Wetlands

Wetlands are lands saturated with water, either permanently or seasonally, and with distinct ecosystems and can be found in and around the proposed NorthMet Mining Project area. Most wetlands in this area are regulated and protected under either Section 404 of the federal Clean Water Act, which is administered by the U.S. Army Corps of Engineers, and/or the State of Minnesota's Wetlands Conservation Act.

How would the NorthMet Mining Project affect wetlands?

There are about 1,585 acres of wetlands in the project area, of which about 913 acres would be directly affected and permanently lost by activities related to the proposed NorthMet Mining Project. Activities that would directly affect wetlands include filling, excavation, and construction and operation of the project. This is similar to the amount of direct wetland effects identified in the DEIS.

Wetlands not permanently lost, but that would have a modified or reduced function or value, would be considered indirectly affected. Indirect effects on wetlands from the proposed NorthMet Mining Project would include: fragmentation of wetlands due to construction; changes in wetland hydrology due to fluctuations in watershed area or groundwater levels; or changes in water quality due to dust, ore spills during transport, or seepage from stockpiles, mine pits, or other mine features.

How were the effects determined?

Assessment of wetland effects relied on USACE and DNR prescribed methods. Wetland types and acreages were identified during wetland mapping and characterization. Direct effects were determined by overlaying the project's construction and operations on the mapped wetlands to determine the wetland areas that would be permanently lost. Potential indirect effects were estimated using a distance from the mine pit (i.e., zone-based) analog method, a variety of modeling techniques, and GIS analysis.

What would be done to avoid or minimize these effects?

PolyMet proposes to avoid and minimize wetland effects by optimizing the placement of mining features such as the mine pits, waste rock and overburden stockpiles, haul roads, water management systems, and supporting infrastructure. Additionally, the processing plant and the transportation and utility corridor would be located on land previously used for industrial purposes. This reuse would avoid the need to disturb additional lands (including wetlands) and would further reduce environmental effects.

PolyMet would be required to replace directly and indirectly affected wetlands. Replacement wetlands would be created and located near, but outside, the project area. The total acreage of replaced wetlands would depend on the compensation ratios determined during the state and federal permitting process, but would range from a minimum of about 913 acres up to 1,825 acres. Wetlands not directly

impacted by the proposed project would be monitored for potential indirect effects. If any indirect effects were identified, additional compensatory mitigation would be required by the permitting agencies.

After the mine closes, PolyMet would be required to reclaim the NorthMet Mining Project area and some wetland areas would be recreated at reclaimed parts of the site. Financial assurance would be in place to ensure that money would be available for reclamation at that time.

For more information about how wetlands in the area would be affected by the NorthMet Mining Project and Land Exchange, see the Executive Summary, Sections 4.2.3 and 4.3.3 (Affected Environment, Wetlands), Sections 5.2.3 and 5.3.3 (Environmental Consequences, Wetlands), and Chapter 6 (Cumulative Effects) of the SDEIS. Also, refer to additional Fact Sheets about the NorthMet Mining Project and Land Exchange SDEIS:

1. **What is the Environmental Review Process?**
2. **Effective Commenting**
3. **A Guide to the SDEIS Document**
4. **What's Changed Since the DEIS?**
5. **Project & Land Exchange Overview**
6. **Land Exchange**
7. **Reclamation and Financial Assurance**
8. **Water Quality**
9. **Wetlands**
10. **Air Quality**
11. **Wild Rice**
12. **Mercury**
13. **Threatened & Endangered Species**
14. **Cumulative Effects**
15. **Cultural Resources**
16. **Water Quantity**