THREATS TO LAKE SUPERIOR WATER QUALITY LIKELY TO INCREASE
Precautionary measures in dealing with pollution are generally not popular. As we move into 2017 the likelihood of more emphasis on pollution prevention is unlikely. Permits for huge pig farms affecting Chequamegon Bay, large copper-nickel mines in the St. Louis River watershed, direct-reduced iron plants on the Iron Range of Minnesota along with the increases in size and output of taconite mines will significantly increase the flow of pollutants into the lake. We are asked to accept “adaptive management” of these pollutants as short term mitigation to get permits for long term pollution. These ploys are similar to “trial and error” tactics used by natural resource agencies to manage fish populations. However, in many of these cases mentioned, especially copper-nickel mining, the pollution is irreversible. No mining corporation has ever been able to stop it once it has been unleashed. Without some substantial public resistance to these permits, the Lake Superior watershed will be “open for business” with little meaningful protection. It starts on the ground level with citizen activists. Reactions to the pipelines threatening water quality in North Dakota are examples of the effort involved. Congressional Acts such as the proposed “Regulations from the Executive in Need of Scrutiny” (REINS) Act are being proposed which would unleash the flow of pollutants into the environment. This act would open Pandora’s Box of pollutants into all freshwater bodies. Agencies controlling pollutants could no longer effectively act.

IT’S IN THE BAG
You’ve seen them hopelessly entangled in trees, dangling from bushes, and pressed up against fence lines by the wind. Single-use plastic bags. They, along with single-use polystyrene (Styrofoam) items, such as disposable carry-out food containers, are a huge pollution problem and a threat to water quality worldwide.

Here are a few disturbing statistics about single-use plastic bags:
Plastics are made from non-renewable natural resources such as crude oil, gas and coal.
It is estimated worldwide that 1 trillion bags are used and discarded every year, nearly 2 million each minute. [1]
A single grocery store can give out over a million bags annually!
It is estimated that 22 million pounds of plastic pollution enter the Great Lakes annually, according to a recent study by Rochester Institute of Technology.

The amount of energy required to make 12 plastic shopping bags could drive a car for a mile.

This staggering amount of plastic pollution in our waters is a big problem. Plastic does not biodegrade, but breaks down into smaller and smaller particles, a process which releases toxic chemicals such as BPA. As the plastic debris floats in the water, it also absorbs dangerous pollutants like PCBs, DDT and PAH. These chemicals get absorbed into the food chain and eventually passed along to humans.

I've heard people ask, “Can’t we just recycle plastic bags?” The sad fact is that less than 5% of standard HDPE plastic bags are recycled in the US. [2] And, have you ever tried recycling plastic bags? It's difficult. You can't recycle them with most curb-side pickup recycling services, because the bags jam up the single-sort machinery, for one reason. My personal efforts to recycle plastic bags revealed very few retail locations that will accept them for recycling (even large stores which pump out a lot of them), and in the few locations that do, the bins are usually jammed so full that there is nowhere to put them!

The good news is that simple changes in our behavior can make a big difference. Many countries, cities, and communities around the world have instituted bans and fees to end, or discourage, plastic bag use, and encourage use of reusable bags.

Over 160 US cities have enacted single-use bag bans and/or minimum charges including Minneapolis; Seattle, WA; Portland, OR; Dallas, TX; Austin, TX; Cambridge, MA; Santa Fe, NM; Boulder, CO; Washington, DC; Los Angeles, San Francisco, and Oakland, CA.

The states of Hawaii and California have now phased-out single-use plastic bags

Many European countries tax plastic bags or ban free distribution. The EU Parliament is discussing measures that could require member states to cut plastic bag use by 80 percent by 2019. A memo on the proposal noted that “plastic bags have been found in stomachs of several endangered marine species,” including various turtles and porpoises, and 94 percent of North Sea birds. [1]

A local Minnesota example of an organization trying to do the right thing is Bag it, Duluth! (http://www.bagitduluth.org)

They have proposed legislation to:

To encourage Duluth residents to bring reusable bags when they shop, we propose a phase-out on single-use plastic carry-out bags and a minimum charge for single-use paper bags.

To encourage the use of more sustainable food and beverage containers, Polystyrene foam food or beverage containers shall not be used to package or serve food or beverages by restaurants and/or retail food establishments within the City of Duluth. [3]

Now is the time to support organizations like Bag it Duluth, before the plastic and polystyrene epidemic gets worse. Start up a local movement in your community and talk to your legislators. Some small changes can make a big difference for our water quality.

Let's help keep Lake Superior and all waters clean by dumping the single-use plastic bag and polystyrene habit. Contributing Member, Eric Lind

References:
ARE HERRING AND LAKE TROUT OVERFISHED ON LAKE SUPERIOR?

Is the supply of herring (aka erroneously, ciscoes) in Lake Superior declining from earlier years or have production, processing and shipping resources declined from earlier years affecting the data? Has water temperature increase combined with the recent predation of exotic species such as sea fleas, gobies, zebra mussels and sticklebacks caused reduced natural reproduction? The answers to these questions will determine if the populations of herring and trout remain plentiful or are being affected by threats from the dumping of untreated ballast water, global warming from burning of fossil fuels, pollution from mining, sewage and runoff, etc. Are these fish our “canaries in the coal mine”. Or are they just other species that can be controlled by “adaptive management” (trial and error).

SLSA Vice-President, Dan Rau, is conducting a detailed historical study of data on commercial fishing in the four jurisdictions of Lake Superior (Minnesota, Wisconsin, Michigan and Ontario) to reduce the selective nature of the narrative being issued by various special interest groups and agencies. Other factors that may skew the data are listed as socio-economic changes due to the ending of WWII, introduction of sea lamprey and exotic rainbow smelt, transition to land transportation for distribution to large scale transit from Duluth, reduction of fish processing capacity and the lack of a coordinated research framework among the four jurisdictions controlling the fisheries on the lake. Is the claim of overfishing an oversimplification of a complex system? Would increasing commercial fishing’s annual catch limits to increase local food supplies adversely affect other types of fishing annual harvests? Dan will follow-up in coming editions of the SLSA Newsletter.

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CITIZEN ACTIVISTS CAN HELP EXPOSE AND DEFEAT THREATS TO LAKE SUPERIOR

In most cases a critical mass of resistance is required to stop the permitting of an especially egregious pollution threat. We have yet to see if the tens of thousands of citizen objections to the adequacy of the Final Environmental Impact Statement for the PolyMet NorthMet Mine and processing plant in Hoyt Lakes, MN have been successful. The evidence against the safety of this mine and sulfide mining in general has been significant and compelling enough. Will a “social license to mine” overwhelm “public health threats of mining”? An example of a citizen’s concerns about the threats of this particular project and sulfide mining in general was offered by SLSA Member, Candice Pierce. The following a list of her concerns which are echoed by many others:

State rules require mines to be maintenance free at closure, yet PolyMet’s own models suggest that after the final ore is mined it could take centuries (500 years) before the cleanup is complete. Will the state require an upfront damage deposit sufficient to protect taxpayers and the environment? We must insist that an adequate amount of PolyMet’s money be set aside for damages to the environment for cleanup. An outside agency should help determine how much.

An independent review of the project shows the likelihood that any polluted water escaping the site would flow north into the BWCAW as well as south towards Lake Superior. Do we really want to pollute these two precious, pristine jewels of Minnesota?

Will regulators require PolyMet to show how it will compensate for thousands of acres of lost wetlands? The proposed mine could destroy about 8000 acres of wetlands and PolyMet’s current plan does not account for how they will replace these acres. MN state law requires all lost wetlands to be replaced. (The US Forest Service has given its approval to exchange to these acres for other plots scattered throughout NE MN. The project could now move forward pending permitting for mining, water and air pollution.)

The MN Public Health Association, MN Nurses Association, MN Medical Association, and the MN Academy of Family Physicians have all called for a detailed assessment of dangers posed to human health by the PolyMet Project before the state issues permits for the project. Many people living downstream from PolyMet would be affected. This assessment has not been done yet.

PolyMet also has the potential to harm workers and public health as a result of emissions of toxic metal and asbestos-like fibers at the mine and plant and due to air pollution for burning coal for huge amounts of electricity to run the plant.

Across the country the track record of sulfide mining has been poor. MN has no prior experience with this kind of mining. These are only a few of the major unanswered questions that should be adequately answered by PolyMet before going any further on this project.

Save Lake Superior Ass’n
P.O. Box 101
Two Harbors, MN 55616

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