



## ***Protect our Land and Water from PolyMet's Sulfide Mine!***

**In Minnesota's Arrowhead Region, between Lake Superior and the Boundary Waters,** a multinational corporation—PolyMet—is seeking a permit to open a copper-nickel sulfide mine, a toxic type of mining never before done in our state. When rock containing sulfide ores is brought to the surface and crushed, the sulfides are exposed to air and water. Sulfur combines with oxygen and hydrogen to form sulfuric acid ( $H_2SO_4$ ). Acid and toxic heavy metals can pollute rivers and groundwater for hundreds of years – long after the profits are spent and the products buried in landfills.



Many other permit requests are poised to move forward, and a decision on PolyMet will open a floodgate for more sulfide mining in a large area across northeastern Minnesota, including Superior National Forest and surrounding the BWCAW. Our neighbor, Wisconsin, has banned this type of mining until it can be proven safe.

Below are some of the issues brought forth during the current Supplemental Draft Environmental Impact Statement (SDEIS) analysis.

**Land Exchange** - The PolyMet project proposes a land exchange of 6,700 acres of federal land within the Superior National Forest. In fact, the USFS is under no obligation to do an exchange. According to current federal law, it is illegal to strip mine land purchased under the Weeks Act for watershed protection. A land exchange circumvents this law and is being prepared as part of the SDEIS in order to destroy the protected National Forest lands. There have been several attempts to pass legislation that would bypass the Federal administrative (NEPA) process for National Forest land exchanges. The PolyMet proposal calls for Forest Service land to be exchanged for private lands the mining company has acquired.

**Water Quality at Risk—Perpetual Pollution** - The monitoring, maintenance, and treatment of contaminated water will continue indefinitely after mining ceases. According to the PolyMet DEIS, water from its mining operations will need to be treated for *at least* 200 years and from its plant site for *at least* 500 years after closure. The actual time that treatment would be needed is unknown. The St. Louis River watershed is already contaminated with sulfates, which play a role in converting mercury into a form that accumulates in fish tissue. PolyMet has proposed storing its tailings on top of already leaching taconite tailings in the former LTV tailings basin. Not all of this polluted water will be captured and treated. Each year millions of gallons of polluted seepage from both the tailings basin and the mine site will enter the groundwater.

**Cumulative Impacts** - The total expanse of mineral leasing and exploration, potential mining and processing, needs to be considered under environmental review. The DNR continues to sell exploratory leases to companies exploring the Duluth Complex of mineralization. Twin Metals, whose 32,000 acre deposit underlies Birch Lake and runs adjacent to the Boundary Waters Canoe Area Wilderness, expects its pre-feasibility study to be completed around mid-2014.

**Financial Assurance** - Sulfide mining places huge burdens on taxpayers. Where will the funding come from to pay for post-closure treatment, monitoring and maintenance? Minnesota tax payers may have to pay billions of dollars to clean up after PolyMet has gone. Providing a fund to pay for cleanup of mine contamination also assumes that cleanup is possible.

**Wild Rice and Sulfates** - In addition to an acute potential for Acid Mine Drainage (AMD) and the discharge of heavy metals to the St. Louis River watershed, the PolyMet mine would discharge sulfates at a level that could decimate wild rice stands downstream. Ongoing state studies indicate that when sulfates convert to sulfides in sediment, they impact the growth of wild rice. While PolyMet claims it can meet the sulfate standard, it would mean treating the water for centuries and it is unproven whether the standard can be met. The mine water would need to be treated into perpetuity. Wild rice is very important to Minnesota's Native American tribes and the St. Louis River watershed flows through tribal lands.

**Harmful To Wildlife** - The region of the proposed mine is home to endangered lynx, as well as moose which are dramatically declining in the state. The SDEIS acknowledges that the mine would adversely impact over 4000 acres of wildlife habitat, and would further impair wildlife movement through areas constricted by iron mining. The SDEIS, however, only mentions that the mine "will affect moose individuals" and fails to provide the required cumulative impacts analysis of the potential impacts to the moose and lynx populations resulting from all past, present and future mine proposals in the region.

**Asbestos-Like Minerals** - Hardrock mining carries the potential for asbestos-like minerals to be released in water effluent or air emissions. This issue is not adequately addressed in the PolyMet environmental review process although asbestos-like minerals and their human health effects are emerging concerns in northeastern Minnesota.

**Destruction of Wetlands** - The SDEIS predicts that 912 acres of wetlands will be destroyed by filling or excavation and up to 7,413 acres may be "indirectly" impacted, mostly by converting wetlands to dry land. "Mitigation" for the direct impacts will occur primarily outside of the St. Louis River/Lake Superior watershed, in an area to the south that is unlikely to support comparable ecosystems and cannot replace the lost functions to the St. Louis River system. The mine site consists of more than 3,000 acres of land, forty percent of which are covered by ecosystems that the Minnesota Biological Survey considers imperiled or vulnerable. The entire mine site has been rated by the Minnesota Biological Survey as "high biological diversity".

**Conclusion** - PolyMet's Supplemental Draft EIS does not indicate that metallic sulfide mining can be done in the water rich environment of Northern Minnesota without polluting our waterways for centuries to come. The environmental review process has not adequately addressed cumulative impacts to water, land, wildlife or air and the degradation of these natural resources for future generations. The proposed mine poses unacceptable risks to our waters and communities. The Federal land exchange of protected Superior National Forests to facilitate PolyMet's destructive and polluting open pit sulfide mine is not in the public interest and must be denied.

**Comments will be accepted until 4:30 PM CT on Thursday, March 13 2014.**

Comment submissions should include a full name and legal mailing address

**Public comments on the SDEIS can be submitted to [NorthMetSDEIS.dnr@state.mn.us](mailto:NorthMetSDEIS.dnr@state.mn.us)**

Or by mail to:

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