



Polymet's Environmental Review: A Grand Wake-Up Call

The Save Lake Superior Association has consistently stated support for a moratorium on copper-nickel mining in northeast Minnesota.

We based our conclusions on the following. Sulfide mining has not been done without polluting the environment on a long-term basis (hundreds to thousands of years) anywhere in the world. The pollution created by the mining of sulfide ores (Acid Mine Drainage and leaching of toxic heavy metals) is more persistent in wet environments. The Mesaba Deposit of northeast Minnesota covers an area that expands from Duluth, along the North Shore, and bordering and lying beneath the Boundary Waters Canoe Area Wilderness (BWCAW)--a large area now basically covered by Superior National Forest; this deposit consists of low-grade, highly disseminated mineralization, which is economically marginal to mine, and would produce 99% potentially acid-producing waste rock. This mining would not only disrupt local economies that depend on clean water, forests, fish, wildlife, tourism, and outdoor recreation, but would create health hazards for the human population living within the Lake Superior watershed, and would continue the up-down cycle of mining that has plagued the Iron Range.

The public comment period on the proposed PolyMet Final Environmental Impact Statement (FEIS) ended on December 21, 2015. Before the Department of Natural Resources (DNR) has even had time to analyze the 30,000 plus comments submitted, Commissioner Tom Landwehr announced that he plans to declare FEIS adequacy by the end of February.

Comments now posted for the public to view express great dissatisfaction with the mine plan presented in the FEIS. The DNR has allowed Polymet to cut corners in order to make a marginally profitable mine economical. The corners include the following. The purchased tailings basin is unstable and must be propped up on one end, there is no cumulative analysis of amount of additional tailings that could be added to the basin, and dry stacking of tailings has been abandoned as too costly. An



underground mine option has been discarded because PolyMet claims it would be too expensive; the U.S. Forest Service caved in to this request and is ignoring the Weeks Act while arranging for a land exchange that would give PolyMet the part of Superior National Forest needed for its open pits. Rail cars purchased from the former LTV will not be retrofitted to prevent sulfide-bearing rock and ores from falling out along the rail spur between the mine pit and the processing plant. Waste rock piles will be placed on liners expected to last for thousands of years. The 3rd of the 3 open pits will not be backfilled upon closure, so that underground mining could potentially take place at that site, yet there are no cumulative effects on such expansion included in the FEIS. In the meantime, the pit would be allowed to fill with contaminated water and overflow into the watershed. Incomplete analysis of ground water flow patterns will not be corrected. Reverse Osmosis (RO) water treatment will begin only upon plant closure, and RO has been accepted as adequate even though history shows that it is not effective on such a large scale. The FEIS does not show how PolyMet will meet current sulfate standards--but since none of the taconite plants are meeting sulfate standards, and since the MPCA was given a legislative mandate to weaken sulfate standards, this is evidently considered a moot point. Asbestos-like fibers are not addressed, even though the dumping of tailings from the nearby Peter Mitchell taconite mine into Lake Superior by the Reserve Mining Company resulted in fibers in the water that must still be filtered out of Duluth's drinking supply. The FEIS contains an undue emphasis upon "adaptive management"

as a solution to potential pollution problems--which means coming up with a solution after the problem has developed.

To add insult to injury, the FEIS has determined that polluted



water from the PolyMet site would drain into the Lake Superior watershed; that it is acceptable to pollute water that affects the largest number of people in the area, which happen to live downstream; and that poisoning the children living in the Lake Superior basin is okay.

For all of the purported science and analysis that has supposedly gone into the PolyMet FEIS process, the DNR has failed the basic test of logic. The mine plan presented in the FEIS insures that PolyMet's legacy will be an environmental disaster, impacting all who live here.

Continue contacting the Governor and your state legislators in opposition to PolyMet and sulfide mining. Express your voice at your precinct caucus. Submit a letter-to-the-editor of your local paper. We, as Minnesotans, must not accept 500 years of water pollution as the by-product of sulfide mining, and we must not accept the mining of highly polluting, low-grade, highly disseminated sulfide ores as the means of improving our economy. A livable future cannot be created by turning a living ecosystem into one of open pits, stockpiles, and tailings basins. The time to voice our honor, respect, and appreciation for Lake Superior, its watersheds, and its people is now.

Elanne Palcich

How your Board Communicates with our Members in Protecting Lake Superior

This newsletter is our main means of communication with our dues paying members. We receive favorable response with respect to content but there have been some glitches in mailing and record keeping. Your addresses and membership expiration dates are printed on the labels. If your address changes please notify us at our P.O. Box 101 address in Two Harbors, MN 55616. Moving without leaving a forwarding address ends our connection and ability to keep you informed. Multiple addresses for different times of the year are difficult to track and often ignored by the post office. The membership expiration date is a signal to you that your contribution to our efforts is due. We allow a certain lapsed time in bringing your membership up to date but eventually need to discontinue sending the newsletter. We depend upon income from your memberships and donations to finance the various operating expenses involved with protecting the lake and watershed. This is a very critical time in the defense against permitting harmful projects such as the proposed PolyMet copper-nickel mine project. Your financial and personal communications support is critical.

We also maintain both Facebook and Twitter social media accounts. Go to our Website www.savelakesuperior.org to sign in to our Facebook group page to read and comment. The website itself has a great deal of information on the issues we cover as well as an archive of past Newsletters in color. The Twitter account is listed at "Twitter.com/slsa1969". You will need to set up your own twitter account to join in with this means of social media. Your input is encouraged and helpful to us and others with interest in matters that affect the lake and watershed.



We encourage member's participation in activities that assist us in protecting the lake and environment. Write or send us articles that you feel would inform and interest other members and readers. Send them to our Two Harbors P.O. Box 101 address or email them to "mail@savelakesuperior.org". Also let us know if you would like to become more active in the organization such as "active members" or eventually, "Board Members". Help us become better. Thank you for your continuing support.



LeRoger Lind

Great Lakes Waters Threatened by Collapse of Government Oversight of Clean Water Rules

In what may be the tip of an environmental disaster for the entire system of Great Lakes the City of Flint, Michigan water supply has been poisoned by lead from old pipes due in part to lack of government oversight of regulations. The total extent of the lead contamination is not yet known but all evidence points to a passive reading of environmental rules as the cause of delayed intervention. The rules were read in a way that required the Michigan Department of Environmental Quality (MDEQ) to do nothing. A plan to save money was transformed into a drinking water contamination emergency of massive proportions.

This pattern of behavior in the MDEQ has apparently existed for some time and is referred to as "passive technical compliance". This situation brings to mind the decision six years ago to permit the Eagle River nickel mine in the Upper Peninsula at the head of the river on Lake Superior's shore. There had been significant public and organizational resistance to the mine but the MDEQ prevailed in issuing the permits to build and operate the project. It is now viewed as a model of the successful permitting of a sulfide mine in Lake Superior's watershed. The state of Michigan borders on 4 of the 5 great lakes with many potential iron and sulfide mining projects in the planning stages. The Governor of Michigan will also decide if the Enbridge Line 5 pipeline can be replaced under the Mackinac Bridge and also if the Waukesha Diversion of water from Lake Michigan out of the watershed will be permitted.

This method of agency operation is widespread in today's money driven government agency environment. Can we expect this opportunistic "minimalist" approach to regulation of water pollution to threaten all of Lake Superior's shorelines?

LeRoger Lind (references from article by Codi Kozacek, originally published by Circle of Blue)

WRITE TO THE GOVERNOR OF MINNESOTA HERE IS WHAT WE WROTE

Dear Governor Mark Dayton: PLEASE REJECT COPPER-NICKEL MINING

There are good and sufficient reasons why metal sulfide ores should not be mined in Minnesota. Unlike iron ores, which consist primarily of iron and oxygen; metal sulfide ores are reactive with oxygen and moisture in air and become sulfuric acid. For every pound of copper-nickel sulfide brought to the surface to be processed, up to ten pounds of sulfuric acid precursors are also mined with the ore and deposited as tailings and waste rock. Sulfuric acid is a reactive chemical that acidifies water, dissolves and mobilizes metals, and is known to be lethal to aquatic organisms. Sulfate can also be transformed into hydrogen sulfide in sediments, a toxic, soluble gas, and known to be very toxic to animals and plants, including game fish and wild rice.

In 1976-79, the legislature authorized \$4.3 million for the Environmental Quality Board to study the efficacy of mining copper-nickel sulfide ores in Minnesota and could not conclude that the benefits would outweigh the costs. Today, there are fewer effective protections for the environment and workers. You, as Governor, must take the appropriate actions to assure that the existing beneficial uses of the forests and clean waters are protected, and that the people who are employed by mining, forestry, and recreational activities are not adversely affected by the new hazards known to be associated with metal sulfide mining and refining activities.

The currently proposed copper, nickel and other sulfide mines being proposed for northeastern Minnesota will surely damage the high quality existing forests and waters of Northern Minnesota. The Final Environmental Impact Statement developed for the PolyMet-NorthMet Mine Project does not describe a project that will protect the environment from serious, long term water and air pollution as well as destruction of natural habitat. The pollution mitigation schemes described in the FEIS require continuous monitoring and adjustment. The state cannot use these "trial and error" wild life and aquatic resource management tactics when dealing with irreversible pollution from sulfide mining.

Do not be misled by the claims of benefits over the costs of addressing and mitigating the new hazards involved. Learn from Pennsylvania's experience with acid mine drainage with 2,500 miles of streams devoid of life. Mining metal sulfides in Minnesota will primarily benefit foreign mine owners, not Minnesota workers and families who will pay the price in health care, pollution remediation and a continuing boom and bust economy in the long term. For the sake of all Minnesotans reject sulfide mining proposals as unacceptable for Minnesota's environment and economy. Keep our proven clean-water economy and environment for all future generations of Minnesotans.

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Membership Dues

Please check your Newsletter mailing label for expiration date. If the year is not current, it needs to be updated.

Repeat of new dues structure:

ALL EXCEPT LIFETIME ARE PER PERSON PER YEAR.

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| \$10 Fixed income | \$50 Sustaining | \$200 Lifetime |
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| \$30 Family | | |

The Lifetime option is only available to new members or members whose label is currently up-to-date.

Please designate your choice when you renew.

We appreciate your interest as well as your support.