

Page 4.5-18 of the Draft EIS states: "at the expected discharge flow to Holman Lake, the annual phosphorus loading would be less than currently permitted from the Hill-Annex Mine Pit." This is another misleading statement since the DNR's dewatering of the Hill Annex Pit does not flow through Holman Lake and the DNR's NPDES permit will soon expire.

Table 4.5-9. Chemical Additives Used Per Year (p.4.5-21)

The Draft EIS states, "[chemical additive] quantities are preliminary estimates only and are subject to revision when the specific water chemistry program for the facility is developed for submission to appropriate regulatory agencies." Water chemistry programs should be fully described in the Final EIS in order to understand the associated environmental impacts.

4.5.3.3 Domestic Wastewater Treatment – Alternative No.2 (p. 4.5-24, 25)

It appears that the data used to establish average flows to the Coleraine-Bovey-Taconite wastewater plant was taken from a five-month period in 2005. Is this a representative sampling? It is stated the design capacity is 499,000 gpd and during the wettest 30-day period the flow increased to 444,000 gpd. The Final EIS should describe the likelihood of exceeding plant capacity and cause an increase in the frequency, duration and magnitude of bypassing raw sewage to surface waters due to the proposed addition of 30,000 gpd during construction.

4.5.3.4. Surface Water Resource Permits – MPCA NPDES/SDS Permit (p.4.5-27)

The Draft EIS states in this section that recreational use of the CMP may be discontinued. The Final EIS should explain the basis for this statement. The CMP is developing into a significant lake trout and bass fishery and provides recreational opportunities for many people, both from within and outside the local area. Opportunities to fish for lake trout are very limited in this area and significant State funding has been spent to develop this fishery. This section also states that "increased flows through Holman Lake would potentially benefit recreational users of the Gibbs Park swimming beach as any instances of stagnation in the lake would be reduced" The DNR is not aware of any stagnation problems in this lake. It is again stated on this page that water quality standards for certain parameters would be exceeded in the CMP and Holman Lake, and that "Excelsior would have to apply for a waiver to exceed standards for these parameters and be granted the waiver by MPCA during the permitting process in order to operate the generating station" The East Range Site, because of the stricter mercury standard, could be built with an enhanced ZLD facility. It seems apparent that an enhanced ZLD facility could also be constructed at the West Range Site to avoid contamination of the CMP and Holman Lake.

Table 4.5.6. Summary of Impacts (p.4.5-41)

This table states, "Cumulative effects on receiving water (for the West Range Site) would be monitored to ensure parameter concentrations do not exceed water quality standards." This statement is contradicted in numerous other locations in the EIS (e.g., pg 4.5-27).

4.7.7.1 Wetland Regulatory and Policy Considerations (p.4.7-33)

Although the Draft EIS states that the DNR, Lands and Minerals Division has indicated that it may become the designated local government unit administering the Wetland Conservation Act (WCA), WCA is clear that the DNR, Land and Minerals Division is the designated LGU approval authority for wetland replacement plans only when there is a Permit to Mine involved. Because there will be no Permit to Mine issued for the Mesaba Energy Project, Itasca County SWCD would be the WCA LGU for the West Range Site, near Taconite; and the St. Louis County Planning Department should be the WCA LGU for the East Range site, near Hoyt Lakes.

4.8.2.1 Impacts of construction on wildlife and 5.2.6.3 Summary of environmental consequences

These two sections do an inadequate job addressing the issue of forest fragmentation brought about by the construction of the power plant and open corridors through a forested landscape for rail roads, transmission lines, pipelines, and access roads. They need to address the issue of forest bird species that are in decline and how this project will affect them. There's little mention about impacts to birds and other resources caused by the construction and maintenance of the 230 kV powerlines and associated 130-foot, high-voltage transmission towers. Some potential long-term, adverse impacts include: wetland type conversions, invasive plant species introductions, vegetation management needs, access road needs, OHV traffic, bird & bat strikes, and forest fragmentation. The Final EIS should elaborate on these impacts, and how they can be mitigated.

4.8.3.2 HVTL, Pipeline and Transportation Corridors – Aquatic Communities (p.4.8-19)

The Draft EIS states that the construction and operation of the cooling tower blowdown outfall pipeline is expected to have minimal impact on lake trout in CMP. However, there are no data or analysis presented to substantiate this. Recycling blowdown water to the pit will have effects on water quality, which could impact lake trout. Of particular concern is increasing the concentration of phosphorus. The addition of Prairie River water which has approximately 6 times the concentration, and the further concentration through evaporation over time, could make the pit less suitable for lake trout. A more detailed analysis is necessary to fully understand and quantify the impacts.

5.2.4.1 Cumulative Effects on Water Resources – West Range Water Quantity (p.5.2-14)

This section fails to discuss cumulative impacts to Panasa Lakes, Holman Lake, CMP and Trout Lake. Cumulative effects to the water quantity among these water resources should be described and analyzed in the Final EIS.

5.3.2. Additional Mitigation Options – Wetland Resources (p. 5.3-11)

In the first paragraph on this page it states that flows from the Prairie River would go to Lind Mine Pit, then to Canisteo and discharged to Holman Lake and Swan River then back to Prairie River. The Swan River discharges to the Mississippi River, not Prairie River.

5.3.2. Mitigation Alternative 2a – Thermal Impacts (p.5.3-13)

The Swan River provides marginal summer habitat under low flows for many species of fish. Placing an additional stressor on this resource may tip the balance unfavorably. While additional flow at low water periods may be desirable for some species, low flows are a natural occurrence and the additional flow would be an artificial augmentation. Additionally, the "cost" of water that is too warm may not be worth the "benefit" of additional volume.

Appendix D3

The Cumulative Water Resources Effect Assessment presents Table 4 and lists phosphorus concentrations <0.1 mg/l. There are accepted water quality tests that can provide resolution to below 0.01 mg/l. Concentrations of phosphorus on the order of 0.03 mg/l can have negative effects on water quality. A finer level of resolution should be presented in the Final EIS so that a more realistic assessment of effects can be completed.

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January 9, 2008
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Appendix D5

This section states that no known populations of endangered plant species have been identified that would be affected by the project. Aside from endangered plant species, are there other biological resources that could be affected? This section needs additional analysis, interpretation and discussion of data to make that claim.

The issue of bird strikes on smoke stacks and transmission lines and towers is only discussed in this appendix. This topic is important enough to be discussed in the main part of the document. The Draft EIS assumes the impact of bird strikes as minimal stating that there probably will be millions of birds migrating past this site without any substantiation of this number. Use of bird strike data from wind turbines placed on Buffalo Ridge is not an analogous application of the research. Buffalo Ridge is a grassland area in southwestern Minnesota with different topography and habitat than forested land in northeastern Minnesota.

The Draft EIS states that the West Range Site will restrict use of one of the migration corridors through the iron formation, yet dismisses the issue stating that there are no known "mass migrations of large mammals." The Draft EIS does not discuss the fact that large mammals do move and disperse and this project will obstruct that movement.

Appendix H

The document identifies Holman Lake and the Swan River as the only two reasonable receiving waters for the cooling tower blowdown (CTB) on the West Range Site, and "dismisses" the Prairie River as a third option to receive CTB discharge. Reasons given for not including the Prairie River alternative are: added costs, the need for a variance, and locating the discharge site upstream of Prairie Lake. For example, the 7-day Q10 flow of the Swan River is just 800 gpm; whereas, the 7-day Q10 flow of the Prairie River is 9,880 gpm---twelve times greater than the Swan River. The additional flow of the Prairie River can better dilute the CTB discharged to it. Since Mesaba proposes to withdraw water from the Prairie River, some of the impacts from pipeline infrastructure construction could be mitigated. In addition, because additional daily discharges from the IGCC Power Station could have adverse physical effects on receiving streams (e.g., increased bank erosion, higher flood levels, stream channel widening, or streambed down cutting, and other potential cumulative effects downstream), the higher hydraulic capacity of the Prairie River channel should more easily accommodate added flows, compared to the Swan River. The Prairie River, below the Prairie Lake Dam, appears to have better ability to dilute and flush the CTB discharge; therefore, it should also be evaluated as a CTB discharge alternative, amongst others, in the Final EIS.

The Draft EIS states that thermal impacts to Holman Lake and the Swan River could become very significant during low flows, and would most likely introduce the need for a variance for the temperature of the discharge---especially if cooling ponds are unable to mitigate adverse thermal concerns. Because heated discharges could have adverse effects on receiving waters (e.g., increased biota metabolic activity, disruptions to reproduction, metamorphosis, and migration, increased sediment biological oxygen demand, decreased gas solubility, increased pollutant synergism, increased algae and aquatic plant growth), the higher flows of the Prairie River should more easily mitigate these potential impacts and offset the need for a thermal variance.