



PIPELINES, PROMISES, PROBABILITY AND, THEN, POLLUTION

The Minnesota Public Utilities Commission (PUC) will be considering the need to permit and construction the Sandpiper Line 3 Pipeline from the Bakken shale oil fields in North Dakota to and across northern Minnesota to the Superior, WI, refining and transfer terminal. This line would carry an additional 15,800,000 gallons per day to the Duluth Superior harbor vicinity. The projected volume of Alberta Tar Sands and other oil is 66,300,000 gallons per day. That's a lot of oil for this "pristine" fresh water region that everyone professes to love so dearly. The potential for pipeline system failure and resulting massive pollution increases with increasing volume of oil and length of pipeline added. In the case of Enbridge performance it has happened before and will happen again on their aging pipelines in the Great Lakes states. The Enbridge pipeline failure in the Kalamazoo River leaked 840,000 gallons in 17 hours before being detected from a line handling only a fraction of the volume proposed for Minnesota. In other words, failures and massive pollution are going to happen somewhere, sometime sooner or later in northern Minnesota and the head of the lakes in Duluth and Superior.

Unfortunately, the politics of corporate profit claim that any failures would be minor and easily "mitigated", (covered-up). Precautionary measures are no longer favored or even considered in today's climate of unfettered consumption. "We need jobs, tax base and petroleum products" is the mantra of the media. The armies of pipeline installation and operation are gathered on the plains and wetlands ready "to get this line installed". "It will save our agriculture and energy economies!" is another wild proclamation. The railroads can't handle the peak oil production that is currently fracked and predictably waning. They actually serve as a controlling mechanism for overproduction. The failure of railroad cars is as probable as the failure of oil pipelines and much less destructive on a volume basis. These are the arguments being presented at the PUC public hearings across the state of Minnesota. Wisconsin and North Dakota offer permits carte blanche. The only stakeholders not present or represented fairly are the ultimate victims of this predictable toxic water pollution. The corrosive tar sands and shale oil would wear the pipes and transfer valves to failure in 20 to 30 years when the children of today and their bankrupt governments will then resolutely condemn the bloated corporations and go on with business as usual. Our demanding that government representatives and agencies oppose this unnecessary increase in oil transport through the Great Lakes states and Minnesota would be a positive response to this threat. Ask for reduced dependence on petroleum and funding of increased solar, wind, biofuel energy production with reduction of energy consumption as alternatives. These are the jobs, tax base and energy security that we need now and most certainly in the future. LeRoger Lind



Stewart River Stabilization and Habitat Improvement

As part of the Minnesota Clean Water, Land and Legacy Amendment the Minnesota Board of Soil and Water Resources have funded the Stewart River Watershed Protection Project. The Lake County Soil and Water Conservation District is the Project Sponsor. The grant awarded is over \$375,000 and will realign the stream channel and install in-stream structures along the Stewart River, a tributary along the north shore of Lake Superior. This project is working to reduce sediment inputs and improving habitat for brook trout and other fish. Increased flows in the Stewart River caused by legacy effects from logging practices, land use changes, and damage caused in a 500-year flood in 2012 have resulted in erosion, loss of habitat, and changes to river shape. The Lake County SWCD is restoring channel form using Natural Channel Design methodology, creating pool and riffle habitat, and stabilizing stream banks to reduce further erosion and reestablishing native vegetation in the riparian corridor. Sediment loads, stability, and aquatic organism data are being collected pre- and post-restoration to determine effectiveness of the project and to ensure the channel remains stable. A stable channel will provide increased habitat for aquatic organisms, improve water quality due to erosion control, and enhance resiliency by increasing the ability of the stream to withstand high flows.



The constant release of clay and other sediment not only affects in-stream fish but also covers the Lake Superior bottom at and near its mouth. Spawning and feeding beds for lake trout, salmon and herring are covered with layers of clay and no longer support the Lake Superior fish population. This is a productive use of Amendment money in support of the fishing and tourism industries.

Potential amendments to the Minnesota Wetland Conservation Act in the 2015 Legislative Session

Issue summary: The mining industry plans to destroy thousands of acres of wetlands in Northeastern Minnesota in the coming years, and is looking for easier and cheaper means to replace those wetlands as required by state and federal law. Legislation will likely be proposed that would (among other things) make it easier to permit these wetland losses by restoring wetlands in other parts of the state. While mitigating losses outside of the watershed where the losses occur is already allowed under state law, recent changes to federal law were intended to end this scientifically indefensible practice. The St. Louis River system is already heavily impacted by mining in all of its downstream reaches; the loss of thousands of additional acres of wetlands without mitigation in the watershed will degrade it further and undercut current efforts to restore the river and estuary.

Potential losses to the St. Louis River: The amount of wetland destruction that threatens the St. Louis River in the coming decade is the largest of any river system of its size in the United States, with the possible exception of Alaska. Although the DNR estimates potential wetland losses in Northeastern Minnesota due to mining over the next 20 years as 4,100 acres, this estimate does not include impacts that have not yet been quantified. PolyMet alone could destroy up to 7,000 acres of wetlands; “indirect” losses have not been estimated. Duluth Metals is planning a tailings basin of more than two square miles; the wetland loss would likely be at least 2,000 acres. These are just the first two of what will be many more mine proposals, in addition to the many expansions planned by the taconite industry.

To put these numbers in perspective, in the years 2001-2003 the Board of Water and Soil Resources (BWSR) reported that between 250 and 400 acres of wetland destruction was permitted per year statewide. BWSR

estimates that a total of 1,133 acres of wetlands were lost due to mining projects over the ten-year period of 1994 to 2003. The proposed PolyMet permit for 912 acres is possibly the largest fill ever permitted, nationwide, since the Clean Water Act was passed in 1972.

What is at stake: Wetlands are often the most biologically productive areas within a landscape, and serve important functions that degrade the entire landscape when they are lost. These functions include purifying surface water, recharging groundwater, flood control, drought prevention, low-flow stream augmentation, and fish, wildlife, and native plant habitat. Peat bogs are also critical for carbon sequestration. Most of these functions simply cannot be mitigated by restoring wetlands in another watershed. Allowing the degree of destruction that is being proposed without replacing the functions lost would degrade portions of what is now the most extensive and intact wetland system left in the lower 48 states.

Regulation of wetland destruction: The destruction of wetlands is regulated under both federal and state law. The federal Clean Water Act requires a permit from the Army Corps of Engineers for the discharge of dredged or fill material into wetlands. The Minnesota Wetland Conservation Act (WCA) forbids the filling or draining of wetlands without an approved wetland replacement plan. The Board of Water and Soil Resources has regulatory and oversight authority under the WCA, but wetland replacement plans are approved by a local government unit, or by the DNR for wetland destruction to facilitate mining.

Mitigation requirements: To obtain a permit or authorization to destroy wetlands, both federal and state law require that the lost wetlands be replaced. For most of the state, Minnesota law requires that the wetlands be replaced within the major watershed or county where the loss occurs. However, in Northeastern Minnesota (which unlike the rest of the state still retains more than 80% of its original wetlands), state law allows mitigation in another watershed if mitigation opportunities do not exist in the watershed where the loss occurs.

New federal regulations governing wetland mitigation came into effect in 2008. These regulations shifted the emphasis from replacing wetland

acreage to replacing wetland functions (water purification, flood control, etc.) The federal regulations require that wetland mitigation occur within the major watershed where the wetland loss occurs. The regulations also require an assessment of the wetland functions that will be lost if wetlands are destroyed, and a mitigation plan designed to replace the lost functions. These regulations are not yet being consistently applied in Northeastern Minnesota.

Proposed changes: BWSR has been floating a number of options for WCA

amendments that are likely to result in more mitigation outside the impacted watershed, less emphasis on replacing lost wetland functions, and an overall net loss of wetland acreage and wetland function. These options include new allowances of out-of-watershed mitigation in "high priority areas," and alternative mitigation options and in-lieu-fee programs that are not based on lost wetland functions. Save Lake Superior Association does not oppose changes to the state rules if the resulting flexibility is designed to better mitigate lost wetland functions in the watershed where the loss occurs. We do oppose flexibility that provides room for permits that allow the destruction of wetlands within the St. Louis River watershed without adequate mitigation to prevent further degradation of the watershed and the public benefits it provides.

Written on behalf of Save Lake Superior Association by Jane Reyer, Environmental Consultant



Lake Superior Barrel Sampling Concerns

The Save Lake Superior Association continues to be concerned about barrels from the Twin Cities Army Ammunition Plant (TCAAP) that were dumped into Lake Superior in the vicinity of the Duluth municipal water intake more than fifty years ago.

All of the attempts to sample these barrels to date have been flawed by two fundamental omissions:

First, more than half of the barrels are still missing. Approximately 1400 barrels (no exact number is available in the existing records) in six shipments were dumped between 1959 and 1962. Several attempts have been made since then to locate and sample the barrels. Of these attempts the two most thorough searches to date, in 1991 and 2008, have located only approximately 600 barrels, leaving about 800 barrels still missing. The hundreds of missing barrels could include entire shipments of barrels, whose contents may be significantly or completely different from the very small number of barrels already sampled.

Second, the waters nearest the Duluth municipal water intake have not been searched in any of the searches. This is very troubling, since any contamination from barrels in this area would have the greatest chance of entering the drinking water supply of Duluth, and it is possible that some of the hundreds of missing barrels could be in this area.

Considerable uncertainty still exists about the contents of the barrels as well, partly because of uncertainty and conflicting information about the materials processed at TCAAP during the time the barrels were dumped.

Reports by the Army, Minnesota Pollution Control Association, and the Nuclear Regulatory Commission all confirm that radioactive materials, including depleted uranium, were processed at TCAAP. Persistent reports from the very beginning of public awareness of the dumping in 1975, that radioactive materials were included in the barrels, has also contributed to public concern.

Very unsatisfactory attempts by the Army Corps and the Environmental Protection Agency to dispel concerns about radioactive contents of the barrels have only added to the concerns. The secrecy of recent sampling efforts have also raised concerns about the reported results of this sampling.

Because of the above two fundamental omissions in the sampling to date, and because of the associated concerns about the contents of the barrels, Save Lake Superior Association believes that before any additional barrel sampling takes place, both of the two serious flaws in previous search and recovery efforts must be corrected in full public view.

Please send us your change of address when applicable.

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Specifically, in order of priority:

1. The waters nearest the Duluth municipal water intake need to be thoroughly searched, and
2. A much larger number of barrels must be located and sampled, to ensure that a meaningful number of barrels from all six of the shipments are sampled.

The Environmental Protection Agency has a newly renovated hydrographic survey vessel stationed in Duluth that is fully capable of searching for the missing barrels. We urge that this vessel be put to work on these two objectives.



Dan Rau