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Reading the EIS, one would never know that appropriation of water from Swan Lake would ever be contemplated. There is no reference to the potential problem of having too little water for the operation and supplying that water from Swan Lake. Indeed, the "environmental consequences" to Swan Lake make no mention of this possibility. EIS, p. 4-50, 51. Commenters are told to "see the *Physical Impacts Memo*" for complete results and analysis. But the *Physical Impacts Memo* also makes no mention of possible water appropriations from Swan Lake; rather it focuses on justifications for the Project proponent's "alternative augmentation plan." MSI, Physical Impacts Memo, 1-30-07, pp. 16-19. 5

In fact, the need for more water than accounted for in the EIS is a likely reality that must be addressed in the EIS. The region already appears to be experiencing the drying effects of a changed climate. *See Ely Timberjay*, March 19, 2007 ("Near record-low water levels in US-Steel's Minntac tailings basin . . is forcing the company to tap water reserves. . . ."). Moreover, there are real environmental consequences from the lack of water resources that have not yet been addressed. *See, e.g., id.* ("with current low water levels . . . the concentration of chlorides and other chemicals in the basin water has increased even further. . . .").

MCEA and others who are concerned about the environment and seek to comment on environmental review do so in order to ensure that policy-makers and regulators have a full record of the environmental consequences of decisions they authorize and make. This system depends on a transparent process in which the environmental review documents placed on public notice are thorough, fair, easily navigated, and present a full and honest picture of the Project's environmental impacts. 4

1. "Augmentation."

The EIS contains inadequate information and analysis on the effect to Oxhide Creek of the proposed stream augmentation. It contains no information at all regarding the effects of augmentation on the upper portion of the Creek (north of Oxhide Lake) and too little information about the environmental effects on the stream between Oxhide Lake and Swan Lake. 6 7

The EIS notes that under proposed plans, the flow rate in the lower Oxhide Creek will go from the existing 7.8 cfs, increase up to 12 cfs (and possibly 17 cfs) for the first five years of the Project, then slow to 4.1 cfs for the remaining 15 years of the Project, at which time it is expected to approximate existing flow at 8.3 cfs. (EIS, 4-43; Physical Impacts Memo, 2). The geomorphology of the stream is analyzed to determine whether it can accommodate these radical shifts in flow, but full environmental consequences of this extreme flow enhancement and deprivation are not explored. "The structure and function of riverine systems are based on five riverine components: hydrology, biology, geomorphology, water quality, and connectivity. Management of one element, such as the biology or status of a single species, is usually not effective because each element of a

riverine ecosystem continuously interacts with the others." Annear *et al.*, *Instream Flows for Riverine Resource Stewardship.* The EIS focuses on "one element" and is clearly inadequate. 7

The EIS should consider existing uses of Oxhide Creek, including fish and wildlife uses, and evaluate the impacts that the "augmentation" plan will have on those uses. How will radical changes in stream flow affect sedimentation, habitat, etc.? The Physical Impacts Memo states, for example, that "wetted habitat area would be reduced" with regard to the alternative augmentation plan, but provides no information on what effect the loss of wetted habitat will have on existing uses. The EIS also fails to adequately address stream flow variability. Natural flow variability is "critical to ecosystem function and native biodiversity," but is absent from the EIS's discussion of augmentation. *See, id.* Again, a basic requirement of the Clean Water Act is that existing uses, and the water quality needed to ensure those uses, be protected and maintained. The EIS fails to provide sufficient information to assess whether the augmentation plan meets that standard.

In addition, there is no justification in the EIS for adoption of the "alternative augmentation plan." The flow rates in this alternative plan are apparently calculated based on "pre-mining" conditions of the stream. If the Project proponent's intent were to return the stream to "pre-mining" conditions upon completion of the Project, there would at least be a colorable claim that this would be an appropriate interim flow standard. But that is not the case. Rather, the creek is expected to return to higher than existing flow rates upon completion of the Project. *Physical Impacts Memo*, p. 8. Under the circumstances, targeting stream flow to pre-mining conditions is not appropriate and does not ensure protection of existing uses. In any case, the discussion of the environmental effects of the various augmentation scenarios is wholly inadequate. 8 7

Related to the issue of "augmentation," MCEA disagrees with the regulatory analysis provided that suggests the "augmenting" discharges do not require a National Pollution Discharge Elimination System ("NPDES") permit. MCEA submits that these discharges cannot be made absent an NPDES permit that imposes conditions sufficient to protect and maintain the water quality and existing uses of the receiving water. Even without a full evaluation of the environmental consequences of the proposed changes in flow rates, enough is known from the EIS to show that the proposed discharges may result in water quality degradation and require on-going monitoring. *See, e.g.,* EIS, p. 4-52 (referring to effects on the physical channel of the creek and possibility of a "blowout"). Because the discharged waters have the potential to impact the physical integrity of the water and degrade water quality, they will require permits. *See Catskill Mountains Chapter of Trout Unlimited, Inc., v. City of New York,* 451 F.3d 77 (2nd Cir. 2006); 40 C.F.R. § 130.2(c) (defining pollution as "man-made or man-induced alteration of the . . . physical . . . integrity of water"); Minn. Stat. § 115.01, subd. 13 (defining pollution as "the alteration made or induced by human activity of the . . . physical . . . integrity of waters of the state.") The augmentation required to ensure a flow rate that is consistent with water quality and existing uses should be calculated in the context of 9

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NPDES permits authorizing the discharge during de-watering and during operation of the Project. This is true for the discharges affecting Snowball Lake and Creek as well. 9

2. Pickerel Creek and O'Brien Lake.

Pickerel Creek is a DNR-designated trout stream and therefore is an Outstanding Resource Value Water (ORVW). The Creek receives short shrift in the draft EIS and supporting documents, however. The EIS acknowledges a small reduction in the Creek watershed as well as an expected increase in groundwater flow to the Creek from the tailings basin, but no analysis is provided of the effects on the Creek. For example, no evaluation of the chemical constituency of the tailings basin water and its impact on the Creek is provided. The NPDES Permit Application, cited in the EIS, avoids any mention of Pickerel Creek in its discussion of ORVW's, providing no further information. This inadequacy should be addressed in the final EIS. A full analysis of any possible impacts to the trout stream is a prerequisite to authorizing any activity that will affect the stream. Federal law requires that the state maintain outstanding waters' high water quality and protect it from any degradation. 40 C.F.R. § 131.12(a)(3). 10

As with Pickerel Creek, the EIS acknowledges that seepage from the tailings basin will reach O'Brien Lake. However, no analysis is provided of the chemical constituency of water from the basin or its potential effect on water quality in O'Brien Lake. EIS, p. 4-49. A loss of 18% of the watershed is noted, but lake level changes due to this loss were "not estimated." EIS, p. 4-144. Without explanation or basis, the EIS concludes that water level changes are "not expected." Such conclusory statements do not reflect a "hard look" at the environmental effects of the Project. 11

3. Acknowledged need for additional water.

Throughout the EIS, Project proponents acknowledge that water from "other sources" will be required to augment flow to Snowball and Oxhide Creeks and/or for use at the facility. Too little information is provided about what those "other sources" will be and what environmental impacts will result from them.

There are at least three problems with the EIS's consideration of this issue.

First, the acknowledged need is apparently based on the "alternative augmentation plan" which, as described above, reduces flow to Oxhide Creek by half without justification. It is not likely that this reduced flow will ultimately be allowed in a permit that protects and maintains existing uses. In addition, it is not clear that modeling of available water resources took into account the effects of climate change. Both of these factors suggest that the estimate of how much excess water will be needed is low. This should be addressed in the final EIS. 12

Second, the EIS suggests that one source for extra water is the Hill Annex Pit. EIS, p. 4-36. However, re-directing excess Hill Annex water from Panaca Lakes to the 13

Project will impact water quantity and quality in the Panaca Lakes. This is noted but not adequately addressed in the EIS, which simply states that wastewater treatment upgrades have "likely reduced" the benefits of excess water from Hill Annex. The Minnesota Environmental Policy Act ("MEPA") and National Environmental Policy Act ("NEPA") require analysis of environmental effects, not speculation. *See* Minn. Stat. § 116D.04, subd. 2a; 42 U.S.C. § 4332. 13

Third, the EIS notes a significant problem with the alternative of using water from Hill Annex Pit, which is that Excelsior Energy has proposed to use the same water. Given this, other alternatives for meeting the Project's true water needs should be analyzed now. It is not acceptable to ignore in the EIS a need that is plain on the face of the Project. 14 15

III. GREENHOUSE GAS EMISSIONS AND GLOBAL WARMING

The EIS fails to address or take into account what is likely today's most pressing environmental concern: climate change. As the agencies and Project proponents are aware, there is no longer a legitimate debate about *whether* human-induced climate change is happening; rather, the debate has come to focus on what to do about it. The scientific consensus that greenhouse gas emissions are contributing to climate change is well documented and the subject of numerous reports from national and international agencies including the Intergovernmental Panel on Climate Change (IPCC), the National Academy of Sciences, the American Meteorological Society, the American Geophysical Union, and the American Association for the Advancement of Science. It has also become a major issue of public concern. As exclaimed in a Time Magazine headline from last year: "Be Worried, Be Very Worried." Time, *Special Report: Global Warming*, April 3, 2006. 16

The Project will clearly contribute significant amounts of greenhouse gases to the atmosphere, the cause of global warming. The EIS must address greenhouse gas emissions from the facility as well as emissions associated with connected actions. Failure to account for greenhouse gas emissions associated with the Project makes the EIS inadequate. *See Border Power Plant Working Group v. Department of Energy*, 260 F.Supp.2d 997, 1029 (S.D. Cal. 2003).

In addition to failing to account for greenhouse gas emissions associated with the Project, the EIS appears to ignore carbon-related regulatory changes that will affect the Project. This must be corrected in the final EIS. It is clear that regulation of greenhouse gas emissions is imminent and will impact the Project. *See, e.g.,* Union of Concerned Scientist, *Gambling with Coal*, September 2006. As a result, the impact on the Project of future regulation should be addressed in the EIS. *See* Minn. Stat. § 116.04D, Subd. 2a (EIS to analyze "economic . . . effects that cannot be avoided . . ."). 17

Finally, the EIS also appears to ignore the known or expected consequences of climate change in its analyses of environmental effects. The failure to account for 18

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expected changes potentially impacts all areas evaluated in the EIS. Predicted consequences of climate change – even assuming that atmospheric concentrations of greenhouse gases are stabilized soon – include drought, heavier rain events, increased flooding, more violent storm events, and changes in vegetation and habitat. *See, e.g,* Union of Concerned Scientists, *Great Lakes Communities and Ecosystems at Risk,* (available at http://www.ucsusa.org/greatlakes/). These changes to the environment should be factored in when evaluating the environmental impacts of the proposed Project. It is not clear that the models used account for predicted changes associated with climate change. For example, the projected decrease in summer precipitation does not appear to have been anticipated in modeling for "augmentation" of the Swan and Oxhide Creeks. *See Physical Impacts Memo.* If it were, that should be made explicit. If not, the analyses should be re-worked. This is true not just for this example, but for many other aspects of the EIS as well, including the wetlands analysis and the air impact modeling. 18

MCEA understands that the Project proponents have agreed to provide an analysis of the greenhouse gas emissions associated with the Project. The analysis should account for all sources of emissions, outline the environmental consequences of continued increased greenhouse gas emissions, evaluate alternatives where appropriate that may lower overall emissions, and investigate mitigation measures. MCEA understands the analysis will be provided to us on April 16, 2007. MCEA reserves the right to supplement the comments provided here upon receipt of the carbon analysis. 16

IV. WETLANDS

A. General.

The EIS appears to do an adequate job of listing on-site wetlands through mapping and by general type identification used under the Minnesota Wetland Conservation Act ("WCA") and the U.S. Army Corps of Engineers in Minnesota. However, the EIS does a poor and inadequate job of actually analyzing the various functions and values[1] of the specific wetlands on the Minnesota Steel site and does an extremely poor job of explaining how the EIS arrived at various conclusions regarding wetland status (in terms of quality) and wetland hydrology. 19

An EIS is to be an analytical, rather than encyclopedic, document which analyzes the Project's significant environmental impacts, discusses appropriate alternatives to the proposed action and explores methods by which adverse environmental impacts could be mitigated. *See* Minn. Stat. § 116D.04, subd. 2a and 42 U.S.C. § 4332. Nowhere does the EIS discuss any wetland in terms of wetland functions and values. The EIS identifies wetlands as *e.g.* "type 1-2" or "type 7", but does not give detail regarding vegetation, soils and hydrology in a manner that allows the public to understand what is actually being lost in terms of habitat and wetland functions. This will be required information

[1]This same concept is referred to as wetland "public values" under the Wetland Conservation Act. Minn. Stat. § 103G.222 *et seq.*

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for analysis and approval of any wetland replacement or mitigation plan. *See*, 40 C.F.R. §§ 230.6, 230.20, and 230.70-73 and Regulatory Guidance Letter, U.S. Army Corps of Engineers, December 24, 2002. *See also* Minn. Stat. §§ 103G.222 and 103G.2242.[2] The current mitigation plan documents also fail to provide that level of detail, meaning that they, too, are inadequate under the law. 19

The EIS identifies wetlands on the mining site in terms of being high, medium, or low quality with no discussion or analysis of how that determination is made and what it means relative to impacts from the mine operation. Again, this is encyclopedic, not analytical, contrary to environmental review requirements. Moreover, there is no indication of the cutoff between each category. Without any explanation and analysis, it is difficult to determine whether there should be subcategories. For example, if a wetland is considered by the Project proponent to be low quality due to a road impact, that wetland may still have more public value than the filled mine pits and should be analyzed and discussed in that relative context. Also, these categories are divorced from any values assessment – a wetland that is dominated by reed canary grass may have minimal wildlife value, but still be high value for flood control or water quality purposes. The EIS is silent on this needed level of detail and explanation and is wholly inadequate in its discussion of on-site wetlands.

B. Indirect impacts to wetlands.

The EIS is similarly deficient with regard to indirect impacts to wetlands on site. The discussion of indirect wetlands is devoid of details regarding hydrologic connections and relationships. It appears that the entire site area drains primarily from the north to the south. The EIS does generally note that mine pit de-watering and transfers, excavation and expansion of the tailings basin, and waste and materials stockpiling will impact site hydrology and indirectly impact wetlands. For example, the listing of impacts from the proposed tailings basin provides that the reduction in contributing area[3] would result in a loss of 62% of the area's wetlands through direct destruction, and indirect impacts to effectively all (37%) of the remaining wetlands in the subwatershed of the tailings basin. That is the sum total of discussion on that point. There is no disclosure of how those indirect impacts would occur. There is no analysis of how to avoid or minimize those indirect impacts. There is no discussion of what "indirect impact" even means. For example, does it mean that a forested wetland will be converted to a wet meadow? Does it mean that certain species will no longer be present because of impacts or changes to 20

[2] It should further be noted that courts have consistently found that proper environmental review cannot be deferred to some regulatory event or "phase" in the future. *See e.g. Trout Unlimited v. Minnesota Dept. of Agriculture*, 528 N.W.2d 903, 909 (Minn. Ct. App. 1995), *Dead Lake Association v. Otter Tail County*, 2005 WL 221773 (Minn. Ct. App. 2005), and *Kern v. U.S. Bureau of Land Management*, 284 F.3d 1062, 1068-1070 (9th Cir. 2002).

[3] "Contributing area" is an unclear reference, but appears to mean contributing subwatershed.

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groundwater? Does it mean that a formerly four-acre wetland will be drier at the margin, reducing its area by half? The EIS is wholly inadequate regarding indirect impacts to wetlands. 20

C. Wetland hydrology.

Wetland hydrology presents a special problem, also given short shrift in terms of analysis in the EIS. The monitoring that the Project proponent has, or has not, done relative to wetland hydrology is unclear in the EIS. It appears that monitoring wells were installed in a number of wetlands in late summer/early fall of 2005. Therefore, some data were likely gathered late in the year, but not enough for full analysis of wetland hydrology.[4] Unfortunately, 2006 represented a borderline extreme drought year for the Northern part of the state. Wetlands all over Northern Minnesota were dry during the summer and fall of 2006 for the first time in many years. Therefore, to the extent that any wetland hydrological analysis is based upon minimal and late 2005 monitoring and the largely unrepresentative conditions of 2006, the analysis will be wrong or at least of limited value.[5] While MCEA understands that an EIS is based upon data reasonably available at the time, nowhere in the Minnesota Steel EIS is there an acknowledgement of the limitations of the hydrologic data or what impact that may have on assessing the potential wetland impacts. Nor is there any discussion or indication of future monitoring that may impact the analysis. The hydrologic information, and any limitations thereof, is especially relevant to the analysis of indirect impacts to wetlands, *see above.* 21 20

D. Sequencing and alternatives analysis.

Both Minnesota and federal law require alternatives analysis as part of the EIS, both in terms of the overall Project, but also in terms of placement of certain portions of the Project relative to wetland impacts. As stressed in cases under NEPA, adequate environmental review requires consideration of *a full range* of viable alternatives. *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 812-13 (9th Cir. 1999). An agency may not define a project so narrowly that it forecloses a reasonable consideration of alternatives. *Fuel Safe Washington v. Federal Energy Regulatory Commission*, 389 F.3d 1313, 1324 (10th Cir. 2004). Alternatives analysis for an EIS also requires full examination of a "no-build" alternative (meaning status quo in an undeveloped state) and examination of a spectrum of "real" options, not just those tailored to the desires of the project proposer. *See Fuel Safe Washington*, 389 F.3d at

[4] Proper analysis of wetland hydrology generally requires data gathered over a growing season spanning spring to fall, not just fall which tends to be drier.

[5] MCEA notes the EIS is unclear about what data were used. Some of the documents referenced in the wetland portions of the EIS seem to indicate that the hydrologic monitoring used was from 2005. Yet, that seems unlikely given the late installation date of the 2005 monitoring wells. If that is the case, it is further evidence of the inadequacy of the hydrologic information in the EIS and related documents.

1324 (10th Cir. 2004); *Custer County Action Association v. Garvey*, 256 F.3d 1024, 1040 (10th Cir. 1002); *Muckleshoot Indian Tribe,* 177 F.3d at 812-13.

Federal and state wetlands law also requires sequencing analysis, components of which are properly to be included in the EIS as they are related to alternatives analysis. Sequencing refers to the obligation of Minnesota Steel to first make every attempt to avoid direct *or indirect* impacts that *may* destroy or diminish the wetland under consideration. Minn. Stat. § 103G.222, subd. 1 and Minn. R. 8420.0520, subpt. 1 (emphasis added). *See also* 40 C.F.R. §§ 230.6 and 230.10. Only after the project proponent has adequately demonstrated that impacts cannot be avoided should the analysis move to the second phase of sequencing, a demonstration that every attempt has been made to minimize the impact. *Id.* In proceeding through the sequencing requirements, the project proponent is required to demonstrate that there is no feasible and prudent alternative to impacting wetlands. *Id.* The burden of demonstrating no feasible and prudent alternative must be borne by the project proponent.

Moreover, a feasible and prudent analysis *does not* include excusing avoidance of environmental damage due to an economic component, such as increased cost or most desirable business outcome. This is in keeping with other Minnesota environmental laws where the phrase "feasible and prudent" alternatives is used, for example in the Minnesota Environmental Rights Act ("MERA"). In those contexts, courts have determined that economic hardship or economic reasons alone do not rise to the level of demonstrating that avoidance of environmental impacts is not feasible and prudent. For example, in *Urban Council on Mobility v. Department of Natural Resources*, 289 N.W.2d 729 (Minn. 1980), the court stated "Non-environmental interests are generally not given great weight in ascertaining whether a "feasible and prudent alternative" is available". *Urban Council on Mobility*, 289 N.W.2d at 735 (*citing County of Freeborn v. Bryson (Bryson II)*, 243 N.W.2d 316, 320 (Minn. 1976)). The *Urban Council on Mobility* court further noted that economic considerations alone do not demonstrate the lack of a feasible and prudent alternative to environmentally damaging activity that is challenged under MERA. *Urban Council on Mobility*, 289 N.W.2d at 734. *See also, State of Minnesota by Powderly v. Erickson*, 285 N.W.2d 84, 89 (Minn. 1979), where the court found defendant had failed to demonstrate the lack of feasible and prudent alternatives to environmentally damaging activity simply on the basis of his stated economic desires or plans.

1. Plant location.

The Minnesota Steel EIS fails to meet the requirements for alternatives and sequencing analysis relative to wetlands impacts, especially with respect to analysis of the plant site. Minnesota Steel proposes to locate an entirely new plant facility on the northern edge of the property. There is no analysis of any alternatives for locating the plant elsewhere on the property. The EIS references a technical memorandum from Barr Engineering, but that memorandum simply outlines the requirements for the plant site such as grounding in bedrock and not obscuring future metals locations. Neither the

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memorandum nor the EIS then applies those requirements in an analytical way to alternatives around the Minnesota Steel property. 22

In particular, there is no examination of locating the plant near the tailings basin, the apparent original plant site for the former iron mining operation. In discussions with Minnesota Steel, MCEA was informed that there may be some contamination on site and Minnesota Steel prefers to not deal with that, presumably a cost issue. Again, avoiding additional costs does not excuse Minnesota Steel from an alternatives analysis and its sequencing obligations. By placing the new plant at or near the location of the old plant, wetlands impacts could be significantly avoided. The proposed location will directly destroy 109 acres of wetlands. Those wetlands are all listed as medium to high quality wetlands (and see comments above about accuracy of the rating). Any wetland impacted near the tailings basin is more likely to be low quality and more likely to be "artificial" (as the EIS uses that term). Locating near the basin will reduce the fractured impacts by consolidating them in a site that will likely be subject to total disturbance anyway (*see* discussion of direct and indirect impacts in that area that provide that 99% of the wetlands in the area of the tailings basin will be impacted in some way). A location near the tailings basin will also avoid a lengthy pipeline from the northwest part of the property to the southeast location of the tailings basin. It is on or near Highway 169, giving transportation access. The stated desire to not have the plant visible from the road is without merit. It is unacceptable to propose destroying over one hundred acres of currently minimally disturbed wetlands in order to avoid seeing a plant from an existing highway. Presumably, many components of the operation will be visible from Highway 169 anyway, as the former site was. Because the EIS fails to adequately address alternatives and sequencing analysis, it is unclear what the "real" reasons are for not examining the site near the tailings basin, if any. The EIS should fully examine all plant siting alternatives across the Minnesota Steel site, including locating it near the tailings basin.

The only analysis of alternatives for the plant site or anything remotely resembling sequencing are minor alterations in building placement on the plant site at the north end of the property. Even this is insufficient under the law. None of the stated engineering requirements for footings in bedrock or access to transportation are different between the proposed location and so-called Alternatives I, II, and III on the northern part of the property as the differences in configuration are minor. Alternative I, which impacts the fewest acres of wetland – less than half of the number of wetlands that will be impacted by the preferred configuration – appears to be rejected out of hand, with little to no real analysis, due to site preparation cost. This is not a valid reason under the wetland laws regarding sequencing. Increased cost is simply a cost of doing business relative to the site chosen. The wetland law does not allow extensive impacts to high quality wetlands simply because that is cheaper. 23

2. Stockpile locations.

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The EIS is also inadequate in its discussion and examination of alternatives to the stockpile locations relative to wetland impacts. Again, the stockpile locations all involve destroying medium to high quality wetlands (a significant number of them are ranked as high quality). There is no discussion in the EIS of what was done to avoid or minimize those impacts. While it is clear that some stockpiling is necessary, the EIS is completely deficient in its failure to discuss alternatives and minimization. One summary note simply says that as the operation progresses, in-pit stockpiling will be examined. There is no further discussion of what exactly that means, how it will be examined, what the components of accepting or rejecting in-pit stockpiling might be or what wetland impacts could be avoided in the process. The EIS is inadequate in this regard. 24 25

3. Indirect impacts.

Finally, the EIS is wholly deficient in analyzing avoidance or minimization of indirect wetlands impacts. This flaw is tied in part to the failure to adequately address things like plant siting in the first instance. However, even when the EIS is directing the discussion to indirect impacts, the single statement in this regard is that indirect impacts will be avoided through the use of ditches and culverts. The EIS does not address this statement to any indirect impact of any wetland in particular, even though indirect impacts could occur in many ways to many different wetlands around the site. It is unlikely that "ditches and culverts" will have much impact at all on indirect impacts resulting from changes in groundwater hydrology or impacts from de-watering or other activities. A culvert may be used to address impacts to surface hydrology from a road, and possibly a berm, but culverts often do not mean an impact is avoided. Further, the EIS is silent on what culverts will be used where for what impacts and how that meets the obligations of sequencing under wetlands laws. This summary statement does not meet even the most minimal legal obligations for environmental review. The EIS is so inadequate in this regard that it is virtually impossible for the public to supply meaningful comments – there is nothing to comment on. 26

E. Cumulative wetland impacts.

The Minnesota Steel EIS is insufficient in its discussion of cumulative wetland impacts, primarily due to the constrained scope of the analysis. Environmental review under MEPA, Minn. Stat. ch. 116D, is governed by rules promulgated by the Minnesota Environmental Quality Board ("EQB"). EQB rules define cumulative impacts in the same manner as under federal law: 27

> "Cumulative impacts" means the impact on the environment that results from incremental effects of the project in addition to other past, present and reasonably foreseeable future projects regardless of what person undertakes the other projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Minn. R. 4410.0200, subpt. 11.

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EQB Guidance regarding preparation of an EIS notes the requirement to consider cumulative impacts in an EIS as part of the indirect effects obligation. *See Minnesota Environmental Review Guide* ("Guide"), Environmental Quality Board, p. 5. The EQB *Guide* further references the 1997 federal Council on Environmental Quality ("CEQ") Comprehensive Guidance on handling cumulative impacts at http:\\ceq.eh.doe.gov\ nepa\ccenepa\ ccenepa.html.

The CEQ Guidance is clear that the net must be cast wide for a useful analysis of cumulative impacts, tending to follow ecological or geographic outlines, not political. Stressing the importance of cumulative effects analysis, the CEQ states that "cumulative effects analysis is *essential* to effectively managing the consequences of human activities in the environment." p. 3 (emphasis added). Table 1-2 of the CEQ Guidance sets forth principles of cumulative effects analysis including analyzing effects of all actions taken, no matter who takes them, analyzing effects on an ecosystem basis, and that cumulative effects to be analyzed are rarely aligned with political or administrative boundaries. p. 8. Chapter 2 of the CEQ Guidance is especially relevant in that it sets forth parameters for scoping the extent of cumulative effects analysis. It provides that when analyzing the contribution of a specific project to cumulative environmental effects, "the geographic boundaries of the analysis almost always should be expanded." p. 12. Steps for identifying cumulative effects analysis include making a list of resources within the project area affected by the project and then determining the geographic areas occupied by those resources (e.g. wetlands in the larger Headwaters Mississippi River area) outside the project zone. "In most cases, the largest of these areas will be the appropriate area for the analysis of cumulative effects." p. 15. In Chapter 3, the CEQ Guidance outlines effects to be reviewed and the list includes habitat fragmentation of ecological systems from the cumulative effects of multiple land-clearing activities, including forestry, residential development, recreation and other human activities, not just other mines as suggested in the EIS.

Federal case law has also made clear that cumulative impacts analysis must not be artificially constrained in order to mask or moderate cumulative impacts to the environment. Federal courts have interpreted the regulations under NEPA to require detailed analysis of cumulative impacts of past, present and future projects. This analysis is to be detailed enough to be ultimately useful to the decision-maker in whether, or how, to alter the program or activity in question to lessen cumulative impacts. *Muckleshoot Indian Tribe*, 177 F.3d at 810. In *Muckleshoot*, the court called into question the U.S. Forest Service's too-general and one-sided cumulative impacts analysis. The analysis of the proposed logging and land exchange plans did not contain detail adequate to meet the requirements of NEPA, *Muckleshoot Indian Tribe,* 177 F.3d at 811. Particularly relevant to this case (*see Part IV. C. infra*), the court points out that the forest service, to the extent it said anything about cumulative impacts from the project, concentrated on only the cumulative beneficial aspects of the land exchange without any analysis of the potential cumulative negative forest impacts from the logging part of the proposal. *Id.* The court found the analysis to fall far short of useful analysis required by NEPA. *See also*

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Klamath-Siskiyou Wildlands, 387 F.3d at 993 ("A proper consideration of the cumulative impacts of a project requires some quantified or detailed information.")(*cites omitted*). In *Grand Canyon Trust v. Federal Aviation Admin.*, 290 F.3d 339 (D.C. Cir. 2002), the court rejected the Federal Aviation Administration's ("FAA") environmental assessment and conclusion that an EIS was not required on the planned expansion of an airport. The FAA had considered only the incremental direct impact of additional noise from the expansion on a national park. The court found this an inadequate consideration of cumulative impacts, noting that under NEPA, the agency should consider incremental effects along with "background" effect from already existing or foreseeable projects or conditions. *Grand Canyon Trust*, 290 F.3d at 342. The court held that a meaningful cumulative impact analysis must identify

> (1) the area in which the effects or the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—*past, present, and proposed, and reasonably foreseeable*—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate.

Grand Canyon Trust, 290 F.3d at 345, (*cites omitted)* (emphasis added). Very recently, the Eastern District of Wisconsin held that cumulative impacts analysis in an EIS must be quantitative, requiring detailed analysis and requiring the government decision-maker to analyze the cumulative impacts on several forest species throughout national forest land in all of Wisconsin, of contemporaneous logging or other activities throughout a region, not just the logging sale in the single national forest at issue. *Habitat Education Center v. Bosworth*, 363 F.Supp.2d 1070, 1077-78 (E.D. Wis. 2005). The court specifically rejected dividing forest projects into multiple individual actions over a wide area, each of which might individually have an insignificant effect, but collectively will have a substantial impact, in order to avoid meaningful cumulative impacts analysis. *Id.*

The Minnesota Steel EIS claims to examine cumulative impacts on wetlands on a watershed basis. Examination of the watershed reveals that it roughly corresponds to just the Minnesota Steel Project area. Given the law on cumulative impacts, this is obviously inadequate. An ecologically relevant unit regarding the cumulative insults to wetlands of which the Minnesota Steel Project is a part, should include a larger area within the Mississippi Headwaters. It also must consider not just impacts from Minnesota Steel and other mining projects, but all impacts, especially fragmentation impacts and cumulative water quality impacts, from past, present, and reasonable foreseeable human activities of any kind, by any proposer. This would include, for example, residential expansion, whether primary or secondary homes, connected impacts from expanded population, recreational impacts to wetlands, other commercial or industrial development, and expansion of area communities. The EIS improperly constrains itself primarily to the Project area.

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Further, even within the constrained cumulative impacts analysis area, the EIS fails to provide any real analysis and discussion of the issue. There is no substantive discussion of the real cumulative impacts to wetlands, only a list/chart of conversion of certain types of wetland and habitat to non-wetland or open water (pits). There is no analysis and examination of what converting a diversity of forested, shrub, type 2, or other wetlands to deep open water pits or into open water ponds will mean.[6] In other words, what do the listed changes actually mean for the environment in terms of habitat and water quality. This is left entirely unexplored, making the cumulative impact analysis no more useful than the simple listing of wetland impacts from the Project in the first place. 28

Finally, a major component of cumulative impacts to northern wetlands is ignored in the Minnesota Steel EIS; that of global climate change. Climate change is not mentioned, even in passing, in addressing the future of northern Minnesota's wetland habitats. However, climate model information readily available through published academic papers and academic websites suggests that parts of the upper Midwest will be drier in years to come.[7] Researchers at the University of Minnesota have clearly stated that Minnesota's northern boreal areas, of which the Minnesota Steel site is part, will be significantly impacted by the effects of global climate change making them unrecognizable in a relatively short period of time. *See* Testimony of Dr. Lee Froehlich to the Minnesota Legislature, Jan. 30, 2007. At a minimum, the EIS must acknowledge and discuss this known information and address how that may impact the overall analysis of wetlands and cumulative impacts thereon. Its failure to do so is unacceptable. 29

F. Wetland Mitigation

MCEA's comments related to wetland mitigation discussions in the EIS are largely addressed above. In order for the public to fully understand and assess Minnesota Steel's wetland mitigation proposals, Minnesota Steel must provide substantially more information regarding the functions and values of wetlands expected to be impacted, both from direct and indirect impacts, and must provide significantly more detail regarding how that information "matches up" with what Minnesota Steel proposes in Aitkin County. Additionally, while not strictly an environmental review issue, MCEA is concerned with indications that the wetland mitigation will not occur prior to Minnesota 30 31

[6] Note that the U.S. Fish and Wildlife Service ("USFWS") has highlighted this kind of conversion as an overall cumulative problem with wetland destruction in the U.S. and the Upper Midwest. The USFWS points out that the increase in open water ponds has masked the overall loss of wetland habitat and diversity, in terms of physical number of acres and in terms of quality, and that open water ponds are not a substitute for wetlands lost. *See* Dahl, T.E., 2000, *Status and Trends of Wetlands in the Coterminous United States, 1986-1997*, U.S. Dept. of the Interior, Fish and Wildlife Service, Washington, D.C.

[7] The Minnesota Steel EIS fails to even acknowledge that this area of the state has been under fairly severe drought conditions for almost two years.

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Steel impacting wetlands on site. MCEA objects to any impact to wetlands on the Project site that occur prior to mitigation. 31

V. LYNX

A. Formal consultation with the U.S. Fish & Wildlife Service.

The EIS fails to adequately disclose and analyze wildlife impacts, especially to lynx, from the proposed Project. Under Section 7(a)(2) of the Endangered Species Act ("ESA"), "[e]ach Federal agency shall, in consultation with and with the assistance of the Secretary [of the U.S. Fish & Wildlife Service ("USFWS")], insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species..." such as the lynx. 16 U.S.C. § 1536(a)(2). The COE may fulfill this consultation duty on each project informally if it determines, and the USFWS concurs, that the project is not likely to adversely affect the listed species. For projects that may adversely affect a listed species, however, the COE must withdraw and modify the project or engage in formal consultation with the USFWS. Formal consultation obligates the COE to conduct a Biological Assessment, followed by a biological opinion by the Fish and Wildlife Service. 16 U.S.C. § 1536(b)(3)(A). 32

The Project at hand is likely to adversely affect the lynx, and therefore, at this stage, the COE is required either to withdraw the Project or engage in formal consultation with the USFWS.

1. The Project's direct and cumulative effects will adversely affect lynx.

As explained in the Minnesota Department of Natural Resources Wildlife Cumulative Effects Analysis ("CEA"), the roughly 100-mile-long Mesabi Iron Range "presents itself regionally as a long linear barrier to regional travel from northwestern to southeastern sections of the Arrowhead." Minnesota Department of Natural Resources Wildlife Cumulative Effects Analysis at 4. Wildlife attempting to cross from large blocks of suitable habitat northwest of the Mesabi Iron Range to large blocks of suitable habitat south and east of the Mesabi Iron Range must cross the Range itself. The CEA identified only thirteen "Wildlife Travel Corridors" ("Corridors") through the 100-mile-long Mesabi Iron Range. 33

Corridors ## 3 and 4 are directly affected by the Project. Corridor #3 is described in the CEA as follows:

> Under current conditions, Wildlife Corridor #3 serves to connect a large core habitat block to the northwest and southeast. Current and past mine features are concentrated to the northeast and southwest of this gateway. *This corridor*

33

> *is of high value* as the only travel route for several miles in either direction along the mineral formation, even though there are portions of current mine features existing within Wildlife Corridor #3. *Under future conditions, there is direct loss of this entire travel corridor* and isolation of the travel route from movement either north or south. *This is a significant loss* due to the high density of core habitat blocks within several miles of this corridor.

Id. at 10 (emphasis added). The complete loss of Corridor #3 would, for a period of at least several decades, force wildlife attempting to disperse to the northwest or southeast through the Mesabi Iron Range, to run higher risks crossing at more vulnerable locations or to travel first northeast or southwest where they might find Corridor #2 or Corridor #4. It is further possible that lynx and other wildlife would be wholly unable or deterred from dispersing through these areas at all.

Corridor #4 and the large core habitat blocks to the north and south would be diminished in function and value. The Project would install the tailings basin to the south of Corridor #4, replacing roughly 1,400 acres of currently vegetated land, most of which is within a large core habitat block. The loss of vegetated open land in the core habitat block south of Corridor #4 narrows the remaining southern core habitat linkage. The noise, traffic, lighting, and other disturbances that accompany operations at the tailings basin also have the effect of diminishing the value of the adjacent core habitat area not directly occupied by the new tailings basin. These effects of the Project result in an overall reduction in the function of Corridor #4 as a wildlife corridor, thereby increasing the isolation of core habitats north and south of the Mesabi Iron Range from each other. As the CEA puts it:

> Wildlife Corridor #4 serves to connect a large core habitat block to the north with a slightly smaller block to the southeast. Existing mine features and associated lake dissect the corridor, but close proximity of core habitat should provide high value. This corridor can be considered high value. The 4-lane highway likely conflicts with regional north/south travel. Under future scenarios, the value of habitat to the south declines due to direct loss. In the whole context, the core habitat value to the north can be expected to be devalued due to the loss of core habitat to the south and the potential for increased highway use and conflicts.

Id. at 11.

The complete loss or diminishment of wildlife travel corridors including Corridors #3 and #4 as a result of the Project, and other Corridors resulting from the cumulative effects of other planned and anticipated development, impairs and diminishes surrounding suitable habitat beyond the Project boundaries. The impairment and diminishment is effected by restricting the dispersal of lynx during periods of stress and thereby increasing mortality rates, as well as by restricting the dispersal of individuals and their genetics back and forth between population sources and habitats at the southern end of lynx habitat in Minnesota, Wisconsin, and the Upper Peninsula of Michigan.

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Due to the higher rates of mortality and the consequent reduction in persistence of individual lynx in different parts of currently occupied lynx range, the Project's direct and cumulative effects are likely to adversely affect lynx, triggering the withdrawal and modification or formal consultation requirements between the COE and USFWS. In the event of withdrawal and modification, modifications should include at a minimum those identified as desirable in the 2006-'07 Lynx Tracking Survey-Interim Report and the CEA.

32,33

2. The EIS draws incorrect conclusions regarding effects to lynx.

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The EIS is insufficient and incorrect in its summary conclusions regarding lynx as the absence of lynx tracks in the area of the 2006-2007 field surveys is not a basis for determining that the Project is not likely to adversely affect lynx. If the COE were to issue a "not likely to adversely affect" determination for the Project's impact on lynx, that determination presumably would be based on a conclusion that lynx are not present in the Project area, or are not using the Project area as a movement corridor. That conclusion presumably would be based in turn on field track surveys performed almost entirely during periods of snow cover in one winter – the 2006-2007 winter season, since the extremely limited survey work performed sometime during the 2005-2006 winter was apparently insufficient in duration or extent of area covered to establish a lack of lynx using the Project area.

The absence of lynx tracks during one winter does not mean the Project area isn't used by lynx as hunting and/or dispersal habitat. On the contrary, between 2000 and 2006 there were roughly a dozen recorded sightings of lynx at locations essentially surrounding the Project area boundary, most at a distance of six to eight miles, with two being much closer and two farther away.[8] In addition, there is conclusive proof of the presence of at least two lynx six to eight miles to the east of the Project area in 2005. Genetic tests on two scats obtained at separate times early and late in 2005, confirms that two different lynx – one male and the other female (see 2006 Canada Lynx Assessment-Interim Report, Figure 6) – used habitat roughly six miles from the Project area. MCEA believes these scats may have been located along the same routes and at the same locations where the 2006-2007 lynx tracking surveyors were conducted (depicted in light blue on Exhibit A). Movement distances for female resident lynx are typically three to six miles per day (see Lynx Conservation Assessment and Strategy at 7-4) and may be significantly greater for males or dispersing individuals. Thus, both of the confirmed lynx and most of the dozen reported lynx sightings fall within a day's travel of the Project area. It is not disputed that lynx were nearby at least in 2005 and probably in other years since 2000, as well. On the basis of the confirmed and unconfirmed lynx sightings alone,

[8] These sightings are represented as blue and green dots pictured on an undated map prepared by Minnesota Steel Industries or its contractors of the seven-township 2006-'07 winter lynx tracking survey area, submitted with this comment letter as Exhibit A.

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clearly it is quite possible, if not likely, that lynx used the Project area itself for hunting or dispersal habitat in the same period. 34

The possibility becomes more concrete upon considering the likely presence of snowshoe hare in the Project area[9] and suitable habitat within the study area and connected to the Project area. Given the surrounding pattern of recorded lynx sightings, it seems not just possible but very likely lynx have been using habitat in the Project area, or have dispersed through it (as Corridor #3) from north of the Range to south, or vice versa. Lynx will move within a territory, or will disperse from a territory to entirely new areas, in order to find sufficient concentrations of their primary prey species, the snowshoe hare. Lynx are capable of depleting the prey base in an area. If that happens, and a lynx's territory does not contain sufficiently large and diverse areas supporting a high enough hare population, the lynx may vacate that territory, dispersing in search of higher hare densities, only to return a season or a year or more later, once hare populations have rebounded. Accordingly, lynx may be found in a given area consistently for a few years, then apparently be absent for an extended period, only to use the area again one or several years later. Lynx experts in Minnesota are very familiar with this pattern of movement.

In sum, due to the behaviors of lynx and the genetic evidence confirming lynx presence nearby, the dozen reported lynx sightings all around the Project area, and the fact the Project area is a prime wildlife corridor and contains lynx habitat, the 2006-2007 winter surveys, which found no lynx tracks, cannot be a reasonable basis for concluding that lynx do not use the Project area as habitat and for dispersal. The 2006-2007 winter surveys used in the EIS to downplay or ignore the lynx cannot serve as a basis for concluding the Project is not likely to adversely affect lynx in Minnesota. The Project as proposed will cause the long-term destruction of thousands of acres of lynx habitat, and one of the best of the very few remaining wildlife movement corridors through Mesabi Iron Range. The Project will have significant negative effects on the survival and dispersal of individual lynx, as well as the overall connectivity of the lynx population and lynx habitat northwest and southeast of the Range, and thus is likely to adversely affect lynx in Minnesota. The EIS must include this discussion and analysis, and the COE must withdraw and modify the Project or consult formally with the USFWS. 32

VI. CONNECTED ACTIONS

The draft EIS approach to connected actions is wholly inadequate. Federal and state laws require that the environmental impacts of connected actions be evaluated in a single EIS. 40 C.F.R. § 1508.25(a)(1); Thomas v. Peterson, 753 F.2d 754, 757 (9th Cir. 1985); Minn. Rule 4410.200, subp. 4 ("connected actions . . . must be considered in total. . . ."). 35

[9] The 2006-'07 Lynx Survey – Interim Report mentions the presence of hare sign but does not discuss their population density in the Project area, though this is a primary determinant of the current desirability of suitable lynx habitat.

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The Minnesota Steel EIS identifies a number of connected actions (mainly related to infrastructure needs) but essentially defers analysis of the environmental impacts based on the assumption that environmental review will be required later from a separate responsible government unit ("RGU") or the EIS could be supplemented. This approach is not acceptable. Sufficient information is available for the Project proponent to develop alternatives and evaluate the environmental impacts of those alternatives for the roadways, railways, water and sewer lines, gas lines, and power lines that will be required for the Project. Each of these connected actions has the potential for significant environmental effects – those effects must be documented in the EIS and alternatives evaluated. There is no basis for determining that the cost of obtaining information about these connected actions is prohibitive or the means of obtaining it "beyond the state of the art." Minn. Rule 4410.2500. 35

In addition, the EIS inexplicably excludes from the list of "connected action" any reference to the power source needed to supply its projected consumption of 450 megawatts ("MW") of electricity annually. Four hundred fifty MW of electricity, if it is generated from a coal-burning energy facility, for example, would contribute significant amounts of pollution to the environment.[10] The Project proponent cannot avoid the analysis of the true environmental impacts of the Project by stating that it intends to purchase power from the grid. EIS, p. 6-49, 50. Regardless of whether a new power plant is built to supply the Project with 450MW of electricity, the generation of 450MW to be consumed by the Project is a necessary and connected action to the Project that will have major environmental consequences. Consideration of alternative energy sources should be a major component of the EIS given the enormous variation in environmental impacts between different sources. See, e.g.,, U.S. Department of Energy, Carbon Dioxide Emissions from the Generation of Electric Power in the United States (http://www.eia.doe.gov/ cneaf/ electricity/page/co2_report/co2report.html#electric). The 36

[10] If Minnesota Steel, for example, were supplied with power from the neighboring Mesaba Project, billed as the "cleanest" of available coal technologies, its emissions profile would increase dramatically. Based on figures contained in Excelsior Energy's air permit application, 450MW of electricity for the Project will add yearly to the environment an additional 957 tons NO_x, 463 tons SO2, 846 tons CO, 164 tons PM10, 66 tons VOC, and 18 lbs Hg. Excelsior Energy, *Application to the MPCA for a NSR Construction Authorization Permit*, June 16, 2006, pp. 67, 83. If the power were supplied by "dirtier" coal-fueled plants, the associated emissions could be considerably higher. *See, e.g.,* Texas SEED Coalition, *Dirty Kilowatts: America's 50 Dirtiest Power Plants Emit up to 20 Times More Pollution than Plants with State of the Art Controls,* May 2005, http://www.seedcoalition.org/pr_dirty_kilowatts.html. Carbon dioxide emissions from 450 MW of coal-based electricity would be very significant. The proposed Big Stone II power plant, which is a 600 MW facility, will emit the same amount of carbon dioxide annually as 700,000 automobiles. Clearly, the environmental effects of power for this facility are substantial and must be evaluated in the EIS.

environmental consequences of generating power for the Project, along with an evaluation of alternative energy sources, must be evaluated in the EIS. 36

VII. MERCURY

The EIS fails to include the Minnesota Mercury Total Maximum Daily Load ("Mercury TMDL") in the list of regulatory programs that will affect Project emissions. EIS, p. 4-76. The Mercury TMDL, which was approved by the U.S. Environmental Protection Agency ("EPA") on March 27, 2007, contains a load allocation for anthropogenic emissions sources such as Minnesota Steel that will require a 93% reduction in emissions from these sources. MPCA, Mercury TMDL, p. 39. The TMDL states flatly: "There is no reserve capacity for nonpoint sources, because actual nonpoint source loads are far in excess of the Load Allocation." Id., p. 40. The EIS does not address how the Project, a new source of up to 81 pounds of mercury emitted each year, will fit within the Mercury TMDL's load allocation. The fish consumption modeling makes clear that the Project increases risk for both recreational and subsistence level fish consumers. EIS, p. 4-117. 37

Moreover, by failing to account for the emissions associated with the connected action of electricity generation, the EIS significantly underestimates the likely true mercury emissions impact of the Project. While it is somewhat disingenuous for the Project proponents to list use of natural gas rather than coal for the pellet furnace as a mitigation strategy for mercury emissions while seeking to avoid accountability for the mercury emitted in generating electricity for its Electric Arc Furnaces, it points up the fact that power from sources other than coal will reduce overall mercury emissions. This should be factored into the alternatives analysis that needs to be developed to evaluate Minnesota Steel's power choices. 38

Finally, other mitigation measures should be explored in the EIS. The impairment Minnesota's mercury TMDL addresses is based on fish consumption, and the evidence in the EIS shows that the Project will contribute to that impairment. Given that Minnesota's Mercury TMDL requires a 93% reduction in emissions, Minnesota Steel must propose mitigating measures that will eliminate the effects of its proposed increase in emissions and demonstrate that the Project can be consistent with the significant reduction the Mercury TMDL demands. 39

VIII. WASTE CHARACTERIZATION

The EIS notes that a "waste characterization study should be completed . . ." p. 4-75. MCEA agrees. Such a study should have been completed and provided for public comment prior to the issuing of the draft EIS. The failure to have characterized waste from the facility renders the EIS inadequate. In particular, characterization of any wastes that will be stockpiled and/or subject to water run-off of any kind is essential. 40

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IX. AIR EMISSIONS

A. NO_x control technology.

The Project proposers state that they intend to test a control technology called LoTOx. MCEA questions why other alternative technologies were not evaluated in the EIS. It appears, for example, that there is no guarantee that the LoTOx technology will function correctly, and therefore modeling was done for uncontrolled NO_x emissions. In other words, rather than considering alternative technologies, the EIS provides information on emissions assuming an untested control works versus emissions without any control. It would be appropriate for Minnesota Steel to propose other alternative control technologies for evaluation in the EIS so that regulators will know the potential environmental consequences of more alternatives when authorizing a particular choice. Are there proven technologies, for example, that should be considered for control of NO_x? 41

B. $PM_{2.5}$.

The EIS's handling of $PM_{2.5}$ is inadequate. First, the risk modeling appears to rely on Minnesota Pollution Control Agency ("MPCA") guidance allowing the Project to substitute PM_{10} for $PM_{2.5}$ in demonstrating compliance with ambient air quality standards. (The brief discussion of $PM_{2.5}$ on page 4-122 cites to the wrong Table; we assume Table 4.7.23 should be referenced.) The basis for this substitution is not explained in any meaningful way that the public can understand. What is the assumption that no more $PM_{2.5}$ particles than PM_{10} particles would be in the emissions based on? Do PM_{10} estimates capture all particulate matter, regardless of size? How does this calculation account for secondary $PM_{2.5}$? Moreover, while the PM_{10} figures are used to show that the projected emissions from the plant are within the ambient air quality standard range, background concentrations are apparently excluded. Adding in the PM_{10} background concentration from Table 4.7.1 (38 ug/m^3), the total becomes 54 ug/m^3, well over the 24-hour ambient air quality standard for $PM_{2.5}$. Thus, the conclusion is misleading. Additionally, the cumulative effect of adding neighboring projects such as the Mesaba Project is not modeled. Given that the emissions are at 74% of the 24-hour standard *without* consideration of the background concentration or any contribution from the neighboring Mesaba facility, there is no basis to conclude that ambient air quality will comply with existing standards. With regard to the ambient air modeling, it is also not clear what sites outside the ambient air boundary were modeled. Are the reported numbers for concentrations at the cemetery, in town, or where? 42 43

Equally important, the EIS completely avoids discussion of the *environmental impacts* of $PM_{2.5}$ emissions. This is illustrative of a deficiency throughout in that the EIS seems to show compliance with a regulation rather than providing and analyzing environmental impacts. According to EPA, 44

> Health studies have shown a significant association between exposure to fine particles and premature death. Other important effects include aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and irregular heart beat. Individuals particularly sensitive to fine particle exposure include older adults, people with heart and lung disease, and children.

44

See, EPA, Fine Particle Designations, FAQ http://www.epa.gov/pmdesignations/faq.htm#0.

These are the environmental effects that the public is entitled to know about and weigh prior to government authorizing the emission of such harmful pollutants to the atmosphere.

C. Fugitive emissions.

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The EIS does not appear to estimate the extent of fugitive emissions from the Project or evaluate the environmental impact of fugitive emissions. (There are some references to best management practices for fugitive emissions, and it appears that fugitive emissions totals may have been included in one of the cumulative impact analyses.) The extent to which the Project has the potential to contribute significant fugitive emissions to the environment should be discussed as well as the possible environmental impacts of fugitive emissions. There is no mention, for example, of the potential for fugitive emissions from the tailings basin, which is surrounded by the town of Nashwauk to the north, O'Brien Lake to the east, and Swan Lake to the south. If no fugitive emissions from the basin are assumed, what mitigations measures are in place to ensure all portions of the basin will remain wet for the entire life of the Project?

X. CONCLUSION

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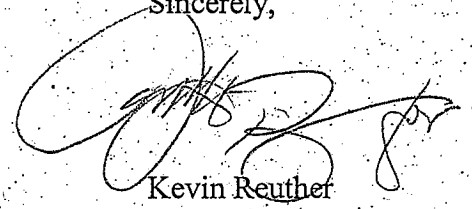
In sum, MCEA has attempted to set out above some of the areas in which the draft EIS is deficient. In general, the EIS appears more focused on demonstrating compliance with various regulatory standards than on inventorying and assessing the environmental impacts of the Project, evaluating alternatives, and exploring mitigation measures, which is the purpose of environmental review. *See* Minn. Stat. § 116D.04, subd. 2a (EIS to analyze significant environmental impacts, discuss alternatives and their impacts, and explore methods for mitigating impacts). These deficiencies must be corrected to justify an adequacy determination for this EIS.

IG-7

We appreciate the opportunity to comment on this draft EIS and we look forward to receiving your responses as well as the final EIS. Please feel free to contact Kevin Reuther if you have any questions.

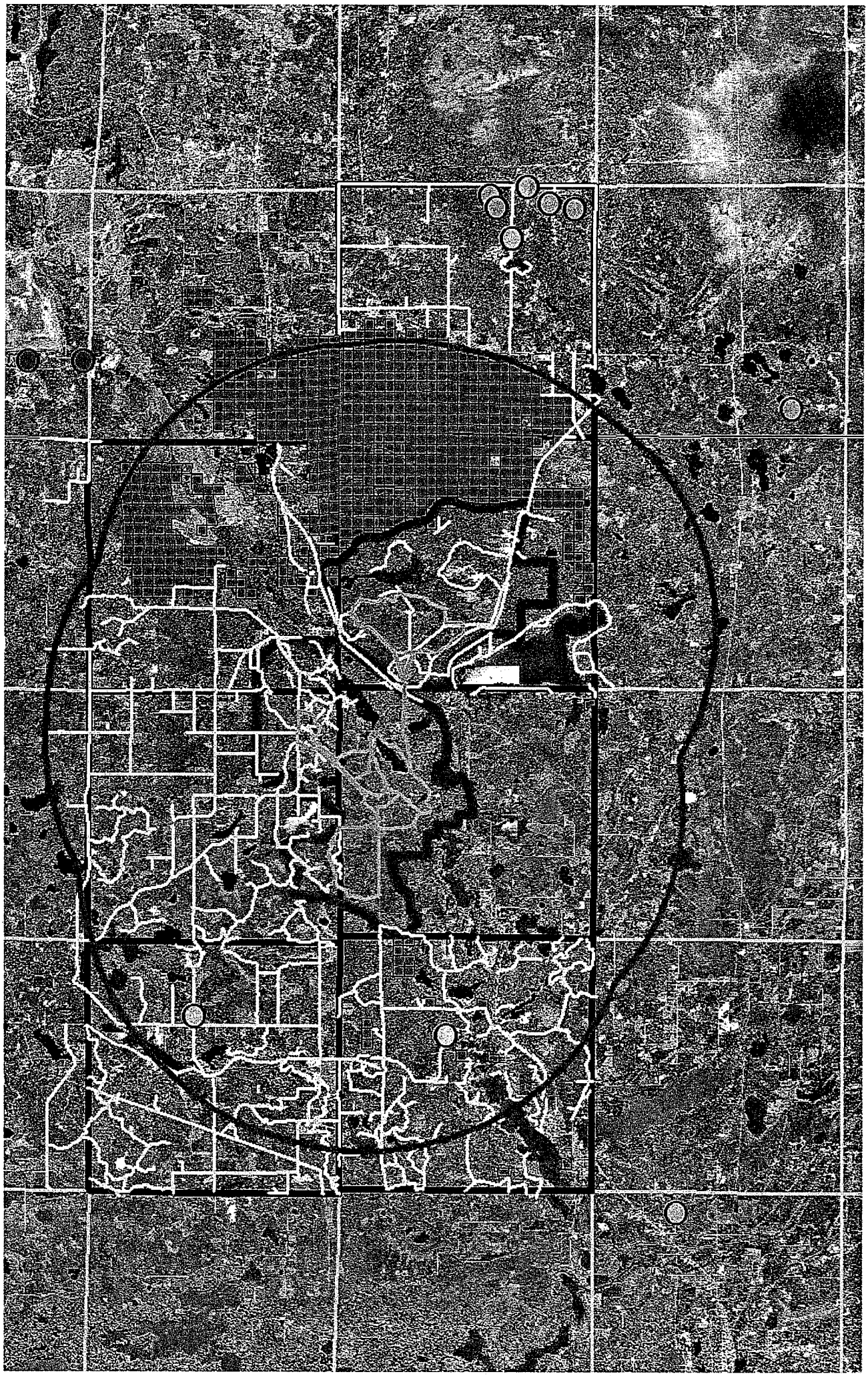
Sincerely,



Kevin Reuther
Staff Attorney

Janette K. Brimmer
Legal Director

Matthew Norton
Forestry Advocate



APEX
AREA PARTNERSHIP for ECONOMIC EXPANSION

Mr. Scott Ek, Principal Planner
Environmental Policy and Review
Division of Ecological Services
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

March 19, 2007

Dear Mr. Ek:

On behalf of the Area Partnership for Economic Expansion (APEX), we are pleased to write this letter in support of the planned Minnesota Steel Project. APEX is a private sector business and economic development corporation. I have enclosed a credentials brochure describing our organization, which represents most of the leading businesses and institutions in Northeastern Minnesota and Northwestern Wisconsin.

Why are we in total support of this project? Foremost, it will dramatically change the profile of how our region utilizes its natural resources for sustained economic growth. The Minnesota Steel Project will enable our economy to become more diverse and it will help move our region towards offering value-added products, thereby maximizing our natural resources base.

We also appreciate that there is $1.65 billion in private investment in this integrated complex, versus using governmental subsidies or loans as part of the capital structure. Having the private sector take this kind of risk enhances the probability for long-term success and ensures that the operation will be efficient and productive.

You know the statistics – 2,000 workers to build the facilities and 700 skilled workers to operate the mine and mill. Once the operation is up and running, the total impact of a $60 million payroll will have an annual multiplier effect in the region of well over $200 million a year, in terms of economic stimulation for the overall economy. Consequently, the tax base will improve dramatically, along with the quality of life.

What about the environmental impact? Based on the plans that we have carefully reviewed, we are confident that the air quality in the region will not be significantly impacted, nor will the quality of the area's water resources suffer.

It would also appear that Minnesota Steel has made smart choices in controlling heavy metal emissions and will be in the forefront of using the latest technologies to reduce or eliminate harmful discharges of pollutants in any form. We are convinced that Minnesota Steel will be a good steward of the environment. Consequently, we believe the environmental impact in the Northland will be minimal, whereas the social and economic impact will be tremendous.

We therefore encourage the Minnesota Department of Natural Resources to find the Environmental Impact Statement to be adequate for moving this project forward. If you have questions or would like additional information, please let me know.

Sincerely,

Rob West
President & CEO

CC: APEX Board of Directors

BLANDIN FOUNDATION

March 28, 2007

Mr. Scott Ek
Minnesota Department of Natural Resources
Division of Ecological Services
Environmental Review Unit
500 Lafayette Rd., Box 25
St. Paul, MN 55110

RE: DRAFT EIS – LETTER IN SUPPORT OF THE MINNESOTA STEEL PROJECT

Dear Scott:

On behalf of the Blandin Foundation Board of Trustees, we are sending this letter in support of the Minnesota Steel Project near Nashwauk, Minnesota.

Supporting the development of economic opportunities to allow people to have adequate resources to live with dignity is an objective of the Foundation's current strategic plan. We believe this project is consistent with that objective. While we, at the Blandin Foundation, do not have the technical expertise to offer specific and technical comments, we are aware that this project would have significant direct and indirect economic benefits for our area. Supporting economic opportunity is very important to our mission of strengthening rural communities. It is an important component of our "healthy community" framework wherein environmental as well as other aspects of community are also very important to the maintenance of a healthy community. Relying on the expertise and due diligence of your offices and the input of others with technical expertise, the Blandin Foundation is supportive of this project assuming that Minnesota Steel Industries will balance their business needs with concern for and attention to the environmental and social impact of their operations on our area over the long term.

Sincerely,

George B Thompson

George Thompson
Board Chair

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GABA
Greenway Communities Working Together

April 2, 2007

Scott Ek, Principal Planner
Environmental Policy & Review
Minnesota Department of Natural Resources
Division of Ecological Services
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

Re: Minnesota Steel
Draft Environmental Impact Statement (Draft EIS)

Dear Mr. Ek:

Letter of Support for Minnesota Steel

Based on our review of the Draft EIS and your presentation we believe the Draft EIS adequately and completely discloses information about the project's significant impacts and adequately and completely describes mitigation as prescribed in the Final Scoping Decision.

GABA has worked side by side with Minnesota Steel and IEDC since 2004 and has been proactively supporting the project on behalf of the citizens of the Greenway Area Communities. GABA's members have been there every step of the way with one of our very own heading the IEDC Minnesota Steel Action Team.

Support for the project is also based on use of proven technology and meeting or exceeding all environmental standards. And as pointed out in the Draft EIS, the positive socioeconomic effects of the project on the local community are very substantial. Minnesota Steel management has also proven to be forthright, focused, and community minded.

The estimated construction expenditures used in the EIS were $1.6 billion which with the indirect and induced effects of $1.0 billion computed in the UMD study equates to $2.6 billion of Total Output. During the two peak years of construction, the project is anticipated to directly employ over 2,000 people plus another 1,500 or more spin-off jobs. While these known impacts will be short-term they are likely to jump-start the depressed local economy.

The estimated annual economic impact of on-going full operations as measured by Total Output of $1.3 billion is huge to the local economy. It is anticipated the project will

directly employ up to 700 people in operations in jobs that are high paying with good benefits, which will result in an additional 1,550 jobs in the area.

With the project using all proven technology, along with meeting or exceeding all state requirements with MACT and BACT, we believe that Minnesota Steel has went above and beyond proving there seriousness of providing a community with a viable project.

Please extend our appreciation to all the individuals within the Minnesota Department of Natural Resources and the U.S. Army Corps of Engineers for leading a very comprehensive review of all the environmental impacts of the Minnesota Steel on our community. We are depending on you, the Minnesota Pollution Control Agency, the Federal Environmental Protection Agency, and the other involved agencies to insure this project meets all environmental regulations. This is our home and a clean Northern Minnesota environment is important to us. At the same time we appreciate your expediting the completion of this process to enable Minnesota Steel to come to fruition. The project's financial close is contingent on permitting and as we discussed - timing is critical.

Again, thank you for your thoroughness and professional approach.

Sincerely,

Patrick Kane
GABA Chair

Troy Anderson
GABA President
www.GABAmn.com

From: "Bud Stone G.R. Area Chamber of Commerce" <bud@grandmn.com>
To: "'scott.ek@dnr.state.mn.us'" <scott.ek@dnr.state.mn.us>
Date: 3/22/2007 4:55 PM
Subject: MN Steel EIS
Attachments: Grand Rapids Area Chamber of Commerce Resolution Supporting Minnesota Steel Industries.doc

Dear Mr. Ek,

I am writing to you in regard to the Environmental Impact Statement for Minnesota Steel. After reviewing the Draft EIS, we believe that it adequately addresses all of the projects significant impacts.

The Minnesota Steel project is extremely important to the Arrowhead Region. As you are aware, it will provide much needed economic development and employment opportunities for area residents.

Please find attached our chambers resolution supporting this initiative.

Best regards,

Bud Stone, President
Grand Rapids Area Chamber of Commerce
1 NW 3rd Street
Grand Rapids, MN 55744
(218) 326-6619 cell (218) 244-0378
Fax: (218) 326-4825
bud@grandmn.com
www.grandmn.com

Grand Rapids Area Chamber of Commerce 2005 Resolution Supporting Minnesota Steel Industries, LLC

The undersigned, being the President and the Chair of the Board of the Directors of the Grand Rapids Area Chamber of Commerce, hereby sign the following resolution drafted and ratified by the Grand Rapids Area Chamber of Commerce's Board of Directors:

WHEREAS, Minnesota Steel Industries, LLC (dba Minnesota Steel) will be located in the Western portion of the Iron Range, just west of the city of Nashwauk;

WHEREAS, the Minnesota Steel project will be more than the re-establishment of an iron mine because it will fully beneficiate the ore and will be taking the traditional production of taconite pellets to the ultimate value added product of steel;

WHEREAS, Minnesota Steel intends to make very low-cost, high quality steel from onsite taconite in the cleanest and most efficient manner possible;

WHEREAS, the $1.5 billion project will bring much needed growth and tremendous opportunity to the region, including approximately 700 full time, high paying jobs and a substantial number of flow-on jobs associated with the facility in support industries both during and after the construction of the facilities.

WHEREAS, the project will bring and expand on the vibrancy and economic life of the many communities and towns on the Iron Range and the surrounding region.

NOW, THEREFORE, BE IT RESOLVED, that the Grand Rapids Area Chamber of Commerce expresses support for the Minnesota Steel project;

Laverne (Bud) Stone, President Date:

Tom Osborn, Board of Directors Chair Date:

STATE OF MINNESOTA, COUNTY OF ITASCA

This instrument was acknowledged before me this 16th day of August 2005 by LaVerne (Bud) Stone as President of the Grand Rapids Area Chamber of Commerce, and Tom Osborn as Chair of the Board of the Grand Rapids Area Chamber of Commerce.

Renee Ann Thompson
My Commission Expires:
Jan. 31, 2008

Hibbing Area Chamber of Commerce
211 East Howard Street
P.O. Box 727
Hibbing, Minnesota 55746
Phone 218-262-3895 • Fax 218-262-3897
e-mail: hibbcofc@hibbing.org

Scott Ek,
Principal Planner
Environmental Policy and Review
Division of Ecological Services
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, Minnesota 55155-4025

March 26, 2007

Dear Mr. Ek,

We are writing to you in regard to the Environmental Impact Statement for Minnesota Steel. Today the Hibbing Area Chamber of Commerce Board of Directors voted to support the enclosed resolution. We are satisfied with the results of the of the Draft EIS and believe that it adequately addresses all of the projects significant impacts.

The Minnesota Steel project is extremely important to the Arrowhead Region. It will provide much needed economic development growth that will reach far into the future of the region and provide employment opportunities for generations of area residents. It will also stimulate population growth and further business development opportunities.

We have attached our resolution for your review.

Sincerely,

Andy Borland
Government Affairs Chair

Jon Minne
Chair of the Board

Lory Fedo
President, CEO

Hibbing Area Chamber of Commerce
211 East Howard Street
P.O. Box 727
Hibbing, Minnesota 55746
Phone 218-262-3895 • Fax 218-262-3897
e-mail: hibbcofc@hibbing.org

HIBBING AREA CHAMBER OF COMMERCE'S RESOLUTION OF SUPPORT FOR THE MINNESOTA STEEL PROJECT

WHEREAS, the Hibbing Area Chamber of Commerce is aware that the Minnesota Steel Project continues to move forward; and

WHEREAS, the Hibbing Area Chamber of Commerce understands that Minnesota Steel is projected to employ steel workers at the mine and mill with an estimated annual payroll of 60 million dollars; and

WHEREAS, Minnesota Steel is anticipated to generate up to 2,100 anticipated spin-off jobs with an annual payment of close to 100 million dollars; and

WHEREAS, it is anticipated that Minnesota Steel will contribute 18 million dollars annually in royalties and taxes to the State of Minnesota, local governments, local school and higher education; and

WHEREAS, it is anticipated that the Minnesota Steel Project will have state of the art technology to limit air pollutants and emissions; and

WHEREAS, the Minnesota Steel Project is not determined to discharge any water that contains contaminants; and

WHEREAS, Minnesota Steel's project will be based on a site previously used for Iron Mining to minimize impact on the surrounding area and further will provide 550 acres of wetlands in Atikin County in its 5 year mitigation plan; and

WHEREAS, it is projected that Minnesota Steel will emit the least amount of mercury per ton of steel produced anywhere in the world; and

WHEREAS, the Hibbing Area Chamber of Commerce recognizes Minnesota Steel's tremendous impact and benefit it will provide to our area.

NOW THEREFORE, IT IS HEREBY RESOLVED by Hibbing Area Chamber of Commerce that it strongly supports the Minnesota Steel Project.

Dated this 26 day of March, 2007.

Lory Fedo,
President-CEO

Jon Minne, Jr.
Chamber Chair

March 14, 2007

IRON RANGE Resources
Your vision. Our backing.™

Scott Ek
Minnesota Department of Natural Resources
Division of Ecological Services
Environmental Review Unit
500 Lafayette Rd., Box 25
St. Paul, MN 55110

RE: DRAFT EIS -- LETTER IN SUPPORT OF THE MINNESOTA STEEL PROJECT

Dear Scott,

I am writing to provide the following comments in support of the Minnesota Steel Project.

Background Information

Iron Range Resources is a State agency whose mission is to stimulate economic development and job creation in northeastern Minnesota. The agency was created in 1941 and serves an area encompassing approximately 13,000 square miles. The iron mining industry fuels northeastern Minnesota's economic engine. Area taconite companies directly provide the region with nearly 4000 high-paying jobs. Spin-off industries affiliated with the taconite producers are responsible for approximately 12,000 additional jobs. Annually, the iron mining industry contributes $1.9 billion in direct benefit to the State's economy and purchases goods and services from roughly 200 communities across Minnesota.

Iron Range Resources vigorously supports a strong and healthy iron mining industry. The agency's objectives in the mining sector include recapitalization of the State's taconite industry, development of value-added iron and steel products from Minnesota's iron ore, and minerals research that encourages current and future mining activities.

Minnesota's Iron Range has been the site of iron ore and taconite mining for well over 100 years. In the 2005 production year, Minnesota taconite producers paid over $86,850,000 in production taxes. This money went to area cities, townships, school districts, counties, property tax relief and Iron Range Resources. Worldwide demand for iron ore continues to increase. In 2005, 1496 million tons of iron ore were produced worldwide, which is up from 910 million tons produced in 1992. The bottom line is that the world needs steel, and Minnesota wants be a state-of-the-art steel producer.

The Minnesota Steel Project is Reactivating a Former Mining Site

Minnesota Steel is resurrecting a mine that has been closed down for more than 20 years. The site of Minnesota Steel's mine is the former Butler site that produced taconite from 1964 until it was closed in 1985. During that time, more than 40,000,000 tons of taconite were mined from that site.

Iron Range Resources
P.O. Box 441
4261 Highway 53 South
Eveleth, MN 55734-0441
(218) 744-7400

www.IronRangeResources.org

Iron Range Resources has provided substantial financial assistance to this project because the Agency believes this project will have significant economic benefits for northeastern Minnesota. Minnesota Steel will provide as many as 2000 construction jobs, 700 full-time jobs, a $1.6 billion dollar investment, and $18 million annually in taxes and royalties. Plus, Minnesota Steel will be mining some of the highest quality taconite ore in Minnesota, which will increase its efficiency, lower its operational costs, decrease its environmental impact and make our State's steel more competitive worldwide.

Minnesota Steel will be utilizing state-of-the-art, commercially proven technology to mine and process the ore, produce the direct reduced iron and manufacture steel slabs. These technologies will permit the ongoing analysis of all the processing steps and quantification of all the discharges leaving the project facility. This, in turn, will allow the permitting authorities and regulators to effectively monitor discharges from the project.

Because it is an integrated steel facility, Minnesota Steel will enjoy significant energy savings estimated to be approximately 30% lower than traditional steelmakers. In addition, Minnesota Steel will not be using coal as its carbon source. It will utilize natural gas, which is cleaner than coal.

Because the mine will be located in the old Butler mine site, an area significantly impacted by prior mining activities, there will not be new types of mining disturbances and impacts to this site. Minnesota Steel's revised water management plan will eliminate all surface water discharges from the project site, which will eliminate the possibility of impacts on the surrounding watershed. Finally, Minnesota Steel is not requesting any variances from existing State Statutes, policies or rules. The company's effort to meet or exceed all environmental requirements has been exemplary.

Conclusion

I thank you for allowing me to submit these comments on the Minnesota Steel Draft Environmental Impact Statement. Iron Range Resources is very supportive of this project. Please feel free to contact me if you have any questions about my comments.

Sincerely,

Sandy Layman
Commissioner