Cumulative Effects to Tribally Important Resources

The NorthMet Project Proposed Action and Land Exchange Proposed Action are both located entirely within the boundaries of the **1854 Ceded Territory**

- We have observed that current, historic, and 'reasonably foreseeable' mining activities have profoundly and, in many cases **permanently, degraded** vast areas of forests, wetlands, air and water resources, wildlife habitat, cultural sites and other critical treaty-protected resources within the 1854 Ceded Territory. Lands within the 1854 Ceded Territory that have experienced urban and/or industrial development are **permanently 'lost' as a source of treaty resources.**
- Tribal cooperating agencies consider a 216,300 acre area bounded by the St Louis River, Lake Superior, Lake Vermilion and the Beaver Bay to Vermilion Trail to be a **Tribal Historic District**, and the pertinent area for consideration of cumulative effects to cultural resources. Included within the proposed historic district are the headwaters of the St. Louis River, the site of ongoing mineral exploration.
- The tribal cooperating agencies believe the relevant spatial scale for water quality and hydrologic cumulative effects analysis is **the entire St. Louis River watershed**.
- Tribal staff have noted that elevated specific conductance is a water chemistry 'signature' for mining discharges. The tribes' analyses demonstrate that existing mining discharges result in **elevated concentrations of pollutants that persist far downstream in the St. Louis River**, which is consistent with the findings of the USEPA in their assessment report on the effects of mountaintop removal and valley fill mining.
- In Colby Lake, which is the City of Hoyt Lakes drinking water source, the increase in **arsenic** from the PolyMet project would be 38.5%, according to their model predictions.
- The Embarrass River, Wyman Creek, Whiteface Reservoir, Stony Creek, West Two River, numerous lakes, and the entire St. Louis River all have **mercury-based fish consumption advisories**, but do not consider subsistence fishing. Increased sulfate concentrations increase bioaccumulation of mercury. Additionally, mercury loadings to surface waters from the project is expected to increase from removing peat and storing peat in the overburden storage layout area without a cover or liner.
- The **wild rice sulfate WQS is exceeded** at almost every point where data is available in the Embarrass River watershed and the drinking water standard is exceeded at half of the monitoring locations. In the Partridge River watershed, the wild rice sulfate WQS is

exceeded at fourteen of seventeen locations. The NorthMet Project Proposed Action will contribute additional sulfate to the groundwater from tailings basin water that is not captured and treated, water that seeps through fractures in the mine pit walls once the pit has filled with water, and stockpile infiltration and run-off.

- All of the PolyMet predictions regarding discharge from the mine pits and waste rock piles, including the more reactive waste rock piles and the ore surge pile as well as the unlined permanent Category 1 waste rock pile, are made without considering the **effects of fractures** on discharge to groundwater and surface water.
- **Groundwater contamination** from the previous mining activities is still an issue near the LTV tailings basin and mine pits more than twenty years after operations have ceased.
- There are 1,387,630 acres of **wetlands** in the St. Louis River watershed, with 1732 individual wetlands impacted by ditching, totaling 198,989 acres. Approximately 50% of the subwatersheds have had some degree of **impact from ditching**, while some have experienced ditching in nearly 100% of their wetlands.
- Tens of thousands of acres of **high quality wetlands** within the St. Louis River watershed have been entirely and **permanently lost** to historic and current mining operations, many of them prior to regulatory requirements for mitigation. Most **mitigation** (since it has been required) has taken place **outside the St. Louis River watershed** and has not replaced the wetland types and functions that have been lost.
- The documented condition and quality of the aquatic and vegetation resources within this headwaters region of the St. Louis River watershed meet the resource-based threshold of an **Aquatic Resource of National Importance**
- The word "**moose**" does not appear at all in the SDEIS cumulative effects analysis, despite consistent concerns raised by tribal cooperating agency staff to co-lead agency staff during the environmental review process. As of August 19, 2013, moose are now proposed to be listed as a MNDR species of concern.
- The tribal cooperating agencies believe that **wind-blown dust particles** containing sulfate compounds that are emitted from mining and beneficiation activities could contaminate wetlands, lakes, and streams near the project site and could cause harm to the Species of Special Concern that have been found in this area and to the animals that depend on these plants for food.
- The tribal cooperating agencies believe it is indefensible to conclude that, amidst a "mining district" with multiple active mine facilities operating in close proximity, that there is no cumulative effect of 24 hour/day, seven days/week of **heavy industrial and blasting noise** on sensitive wildlife and on traditional cultural practices.