRI plant and steel making process, where both sets of changes are projected to ultimately cut their net make-up amount of water needs down from that proposed for the original project. See Response 14v.

**Substantive changes reflecting comments:** None.

**Comment 14x:** Analyzing the direct and indirect impacts and cumulative potential effects associated with the increased daily water demands of the Project is particularly important when considering the drying effects of a changing climate. The SEIS for the project must analyze impacts associated with appropriations of water from Swan Lake and the potential that water might have to be pumped from the Harrison/Hawkins basin due to the increasingly dry conditions. The environmental impacts associated with dryer conditions are not limited to just the amount of water available, but also with increased concentration of chlorides and other chemicals. (Marrow – MCEA)

**Consideration/Response:** The comment requests that the impacts of water appropriation requires assessment in the SEIS. FEIS Section 4.5 in the first EIS evaluated the potential water quality impacts to water resources, including those effects associated with project-related water appropriations. Swan Lake and the Harrison/Hawkins/Halobe basins were all evaluated as augmentation water sources in the EIS. The Hill Annex Pit was evaluated for additional augmentation water if needed. The potential for substantial water quality impacts was not identified.

Preparation Notice Section III.C.2 commits the updated water balance to consider potential changes to “lake/stream augmentation.” It also notes that additional water sources to supply the processing plant will be identified, which will likely involve water from Pits 1 and 2 within existing, approved appropriation rates. Sections III.B.1 commits the SEIS to report the results of this evaluation, including whether the modifications project will alter lake/stream augmentation beyond that evaluated in the Final EIS.

**Substantive changes reflecting comments:** None.

**Comment 14y:** In addition to the increased water demands from the Essar Steel Project, the increased production will also carry an associated impact on the “augmentation” plan for Oxhide Creek. The direct, indirect, and cumulative impacts associated with the Project on the “augmentation” plan for Oxhide Creek must be evaluated in the SEIS. (Marrow – MCEA)

**Consideration/Response:** The first EIS evaluated the potential impacts to Swan Lake and the Swan River discharges. Swan Lake, Pit 1-2, and the Harrison/Hawkins/Halobe basins were all evaluated as augmentation water sources in the Final EIS. The Hill Annex pit was evaluated for additional augmentation water if needed. Minn. Rules part 6115.0720, subp. 2, states additional water sources are to be selected with a higher priority given to “water from inactive mine pits” than to streams and/or natural basins. If the new water balance supports a need for additional water than what was reviewed in the first EIS, those potential water quantity and quality effects will be evaluated in the SEIS. See Response 14x.

**Substantive changes reflecting comments:** None.

**Comment 14jj:** While the Army Corps of Engineers (“ACOE”) has determined that there will be no additional wetland impacts associated with the Essar Steel Project, MCEA notes that the increased production proposed by the Essar Steel Project and associated increase in water demands to support the increased production may have wetland impacts beyond those analyzed in the first EIS. MCEA maintains that a determination of whether or not the project will have additional wetland impacts cannot be ascertained until after an updated water quantity analysis has been completed. Additionally, the ACOE conclusion may be subject to reconsideration if the shortened 15-year life of the project turns out to be unjustified. Unless Essar Steel demonstrates that it is making this level of investment solely in anticipation of processing an ore body that will be depleted in 15 years, it is not reasonable to assume that additional mining, and associated wetland impacts, will not result from the project. (Marrow – MCEA)

**Consideration/Response:** No change in direct effects to wetlands is anticipated under the modified project. This is because resource extraction and associated operations will not substantially differ from the profile of impact evaluated in the Final EIS. This is being confirmed in the agency’s evaluation of the Updated Mine Plan (Section III.C.1) and Updated Water Quantity and Water Chemistry Balance (Section III.C.2).

The original EIS evaluated direct, indirect, and potential cumulative effects to wetland resources; see FEIS Sections 4.1 and 5.6. For indirect effects, the assessment was based on: 1) changes in groundwater flow to groundwater-fed wetlands that could result from mine dewatering; and 2) wetland hydrology changes that could result from changes to the surface water flow from the surrounding subwatershed or water body supplying surface water flow to the wetland; see Minnesota Steel FEIS, pp. 4-32. The DNR will evaluate the current proposed water balance versus the water balance that was reviewed in the first EIS taking into account the difference in projected mine life from 20 years to 15 years, including any factors contributing to points 1 and 2 just noted. Of particular note is ESML’s changes in the detailed design of the DRI plant and steel making process, which has ultimately cut their net make-up water needs down from original projections. If the new water balance supports a need for additional water that changes conditions than what was reviewed in the first EIS, those potential impacts, including wetlands, will be evaluated in the SEIS.

**Substantive changes reflecting comments:** Section III.B.1 is modified to reference potential impacts to wetlands will be evaluated if warranted.

**Comments 20c and 20e:** The majority of the water use and loss as indicated in the original FEIS was from slurring the taconite tailings. And most of this water was not recoverable for recycling. Another major water use and loss was loss from drying to the wet taconite pellets in the indurating furnace.



The adequacy of supply of water to operate the initial processes was a concern during drought years and comments were expressed on this issue during the original FEIS evaluation. These comments and concerns were never properly addressed. The discharge from the taconite tailings area both surface and underground to Swan Lake was also a concern and was also never properly addressed. Essar now proposes to increase production of taconite pellets from 4.1 to 6.5 million tons per year – a 58.5% increase. Water use and loss from at least these two operations will increase in direct proportion to the capacity increases. It is essential that the vastly increased water usage and surface discharges that WILL OCCUR as a result of this expansion be addressed in the SEIS. (Rich – Atmosphere Recovery)

**Consideration/Response:** The comment in general assumes a linear relationship between the increased processing of taconite resources and related water requirements. Whether this is the case is being evaluated in the SEIS where Sections III.B.1 and III.B.2 require the SEIS to consider potential project-related effects to water quantity and quality.

Regarding potential surface wastewater discharges, ESML is currently permitted as a zero surface discharge project. The proposed modifications do not include any change to this element of the project. Regarding water usage, ESML is proposing to use water contained within Pits 1 and 2 to supplement process water demands. Preliminary indications are that additional water appropriation is not necessary to support operation at 6.5 mtpy pellets. With respect to groundwater losses from the tailings basin, preliminary indications are that deep seepage losses to groundwater from the tailings are projected to be very small compared to the levels estimated for the original EIS (i.e., ~700 gpm). Specific details will be developed in the Water Quantity and Water Chemistry Balance Report submitted to the RGU to support the SEIS analysis. Regarding lateral seepage, which is an estimated 2,000 gpm, collection systems are proposed to return lateral seepage to the tailings basin.

**Substantive changes reflecting comments:** None.

## *2. Impacts to Surface Water Quality*

**Comment 14cc:** The SEIS Preparation Notice indicates that the Essar Steel project SEIS will identify and assess information on the current presence of wild rice in receiving water bodies from the project and model changes to sulfate concentrations for affected water bodies. The assessment of environmental impacts from increases in sulfate levels on wild rice in receiving water bodies should use the wild rice standard of 10 mg/l pursuant to Minn. R. 7050.0220, subp. 3a, A (30). The SEIS should discuss any mitigation measures which may be needed to ensure that the 10 mg/l standard is maintained, and provide specific information regarding any type of water treatment systems which may be required to achieve this standard. (Marrow – MCEA)

**Consideration/Response:** Comment noted. Section III.B.2 indicates the SEIS will identify and assess information on the current presence of wild rice in receiving water bodies from the project, and model changes to sulfate concentrations for affected water bodies. Mitigation for potential impacts, including potential water treatment systems if appropriate, will also be discussed.

Regarding the wild rice standard under the cited rule, this is a regulatory requirement of the MPCA. The SEIS will inform MPCA's permit decision by identifying potential project-related impacts to wild rice and potential mitigation. DNR as RGU will consult with MPCA on the information necessary to inform the permit decision, including reporting: 1) any determination of which surface waters are used in the production of wild rice; and 2) whether there is a reasonable potential for the discharge(s) to cause or contribute to a violation of the applicable water quality standard.

It should be noted that Minn. Rules part 7050.0224, subp. 2, also addresses water quality standards applicable to wild rice. Specifically, “The quality of Class 4A waters of the state shall be such as to permit their use for irrigation without significant damage or adverse effects upon any crops or vegetation usually grown in the waters or area, including truck garden crops. The following standards shall be used as a guide in determining the susceptibility of the waters for such uses...Sulfates (SO<sub>4</sub>) – 10 mg/L, applicable to water used for production of wild rice during periods when the rice may be susceptible to damage by high sulfate levels.”

**Substantive changes reflecting comments:** None.

**Comment 14dd:** The direct and indirect impacts and cumulative potential effects from increased sulfate levels caused by the Project should also include an analysis of the mercury methylation risks associated with the increased sulfate discharges for the Project and any specific water treatment requirements needed to mitigate these impacts. (Marrow – MCEA)

**Consideration/Response:** Consistent with the comment Sections III.B.6 and III.B.10 require the SEIS to evaluate the potential for impacts from methylation of mercury. This will include potential effects due to increased sulfate. This will be accomplished by performing a non-quantitative assessment in which discharge options are evaluated as to the relative risk of enhancing the methylation of mercury concentrations in receiving waters. The MPCA Mercury Risk Estimation Method (MMREM) will be completed for the revised ESML Project and the resulting risk value discussed in the Human Health Screening-Level Risk Analysis (HSLRA). The Preparation Notice will be modified to specify that the SEIS will include a discussion of the HSLRA results. The SEIS will identify mitigation measures, as appropriate, to address any mercury-related effects.

**Substantive changes reflecting comments:** Preparation Notice Section III.C.10 will be modified to note that the MPCA Mercury Risk Estimation Method (MMREM) will be completed for the modified ESML Project and the resulting risk value discussed in the Human Health Screening-Level Risk Analysis (HSLRA).

**Comment 14ee:** In addition, the SEIS must include an analysis, omitted in the first EIS, of the chemical constituency of water from the tailings basin and its potential effect on water quality in O’Brien Lake and other water resources receiving seepage from the tailings basin. (Marrow – MCEA)

**Consideration/Response:** Section III.B.2 requires the SEIS to consider potential project-related changes to water quality, including the tailings basin and receiving surface and ground water resources. Supporting analysis will be provided in an Updated Water Quantity and Water Chemistry Balance; see Section III.C.2.

**Substantive changes reflecting comments:** None.

### 3. *Impacts on Solid Waste Generation*

The DNR received no comments regarding this section.

### 4. *Impacts on Air Quality*

**Comment 14g:** The SEIS for the Essar Steel Project should explain whether and how many proposed changes in the federal Clean Air Act regulations, which are in the process of being finalized and will go

into effect during the life of the Project, will affect the Essar Steel Project. The U.S. Environmental Protection Agency (“EPA”) is currently in the process of revising and finalizing several regulatory changes in the National Ambient Air Quality Standards (“NAAQS”) and is in the process of establishing greenhouse gas emissions regulations. For example, the following regulatory changes are expected to go into effect during the life of the Project:

- New 1-hour Nitrogen Dioxide (NO<sub>2</sub>) NAAQS
- GHG Tailoring Rule
- PM<sub>2.5</sub> PSD increment rule
- SO<sub>2</sub> NAAQS Review
- Ozone NAAQS Reconsideration
- Repeal of PM<sub>10</sub> Surrogacy
- CAIR Replacement Rule
- PM<sub>2.5</sub> NAAQS Reconsideration
- Secondary SO<sub>2</sub> and NO<sub>x</sub> NAAQS (Marrow – MCEA)

**Consideration/Response:** The comment identifies potential changes in the applicable air regulations that are possible over the life of the project. Because changes in regulatory requirements are a routine occurrence, an RGU must weigh the timing of a regulatory change with the status of any ongoing environmental review process. This is especially true as a function of rule-directed timelines, including time limits for EIS preparation; see Minn. Rules part 4410.2100, subp. B.

For any change in regulation, DNR as RGU will consult with the appropriate regulatory authorities regarding any potential changes in any state or federal rule or standard. In general, those that are effective prior to or during the process of environmental review and permitting will be included where appropriate in the analysis. Rules that are not promulgated before the environmental review is substantially complete may not be included in the analysis. Permitting entities will determine how the respective permit process is required to address any additional information requirements that may result from a regulatory change.

**Substantive changes reflecting comments:** None.

**Comment 14h:** Under the revised NAAQS, Minnesota is projected to have areas of nonattainment for several air quality parameters. If areas of Minnesota will be in nonattainment under the revised NAAQS, an incremental analysis through the Prevention for Significant Deterioration (“PSD”) would no longer be appropriate to a review of new emissions such as those associated with the Essar Steel project. The Essar Steel Project SEIS and any subsequent permitting for the Project should evaluate potential air quality impacts from the project through a non-attainment standard. (Marrow – MCEA)

**Consideration/Response:** The SEIS will include an assessment of potential emissions increases and their effect on the NAAQS and MAAQS.

MPCA indicates that the area around ESML’s facility is unlikely to be designated as a non-attainment area. But, if the area around the facility is found to be in non-attainment, the MPCA will require the facility to meet all applicable nonattainment requirements.

**Substantive changes reflecting comments:** None.

**Comment 14i:** In addition to the issues identified in the SEIS Preparation Notice, dated March 19, 2010, the Essar Steel Project should include information regarding how emissions from the project were accounted for and analyzed in the regional Haze SIP, including the relationship of the increased emissions from the project to the reasonable progress goals contained in the Haze SIP and the emissions budget for the NE Minnesota Plan. The Essar Steel Project SEIS should also analyze how the projected emissions from the Essar Steel Project were evaluated in the context of anticipated new sources included in the emissions modeling for the Haze SIP. (Marrow – MCEA)

**Consideration/Response:** The relationship of any increased emissions to the Haze SIP, including the NE Minnesota Plan, will be addressed in the SEIS.

**Substantive changes reflecting comments:** None.

**Comment 14j:** Additionally, the SEIS should include an explanation of the monitoring which will be required for the new pellet furnace proposed for the Essar Steel Project, evaluate the installation of Continuous Emissions Monitors (“CEMs”) on the new pellet furnace, and indicate if CEMs will be required in permitting of the new pellet furnace. The SEIS must provide an explanation and supporting analysis if the installation of CEMs as a required monitoring tool is not recommended in light of the monitoring requirements included for other taconite facilities in the Haze SIP. (Marrow – MCEA)

**Consideration/Response:** The MPCA indicates that installation of Continuous Emissions Monitors (CEM) is required for the facility as currently permitted, including for the indurating furnace. This requirement will be maintained for the modifications project and will be reevaluated in the permitting process. Any additional monitors or changes to the existing monitoring requirements will be included in the facility's amended Air Emissions permit. No analysis is necessary for the SEIS.

**Substantive changes reflecting comments:** None.

**Comment 14k:** The SEIS Project Preparation Notice indicates that the Essar Steel Project SEIS will include modeling of PM<sub>10</sub> to assess air quality related values such as visibility and acid deposition in affected Class I areas (Voyageurs National Park, Boundary Waters Canoe Area Wilderness, Isle Royale National Park, and Rainbow Lakes Wilderness Area). The Essar Steel Project SEIS should include an analysis of the impact on air quality values from PM<sub>2.5</sub> in addition to PM<sub>10</sub>. Different environmental impacts are associated with PM<sub>2.5</sub> and PM<sub>10</sub>. The SEIS should include an analysis and recognition of these differences. The Minnesota Haze SIP which was submitted to EPA in December 2009 indicates that point sources in Minnesota are required to provide an annual point source emission inventory which includes emissions of PM<sub>2.5</sub> in addition to PM<sub>10</sub>. The SEIS for the Project should include modeling and analysis of the Project's PM<sub>2.5</sub> emissions to assess the direct and indirect impacts and cumulative potential effects on air quality as a result of the Project's emissions of PM<sub>2.5</sub>. Including this analysis is particularly important in light of the EPA's repeal of the PM<sub>10</sub> surrogacy rule and implementation of the New Source review (“NSR”) Program for Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>); Notice of Proposed Rulemaking To Repeal Grandfathering Provision and End the PM<sub>10</sub> Surrogate Policy, which would end the use of PM<sub>10</sub> as a surrogate for PM<sub>2.5</sub> in air permits issued by Minnesota. (Marrow – MCEA)

**Consideration/Response:** The SEIS will provide an analysis of potential impacts of PSD pollutants, including PM<sub>2.5</sub> NAAQS modeling. PM<sub>2.5</sub> will be included in the analysis using current rules. The facility will be required to follow all applicable guidelines when modeling for compliance.

**Substantive changes reflecting comments:** None.

**Comment 14o:** In conducting this analysis [environmental impacts associated with electricity generation], the SEIS should analyze not only Greenhouse Gas Emissions (“GHG”) associated with the generation of purchased electricity, but should also include an analysis of all air emissions associated with the generation of electricity needed to serve the Project, including SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, mercury, and other pollutants. (Marrow – MCEA)

**Consideration/Response:** Comment noted. The SEIS will include an assessment of the GHG air emissions associated with the operation of the proposed additional taconite processing capacity. This will include an assessment of both direct air emissions from the project premises (scope 1 emissions), as well as indirect or scope 2 emissions, associated with the off-site generation of electricity that is consumed on-site at the facility. GHG air emissions associated with the off-site transport of taconite pellets are considered scope 3 emissions. The evaluation of scope 3 emissions is voluntary under the MPCA guidance document “General Guidance for Carbon Footprint Development in Environmental Review,” (MPCA; July, 2008), that governs what types of project level GHG emissions need to be treated, and do not need to be treated, in environmental review to support MPCA’s permit and/or reporting requirements.

Regarding indirect non-GHG emissions, these are not considered in air-related permitting for this project. Further, non-GHG emissions associated with the generation of electricity are assessed during environmental review of the generating facilities themselves and covered by the air permits for those facilities. The SEIS will not include an assessment of non-GHG emissions associated with power generation for the modifications project.

**Substantive changes reflecting comments:** None.

**Comment 14q:** The SEIS for the Essar Steel Project should analyze the direct and indirect impacts and cumulative potential effects associated with air emissions from increased mobile sources associated with the increased pellet production of the Project and the transportation of these pellets to supply operations at Algoma Steel in Ontario, Canada or other Essar Steel Holdings, Ltd. (“ESHL”) operations. (Marrow – MCEA)

**Consideration/Response:** Comment noted. Mobile source air emissions from vehicles on the property will be included in the air dispersion and deposition modeling analyses to ensure compliance with the applicable emission standards, air quality related values (AQRVs), and Class I cumulative impact analysis.

On-road mobile emissions are not considered in air permitting and will not be addressed in detail in the SEIS beyond that indicated above. An environmental assessment (EA) was completed for the rail line that will be used to transport pellets to the Algoma facility. The EA included a discussion of air emissions associated with operation of the rail line. A Finding of No Significant Impact (FONSI) was issued at the completion of the EA process for the rail line, (Surface Transportation Board; EA Finance Docket 34992).

**Substantive changes reflecting comments:** None.

**Comment 14r:** Environmental impacts from mobile source air emissions include, but are not limited to increased haze and visibility impairment in Class I Areas and contribution to climate change from greenhouse gas emissions. (Marrow – MCEA)

**Consideration/Response:** Comment noted. See Response 14q.

The SEIS will assess climate change effects as detailed Section III.B.11. Where mobile source air emissions satisfy MPCA guidance, this will be considered in the project's overall carbon footprint and related climate change analysis.

**Substantive changes reflecting comments:** None.

**Comment 20f:** Essar claims no increase in NOx as a result of the expansion because they will use low-NOx LE burners. However, Essar proposed low-NOx burners in the FEIS and was granted an air permit based on low-NOx burners (if feasible) and NOx offsets. They later rejected the low-NOx burners. So their claim of lower NOx emissions is highly suspect and based on a false premise. Please conduct independent evaluation of the proposed burner emissions. (Rich – Atmosphere Recovery)

**Consideration/Response:** The facility is currently permitted to pilot test LoTOx technology to control NOx emissions. ESML believes that it can obtain greater NOx control using Low NOx Main Burners. The MPCA will evaluate all emissions and proposed emissions controls for the project, including NOx, and draft a permit ensuring that the facility meets all applicable emissions limits. The analysis will be discussed in the SEIS consistent with Section III.B.4.

Regarding the provision of an “independent” evaluation, Minn. Rules part 4410.0400, subp. 2 states the RGU “shall be responsible for verifying the accuracy of environmental documents,” which includes data submitted by the project proposer. DNR will rely on the MPCA to provide technical expertise consistent with Minn. Rules part 4410.2200, where governmental units “...shall assist in the preparation of environmental documents on any project for which it has special expertise or access to information.” The agency will also secure the services of a third-party contractor with specific expertise in air-related impact assessment and mitigation to support the SEIS as a source of independent evaluation.

**Substantive changes reflecting comments:** None.

## 5. *Contribution to Global Greenhouse Gas (GHG) Emissions*

**Comment 14m:** Even if new [electricity] generation (as in constructing new power sources) isn't likely, the SEIS must account for the emissions associated with the electricity generation from existing units that would not happen but for the consumption of electricity by the Essar Steel Project. (Marrow – MCEA)

**Consideration/Response:** Emissions associated with the generation of electricity are assessed during environmental review of the generating facilities themselves and are covered by the permits for those facilities. Section III.B.5 requires the SEIS to evaluate GHGs, including in terms of energy efficiency appropriate to project-specific review. See Responses 14p and 14o.

**Substantive changes reflecting comments:** None.

**Comment 20g:** Because Lo-NOx burners are significantly less energy efficient than normal burners, the taconite CHG emissions will increase by much more than the 58.5% proposed increase in the project size. The DNR and the MPCA must adequately address this issue decide if a nearly doubling of GHG emissions in the taconite production justifies only an SEIS. (Rich – Atmosphere Recovery)

**Consideration/Response:** The comment is addressed because the SEIS will include an alternatives analysis developed by the project proposer in which different elements of the project design will be evaluated for their energy efficiency and GHG emissions effects. In the alternative analysis, the project proposer will also assess the GHG emissions consequence of design features that it considered but, in

the end, chose not to implement. MPCA will require the project proposer to specifically address the energy efficiency and GHG consequences of its choice of low NOx burners for NOx control in this alternatives analysis.

Regarding the appropriateness of preparing a SEIS, this is the correct Environmental Review procedure to conduct under the criteria contained in Minn. Rules part 4410.3000, subp. 3. Regardless of the magnitude of any project-related change in GHGs, Section III.B.5 requires discussion of this topic, including both GHGs and energy efficiency.

**Substantive changes reflecting comments:** None.

## 6. *Impacts Associated with Mercury*

**Comment 14s:** The SEIS for the Essar Steel project should also analyze the indirect and direct impacts, and cumulative potential effects associated with mercury emissions from the larger pellet furnace and generation of electricity purchased by the Project. The SEIS for the project should analyze real-time mercury emissions and not limit its analysis of mercury emissions based on the amount of anticipated mercury emissions over the life of the Essar Steel Project in comparison to the total mercury emissions analyzed in the first EIS. This analysis of the environmental impacts from mercury emissions should include an analysis of how the project will fit within the Minnesota Mercury total maximum Daily Load (“Mercury TMDL”) load allocation. The increased mercury emissions associated with the Essar Steel Project’s proposal to install a larger pellet furnace combined with increased mercury emissions associated with the additional electricity demands required by the increased production rates must be assessed when analyzing the Project’s contribution to state-wide mercury emissions and Minnesota’s mercury TMDL load allocation. (Marrow – MCEA)

**Consideration/Response:** Comment noted. The SEIS will include a mercury control technology assessment and a cumulative mercury assessment for the mercury from ESML and all nearby facilities. The requirements of the Mercury TMDL will be fully addressed and housed in the ESML’s air emissions permit or another enforceable document. Mercury increases associated with increased electricity demands will be addressed by the facility providing the energy, and will be accounted for in that facility’s Mercury TMDL responsibilities. Indirect mercury emissions are not considered in air permitting and will not be assessed in the SEIS.

**Substantive changes reflecting comments:** None.

**Comment 14t:** The proposed increase in pellet production will require the addition of a crusher/concentrator line and the installation of a larger pellet furnace, both of which will lead to an increase in air emissions. The SEIS Preparation Notice indicates that mercury control technology will be installed in the pelletizing furnace. The SEIS should discuss the effectiveness of any mercury control technology installed, what types of monitoring of the control technology will be put in place, alternative mercury control technology, and any mitigation measures which are available in the event that the mercury control technology does not work as effectively as anticipated. (Marrow – MCEA)

**Consideration/Response:** The SEIS will include a mercury control technology assessment; see Section III.B.6.

**Substantive changes reflecting comments:** None.

**Comment 14u:** In addition, the SEIS should analyze other mitigation measures which might be available to eliminate the effects from the anticipated increases in mercury emissions from the Essar

Steel Project to ensure that the Project can operate without jeopardizing the achievement of the significant reductions in mercury emissions demanded by the Mercury TMDL. (Marrow – MCEA)

**Consideration/Response:** The SEIS will include a mercury control technology assessment and a cumulative mercury assessment for the mercury from ESML and all nearby facilities; see Section III.B.6. The requirements of the Mercury TMDL will be fully addressed and housed in the ESML's air emissions permit or another enforceable document.

**Substantive changes reflecting comments:** None.

**Comment 20h:** Activated charcoal appears to be the only Mercury and other HAPs pollution control technology proposed. This effectiveness of the technology is unclear and the waste charcoal would need to be treated as a hazardous solid waste not previously considered in the FEIS. The DNR and the MPCA must adequately address this issue and include alternative HAPs removal technologies. (Rich – Atmosphere Recovery)

**Consideration/Response:** The SEIS will include a mercury control technology assessment and a cumulative mercury assessment for the mercury from ESML and all nearby facilities. The SEIS and permitting will evaluate waste disposal.

The Essar Steel facility is subject to the requirements of the Taconite National Emission Standard for Hazardous Air Pollutants (NESHAP) which regulates hazardous air pollutant emissions (HAP) from taconite operations. The SEIS will report MPCA's evaluation of HAP emissions from the facility, including all proposed control equipment, to ensure any adverse impacts and requisite mitigation provide compliance with the emissions standards and requirements of the Taconite MACT.

**Substantive changes reflecting comments:** None.

#### *7. Cumulative Air Quality Effects – Class I PSD Pollutants*

**Comment 20i:** The DNR and the MPCA must adequately address this issue and decide if NOx offsets exist in the area since cumulative NOx limits will be exceeded. (Rich – Atmosphere Recovery)

**Consideration/Response:** Air dispersion and deposition modeling analyses, conducted for both the SEIS and permitting, will be completed to ensure compliance with the applicable emission standards, air quality related values (AQRVs), and Class I cumulative impact analysis. Potential mitigation will be discussed in the SEIS for any impacts.

**Substantive changes reflecting comments:** None.

#### *8. Cumulative Air Quality Effects – Class I Acid Deposition and Ecosystem Acidification*

The DNR received no comments regarding this section.

#### *9. Cumulative Air Quality Effects – Class I Visibility Impairment*

**Comment 20j:** The DNR and the MPCA must adequately address this issue, and thoroughly explain what “semi-quantitative” methods are used because cumulative NOx limits will be exceeded and these emissions are presumed to be the principal cause of the visibility impairment. (Rich – Atmosphere Recovery)



**Consideration/Response:** The SEIS will describe the methods used to evaluate cumulative effects, including cumulative NOx limits.

**Substantive changes reflecting comments:** None.

#### 10. *Cumulative Mercury*

The DNR received no comments regarding this section.

#### 11. *Cumulative Effects – Climate Change*

The DNR received no comments regarding this section.

#### 12. *Socioeconomic Effects*

**Comment 4b:** This project will provide regional economic growth and new opportunities for working families, and will have a positive effect on northeastern Minnesota for years to come. (Currie - Laurentian Chamber of Commerce)

**Consideration/Response:** The SEIS will evaluate the project's social and economic impacts; see Section III.B.12.

**Substantive changes reflecting comments:** None.

**Comment 7a:** This letter is sent to you to remind you that the people of the Range are extremely anxious for Essar Steel Minnesota to start their operation. The economic impact that Essar Steel Minnesota will bring to our area will guarantee the retention of our younger population to remain in the area and promote education to fulfill those job requirements. The number of direct jobs is stated below but furthermore, this project is said to create over 1000 jobs in conjunction with the added family that will establish themselves in the area. More business, more people... a great economic boom that we need desperately. (Girard)

**Consideration/Response:** The SEIS will evaluate the project's social and economic impacts; see Section III.B.12.

**Substantive changes reflecting comments:** None.

**Comment 10a:** We live within the Project Boundary. The initial EIS minimally addressed our situation in Sections 6.1.3 and 6.14. We note that the scope of the SEIS includes, among issues to be addressed, Socioeconomic effects. As stated in the SEIS Preparation Notice, Minnesota Rules part 4410.3000 provides that the scope of the SEIS is to include impacts and mitigation measures inadequately addressed in the EIS. In light of the additional effects that the proposed increase in pellet production would have on our family and our home, and as the Mitigation Measures set out in Section 6.1.3 can now be seen to be clearly inadequate (as Essar has not followed through on the acquisition process, which has no timelines or procedures described in the EIS), the SEIS would not be complete unless Section 6.1.3 is more fully addressed. We ask that the SEIS include an update and modification of Section 6.1.3 of the EIS to prescribe procedures and a timeline under which Essar is to negotiate acquisition of the homes within the Project Boundary. No further permits should be granted until Essar has addressed this issue and proceeded in good faith to complete the process in a reasonable time. (Jaranson)

**Consideration/Response:** The SEIS will update the status of the homeowner buyout required to meet MPCA air permit requirements.

ESML reports that the firm initiated contact with the six homeowners with property within the Permit to Mine and the Air Permit ambient air quality boundary in September, 2008. Due to the world-wide economic collapse in October, 2009, ESML suspended the buyout process indefinitely while world economies were stabilized and additional detailed engineering for the project was completed and timelines adjusted. ESML has now reached a point on the project timeline where contact with homeowners will take place in the near future to re-initiate the buyout process. All buyouts will be completed as soon as possible but no later than commencement of operation, as required by the MPCA air permit.

**Substantive changes reflecting comments:** Preparation Notice Section III.B.12 is modified to reflect that the status of the homeowner buyout will be updated in the SEIS.

**Comment 12a:** As you know, the Essar Steel Minnesota project will provide a much needed economic boost to our area. In addition to the 2,000 construction jobs, this project will generate 500 permanent jobs plus many spin off jobs. For an area that has been hit hard by economic declines, this is a very welcomed project. As important as the additional jobs are for our area, it is equally important that our environment is protected as well. (Licari)

**Consideration/Response:** The SEIS will evaluate the project's social and economic impacts in addition to its environmental impacts; see Section III.B.12.

**Substantive changes reflecting comments:** None.

**Comment 14ff:** The analysis of the socioeconomic effects from the Essar Steel project included in the SEIS should include an analysis and mitigation measures related to the historical boom and bust cycle of the mining industry in Minnesota. As evidenced through the recent economic downturn and the related increase in unemployment in mining communities in northeastern Minnesota, the communities which are poised to reap the greatest benefits from the Project in terms of employment, local economic development, increased taxes, etc. are also the communities most at risk from economic downturn, unanticipated layoffs, and other unforeseen factors which would create negative socioeconomic impacts from the Project. The SEIS should analyze these impacts as well as the more favorable socioeconomic impacts. (Marrow – MCEA)

**Consideration/Response:** The commenter requests that the SEIS analyze the historical boom and bust cycle of the mining industry in Minnesota. The macro-economic factors that affect an industrial sector, region, or even the nation are beyond the scope of project-specific review. The general social and economic impacts of the project, including identification of both beneficial and adverse effects, will be evaluated in the SEIS. This will include the direct and indirect effects on local economic development, tax base, and demand for public services.

**Substantive changes reflecting comments:** None.

**Comment 15b:** Minnesota Power is enthusiastic about the project's socioeconomic impacts to an area which has not seen this level of growth since the construction of Butler Taconite and National Steel Pellet Company in the 1960s. MP supports ESML in their efforts to increase production of their taconite operation and believes the economies of scale inherent in such a proposal will only serve to strengthen

ESML's cost competitiveness and viability, a move which can only benefit the area and its residents. (McMillan – Minnesota Power)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

**Comment 19a:** My name is Scott Phaneuf and I live on Snowball Lake here in Pengilly. My home lies within the project parameters of the Essar Steel Mine. I am in 100% support of the mining project. However, the frustration level for my family and I has escalated since August of 2008. Our lives are put on hold and living "out of a suitcase" has become very frustrating. In August of 2008 Essar Steel approached us in regards to purchasing our property due to their parameters. Their negotiator informed us we would be bought-out and moved off the property within that year. This obviously has not happened and is a bit more than frustrating knowing that the time has to come, but when? (Phaneuf)

**Consideration/Response:** See Response 10a.

**Substantive changes reflecting comments:** See Response 10a.

**Comment 19b:** My questions to you are: 1. When will this happen, 2. What government agency can help with this, 3. Why is this taking so long when they are working there already, 4. When can we expect the process to really begin and move forward, 5. Who bares the responsibility for the stress and frustration this is causing us? (Phaneuf)

**Consideration/Response:** See Response 10a.

**Substantive changes reflecting comments:** See Response 10a.

**Comment 19c:** Again, I am in support of the Essar Steel Project but I would not wish this uncertainty on anyone. It is quite frustrating. (Phaneuf)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

## C. Special Studies or Research

### 1. *Updated Mine Plan*

**Comment 20k:** This plan should extend until the year 2031– 20 years from the projected 2011 SEIS span. (Rich – Atmosphere Recovery)

**Consideration/Response:** The Permit to Mine does not have a preset end date; the time period is established by the proposer on a project-by-project basis. It remains in effect for the duration of the project and includes full closure of the facility.

The Mine Plan is prepared by the project proposer and is periodically amended to describe the current stage of mining proposed. As the project proposer, ESML is allowed to define the project they are proposing, including the time period it will cover.

**Substantive changes reflecting comments:** None.

## 2. Updated Water Quantity and Water Chemistry Balance

**Comment 14z:** The Notice further indicates that water quantity impacts from the project will be determined by using information from an updated water quantity and water chemistry balance for the Project. (Marrow – MCEA)

**Consideration/Response:** The commenter is correct. The “Water and Chemical Balance for a Proposed Pellet Production Rate of 6.5 mtpy” study is in progress. Results of the study will be discussed in the SEIS.

**Substantive changes reflecting comments:** None.

**Comment 14aa:** The SEIS should expand its assessment of impacts from the Project on water quantity from a reliance on modeling efforts to field studies from other near-by mining operations to ensure that the validity of modeling efforts can be verified in the context of on the ground experience. (Marrow – MCEA)

**Consideration/Response:** Comment noted. The DNR independently developed estimates in the first EIS using different techniques and models (WATBUD/DNR vs. Meyer/Barr; MLAEM/DNR vs. MODFLOW/BARR), with their respective results, to ensure that the models were producing reliable results. The same approach will be used in the SEIS.

**Substantive changes reflecting comments:** None.

**Comment 14bb:** Additionally, the SEIS should include a critical analysis of the reliability, or lack thereof, of the modeling tools used in the development of the water quantity and water chemistry balance modeling for the Project and the extent to which any unreliability of the modeling used could impact the assessment of environmental impacts of the Project on water quantity and water quality predictions. (Marrow – MCEA)

**Consideration/Response:** DNR concurs that a primary responsibility of the RGU is to ensure the accuracy and completeness of information, including the reliability of models used and underlying assumptions. This process will be followed during preparation of the Supplemental EIS, with the DNR and the third-party consultant reviewing and assessing the validity of information and studies prepared by the project proposer’s consultant.

During completion of the original EIS, DNR went through a rigorous process to ensure reasonable estimates. DNR and Barr Engineering, who served as the proposer’s consultant, independently developed estimates using different techniques and models, shared conclusions, and identified and resolved any discrepancies. Wenck, the DNR’s third party contractor, also provided technical review and analysis; see Final EIS Section 4.5. Reasonability checks on models’ results were performed where possible. When different methods were needed to make a good estimate, alternative tools were used. The DNR project team concluded that the water yield estimates were reasonable based on the available data. Three teams of peers (DNR, Barr and Wenck) reviewed the data, methods and assumptions used to make the estimates.

**Substantive changes reflecting comments:** None.

**Comment 20l:** The SEIS must rely on an independent evaluation of these issues – Essar provided data has been to date inaccurate and insufficient. (Rich – Atmosphere Recovery)

**Consideration/Response:** Regarding the provision of an “independent” evaluation, Minn. Rules part 4410.0400, subp. 2 states the RGU “shall be responsible for verifying the accuracy of environmental documents,” which includes data submitted by the project proposer. DNR will rely on agency and consultant hydrologists and MPCA to provide technical expertise consistent with Minn. Rules part 4410.2200, where governmental units “...shall assist in the preparation of environmental documents on any project for which it has special expertise or access to information.” The agency will also secure the services of a third-party contractor with specific expertise in water-related impact assessment and mitigation to support the SEIS as an independent evaluation. See Response 14bb.

**Substantive changes reflecting comments:** None.

### 3. *Wild Rice*

The DNR received no comments regarding this section.

### 4. *Solid Waste Generation Estimates and Disposal Options*

The DNR received no comments regarding this section.

### 5. *Air Emission Inventory*

**Comment 20m:** Essar inadequately disclosed NO<sub>x</sub> and CO data in the EIS process and has now reduced their emissions estimates to fit within their existing air permit limits. There is no basis disclosed for their claims. Please do not rely on Essar provided air emissions information – conduct an independent assessment. (Rich – Atmosphere Recovery)

**Consideration/Response:** Comment noted. The MPCA will evaluate emissions calculations for both the original and proposed modifications project. The emissions will be verified and included in the SEIS. See Responses 20l and 20f.

**Substantive changes reflecting comments:** None.

### 6. *Best Available Control Technologies (BACT) Evaluation for Air Emissions*

**Comment 20n:** Essar inadequately disclosed NO<sub>x</sub> and CO data in the EIS process and has now reduced their emissions estimates to fit within their existing air permit limits. There is no basis disclosed for their claims. Please do not rely on Essar provided air emissions information – conduct an independent assessment. (Rich – Atmosphere Recovery)

**Consideration/Response:** Comment noted. The SEIS will require submittal of an updated air emissions inventory; see Section III.C.5. The MPCA will evaluate emissions calculations for both the original and proposed project. The emissions will be verified and included in the SEIS. See Responses 20l and 20f.

**Substantive changes reflecting comments:** None.

### 7. *Class I Air Quality Analysis*

**Comment 20o:** Logic suggests air emissions will increase by approximately the same amount as Essar expands taconite capacity. Regardless of Essar claims, if the model shows otherwise, please disclose to the public in detail why. (Rich – Atmosphere Recovery)

**Consideration/Response:** Section III.C.5 requires the preparation of an updated emissions inventory that will cover the entire, modified facility. The MPCA will evaluate emissions calculations for both the original and proposed project. The emissions will be verified and included in the SEIS.

**Substantive changes reflecting comments:** None.

#### 8. *Class II Air Quality Analysis*

**Comment 20p:** The particle size distribution assumed in the FEIS was not accurate and seemed to minimize the true inhaled health hazard of taconite tailings dust. The UMD taconite health study and actual measurements should be more accurate than those previously assumed. Please assess the tailings particle size distribution and use the updated values in the SEIS. (Rich – Atmosphere Recovery)

**Consideration/Response:** Consistent with the comment the facility will be required to conduct PM<sub>2.5</sub> modeling to determine compliance with the existing standard that addresses fine particles. The facility will also be required to update the particle size distribution with the most recent data when it completes the required dispersion modeling. The SEIS and related permitting will include a screening level human health risk assessment; see Section III.C.10. The risk assessment is to be protective of human health, including the assumption that 100% of the chemicals on the particles reach the site of action (e.g., organ; enzyme). Consistent with the comment, these findings will be reported in the SEIS.

**Substantive changes reflecting comments:** None

#### 9. *Mercury Mass Balance and Control Technology Assessment*

The DNR received no comments regarding this section.

#### 10. *Human Health Screening Level Risk Assessment (HHSLRA)*

**Comment 20q:** See tailings dust comments [comment 20p] above. (Rich – Atmosphere Recovery)

**Consideration/Response:** See Response 20p.

**Substantive changes reflecting comments:** None.

#### 11. *Screening Level Ecological Risk Assessment (SLERA)*

The DNR received no comments regarding this section.

#### 12. *Greenhouse Gas Emissions Inventory*

The DNR received no comments regarding this section.

#### 13. *Cumulative Effects on Class I Air Quality – PSD Pollutants*

The DNR received no comments regarding this section.

14. *Cumulative Effects on Class I Air Quality – Acid Deposition and Ecosystem Acidification*

The DNR received no comments regarding this section.

15. *Cumulative Effects on Class I Air Quality – Visibility Impairment*

The DNR received no comments regarding this section.

16. *Cumulative Mercury Effects*

The DNR received no comments regarding this section.

17. *Cumulative Human Health Screening Level Risk Assessment*

The DNR received no comments regarding this section.

18. *Cumulative Effects on Climate Change*

The DNR received no comments regarding this section.

19. *Socioeconomic Effects*

The DNR received no comments regarding this section.

*General Comments Special Studies*

**Comment 20r:** The Special Studies below [studies listed in SEIS Preparation Notice Section III C 12-19] seem to duplicate what should be completed in tasks above. Please see previous comments. (Rich – Atmosphere Recovery)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

IV. **Proposed Time Schedule**

**Comment 5c:** The time that this process has taken has become burdensome. While I understand that it needs to be done, the state should tighten up the amount of time it takes to complete the process. (Fedo – Hibbing Area Chamber of Commerce)

**Consideration/Response:** Comment noted. The project reviewed in the original EIS has secured its permits and approvals and is currently under construction. The approved and permitted operations are free to proceed. The proposed modifications will be reviewed in the SEIS and cannot proceed until environmental review is complete, and the required permit amendments and approvals are obtained.

Regarding timelines generally, Minn. Rules part 4410.3000, subp. 6 states, “a determination of the adequacy of a supplement to an EIS must be made within 120 days of the order for preparation of the supplement, unless the time is extended by the consent of the proposer and RGU or by the governor for good cause.” The proposer has consented to an SEIS process that takes longer than 120 days.

DNR as the RGU attempts to follow the statutory timeframes established by Minnesota Rules to the extent possible. However, it is not uncommon in complex projects (such as this project) where data collection and analysis, along with the identification of adverse impacts and potential mitigation, would require more time than prescribed by the rule. It is also possible that unforeseen circumstances may arise, which too can occasionally result in delays. The schedule presented in the Preparation Notice is believed to reflect a realistic timeline.

**Substantive changes reflecting comments:** None.

**Comment 9b:** Essar Steel will generate as many as 2000 construction and 500 full-time permanent jobs at a time when our region and state are sorely in need of momentum to restart our recession-weakened economy. Considering the thorough work that has already been done on the state and federal environmental review and permitting processes for the project as originally proposed, I hope you can help expedite the supplemental review to allow the expanded project to move forward as quickly as possible. (Heino)

**Consideration/Response:** Consistent with the comment the purpose of scoping for the SEIS is to limit the SEIS to only those significant items that were not addressed or were inadequately addressed in the original EIS. Minn. Rules part 4410.3000, subp. 5A states, “The scope of a supplement to an EIS must be limited to impacts, alternatives, and mitigation measures not addressed or inadequately addressed in the final EIS.” Minnesota Rules also establish a timeframe for the SEIS; see Response 5c.

The State Environmental Review Program Rules allow the timeframe to be extended by the consent of the proposer and the RGU. The Preparation Notice provided a schedule that represents the anticipated timeframe for the ESML Modifications Project SEIS consistent with the rule.

**Substantive changes reflecting comments:** None.

### **Miscellaneous Comments on the SEIS Preparation Notice**

The following miscellaneous comments were submitted regarding the project and/or the Preparation Notice.

**Comment 1a, 3a, 6a, 7b, 8a, 11a, 16a, 17a:** Essar Steel MN is a \$1.6 billion investment that will generate up to 2000 construction and 500 full time permanent jobs. Essar has all the necessary environmental approvals and permits to construct facilities in support of up to 4.1 million tons per annum (mtpa) standard pellets, 2.8 mtpa DRI pellets and 2.5 mtpa steel. The prior environmental review and permitting process included completion of a very comprehensive joint Federal and State environmental impact statement. (Amic, Burns, Fox, Girard, Greene, Johnson – GABA, Milkovich, Nevalainen)

**Consideration/Response:** Comment noted. The Final EIS for the original Minnesota Steel Project was determined to be adequate in August 2007; that project has received its permits and approvals. The proposer’s request to modify its permits to reflect an increase in pellet production has triggered the SEIS process. Minnesota Rules 4410.3000 Subp. 3, Supplement to an EIS, states, “An RGU must prepare a supplement to an EIS under any of the following circumstances:



- A. whenever after a final EIS has been determined adequate, but before the project becomes exempt under part 4410.4600, subpart 2, item B or D, the RGU determines that either:
- (1) substantial changes have been made in the proposed project that affect the potential significant adverse environmental effects of the project; or
  - (2) there is substantial new information or new circumstances that significantly affect the potential environmental effects from the proposed project that have not been considered in the final EIS or that significantly affect the availability of prudent and feasible alternatives with lesser environmental effects.”

DNR has determined that the criteria in the cited rule have been met with the proposed modifications project and will conduct the required Supplemental EIS.

**Substantive changes reflecting comments:** None.

**Comment 1b, 3b, 6b, 7c, 8b, 11b, 12d, 16b, 17b:** Essar continues to invest significant time and resources toward construction and completing the development of detailed plans to mine taconite, process ore into pellets and produce direct-reduced iron and steel, while also finding ways to generate cost savings and achieve additional environmental improvements to the project. Essar recently proposed modifications to its project to increase pellet production from the 4.1 mtpa original permitted to 6.5 mtpa so the company can provide pellets for Essar Steel Algoma in addition to supplying its onsite steel making needs. Essar will essentially mine the same ore currently permitted but in 15 years instead of 20. The pellet capacity increase will not change plans to produce direct reduced iron pellets or steel at currently permitted levels. (Amic, Burns, Fox, Girard, Greene, Johnson – GABA, Licari, Milkovich, Nevalainen)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

**Comment 1c, 3c, 6c, 7d, 8c, 11c, 12e, 16c, 17c:** Essar Design Environmental Benefits: Detailed engineering for the proposed increase in pellet making allows the increase in pellet capacity to occur while simultaneously maintaining or improving the significant environmental aspects of the project. Specific examples include: no additional wetland impacts; reduction in fugitive dust emissions from mine haul roads; reductions in mercury and nitrogen oxides (NOx) emissions; commitment to existing environmental protection, such as, best available control technology for air emissions, zero discharge to surface water and no additional water supply needed, integrated pellet and steel making to reduce fuel needs and related emissions. (Amic, Burns, Fox, Girard, Greene, Johnson – GABA, Licari, Milkovich, Nevalainen)

**Consideration/Response:** Comment noted. The SEIS will evaluate the project’s potential environmental impacts and identify potential mitigation measures consistent with the requirements of Minn. Rules part 4410.2300.

**Substantive changes reflecting comments:** None.

**Comment 1d, 3d, 6d, 7e, 8d, 11d, 16d, 17d:** We are requesting that the DNR and MPCA follow the Supplemental Environmental Impact Statement rules while also ensuring that the environmental regulatory process moves forward in a timely and cost effective manner. (Amic, Burns, Fox, Girard, Greene, Johnson – GABA, Milkovich, Nevalainen)

**Consideration/Response:** Comment noted. The SEIS will be completed under Minnesota Rules in accordance with the Minnesota Environmental Policy Act (MEPA; Minn. Stat. Ch. 116D). The Preparation Notice provided an anticipated schedule for the SEIS process.

**Substantive changes reflecting comments:** None.

**Comment 4c:** Your support of this project will help ensure economic growth and sustain a strong, diversified workforce throughout the Iron Range and our surrounding business communities. (Currie – Laurentian Chamber of Commerce)

**Consideration/Response:** Comment noted. Minn. Rules part 4410.0300, subp. 3, indicates “[e]nvironmental documents shall not be used to justify a decision, nor shall indications of adverse environmental effects necessarily require that a project be disapproved.” As RGU, DNR will conduct the SEIS to inform governmental decisions and approvals, as well as the project proposer and the public, of the project’s potential significant environmental effects and mitigation measures. Also as part of that process, the SEIS will evaluate the project’s social and economic impacts.

**Substantive changes reflecting comments:** None.

**Comment 5b:** Our chamber has worked with the company and become familiar with its people and many of the employees. They are hardworking, dedicated individuals who are doing their best to meet all the environment requirements and standards. The permit modifications they are requesting are not unreasonable and in my view are barely significant. (Fedo – Hibbing Chamber of Commerce)

**Consideration/Response:** Comment noted. See Response 1a.

**Substantive changes reflecting comments:** None.

**Comment 5d:** We are requesting that the DNR and MPCA follow the Supplemental Environmental Impact Statement rules while also ensuring that the environmental regulatory process moves forward in a timely and cost effective manner. (Fedo – Hibbing Chamber of Commerce)

**Consideration/Response:** Comment noted. See Response 1d, et. al.

**Substantive changes reflecting comments:** None.

**Comment 9c, 23c:** As a lifelong resident of the region, I am fully supportive of responsible environmental regulation to protect our resources. I hope you’ll agree that the DNR and PCA can fulfill their regulatory responsibilities and still be responsive to ensure timely reviews when major investments and job creation are at stake. Sound, yet efficient, regulatory review can certainly help differentiate Minnesota and give us an edge when companies are considering where to create jobs. (Heino, Tufte)

**Consideration/Response:** Comment noted. The anticipated schedule for the SEIS process was provided in the Preparation Notice; see Section IV.

**Substantive changes reflecting comments:** None.

**Comment 12f:** As you can see, Essar Steel is being a responsible environmental steward, which is very important to all of us in NE Minnesota. We are asking that the DNR and MPCA follow the Supplemental Environmental Impact Statement rules and approve Essar's request. I congratulate all of you for making sure Essar and all mining companies adhere to our environmental rules and regulations. Working

together, we can come to common solutions that will benefit all concerned. Thank you for your time. (Licari)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

**Comment 13a:** It appears to me that the changes of production level and use of larger trucks and use of predesigned furnace expansion will make the operation more efficient while having less impact on the environment. (Majewski)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

**Comment 13b:** This project is very important to the area's economy while the design is protecting the natural resources we all use and enjoy. Not impacting more wetlands and reducing the dust emissions for hauling will be a benefit. A new plant will be using the best available control technology for air emissions and not use any more water supply than originally planned.

I believe this is a win, win for the economy and the environment. (Majewski)

**Consideration/Response:** Comment noted. The SEIS will evaluate the project's potential environmental effects as well as evaluate the project's social and economic impacts.

**Substantive changes reflecting comments:** None.

**Comment 14i:** In analyzing the environmental impacts associated with the generation of purchased electricity required for the Essar Steel Project, the SEIS should determine if new electricity generation is a likely foreseeable consequence of the project. (Marrow – MCEA)

**Consideration/Response:** The issue of electrical power supply for the Minnesota Steel Project was considered in the Final EIS; see FEIS Section 6.13.2.6 and Response 16.d, Responses to Comments on Final Environmental Impact Statement. No connected actions as defined under Minn. Rules part 4410.0200, subp. 9, for electrical generation capacity is proposed for the modified project subject to the Supplemental EIS.

ESML reports that energy conservation measures identified during detailed engineering have greatly reduced the electricity demand per ton of pellet. As a result, the incremental increase in electricity required for the increased pellet capacity is 35 MW, which represents only a 10% increase in electricity demand. This increase in power demand can be supported by currently operating power generating units consistent with the findings of the original EIS.

**Substantive changes reflecting comments:** None.

**Comment 14n:** The SEIS should analyze the environmental impacts associated with the electricity generation and related electricity consumption for the entire project, not just the increased electricity demands associated with the increased production of the Project. When it prepared the original EIS for the Project, the DNR erroneously concluded that the consumption of electricity by the project would not lead to the generation of additional electricity at existing units because there was sufficient load already "on the grid." The issue is not whether there is sufficient existing capacity to generate electricity for the

Essar Steel Project (original or expanded); rather, the issue is that the Essar Steel Project will result, directly and indirectly, in the actual generation of electricity to supply Essar Steel. The generation of electricity to meet the needs of the Essar Steel Project results in environmental impacts which must be disclosed in the SEIS. likewise, alternatives (e.g., site-based generation, renewable alternatives) and mitigations (e.g., offsets) must be considered. (Marrow – MCEA)

**Consideration/Response:** The FEIS evaluated the project-specific and cumulative environmental effects of the proposed project, and identified appropriate mitigation, in accordance with the Determination of EIS Adequacy rendered in August, 2007. The FEIS also appropriately considered the issue of connected actions as required under Minn. Rules part 4410.2000, subp. 4, and determined that no electrical generating facilities were known that met the criteria prescribed in Minn. Rules part 4410.0200, subp. 9c.

The issue of additional power generation was considered during the scoping process for the original EIS. At that time it was determined that “[t]he 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.” (Responses to EIS Scoping Comments – Minnesota Steel Industries Taconite Mine, Concentrator, Pellet Plant, Direct Reduced Iron Plant, and Steel Mill Project, Itasca County, Minnesota, October 13, 2005)

As stated in the original FEIS (2007), “electrical power providers and/or local public utility providers would be responsible for construction of the infrastructure to supply electricity and natural gas to the facility. Separate permits and environmental review will be required for these infrastructure projects.” The final Scoping Decision Document (SDD) for the original Minnesota Steel project noted that infrastructure impacts from the project were not anticipated to be significant. Section 6.13 (Infrastructure) of the original FEIS discussed in general the anticipated environmental effects of a gas pipeline (Section 6.13.2.4) and electrical transmission lines (Section 6.13.2.6). The FEIS was determined to be adequate.

Minn. Rules part 4410.3000 dictates that the scope of an EIS supplement shall be limited to the impacts, alternatives, and mitigation measures not addressed or inadequately addressed in the Final EIS. The FEIS did address the issue of electrical energy supply, including: 1) whether construction of a new power plant was required; 2) whether the MSI plant will cause new energy generation; 3) potential connected actions; and 4) indirect effects. Available information indicates that similar facts apply to the ESML’s modifications project and its 35 MW of additional energy consumption. The project will use available capacity and no connected actions have been identified. Further analysis of the issue is not warranted.

**Substantive changes reflecting comments:** None.

**Comment 14gg:** The Essar Steel Project must provide an updated analysis of the cumulative potential effects of the entire Project as a result of the recently revised definition of cumulative potential effects by the Environmental Quality Board (“EQB”). The new definition for cumulative potential effects is applicable to the state environmental review process. As this definition has changed since the Final Environmental Impact Statement was issued in n2007, this section should be updated to reflect changes in Minnesota’s environmental rules. See Minn. R. 4410.0200, Subp. 11a. (Marrow – MCEA)

**Consideration/Response:** The Final EIS, including the potential cumulative effects analysis contained therein, was determined to be adequate under the Minnesota Rules in effect at that time and will not be

repeated for the Supplemental EIS. The project reviewed in that Final EIS has received its permits and approvals and is currently under construction; it is therefore exempt from State Environmental Review under Minn. Rules part 4410.4600, subp. 2.B. Thus it will be considered a “past project” and part of the existing conditions, (i.e., the No Build Alternative), during the current Supplemental EIS process.

For the modified project subject to the EIS supplement, the assessment of project-related cumulative effects will conform to the prescriptions of Minn. Rules part 4410.0200, subp. 11a, which states, “In analyzing the contributions of past projects to cumulative potential effects, it is sufficient to consider the current aggregate effects of past actions. It is not required to list or analyze the impacts of individual past actions, unless such information is necessary to describe the potential cumulative effects.” In addition, Minn. Rules part 4410.3000, subp. 5A, states, “The scope of a supplement to an EIS must be limited to impacts, alternatives, and mitigation measures not addressed or inadequately addressed in the final EIS.” Consistent with the latter rule, the issues identified in the Preparation Notice are deemed to require new, updated cumulative effects analysis relative to the Final EIS based on the profile of direct and indirect manipulation of the environment associated with the modifications project.

The SEIS will evaluate cumulative potential effects of the modifications project, including: Class 1 Air Quality – PSD Pollutants (Section III.B.13); Class I Air Quality – Acid Deposition and Ecosystem Acidification (Section III.B.14); Class 1 Air Quality – Visibility Impairment (Section III.B.14); Mercury (Section III.B.15); Human Health Risk Assessment (Section III.B.16); and Climate Change (Section III.B.15). The analysis will comply with the definition of cumulative effects under Minn. Rules part 4410.0200, subp. 11a.

**Substantive changes reflecting comments:** None.

**Comment 14hh:** In particular, an updated cumulative potential effects analysis must include an assessment of cumulative potential effects on “the environmentally relevant area that might reasonably be expected to affect the same environmental resources.” Minn. R. 4410.0200, Subp. 11a. The Essar Steel Project SEIS should expand the analysis from the first EIS to include wetland impacts in environmentally relevant areas within the larger area of the Mississippi Headwaters. This analysis should include the impact from increased sulfate levels in the affected watershed, fragmentation and cumulative water quality impacts from residential expansion, connected impacts from expanded population, recreational impacts to wetlands, other commercial or industrial development, and expansion of area communities. Additionally, a critical component of any cumulative potential effects analysis must include the effects from climate change on the environmental resources impacted by the Essar Steel Project, including impacts in northern Minnesota’s wetland habitats, water quantity and air quality. (Marrow – MCEA)

**Consideration/Response:** Comment noted. As noted in the Preparation Notice, studies are being completed to assess the project’s potential impacts in the areas of water quality (including sulfates), and air quality (including greenhouse gases and climate change). Cumulative effects will also be addressed in these areas as noted in the Preparation Notice; the environmentally relevant area for the cumulative effects analysis will comply with Minn. Rules part 4410.0200, subp. 11a. As stipulated in Minnesota Rules 4410.3000, subp. 5A, “The scope of a supplement to an EIS must be limited to impacts, alternatives, and mitigation measures not addressed or inadequately addressed in the final EIS.” See Response 14gg.

**Substantive changes reflecting comments:** None.

**Comment 14ii:** The Essar Steel Project SEIS should analyze the environmental impacts from connected actions including: electricity generation for the Essar Steel project; and the impact on

operations at Algoma Steel in Ontario, Canada and other operations of Essar Steel Holdings, Ltd. (“ESHL”) as a result of the increased production and/or supply of pellets from the Essar Steel Project. (Marrow – MCEA)

**Consideration/Response:** Comment noted. The SEIS is being completed under Minnesota State Rules associated with the Minnesota Environmental Policy Act (MEPA; Minn. Stat. Ch. 116D). The SEIS will not evaluate the Algoma Steel facility as it is outside the state of Minnesota, and further, the United States. The facility is not within the regulatory authority of the Minnesota DNR or the United States government. The SEIS will acknowledge that some of the pellets produced by the Essar Steel Minnesota Modifications project will be supplied to the Algoma facility for use in steel production. Regarding electrical supply, see Response 14n.

**Substantive changes reflecting comments:** None

**Comment 14kk:** MCEA requests that the DNR make technical and other supporting documents involved in scoping and development of the Essar Steel Project SEIS available to the public via a web page to ensure that these documents are readily available for public review. Making documents available through a dedicated web page, in addition to providing electronic or hard copies of documents through data practices requests, ensures that the spirit and intent of state environmental laws are met. The purpose of Minnesota’s environmental review rules is to aid in providing an understanding of the impact a proposed project will on the environment “through the preparation and public review of environmental documents.” Minn. R. 4410.0300, subp.3. The rules go further, requiring that government agencies ensure that any material incorporated by reference in an EIS be “reasonably available for inspection by interested persons within the time allowed for comment.” Minn. R. 4410.2400. Making background and supporting materials available on a dedicated web page would ensure that these materials were readily available to members of the public interested in commenting on the Essar Steel Project SEIS.

Providing access to documents via a web page has proven very successful with other government agency initiatives regarding environmental matters. For example, the Minnesota Pollution Control Agency (“MPCA”) provided access to technical and supporting documents on a web page throughout the development of the Minnesota Regional Haze State Implementation Plan (HAZE SIP). The MPCA web page was regularly updated and included not only documents created by the MPCA, but also included documents submitted by other government agencies, public comments, and other relevant technical and supporting documents created as part of the development of the Haze SIP and used to support the conclusions reached in the haze SIP. (See: <http://www.pca.state.mn.us/air/regionalhaze.html>). MCEA encourages the DNR to consider this approach during the environmental review process of the Essar Steel Project SEIS. (Marrow – MCEA)

**Consideration/Response:** The Supplemental EIS will comply with the provisions of Minn. Rules part 4410.2300, subp. J, which provides guidance on the material that should be included in (any) EIS appendix. The supplement will also comply with Minn. Rules part 4410.2400, which dictates that material incorporated by reference is to be made available for inspection by interested persons within the time allowed for comment.

Regarding the provision of the environmental documents via a web page, DNR agrees this is successful means of providing information to interested persons. The requested action is a standard DNR practice where the scoping documents, Draft EIS, Final EIS, and EIS Determination of Adequacy are made available. DNR may expand its dedicated webpage postings to include material incorporated by reference on a case-by-case basis, with the primary determining factors being the documentation specifically cited as such and being readily available in an electronic format.

Regarding other information operating to “aid in providing an understanding of the impact of the proposed project,” Minn. Rules part 4410.2300 states “[a]n EIS shall be written in plain and objective language.” DNR’s independent, third-party consultant will be responsible for compiling all relevant information for presentation in the SEIS as required under the rule. The SEIS will comply with this requirement as well as the full provisions of Minn. Rules part 4410.2300, subparts A through J. Should additional information be requested of DNR, this will be available upon request.

**Substantive changes reflecting comments:** None.

**Comment 15c:** In closing, Minnesota Power again commends the MDNR for their role as steward of this SEIS process and looks forward to the opportunity to review and comment on the Draft Supplemental Environmental Impact Statement later this year. Minnesota Power will continue to work closely with all affected parties to provide electrical service tot ESML, leveraging our expertise in supporting large industrial customers to ensure the successful implementation of the Essar Steel Minnesota, LLC project. (McMillan – Minnesota Power)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

**Comment 18a:** I believe Essar Steel will be a great addition to Nashwauk and Itasca County. With the new engineering that has been done and the shortened production haul roads, the impact in the environment will be very minimal. I believe all of the plans were presented very well at the meeting. (Olson – Nashwauk Chamber of Commerce)

**Consideration/Response:** Comment noted. The SEIS will evaluate the potential environmental effects associated with the proposed project.

**Substantive changes reflecting comments:** None.

**Comment 18b:** I have been a lifelong resident and business owner in Nashwauk and worked at the Butler taconite mine until it closed. I believe Essar Mn. Steel will be much more environmentally friendly than the old Butler plant. I look forward to seeing the plant startup and working with Essar. (Olson – Nashwauk Chamber of Commerce)

**Consideration/Response:** Comment noted. The SEIS will evaluate the potential environmental impacts associated with the proposed project.

**Substantive changes reflecting comments:** None.

**Comment 20a:** I am submitting the following comments in response the proposed SEIS scope as captured in the Preparation Notice. I understand what is desired at this early stage of the SEIS process are comments/perspectives that:

1. Identify potentially significant impacts that have been missed and should be considered;
2. Identify new issues that have emerged since the first EIS was deemed adequate;
3. Identify issues that were inadequately addressed in the first EIS;
4. Clarify or expand on specific issues already included in the scope but could be improved, especially in terms of understanding impacts or mitigation;
5. Indicate questions that should be addressed in the supplement; or

6. Offer explicit objections to the scope as proposed in the Preparation Notice.

Accordingly I have highlighted areas of the following DNR document in red, indicate which number of the above “comments/perspective(s)” I believe apply, and added an appropriate comment following each highlighted area.

I base the comments on my environmental engineering background and as one who provides advanced monitoring equipment to and consults with iron and steel companies through the world. (Rich – Atmosphere Recovery)

**Consideration/Response:** Comment noted. The commenter outlines the appropriate focus for comments regarding the scoping phase of the SEIS.

**Substantive changes reflecting comments:** None.

**Comment 20b:** The natural gas/electric energy based steel mill as proposed is not economically viable given current and projected prices of natural gas and electricity in Minnesota. Essar has delayed the steel mill several times and has refused to disclose the economics on which the mill is based. Essar is now proposing to expand taconite production to supply the bulk of the produced pellets to their coal-based Algoma steel mill. If Essar never builds the steel mill it proposed, there is less Minnesota environmental concern for the project overall. However, if Essar modifies their mill to use coal or petroleum coke and the DNR subsequently requires a later SEIS, the overall environmental impact of both changes would be significantly greater than now disclosed. And the current SEIS would not be an appropriate mechanism to address these much larger combined impacts. Accordingly, a section of this SEIS should include words to the effect that “future changes that increase project environmental impact will require a new and complete Environmental Impact Statement.” (Rich – Atmosphere Recovery)

**Consideration/Response:** Comment noted. All operations of ESML’s Nashwauk facility are subject to ongoing regulatory authority through governmental permits and approvals. Where an EIS has been completed, RGUs are to monitor the project subject to the criteria contained in Minn. Rules part 4410.3000. If future operations are modified such that new approvals are necessary, DNR will consider the operational change(s) and any potential environmental effects against the criteria in the cited rule. Future modifications could also be subject to new project-specific review if criteria under Minn. Rules parts 4410.4300 and 4410.4400, which are the mandatory categories for EAWs and EISs respectively, are triggered.

As stated in the SEIS Notice of Preparation, ESML is not proposing any changes to DRI or steel making. The DRI and steel making operations will use natural gas for direct reduction and heating.

**Substantive changes reflecting comments:** None.

**Comment 23b:** Essar Steel will generate as many as 2000 construction and 500 full-time permanent jobs at a time when our region and state are sorely in need of momentum to restart our recession-weakened economy. Considering the thorough work that has already been done on the state and federal environmental review and permitting processes for the project as originally proposed, I hope you can help expedite the supplemental review to allow the expanded project to move forward as quickly as possible. (Tufte)

**Consideration/Response:** Comment noted. Social and economic impacts associated with the project will be evaluated in the SEIS. The Preparation Notice provided the anticipated schedule for the SEIS process.



**Substantive changes reflecting comments:** None.

### **Support for Project**

The following comments were submitted in support of the project.

**Comment 2a:** Please give your support to the Essar Steel Minnesota project. (Anderson)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

**Comment 4a:** I am sharing with you the Laurentian Chamber's support of the Essar Steel project and our optimism for its continued timely advancement. (Currie – Laurentian Chamber of Commerce)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

**Comment 5a:** The Hibbing Area Chamber of Commerce has supported the Essar Steel project since its inception. The jobs and industry are badly needed in our region and the impact will change and improve the lives of many. Our unemployment in the region soared well above the rest of the state last year. (Fedo – Hibbing Area Chamber of Commerce)

**Consideration/Response:** Comment noted. The social and economic impacts of the project will be addressed in the SEIS.

**Substantive changes reflecting comments:** None.

**Comment 9a, 23a:** I am writing to support the Essar Steel project and to urge an effective and timely review of the Supplemental Environmental Impact Statement. (Heino, Tufte)

**Consideration/Response:** Comment noted. The scope and schedule for the SEIS was provided in the Preparation Notice.

**Substantive changes reflecting comments:** None.

**Comment 12a:** I am writing to you to pledge my support for the approval of Essar Steel's Supplemental Environmental Impact Statement for the proposed modifications to the Essar Steel Minnesota project. (Licari)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.

**Comment 21a:** As past chair of the Grand Rapids Area Chamber of Commerce I would like to lend my voice in support of the Essar Steel project. This project is vitally important for our region's economy and long term vitality. I do believe that the environmental due diligence from the state agencies will protect

our environment while this project will give needed jobs and economic help for many of our communities under-employed. Please don't delay this project needlessly. (Ritter)

**Consideration/Response:** Comment noted. The Preparation Notice identified the scope the SEIS will cover to assess potential impacts to the environment and the socioeconomics of the area. The anticipated schedule for the SEIS process was also included in the Preparation Notice.

**Substantive changes reflecting comments:** None.

**Comment 22a:** The Grand Rapids Area Chamber of Commerce would like to go on record as a firm supporter of the ESSAR Steel Project. Attached is our formal resolution that was drafted by our Board of Directors on August 15, 2005 when the ESSAR Steel Project was still Minnesota Steel.

Northeastern Minnesota is the "Industrial Park" of the State of Minnesota. Mining has been a way of life here for over one hundred years. The ESSAR Steel Project will help add to the economic stability of this region and support quality jobs and quality of life, and we encourage the DNR and the MPCA to help advance this project with the least amount of delay possible. (Stone)

**Consideration/Response:** Comment noted. Social and economic impacts of the project will be evaluated in the SEIS. The Preparation Notice included the anticipated schedule for the SEIS process.

**Substantive changes reflecting comments:** None.

**Comment 24a:** On behalf of the 66 members/investors of APEX, a privately held business and economic development corporation located in Northeastern Minnesota, we are writing in support of ESSAR's request to expand its production capacity from 4.1 million tons per year (mtpy) to 6.5 mtpy. We do not believe that the proposed expansion will cause any significant impact or create additional environmental issues with particulate emissions and noise. Further, we do not believe if this request is granted, it will create additional concerns regarding human health and safety. We therefore support this request and we welcome the additional employment opportunities that it may create within the region. (West – APEX)

**Consideration/Response:** Comment noted.

**Substantive changes reflecting comments:** None.