

WHY ARE PEOPLE IN ELY TALKING ABOUT MINING?

Toxic Form of Mining Proposed for Northeastern Minnesota

Extensive Exploration for Metals in Sulfide-Bearing Ore

- Exploration for metals (copper, nickel, platinum, and palladium) is taking place in large areas within the Superior National Forest.
- Most drilling and exploration is taking place on public land, either on federal national forest lands or on state or county lands. Some exploration is also taking place on private lands.
- The mining is at a very large scale and could convert important areas of the Superior National Forest landscape into a vast industrial mining district.

Proposed Mining Sites Are Located in Two Critically Important Watersheds

- **What is a watershed?** The area or region that contributes water to a particular watercourse or body of water is called a watershed. All of the water in a watershed drains into rivers, streams, or lakes that join into a larger flowage of water. Proposed sulfide-ore mining sites in northeastern Minnesota are located in two large, critically important watersheds.
- **Rainy River Watershed** The Laurentian Divide forms the southern boundary of the Rainy River Watershed. This divide is located just north of Hibbing and Virginia, Minnesota. The Rainy River Watershed extends from near Lake Superior north and west to Lake of the Woods; it includes most of the Boundary Waters Canoe Area Wilderness and Voyageurs National Park and penetrates deep into Canada where it joins with rivers and lakes from other watersheds that drain into Hudson's Bay. The South Kawishiwi River and Birch Lake, which are adjacent to the proposed Twin Metals Mine, are located in this watershed.
- **Lake Superior Watershed** The Laurentian Divide forms the northern boundary of the Lake Superior Watershed. The portion of the Lake Superior Watershed that lies in Minnesota extends from the Canadian border and inland along the lake to a point well south of Duluth, and then runs west to about Hibbing. Waters in the Lake Superior Watershed flow into Lake Superior, the largest freshwater lake in the world, and the other Great Lakes. The Partridge and Embarrass Rivers, which would receive pollution from the proposed PolyMet Mine, are located in this watershed.



What is Toxic About Mining Metals in Sulfide-Bearing Ore?

- Sulfide-ore mines in the U.S. and around the world pollute nearby groundwater, lakes, and rivers.
- The sulfides in ore and waste rock from sulfide-ore mines turn to sulfuric acid when exposed to air and water. This “acid mine drainage” finds its way into surface waters and groundwater, where it destroys microorganisms and disrupts the food chain and the ecosystem.
- Exposure of the ore and waste rock causes “leaching” of heavy metals, such as copper and arsenic, into the surrounding environment, especially water. These leached heavy metals can be highly toxic to plants, wildlife, and humans.
- Iron mines, including taconite mines, are very different from sulfide-ore mines; exposing iron and taconite to air and water results in rust, while exposing sulfide ores results in sulfuric acid and leaching of toxic metals.

Mining Companies are Not From Minnesota or the United States

- The major mining companies exploring in northeastern Minnesota have significant foreign investment and ownership; none of the mining companies are local entities. By linking its fate to large multinational companies, Ely will undermine its ability to determine and govern its own future.
- Major investors and owners in the PolyMet Mine project and the Twin Metals Mine project have poor labor and environmental records.
- Mining companies use shell companies and bankruptcy to avoid paying for environmental damage after they have made their profits.

Harmful Impacts on the Community Already

- The State of Minnesota controls millions of acres of subsurface mineral rights, some of which are being leased to mining companies. Some of these subsurface mineral rights are under residential lots (both permanent and vacation homes) and businesses. This leasing threatens disruption of business and dramatic loss of property values for those property owners where the state has leased subsurface rights for mining exploration. The leasing creates uncertainty for most northeastern Minnesota property owners because few hold the subsurface mineral rights.
- Noise from exploratory drilling near cabins, homes, resorts, and camps is disturbing residents and visitors to the area. Drilling noise impacts solitude and recreation.
- Exploratory drilling is requiring extraction of large amounts of water from streams, lakes, and aquifers.
- Realtors are reporting a loss of interest in area properties after prospective buyers learn about sulfide mining exploration.

PolyMet Open-Pit Sulfide Mine—A Lousy Deal for Our Communities

- The PolyMet open-pit sulfide mine is the first sulfide mine proposed in Minnesota. Pollution from this project would impact the Lake Superior watershed.
- In 2010, PolyMet's Draft Environmental Impact Statement (DEIS) received a failing grade from the U.S. EPA. A revised Supplemental DEIS will soon be available for public comment.

Based on PolyMet's recent technical documents,

- PolyMet's open-pit sulfide mine would impact as much as 8,000 acres of high quality wetlands. These wetlands help provide clean water and protect fishing in the St. Louis River and Lake Superior. This would be the largest permitted destruction of wetlands in Minnesota history.
- The ore is very lean, so more than 99% of the rock that is dug out of PolyMet's open pit mine will end up as waste.
- PolyMet's sulfide mine would create a permanent waste rock heap of 168,000,000 tons and dump 228,000,000 tons of tailings on top of a tailings basin that is already leaking and violating water quality standards.
- Pollutants from PolyMet's waste rock heaps, mine pits and tailings dump are likely to seep, leak, and propagate through fractures in rock. These pollutants include arsenic, lead, manganese, and mercury, which harm human health, as well as sulfates and metals that are toxic to wild rice or other aquatic species.
- Pollutants at the PolyMet mine site and tailings dump would exceed water quality standards for hundreds if not thousands of years.
- PolyMet, which has never operated a mine, is suggesting that it will treat some of its mining pollution essentially forever – using untested technology.
- Benefits to the community? PolyMet claims it would hire 90 local residents at the mine. The mine would operate for 20 years.