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76-15
(cont'd)

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.

76-16

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.

76-17

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.

76-18

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.

76-19

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).

76-20

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.

Responses

Comment 76-16

The use of an enhanced ZLD system would eliminate the need for the description of a water chemistry program as no discharges would occur at the West Range Site. Table 4.5-9 that was presented in the Draft EIS has been deleted. Section 4.5.3.2 (Volume 1), *Process Water Discharges and Water Quality Criteria*, has been revised to reflect use of the enhanced ZLD system.

Comment 76-17

The responses to Comments 26-2 and 76-01 address similar concerns about the existing wastewater facilities. The Coleraine-Bovey-Taconite (CBT) Joint Sewer Authority Wastewater Treatment Facility Plan, to be used as a planning document for wastewater treatment over the next 20 years, was prepared for the CBT Joint Wastewater Commission (SEH, 2007). The report presents historical flow and load data (years 2003 through 2006) and indicates that the average flow at the CBT WWTP was 304,000 gallons per day, which is lower than the 334,000 gallons per day estimate that was reported in Section 4.5.3.3 of the Draft EIS (Volume 1). Per MPCA guidelines, the report indicates that (based on a population of 2,152) inflow and infiltration (I/I) rates are 450,000 gallons per day and 140,000 gallons per day above MPCA thresholds, respectively. Thus, both inflow and infiltration are considered excessive according to state guidelines.

As described in the facility plan, the CBT WWTP’s expansion plan was based on projected wastewater flow from anticipated housing developments the WWTP would need to serve. The 20-year design flow is estimated to be 835,000 gallons per minute, which is much greater than the current design flow of 499,000 gallons per minute. Therefore, based on the report findings, the CBT WWTP would likely need to expand regardless of whether the Mesaba Energy Project is built. Thus, it is expected that Excelsior’s proposal to aid in the rehabilitation of the CBT WWTF would provide improved capacity to more than offset the temporary addition of 45,000 gallons per day of wastewater during construction – provided funds for new WWTF equipment and upgrades were used to significantly reduce I/I flow and increase the facility’s capacity to handle future population growth. In this instance, the likelihood of exceeding the facility’s capacity or discharging raw sewage to surface waters would be minimized.

Comment 76-18

The response to Comment 76-04 discusses Excelsior’s position with respect to the restriction of recreational access to the CMP for security purposes. The Draft EIS acknowledged that the CMP is stocked with

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Responses

Comment 76-18 (cont'd)

trout (Section 3.8.2.1 [Volume 1]) and is used for recreational purposes (Sections 3.5.1.2 and 3.13.3.1 [Volume 1]). See also response to Comment 76-08.

Regarding the potential benefit from increased flows through Holman Lake, the statement “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” has been deleted as the use of an enhanced ZLD system would now eliminate any discharges.

Regarding avoidance of potential contamination of CMP and Holman Lake, the use of the enhanced ZLD system negates the majority of water quality concerns at the West Range Site as originally discussed in the Draft EIS. See response to Comment 76-01, which addresses the use of the enhanced ZLD system at the West Range Site and its implications on water quality impact.

Comment 76-19

The Final EIS has been updated to reflect the project proponent’s announced decision, to be reflected in revised permit applications to MPCA, to utilize an enhanced ZLD system at the West Range Site, which would eliminate discharges of process water and cooling tower blowdown into any water bodies. See responses to Comments 6-01 and 76-01, which addresses the use of the enhanced ZLD system at the West Range Site.

Comment 76-20

As stated in the first paragraph in Section 3.7.2 (Volume 1) of the Draft EIS: “The Minnesota Wetland Conservation Act (WCA) regulates state waters and wetlands (Minnesota Rules Chapter 8420), while the Itasca County Soil and Water Conservation District (West Range), and St. Louis County (East Range) administer the WCA locally.”

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76-21

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.

76-22

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.

76-23

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.

76-24

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.

76-25

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.

76-26

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.

Responses

Comment 76-21

See responses to Comments 14-02, 57-10, 57-11 and 59-02, which address the same concerns. Sections 4.8 and 5.2.6 (Volume 1) have been updated with additional information about forest fragmentation, impacts on bird species, the introduction of invasive species, and the mitigation of impacts.

Comment 76-22

With the project proponent's announced decision to implement an enhanced ZLD system at the West Range Site (see response to Comment 6-01), discharges to surface waters as discussed in the Draft EIS would not occur. Therefore, lake trout would not be adversely impacted by the discharge of blowdown water to the CMP.

Comment 76-23

Section 5.2.4.1 (Volume 1) and Appendix D3 (Volume 2) have been updated to reflect use of the enhanced ZLD system. See responses to Comments 76-11 and 76-12, which address the same concern.

Comment 76-24

The use of the enhanced ZLD system at the West Range Site eliminates discharges to Holman Lake and, consequently, the need for the requested clarification. See responses to Comments 6-01, 76-10, and 76-12.

Comment 76-25

The use of an enhanced ZLD system would preclude concerns of thermal discharge impacts to the Swan River. See response to Comment 76-01, which addresses the use of the enhanced ZLD system at the West Range Site. New text has been added to subsection *Water Levels and Water Balance During Operations*, under Section 4.5.3.1 (Volume 1) that describes potential impacts to Swan River.

Comment 76-26

Section 5.2.4.1 and Appendix D3 (Volume 2) have been updated to reflect the use of an enhanced ZLD system at the West Range Site, which precludes most of the water quality impacts as originally discussed in the Draft EIS. Regarding impacts to phosphorous levels in the CMP, see new text in Section 4.5.3.2 (Volume 1) for the re-analysis of phosphorous levels in the CMP, which addresses this concern and presents phosphorous estimates at a finer scale.