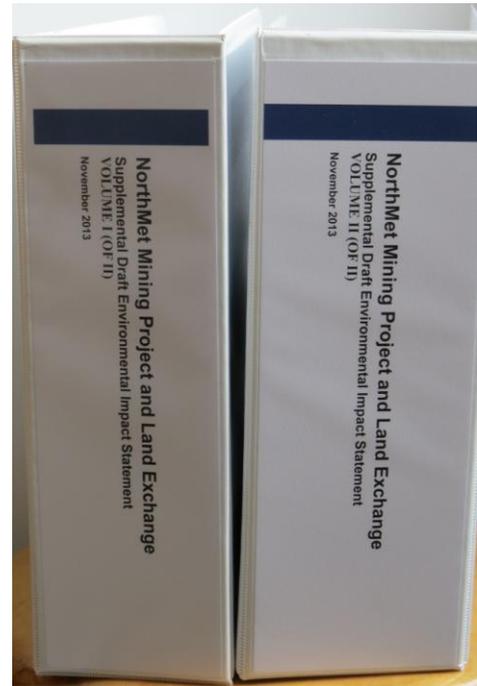




COPPER MINING PLAN NOT ADEQUATE TO PROTECT MINNESOTA'S WATER

The comment period for the public to weigh in on the PolyMet NorthMet Mining Project and Land Exchange ended on March 13th, 2014. The document was released in December of 2013 and the public was granted 90 days to review the 2000 page document over the holidays. Over 40,000 comments were submitted the majority of which described various inadequacies in defining a plan that would prevent unacceptable levels of water pollution to be discharged into the Lake Superior watershed. About 500,000,000 tons of sulfur based ore would be mined in what is called the first phase of the project. Roughly 1% of this material would be useful metal called “copper equivalent” including copper, nickel and other similar metals. Of course, 495,000,000 tons of waste rock and production slime would be left in the watershed to react over time with water and air to produce large quantities of sulfuric acid, sulfates and other compounds which, in turn, leach out toxic metals and methylate mercury. The document describes pollution mitigation schemes such as reverse osmosis, underwater storage, filtration with taconite tailings and waste rock sorting that would only reduce water pollution long enough for the mine to be permitted, well established and perhaps closed. Many comments focused on the errors and omissions in the document that would allow pollution from mercury, sulfates, toxic metals and asbestos-like fibers for decades if not centuries after the perpetrators were long gone. Minnesota’s financial assurance statutes do not protect the public from the costs of remediating long term pollution.



Save Lake Superior Association collaborated with a number of other environmental groups to produce over 150 pages of excellent technical and Clean Water Act violation comments compiled by Jane Reyer on how their plan fails to define a mine that would meet state and federal water quality and wetland standards. These comments are posted on our website www.savelakesuperior.org. Extensive and excellent comments from other individuals and groups can be found on the Minnesota Department of Natural Resources website, environmentalrev.Dnr@state.mn.us. Many of our members and other groups have been working on the analysis of this project plan for over a decade and deserve our appreciation and thanks. LeRoger Lind

WHAT ARE THEY THINKING??

The U. S. Environmental Protection Agency is concerned about long term health effects from exposure to toxic materials such as asbestos, mercury and many toxic metals and compounds. Many factors increase the risk of contracting diseases and disabilities from either inhaling or ingesting these substances. Level of exposure, frequency of exposure, duration of exposure and the time lapsed after exposures all affect the risk to an individual. Children are particularly susceptible to these toxins since their life expectancy exceeds the latency period for the related diseases in most cases.

Bearing this in mind one must wonder at the blatant advertising campaigns by companies mining and discharging toxic materials, either directly or indirectly. Many of the ads feature employment opportunities for younger people without any discretionary information concerning health hazards. Recent saturation ad campaigns at the Minnesota State High School Hockey Tournament are only one example that left many sports fans generally irritated if not concerned about the consequences of this type of messaging. We all know that metals are necessary components in our electronic devices. We have not, however, been shown by the advertisers that these metals can be mined safely. A child working hard in school has no correlation with the efforts of mining companies to obtain a social license to mine through media capture. Support of technical

education has merit on its own but not without being supplemented by precautionary instruction on public health and environmental hazards. Take the drug industry as an example for transparency in their television advertising. Half of every evening newscast is devoted to potential harmful effects of taking their drugs. Would it be that difficult and expensive for mining companies to warn potential employees of potential cancers and lung diseases from working at their mines?

SLSA continues to advocate for a "Prove it First" approach to permitting any mining activity in our watershed. Show us that it has been done without harmful pollution anywhere in a similar environment before applying for permits to mine and pollute.

LeRoger Lind

MINNESOTA DEPARTMENT OF HEALTH QUESTIONS MINE PROPOSAL DATA

The following are Comments by the Minnesota Department of Health on the PolyMet NorthMet Mining Project and Land Transfer herein made more concise by exclusion of the body with details of their reasoning. Even with their lack of time for complete review of the 2000 page document one can conclude from their comments that the document does not provide adequate or acceptable information on potential water pollution from the SDEIS PolyMet project description. There are obvious public health implications.

Lisa Fay
EIS Project Manager
Minnesota Department of Natural Resources

"Thank you for providing the Minnesota Department of Health (MDH) with the opportunity to comment on the Supplemental Draft Environmental Impact Statement (SDEIS) for the NorthMet Mining Project and Land Exchange.

Due to the scope and nature of the SDEIS, MDH staff were not able to complete exhaustive

review of the entire document. However, the following provide some comments, both specific and general in nature related to the SDEIS and the project. (Body of MDH comments available at MDNR website)

Please send us your change of address when applicable.

Your SLSA Board Members

LeRoger Lind (Pres.),
Will Munger Jr., (Sec.),
Alice Pierce (Treasurer),
Arnold Overby,
Sally Munger,
Dan Rau
Lori Andresen,
Gary Glass

Summary

- Assume higher flow rates for groundwater and contaminant transport modeling to account for local- to regional-scale fractures within the Duluth Complex.
- Install additional monitoring wells within the bedrock aquifer to evaluate potential impacts to this aquifer.
- Account for the groundwater "high" in the evaluation of potential migration of contaminants to groundwater and surface water and in planning of the Mine Site groundwater monitoring network.
- Use 300 µg/L as the groundwater evaluation criterion for copper.
- Use 15 µg/L as the groundwater evaluation criterion for lead. Well owners should take action to remove all lead from their drinking water if detected.
- Use 100 µg/L for infants and 300 µg/L for children and adults as the groundwater evaluation criterion for manganese.
- Use 0.08 µg/L as the groundwater evaluation criterion for beryllium.
- Conservatively model all potential impacts to the river, incorporating all possible contaminant sources.
- Clarify inconsistencies between field leaching test results and modeling predictions that indicate no change in groundwater quality compared to existing conditions with no exceedances of groundwater evaluation criteria.
- Provide contaminant concentrations from untreated wastewater streams and clarify how their contribution to groundwater contamination was assessed.
- Clarify how constituent leaching was accounted for during reclamation flooding.
- Provide dissolved oxygen data if available or complete measurement.

- Conduct a thorough inventory and baseline water quality assessment of existing wells prior to the initiation of any mining activities so that any future degradation of drinking water quality related to mining activities can be identified and remediated. This inventory and assessment should include located and unlocated wells.
- Properly seal any unused and unsealed wells found during the inventory.
- Collect baseline water samples when new wells are drilled in the area.
- Consult with MDH staff regarding sample analytes and frequency of resampling.
- Consult with MDH staff regarding the baseline data results archive.
- Prepare a water supply contingency plan for the city of Hoyt Lakes that addresses ongoing water quality and quantity monitoring and sets up protocols for gradually changing conditions as well as emergencies, should they occur.
- Use 3 µg/m³ as a screening value for assessing potential health risks from respirable PM₄ crystalline silica.
- Evaluate options for reducing GHG emissions, through energy conservation and use of renewable energy sources.
- Consider preparation of a Health Impact Assessment.

Health starts where we live, learn, work, and play. To create and maintain healthy Minnesota communities, we have to think in terms of health in all policies. Thank you again for the opportunity to provide comments on this SDEIS for the NorthMet project.”

Sincerely,
Edward P. Ehlinger, M.D., M.S.P.H.
Commissioner

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.

\$10 Fixed income	\$50 Sustaining	\$200 Lifetime
\$20 General	\$100 Benefactor	(per person)

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.

Oil and Lake Superior Water Don't Mix

Like the old saying goes, oil and water don't mix. This is especially true in Lake Superior, which contains one of the largest, and still one of the cleanest, stores of fresh water in the world. It is the primary source of drinking water for the cities of Duluth, Minnesota and Superior, Wisconsin, and many other communities around the lake. These waters are also the basis of multimillion dollar tourism, hospitality, restaurant, and fishing industries, which provide tens of thousands of jobs to the region.

A three-pronged attack is in the works to drastically increase the flow of oil into the Lake Superior basin through new and existing Enbridge pipelines, which run adjacent to Lake Superior then into Superior, Wisconsin. The first expansion, a replacement for the aged “Line No. 3” which runs from Alberta to Superior, would increase the flow from 410,000 to 750,000 barrels a day, an addition of about 14.3 million gallons per day. Expansion #2 would increase the flow in the Alberta Clipper pipeline running from Alberta to Superior from the current 450,000 to 570,000 barrels a day, and then to 800,000 barrels a day by 2016. This is about the same amount of tar sands oil as the more publicized Keystone XL pipeline would carry. The final expansion would be a new pipeline called “Sandpiper” carrying around 155,000 barrels a day of North Dakota oil into Superior. All of these pipelines run, or would run, through northern Minnesota across the headwaters of the Mississippi River and into storage tanks in Superior in the Lake Superior watershed, capable of holding almost 500 million gallons of oil.

What does this mean for the Lake Superior basin? While the mayors of both Duluth and Superior welcome with open arms the greatly increased pipeline flow and the small number of new jobs it would create, it brings with it an unprecedented risk of a disastrous oil spill into the basin. Increased pressure inside existing pipelines from the additional volume of heavy tar sands oil and the addition of new pipelines introduce more potential failure points in the system.

Don't think an oil spill can happen in the Lake Superior basin? The oil spill in July 2010 from a ruptured Enbridge pipeline near Kalamazoo, MI dumped over a million gallons of chemical-laden tar sands oil into nearby rivers and wetlands which drain into Lake Michigan. To date, Enbridge has spent more than a billion dollars on the cleanup, and three years later has still not completed dredging the toxic oil sludge from river bottoms.

Picture in your mind a similar spill of a million gallons of oil gushing into Lake Superior near Duluth and Superior. Think of the effects it would have. Would weekend tourists want their kids playing at oil soaked beaches, or enjoy the sight of oil dredging machinery in the Duluth harbor? Would local residents want to give their children toxic water to drink, knowing what effects it may have on their development?

What about the economic losses? When the tourists stop coming, how many jobs would be lost in the tourism, hospitality, fishing, and restaurant industries? Hundreds? Thousands? Will visitors want to hire a boat to go pull some oil-laced fish out of the lake for dinner? In contradictory fashion, the mayors of Duluth and Superior would decry the loss of tourism jobs, and adverse health effects from the same oil pipelines they just supported.

Cleaning up such a spill presents other dangers which are rarely mentioned. After the April 2010 British Petroleum Deepwater Horizon rig explosion, which spewed millions of gallons of oil into the Gulf of Mexico, BP reached a medical settlement with Gulf Coast cleanup workers and coastal residents to cover the costs of spill related respiratory and skin diseases. The settlement could benefit an estimated 200,000 people [reference

<http://news.yahoo.com/4-years-spill-questions-long-term-health-070328836.html>]. Would you want to read future articles in the Duluth Tribune about residents with respiratory and skin problems?

As bad as an oil spill would be, the elephant in the room concerning Canadian tar sands oil is climate change. Tar sands oil is dirty, energy intensive oil to process, taking three to four times the energy to process than conventional oil. These pipelines would enable an increase in the use of this oil, which leading scientists have called a "carbon bomb", creating a "game-over" situation in climate change. [Reference

<http://www.theguardian.com/environment/2013/may/19/tar-sands-exploitation-climate-scientist>]

Global air quality and Lake Superior water quality would be at much higher risk if permits for these and similar expansions were granted. The global markets are flooded with oil now. Why needlessly increase the long term risk of illness and economic harm for these short-term profits.

Eric Lind

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