



# Metallic Sulfide Mining # 4

## Is Northern Minnesota a good location for sulfide mining?

In the scramble for money that new mines represent to the mining industry and many of our elected officials, truth has been the first casualty. The reality of human nature is that when people see the opportunity for profit, they believe what they need to believe, regardless of the countervailing evidence. What this means to Northern Minnesota is that regulatory agencies are being pushed to permit new mines despite indications that the mines will not operate without polluting lakes, rivers, streams and groundwater.

What is *sulfide mining*? Sulfide ores contain heavy metals (such as copper or nickel) that are bonded to sulfur, forming sulfide minerals. When exposed to air and moisture, a chemical reaction generates sulfuric acid that can leach into the surrounding environment and cause the release of the metals into streams and lakes at levels that are toxic to fish and other aquatic life. This phenomenon is known as *Acid Mine Drainage (AMD)*.



Lake Vermilion area - site of intense mineral exploration

Mining industry spokespeople and elected officials frequently argue that it is better to locate new mines in Minnesota than in other jurisdictions, where environmental laws are not as protective.

On the contrary. Minnesota's laws are not the strongest in the country or the world, and in any event, the law is only as strong as its enforcement. The evidence indicates that mines located in Minnesota are actually more likely to impact water resources than in other parts of the world:

- Northern Minnesota is one of the world's most water-rich environments. Studies indicate that sulfide mining *always* impacts nearby waters in such an environment. The headwaters of two internationally important water resources (Lake Superior and the Boundary Waters Canoe Area) is the worst possible place to locate sulfide mines.
- The St. Louis River system is an indicator of what we can expect from mining in Minnesota. Although we do not have adequate pre-mining data to know the full extent of the impacts of taconite mining, a comparison between impacted areas and the rest of the watershed indicates that the impacts are extensive.

While mining proponents insist that the new mines will operate more cleanly than the older taconite mines, sulfide mining has a much greater potential to impact water than mining non-sulfide taconite ore. Furthermore, actual mining processes have not changed enough in recent history to warrant the belief that mining companies can now do what they have never done before. As a practical matter, the sheer scale of mining operations is such that preventing the escape of acidic water into the environment has proven impossible.

- **W**e need look no farther than Michigan and Wisconsin to see that Minnesota lags behind other jurisdictions in protecting its natural resources from mining. Wisconsin requires mining companies to prove that sulfide mining has been done in other jurisdictions without polluting waters before it will allow sulfide mining there. Michigan (as well as New Mexico) does not allow mining operations that are likely to require perpetual treatment of waste water. While Minnesota law expresses the same principle, the Minnesota DNR appears poised to permit a perpetual-treatment operation at the proposed NorthMet Mine.



*Proposed NorthMet Mine site - on 6,700 USFS acres*

- **M**innesota elected officials put enormous pressure on our regulatory agencies to permit mines despite environmental problems. The proposed NorthMet Mine is a case in point. State senators and representatives and local officials began expressing their certainty that NorthMet would be a clean, non-polluting mine before any analysis or environmental review was conducted.

**O**nce the Environmental Impact Statement (EIS) came out, the same officials pushed for issuance of a mining permit despite a scathing review from the U.S. EPA, which has oversight responsibility for state and Army Corps of Engineers enforcement of the federal Clean Water Act. The EPA Region 5 office in Chicago gave the NorthMet plan its lowest possible rating, a rating that it had given to only 0.2 percent of the 844 EISs it had reviewed up until then.

Elected officials were furious and insisted that the mine should be permitted anyway, and the DNR seemed ready to comply.

- **M**innesota regulatory agencies systematically fail to enforce environmental laws against the mining industry. Consider LTV, the taconite mine that closed in 2001. Despite indications that the company was financially unstable and the mine had ongoing environmental issues, the state did not require the company to post a financial assurance bond. When the company went bankrupt, it left a polluted site with no money for clean-up. At LTV's Dunka Pit, mining operations inadvertently opened an area with sulfide mineralization, triggering acid mine drainage that has been discharging into Birch Lake for years. Miles away, at the other end of the property, the old LTV tailings basin continues to leak contaminants into the Embarrass River.

**W**hen Cleveland Cliffs acquired the LTV property in bankruptcy proceedings in 2002, it accepted liability for these violations (presumably with a corresponding discount in the price). But the illegal discharges continued. When environmental organizations finally threatened to sue in 2010, the MPCA blocked the lawsuit by offering a consent decree, levying a fine of only \$58,000 for many years of illegal pollution. It remains to be seen whether the problems will actually be addressed, but the message is clear: when it comes to mining, Minnesota regulatory agencies are only too willing to facilitate pollution.



*PolyMet Plant - Former LTV Plant and Tailings Basin*



[www.savelakesuperior.org](http://www.savelakesuperior.org)



[www.biologicaldiversity.org](http://www.biologicaldiversity.org)



[www.sosbluwaters.org](http://www.sosbluwaters.org)