

## News

### **Pondering environmental impacts of potential mine**

*Part 3 of a three-part series*

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A potential iron mine in northwestern Wisconsin has given rise to concerns regarding the impacts such a project may pose to the environment, wildlife and surrounding water bodies.

Tom Fitz, associate professor of geoscience at Northland College, said the project would have a physical impact on the landscape, as well as affect the region's water table.

"Whenever you mine, you're mining below the water table. The water table has to be drawn down. As a result of that, there would be a lot of water extracted and that water would have to go somewhere, I would think," Fitz said. "Unless they can somehow prevent the water from coming in the mine, which has been done some places."

Fitz added that if the water table were drawn down it would likely affect those who have wells in the area.

"And what are they going to do with that water? This is the headwaters of the Bad River. If you put a lot of water into the headwaters of the Bad River, it's going to have some hydrologic impact downstream," Fitz said.

Michele Wheeler is one person mindful of the effects a mining operation may have on the Bad River Watershed. Wheeler is the executive director of the Bad River Watershed Association (BRWA), a non-profit group founded in 2002.

"We work to promote people's livelihoods and to do that in a way that's sustainable over the long-term," Wheeler said. "We're not so much an anti-mining group or anti-forestry group, but we are thoughtful about how we can do those things that takes care of the rivers in the meantime."

She's considering the potential mining project like any other possible land use.

"The types of things to think about are both direct impacts on water quality, but also comprehensive watershed-scale cumulative impacts," Wheeler said, noting the runoff that may result from a mining project is an important concern in the Bad River Basin.

"It's the largest contributor of sediment because of the underlying geology and the way the landscape is," Wheeler said. "The rivers move a lot of stuff and all of that ends up in Lake Superior, so what we do on the land in the Bad River Watershed effects what's going on in Lake Superior in a really big way."

In addition, the potential for groundwater contamination should be considered, Wheeler said.

"Groundwater moves slowly, so, once it's in there, it's in there," she said.

Wheeler added the amount of water in streams and water temperature in the watershed is also a

concern.

"The groundwater supplies to surface water are going to keep those streams cold. For species that rely on that cold water, there could be some changes there," Wheeler said.

The Bad River Watershed is the largest watershed in Wisconsin to empty into Lake Superior, covering around 1,000 square miles. Wheeler said the proposed mining area runs along the upper and lower parts of the Bad River.

"Right now, we sample at about 18 sites for water quality throughout the Bad River Watershed — many of those are in the upper Bad River system," she said, highlighting sites in the Marengo, Tyler Forks, White and Potato rivers. "What we've found from that data is that mostly the rivers are in good shape. Generally speaking, our rivers are in pretty high quality ... it would be great to keep it that way."

James Zorn, executive administrator of the Great Lakes Indian Fish and Wildlife Commission (GLIFWC), said the proposed iron mine would change the region as residents know it.

"We're talking about a much larger footprint in northern Wisconsin that changes the nature and character of what this place is to so many people," Zorn said. "I think that whether it's the tribal communities or whether it is the entire community up here there's going to be a very interesting discussion of what do you want to look like in 100 years."

The commission has been considering how a potential mining project may impact treaty rights, as well as how that plays into members' rights to hunt, fish and gather in ceded territories.

"The purpose of those rights are for the tribes to continue their lifeways as Anishinaabe people for cultural, spiritual, subsistence, economic or medicinal purposes," Zorn said. "The idea is that you use the land and resources as who you are as a people and as a community as it was at treaty times and so it shall be into the future."

Zorn said it's difficult to gauge the potential iron mine as one project isolated from other land uses in the area.

"You look at how much of that water and how much of that land is still available for tribal members to exercise on either because it's changed into private hands or because of habitat loss or toxic contamination of the resources that the tribes would want to harvest and use," Zorn said, citing the effects of mercury and other toxins on fish in the area. He added that the Bad River Tribe is immediately downstream from where the potential mine may exist.

"It's in the headwaters of the Bad River Watershed, and it drains to the reservation," he said. "There's a very direct impact in terms of the ecological or environmental impacts."

Without a concrete proposal, Zorn said it's difficult to speculate on the impacts that may occur.

"There's just nothing really to weigh in on yet other than you look at how mining has taken place in the country and other parts of the world. It's not a pretty picture in many contexts."

However, Zorn said the tribes are economic developers as well.

"You look at the reservations. They have housing projects. They have roads. They have sewer projects. They have economic enterprises from casinos to hotels to marinas to campgrounds and so on," Zorn said. "You take each project as it comes about and you look at the specifics of it and you decide on the balance."

Zorn said there are different risk levels for water quality depending on the type of minerals that may be mined. Ann McCammon Soltis is director of intergovernmental affairs at GLIFWC. Soltis added that tribes have what's called "treatment as a sovereign" under the federal Clean Water Act.

"They can set water quality standards that apply on their reservations," said McCammon Soltis. "What that can then mean is that anybody that wants to develop upstream of the reservation has to meet the water quality standards of the reservation at the reservation border. There is the ability to look beyond the reservation to see if what somebody upstream is proposing might impact the tribes water quality when it hits the reservation boundary."

The absence of healthy natural habitats and resources subject to treaty rights would amount to an empty promise by the United States government, said Zorn.

"The notion of destroying habitat to the point where you might as well be putting a law in that says you can't hunt, fish and gather is a legal issue that is not tied to any particular statute. It's tied to the treaty itself that ultimately creates a course of action tribes could consider," Zorn said. "It depends upon the particular facts and circumstances."

Meanwhile, much of the treaty-ceded territories are already stressed by land use practices, invasives species and other environmental impacts, according to Zorn.

"It's a very difficult proposition for tribes and their communities to consider one more weight on that side of the scale versus what's going to be left now and for future generations," Zorn said.

J. Matthew Fifield, representative of Gogebic Taconite, the company undertaking the mining feasibility study, said neither he nor the Cline Group have encountered comparable situations to the Bad River Band in their more than 50 mining operations in West Virginia, Ohio, Kentucky, Illinois and Tennessee.

"I think we've registered a lot of concern and some deep-rooted issues, some of which are cultural," Fifield said of meetings with the tribe. "The biggest is environmental and water quality. We respect that point of view."

As for Gogebic Taconite — more specifically the Cline Group — the privately held mining group has previously dealt with concerns over environmental impacts of their operations. For example, a petition was brought against Cline affiliate Macoupin Energy, LLC — an Illinois coal company — for alleged concerns over groundwater and surface water contamination among other things. However, the Illinois Department of Natural Resources Office of Mines and Minerals dismissed the petition in May of this year.

In addition, the Ohio Environmental Protection Agency authorized discharges of suspended solids and iron into nearby waterways in January 2009 to Gatling Ohio, LLC — another Cline Group affiliate — in relation to the Yellowbush Mine. An Ohio EPA document stated, "The lowering of water quality is necessary to accommodate important social or economic development in the area in which the water body is located." Attempts to reach Gogebic Taconite and its representative J. Matthew Fifield about the Cline Group's environmental history on mining projects were unsuccessful Thursday.

However, Fifield said previously that objections to mining and the permit process seem to be geared toward sulfide mining. Recent developments in technology have given rise to mining sulfide minerals, such as copper, lead, zinc and nickel, in Minnesota and Michigan. High concentrations of sulfates in waterways have been known to harm wild rice. Water quality standards regarding the presence of sulfates has sparked debate in Minnesota recently regarding a proposed mining project of PolyMet Mining Corp. The Minnesota Chamber of Commerce filed suit on Dec. 17 against the Minnesota Pollution Control Agency over sulfate standards.

"This should have an entirely different environmental footprint. We have no expectations of making acid mine drainage. We have hopes and unknowns around what the environmental impact will be," Fifield said.

Meanwhile, Fitz of Northland College noted that the mineral deposits — made up mostly of magnetite and quartz — are very insoluble.

"The water would be clean. This is a lot different from metal sulfide deposits where basically when you dig it up you create sulfuric acid that has toxic metals in it," Fitz said. "There would be little or none of

that.”

Fifield said they wouldn't have taken on the project if insurmountable obstacles existed.

“I think we can build this project without having the negative effects on the environment that people fear,” Fifield said.

Tribal officials with the Bad River Band declined to comment on the proposed mining project at this time.

*To learn more:*

*A public meeting on the proposed iron mine will be held at the Northern Great Lakes Visitors Center on January 19 from 6 to 8 p.m. The meeting is sponsored by Wisconsin Public Radio, Northland College, Northern Great Lakes Visitor Center and the Ashland Daily Press.*

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