



TIMES THEY ARE A CHANGIN' BUT CHALLENGES REMAIN THE SAME

The vast quantities of metal and water resources contained in Lake Superior and its watershed make changes in the personal and work lives of inhabitants inevitable. Rapidly increasing global populations with corresponding increases in consumption have decreased the quality of many resources such as iron, copper and water. Procuring and processing lower grade materials requires more energy and produces more waste, sometimes much more toxic waste. The iconic taconite industry is experiencing pressure from low cost foreign competitors and bearing increasing responsibility for the continuing release of toxins such as mercury, heavy metals and sulfates. Recent presentations at the 2015 Society for Mining, Metallurgy and Exploration in Duluth, Minnesota revealed a pending shift to Direct Reduced Iron away from Taconite pellets in order to serve the growing market of the electric arc furnaces. Managing this and other changes while maintaining high standards for water and air quality will be a continuing challenge.

Copper-nickel sulfide mining is on the verge of being permitted in Minnesota despite the overwhelming evidence that current mining plans will not protect our waters from mercury, toxic metals and sulfates among many other public health and social threats. Another article in this edition of the newsletter, originally published in the Duluth News Tribune as an opinion by past SLSA Vice-President Glenn Maxham, warns against being fooled by corporate propaganda into thinking they can mine these metals safely in our water-rich environment. Even with 67,000 tons per day of tailings being pumped into the Lake Superior from the 1950s into the 1970s it took about 7 years of legal actions to stop it. The legacy of pollution continues to this day at the Mile Post 7 taconite production tailings storage pond near Silver Bay, MN. Less visible pollution would drain into the St. Louis River and watershed from massive copper waste storage pits beginning with the first proposal at Hoyt Lakes, MN by PolyMet Corporation. Mining proponents are complaining that informed citizens are “unfairly influencing” the public by making these public health dangers visible in the media. Remember the corporate outcry in support of the pollution at Reserve Mining? The more things change, the more they stay the same!

LeRoger Lind

ONCE FOOLED BY MINING EXECUTIVES, WE ARE TWICE SHY

In the 1970s we listened to Reserve's corporate promises that it wasn't necessary to quit dumping millions of tons of taconite tailings into Lake Superior. This waste disposal was, we were assured, not a threat to the environment. And did not the company provide many good jobs?

To our deep regret, however, a complete environmental assessment was not done, and we suffered mightily for being “led down the primrose path.”

The employees enjoyed good wages. The company got richer. But Duluthians and others living downstream from the Silver Bay plant got doses of asbestos-like particles sucked into our drinking water. By design or from ignorance, Reserve ignored common knowledge of a current running literally past its front door.

Only with the alarm sounded by an environmental watchdog, the Save Lake Superior Association, did an investigation of a likely threat to public health begin. (Credit also must be given to United Northern Sportsmen members, the only group on record for opposing construction of the plant.)

Medical alerts were issued. People were warned not to drink Duluth's polluted water. And emergency measures had to be taken. Milk cartons with safe water were provided and plans were implemented to rush construction of a filtering facility at the Lakewood pumping station. The bill to



taxpayers exceeded

\$6 million and that is the equivalent of about \$23 million now. Reserve was forced to switch disposal operations from the lake into an inland containment pit referred to as Milepost 7.

The fault for this debacle rested squarely on the management of Reserve.

I was among those who attended a company news conference. Researchers were supposed to prove “no harm” would come from the plant’s refuse being dumped into the deep water next to the plant. The demonstration included small, aquarium-like, water-filled tanks. Dramatically, tailings were dropped into the glass-sided containers. We were told to note that all the particles sank to the bottom. It was proof, they said, that pesky environmentalists were wrong and should back off. Though suffering derision and verbal abuse, even veiled threats to their safety, they persisted and won.

The obvious conclusion, as I see it, was that Reserve accepted as factual the findings of its technical staff and thus avoided lengthy but vital intensive environmental testing.

With the recent economically devastating mass layoffs of mining workers on the Iron Range, it’s certain we will see an accelerated push for PolyMet and precious-metals mining and to downplay, or even “adjust,” environmental concerns.

We who ingested the asbestos-like fibers in the 1970s probably still have some of them internally embedded in our flesh. As we now face the possibility of another crisis involving our water from sulfide mining, we must question the veracity of corporate declarations. And we must demand unrestricted, official, in-depth environmental studies — no matter how long they take. Our health must never again be given short shrift by the mining industry.

Glenn Maxham of Duluth is the former vice president of the Save Lake Superior Association.

GLIMMER OF HOPE EMERGES IN BALLAST WATER TREATMENT ON GREAT LAKES

Canadian based Fednav Ltd. Has ordered 12 new ships equipped with ballast water treatment systems. These vessels are scheduled for use as transports on Lake Superior as well as in salt water. The new treatment systems break the traditional barriers of cost and effectiveness used by the shipping industry to avoid treatment of ballast water infected with invasive species. Fednav has gone beyond the Yellow Pages and found a system developed in Japan called the Ballast Ace System. It is being installed on the ships being built in Japan in time to meet the USEPA’s General Vessel Permit requirements for treatment of ballast water by 2016.

This is a significant breakthrough in the battle against Aquatic Invasive Species in Lake Superior and its watershed. We continue to argue that “on-land” treatment of all ballast water discharged in our ports is the only completely effective method of treatment. This should be done at local ports or at the Soo Locks as a cost of doing business with state and federal support. However, this initiative by a private corporation at least serves as a partially effective means of reducing discharge of invasive species such as zebra mussels, gobies and many others (100). These invaders also serve as carriers of the dangerous VHS FISH VIRUS.

Effective federal and state regulations for installation of ballast water treatment systems are decades off. At this point all that is needed to avoid treatment is either a claim of hardship or a challenge to the effectiveness

of a system by the shipping companies to get a free pass. This strategy has also proven an effective means of justifying pollution of the waters of Lake Superior and its watershed by mining and wastewater treatment plants in the past. Hopefully, Fednav’s example of responsible business practice will be more than a glimmer of hope through the existing false corporate financial facad.



LeRoger Lind

SHIPPING GREAT LAKES WATER? THAT'S CALIFORNIA DREAMING

Excerpts from article By Keith Matheny, Detroit Free Press

Amid rising water supply crises, could the parched American Southwest ever get its hands on the world's most abundant and valuable liquid fresh water supply — our Great Lakes?

Setting aside the astronomical expense and infrastructure requirements, as a policy matter, a large-scale diversion of Great Lakes water is a virtual impossibility. But that's only because of states and Canadian provinces around the lakes coming together to solidify protections within the last decade.

The latest need for a big water supply is a longstanding, but still escalating, crisis in drought-stricken California.

Gov. Jerry Brown earlier this month mandated a 25% water-use reduction for residents and nonagricultural businesses.

California's thirst should be nation's wake-up call.

"Today, we are standing on dry grass where there should be 5 feet of snow," Brown said as he made the announcement April 1 in California's Sierra Nevada mountains, a key source of water statewide. "This historic drought demands unprecedented action." California isn't asking for Great Lakes water. No Southwest state is. But if the drought worsens, and population growth continues to soar there, desperate times could someday call for desperate measures.

Don't think the idea of a raid on Great Lakes water is that far-fetched. Plans were in the works to allow a Canadian company to sell Lake Superior water to Asia via tanker ships as recently as 1998. A coal company in 1981 wanted to pipe Superior water to Wyoming to move its semi-liquefied product back to the Midwest. And in 1982, Congress mandated that the U.S. Army Corps of Engineers study the feasibility of using Great Lakes water to replenish supplies needed for the heavily agricultural Plains states. (It wasn't feasible.)

Who owns the water?

The lakes' main source of legal protection comes from the Great Lakes Compact, an agreement between eight Great Lakes states that was further approved by Congress and signed by President George W. Bush in 2008. The compact also includes Canada's two provinces on the lakes, Ontario and Quebec, and its terms cannot be changed without the approval of all compact member state and provincial governments.

On new and increased Great Lakes water diversions, the compact "just says plain as day: 'No diversions.' Period. Boom," Hall said.

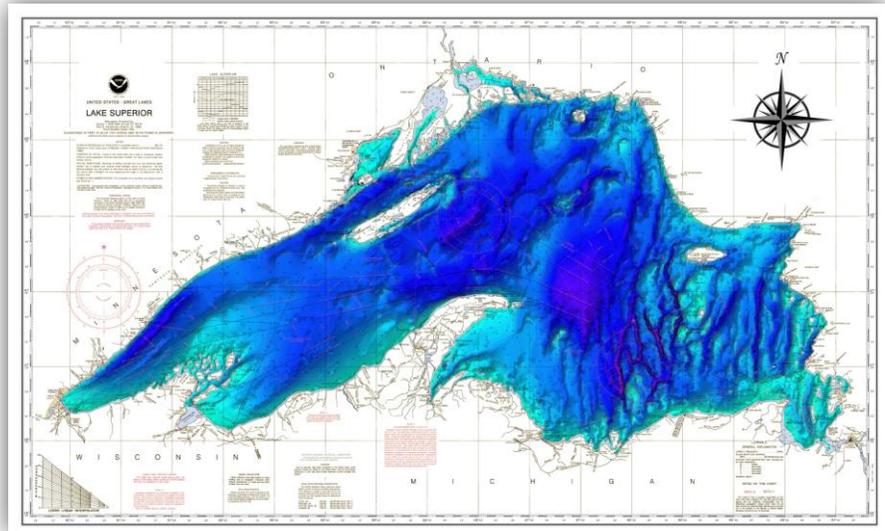
Less formal Great Lakes water agreements existed before the compact. But it was a 1998 plan by a Canadian entrepreneur that spurred Great Lakes states into making lake diversions more strictly prohibited.

John Febraro's Nova Group proposed exporting about 156 million gallons of Lake Superior water per year to Asia via tanker ships. The Ontario Ministry of the Environment approved the proposal before news of it spread and outraged Great Lakes residents and lawmakers on both sides of the border.

"It was a silly idea, but it raised enough concerns," said Ralph Pentland, chairman of the Canadian Water Issues Council at the University of Toronto.

Pentland co-chaired the International Joint Commission, a U.S. and Canadian agency that works to protect boundary waters and resolve disputes over them, at the time the Great Lakes Compact was devised. "Shipping water from Lake Superior would be entirely impractical; it could never happen. But it made people think they should start preparing for these kinds of eventualities, even if it doesn't make economic sense now."

Can deal be undone?



If Congress and the president signed the compact into law, what would stop a future Congress and president from reversing it? In that extremely unlikely scenario, Canada would have a say before water headed to the Southwest, said Frank Bevacqua, spokesman for the International Joint Commission. In addition to the compact's requirements that all parties agree to a large-scale diversion, a boundary waters treaty between the U.S. and Canada enacted in 1909 also requires the agreement of both countries before an action is taken that impacts the shared waters, he said. Though Lake Michigan is wholly within the United States, it's connected to Lake Huron, which Canada also borders. So a large diversion from Lake Michigan would also likely fall under the treaty.

"You don't know what the future holds," Pentland said. "We don't know how bad climate change is going to be. There's other things we haven't heard of or thought of yet. We should do everything we can to preserve."

Water, water everywhere
Total water withdrawal from the Great Lakes-St. Lawrence River Basin was 42.4 billion gallons per day in 2013, a decrease of 5% from the previous year. The water irrigates farmers' fields, generates power, drives industry and supplies municipal drinking water and sewerage systems. But the vast majority of that water isn't lost. Power generation, for example — a major Great Lakes water diverter — returns all but about 1.5% of the water it uses to the Great Lakes basin. Overall, only 5.5% of withdrawn Great Lakes water, 2.3 billion gallons per day, was consumed or otherwise lost in 2013.

That sounds like a huge amount, and it is. But placed in the context of the amount of water in the Great Lakes — 6.5 quadrillion gallons, or 6.5 million billion gallons — the diverted amount becomes relatively minuscule.

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A NOTE ON NEWSLETTER DELIVERY PLUS SUBSCRIPTION RATES AND DUE DATES

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