Sulfide mining rulemaking doesn’t cut the mustard

By Jennifer Dale

Tribes throughout the Great Lakes region are concerned about Michigan’s proposed rules for non-ferrous metallic mining, commonly known as sulfide mining. Following the comment period, which ended Dec. 19, 2005, the Michigan Department of Environmental Quality (DEQ) is evaluating all comments received and preparing a report.

According to a Nov. 15, 2005 press release, the “DEQ may make additional changes to the draft rules in response to comments received, as appropriate.” Then, the final rules go to the Michigan Joint Committee on Administrative Rules of the Legislature.

The DEQ will hold additional public meetings and hearings to receive comments on specific mining proposals, according to the release.

The Chippewa Ottawa Resource Authority (CORa) and Great Lakes Fish and Wildlife Commission (GLFWC) have each submitted comments concerning the proposed rules.

Since Keweenaw Bay Indian Community’s (KBIC) ceded territories in Michigan’s Upper Peninsula include the Yellow Dog Plains, the Community suffers the greatest risk by the proposed mine that started the events leading to a new Michigan law and rulemaking on sulfide mining.

Last June, after the Kennecott Exploration Company applied for a permit to mine copper and nickel in the Marquette County rivers, the Great Lakes Resource Committee (GLRC) under CORA formally opposed the proposed sulfide mine in the Salmon Trout and Yellow Dog River waters. GLRC passed a resolution that stated its unqualified opposition to “any new or proposed mine in the headwaters and watershed of the Yellow Dog and Salmon Trout Rivers and supports the enactment of the most stringent environmental requirements for any new sulfide ore mining within the state by the Michigan legislature as soon as possible.”

According to Mike Ripley, CORA environmental coordinator, the ores for the potential mine contain high levels of sulfide minerals. When mined, these ores can produce acid mine drainage that is lethal to sensitive fish species such as trout. The Salmon Trout River is home to the last native Michigan population of coaster brook trout.

The life of the proposed mine is less than eight years. But, the pollution resulting from such a mine could last hundreds of years. Both rivers have been identified as important fish and wildlife habitat by the Habitat Committee of the Binational Program.

KBIC President Susan J. LaFernier made a statement at the Michigan Department of Environmental Quality (DEQ) Public Hearing on Sulfide Mining Rules. According to a press release, she said that the KBIC worked with the DEQ to develop the proposed rules in the hopes that “degradation to the environment and risks to human health that is likely to result from sulfide mining would be reduced.” However, after review of the final draft of the proposed rules, the KBIC concluded, “its goal would not be accomplished.” KBIC was especially concerned about leaching or run off of mining waste products and wanted both to be prevented.

In a letter to the Michigan DEQ, CORA expressed its concern that the proposed rules could result in negative impacts to Michigan waters and made recommendations to shore up weak or non-existent language to the rules. Further, as the proposed rules stand, there is no pre-application process in place that would provide MDEQ staff with adequate time and resources for reviewing the proposed mining.

Great Lakes restoration is everyone’s responsibility

By Jennifer Dale

Readers will have seen plenty of commentary in the media about the federal government’s failure to fund Great Lakes Regional Collaboration’s (GLRC) plan to protect and restore the Great Lakes.

Our Great Lakes encompass 20 percent all the fresh surface water in the world — and 95 percent of this nations fresh surface water. We all have a responsibility to protect and restore this mighty resource. The GLRC — formed by presidential order and open to all citizens — spent the past year coming up with a tough plan to do just that. Citizens, tribal, state and federal agencies, environmental organizations, and industry all came together to work out an attainable plan. Unfortunately, for reasons of its own the Bush Administration does not seem interested in following through.

At the December Summit II in Chicago, the GLRC strategy plan to save the Great Lakes was unveiled. The plan called for $300 million in funding next year to kick-start the clean-up process. Considering that the small industry of commercial fishing pulls in about that much in a single year makes it seem a small investment in the billions of lives great and small that the Great Lakes supports even in its crippled state.

The $20 billion price tag doesn’t seem that high once put in perspective — this is the total multi-year, multi-source investment we will all make to get the job done. The fact that just the single industry of recreational boating pulls in twice that amount in one year — $40 billion — makes the Administration seem a little penny-wise and pound-foolish. Perhaps one of the Administration’s reasons for backing off on its commitment is the tragedy of New Orleans. The enormous cost in lives, land, culture and economy, not to mention the clean-up costs, may have dried up monies for the next year. However, had Congress bothered to fund restoration of the New Orleans levees, a great deal of the loss may have been prevented. The investment was a large one, yes, but just a drop in the bucket compared to the loss. Short-term investment for long-term yield just makes common sense. Let’s not allow this to happen to the Great Lakes. The effects of aquatic invaders, mercury pollution from coal-fired power plants, habitat destruction and water quality degradation from non-sustainable land use — all these things and more are already making themselves felt in our lands, our hearts and our pocketbooks.

We can prevent the inevitable consequences from our past and present actions by making a commitment now. If each and every one of us can make that commitment, by example and by advocacy, the task can be accomplished. As Little Traverse Bay Bands of Odawa Indians Tribal Chairman Frank Ettawageshik remarked at the Summit II ceremony, our work on the strategy to restore and protect the Great Lakes has barely begun — an act of will is required.
CORA UPDATES

GLRC amends fishing regulations

SAULT STE. MARIE, Mich. — On Dec. 1, 2005, the Chippewa Ottawa Resource Authority (COR A) Great Lakes Resources Committee (GLRC) took action to amend the “CORA Commercial, Subsistence, and Recreational Fishing Regulations for the 1836 Treaty Ceded Waters of Lakes Superior, Michigan, and Huron.”

The required 30-day notice was given and there were no contests. An updated set of regulations can be viewed and downloaded from www.1836cora.org.

Those with any questions can contact Beverly Aikens or Jane TenEyck at 906-632-0043. The new language–

THE NEW LANGUAGE–The amendments, in Section III, IX and XXVIII of the regulations, are as follows:

Section III: Definitions, a new subsection (cc) will be added and will read: (cc) Active fishing boat means a boat which is used for fishing at least once in any 14-day period (weather permitting) and which is observed at an access site either unloading fish or leaving the site to engage in fishing. Section IX. Gear Restrictions, changes in subsection (c)(4) and will read (changes in italics):

(4) All trap nets used for fishing from September 1 through December 31 within ten (10) feet of the surface of the water shall have a staff buoy on the pot and at the terminating end of the lead, with at least six (6) inches by fourteen (14) inches in size. Each trap net lead shall have attached along the top edge of the net fluorescent orange floats at least six (6) inches by fourteen (14) inches in size, which are evenly spaced along the length of the lead every 300 feet or less; provided, trap net fishers may request from their Tribe an exemption from this requirement for nets located in areas of strong current.

Section XI. Gear Restrictions, additional sentence added to subsection (1) to read (addition in italics):

(1) No tribal fisher shall have unattended nets in 1836 Treaty waters. Unattended and abandoned nets may be seized by an enforcement officer and forfeited; provided, that if the nets have been reported to the appropriate Tribe net was vandaled or lost prior to seizure, the fisher shall be provided a reasonable opportunity to retrieve the nets. Section XXVIII. Use of Access Sites, two new subsections added (b)(9) and (b)(10) to read:

(9) Only active fishing boats may be moored at an access site from April 1 to December 31 of each year provided that such requirement shall not apply during the closed season for whitefish.

(10) Unless specified otherwise in the access site permit, no boat shall be left on the beach of the access site.

New species of Superior’s slime discovered

ST. PAUL, Minn. — Scientists have recently discovered a new species of algae native to Lake Superior. Science Museum of Minnesota researcher Dr. Mark Edlund and his colleagues, Dr. Rebecca Bixby of the University of Georgia and Dr. Gene Stoerner of the University of Michigan, unveiled their discovery in the November issue of Diatom Research.

Growing in shallow water on the rocks in a brownish slime called, “periphyton.” In this community of mostly microscopic organisms is a new species of diatom, Hannaea superiorensis.

Diatoms are a group of microscopic algae that live as single cells or in small colonies. They are found in nearly every body of water—oceans, lakes, rivers, bogs, even most soil. Diatoms are widely used in research. Since each species responds differently to changing environmental conditions and pollution, they are widely used as indicators of water quality.

Because of their glass cell walls, diatoms are easily preserved in the fossil record. Studies of sediment from the bottom of lakes allows scientists to reconstruct the history of a lake — how the lake has changed over time, how it has responded to land use, pollution, development, climate change, or restoration efforts.

Diatom fossils of diatoms, called diatomaceous earth, are used in many industrial, filtering, processing and clean applications. Mined from large deposits in California and Nevada, diatomaceous earth is used in filters for beer, swimming pools, even french fry oil — the tiny holes in the diatom shells capture impurities. A gray powder of fossil diatoms is sold as an organic pesticide for gardeners; the diatoms are tiny glass fragments, which are ingested or inhaled by garden pests.

Edlund, an associate scientist at the Science Museum of Minnesota’s St. Croix Watershed Research Station in Marine on St. Croix, first collected this new species of diatom in 1992 from the Coast Guard breakwall by Artist Point in Grand Marais, Minn. He noticed that a long boomerang-shaped diatom that grows in pincushion-like colonies was common in the collection. Bixby, Edlund, and Stoerner studied the collection using light and electron microscopes and compared the structure of the Lake Superior form to all other species of Hannaea. They determined that it was a new species when it didn’t match with any other species known to science. That Artist Point collection now serves as the “type” for Hannaea superiorensis — any future studies that report this diatom will always be compared to the type collection.

Hannaea superiorensis is particularly noteworthy because it is endemic to Lake Superior; that is, it is not an exotic or invasive species. Edlund reports that healthy populations of Hannaea superiorensis have been present around Lake Superior since collections began in the 1960s, but also warns that endemic species are often the most vulnerable to pollution, climate change, and human impact.

“We long ago learned our lesson in the Great Lakes of how vulnerable endemic species are,” Edlund said.

The blue pike in Lake Erie, the deepwater and shortnose ciscoes in Lakes Michigan and Huron, and even a diatom, Cyclotella americana, have gone extinct in the Great Lakes from overfishing, introduction of exotic species, and pollution.”

“Many have traveled to the North Shore to relax and enjoy the beauty of Lake Superior, but now there’s something even more special about Grand Marais,” Edlund said. “The harbor is the type locality of its own species of diatom!”

Aikens gets promotion

Congratulations to 12-year CORA veteran Beverly Aikens, who was recently promoted to CORA Assistant Executive Director.

Office Dates

COR A 2006 Holidays — In 2006, the Chippewa Ottawa Resource Authority (COR A) office will be closed on the following days:

April 14 — May 29 — July 4 — September 4
September 22 — December 25

BIA 2006 Holidays — The Bureau of Indian Affairs (BIA) offices will be closed during 2006 on the following dates:

January 16 — February 20 — May 29
July 4 — September 4 — October 9
November 10 — November 23 — December 25

Authorized: Jennifer Dale

Deadline

The next deadline for the CORA newsletter “Preserving the Resource” (formerly “Tribe Fishing”) is Monday, March 3. Call or write Jennifer Dale at the CORA Public Information & Education Program 906-632-0043 or jmdale@chippewaottawa.org.

Please mark your calendars accordingly. To place important dates in this FAQ box, please contact Jennifer Dale at 906-632-0043 or jmdale@chippewaottawa.org.
“It is a fundamental fact that when sulfide mining occurs in areas where water is abundant, discharge of acid mine drainage into the adjacent water resources is catastrophic,” she said at the public hearing.

“This area is the homeland of the members of the Community Tribes of the St. Marys River. It is a part of our ancestral lands, areas of cultural and historic value, economic and environmental significance, and groundwater and surface water. On the matter of reative waste storage, CORA backed up GLIFWC by stating that the goal set out by GLIFWC. CORA also endorsed GLIFWC’s request to modify language for the violation of a mine permit, replacing the current language with a stronger and more specific language.

Like CORA and GLIFWC, KBIC is concerned about weak language in the proposed rules, language that do not assure protection of the region’s many resources, as expressed in the release.

LaFernier’s statement made it plain the KBIC feels that damage to the environment from sulfide mining is inevitable.

In its letter, CORA made requests that the draft with much stronger and more specific language. Interested parties can keep abreast of the proposed rules’ status by navigating to <http://www. cora.mi.us/emi/rules.asp?type=dept#EQ> and scrolling down to “2005-001 EQ Part 652, Nonferrous Metallic Minerals Mining.” Or, to obtain a copy of the proposed rules, contact Susan Maul of the DEQ at 517-241-1515.

We, the citizens of the St. Marys River Area of Concern, petition the Government of Canada and Ontario to promptly complete a comprehensive plan to adequately identify and remediate contaminated sediments within the St. Marys River, in cooperation with the Governments of the United States and Michigan, and that the plan be successfully executed in a timely manner. Further, the plan should especially focus on the removal or remediation of contaminated sediments related to the City of Sault Ste. Marie, Ontario’s East End Sewage Treatment Plant which continue to threaten the health of residents living downstream of that area.

For more information on BPAC and the St. Marys River, visit the USFWS Assessment Program homepage at <http://www.epa.gov/glnp/docs/stmarys.html> or <http://www.lsue.edu/bpac/>.
Cranberries have been used by the Anishinabe for millennia as a highly nutritious food and effective medicine. Cranberries are fat-free, low in calories and high in fiber and potassium. They are loaded with Vitamin C and an antioxidant called “proanthocyanidins,” which gives the cranberry its rich coloring. The berries can be used to make pemmican, as a dye, and as a wrangling dressing. Now it is a very popular food that is also being studied for its anti-bacterial, anti-cancer properties. (See http://www.umm.edu/alternativehealth/forresearchers/2006/janechiscript.html)

**Today’s Lesson: Cranberries are a tart, rich Autumn flavor treat. Today we will make them into a savory sauce for salmon or, if you like, a medium heat. Add the ginger, cooking until opaque, about 10 minutes. Add the cooked cranberries and half of the sage, returning to a brief simmer. Add the remaining butter until just melted of doneness, about 8 minutes. Remove from the broiler.**

Broiled salmon with Cranberry & Wild Mushroom Sauce

**Broiled salmon with Cranberry & Wild Mushroom Sauce**

Today’s Lesson: Cranberries are a tart, rich Autumn flavor treat. Today we will make them into a savory sauce for salmon or, if you like, a tart, rich Autumn flavor treat. Today we will make them into a savory sauce for salmon or, if you like, your Thanksgiving feast.

**Where do cranberries come from?**

The authentic cranberry is the American cranberry (Vaccinium macrocarpon). It is the biggest of cranberries (typically one-inch in diameter) and is the only variety cultivated in large enough quantity to be shipped commercially. Most of the other varieties that are gathered are considered “wild” cranberries may not be true cranberries.

**How do cranberries grow?**

Cranberries are a creeping evergreen vine requiring a low, damp, acidic soil. During the late summer and early autumn, the berries turn crimson in color from the bright red fruit. The farmers flood the patches into bogs to both protect the cranberries from frost prior to harvest as well as to loosen the berries which float to the top where they can be easily “raked” to collect.

Advantages: Cranberries are considered a relatively good source of vitamin C. Selecting Your Cranberries: Harvest time for the freshest of the berries is September to December. Look for cranberries that are red, plump, hard and shiny. Avoid berries that are soft, bruised or exposed to excessive moisture which will, over time, produce rotten fruit. Cranberries can be kept refrigerated for up to one week or frozen up to two months.

**Try Your Technique:**

Try Broiled Wild Salmon with Cranberry & Wild Mushroom Sauce for a meal or save the sauce for your Thanksgiving feast.

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List of ingredients:

- 1 pound chanterelles (C=2g) (P=0g) (F=2g)*
- 2 tablespoons fresh sage (C=0g) (P=0g) (F=2g)
- 4 tablespoons Splenda (f=26g) (P=0g) (F=26g)*
- 1/4 cup snipped fresh chives (C=4g) (P=0g) (F=2g)
- 1/4 cup snipped fresh chives (C=4g) (P=0g) (F=2g)

**Making the cranberry & mushroom sauce:**

1. Preheat the broiler to 425 degrees F.
2. In a medium to large acid-resistant pot combine the cranberries, Splenda and red wine. Bring to a simmer over medium high heat, cooking until the berries are tender and the liquid is reduced to a thick sauce.

**How to serve: Position the salmon under the broiler cook until firm to the touch, about 8 minutes. Remove from the broiler.**

Ingredients:

- 1 pound chanterelles (C=2g) (P=0g) (F=2g)*
- 2 tablespoons fresh sage (C=0g) (P=0g) (F=2g)
- 4 tablespoons Splenda (f=26g) (P=0g) (F=26g)*
- 1/4 cup snipped fresh chives (C=4g) (P=0g) (F=2g)

**Broiled salmon with Cranberry & Wild Mushroom Sauce**

Makes 4 servings of about 12 grams of carbohydrates; 21 grams of protein & 8 grams of fiber each; Prep Time about 30 minutes; Cook time about 12 minutes

**2 cups fresh cranberries (C=25g) (P=0g) (F=25g)***

**4 tablespoons Splenda (P=0g) (F=2g)***

**1 cup big dry Zinfandel red wine (C=8g)**

**4 tablespoons unsalted butter (C=0g)***

**2 tablespoons finely minced fresh ginger root (C=3g)***

**Sea salt (C=0g)***

**Freshly ground black pepper (C=4g)***

**2 tablespoon fresh sage leaves, cut into julienne (C=4g)***

**4 fillets of wild salmon, preferably with skin but bones and connective tissue removed, about 6 ounces each (C=2g)***

**1/4 cup snipped fresh chives (C=4g)***

**Boat For Sale**

**42-foot Gill Net Tug**

**39-foot Gill Net Tug**

**36-foot Steel Trap Net Boat**

**Sauce for a meal or save the sauce for your Thanksgiving feast.**