Air Quality

Minnesota air quality is regulated by federal and state rules and standards, including the National Ambient Air Quality Standards (NAAQS) and Minnesota Ambient Air Quality Standards (MAAQS). These rules and standards protect the state's air quality. The U.S. Environmental Protection Agency has delegated authority to issue air emissions permits, such as those required for the NorthMet Mining Project, to the Minnesota Pollution Control Agency (MPCA).

How would the NorthMet Mining Project affect air quality?

During construction and operations, the proposed NorthMet Mining Project would emit air pollutants such as sulfur dioxide (SO_2), nitrogen oxides (NO_x), greenhouse gases, particulate matter, and fugitive dust at the mine and the processing plant, and during transit between the two areas. Activities causing such emissions would include material handling, excavation, blasting, ore and rock crushing and transportation, drilling, vehicle travel on unpaved roads, combustion, ore/concentrate processing and other activities. The emissions will be limited as not to impair visibility, which can affect the scenic beauty of national parks, wilderness areas, or other areas of national or cultural importance. Effects from project-related emissions are estimated to be within acceptable air quality standards and criteria.

How were the effects determined?

The potential effects of the NorthMet Mining Project were evaluated using standard air emission estimates and air quality modeling assessments out as far as 300 kilometers (186 miles) in any direction from the project area. Modeled air quality impacts were estimated using standard, accepted computer software programs such as AERMOD and CALPUFF to simulate the spread of air pollutants from the project area. The modeled results were compared to NAAQS, MAAQS, and other federal and state air quality criteria.

How has the project been designed to avoid or minimize these effects?

PolyMet has proposed state-of-the-art controls to limit emissions, including use of high efficiency particulate air filters during rock crushing and ore processing. Energy-efficient processes and equipment are proposed to be used to reduce greenhouse gas emissions. Where possible, use of electric power is proposed instead of diesel engines. PolyMet is considering an anti-idle program to reduce on-site vehicle exhaust. Water is proposed to be used to suppress fugitive dust on haul roads and during rock crushing and blasting. Air quality would be monitored for mineral fibers before and after operations begin.

For more information about how air quality would be affected by the NorthMet Mining Project and Land Exchange, see the Executive Summary, Sections 4.2.7 and 4.3.7 (Affected Environment, Air Quality), Sections 5.2.7 and 5.3.7 (Environmental Consequences, Air Quality), 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**