



Keep Lake Superior Wild

Sulfide Mining in Michigan's Upper Peninsula A Threat to Waters, Landscapes and Wildlife

Michigan's Upper Peninsula (UP) is renowned for its natural landscapes, abundant wildlife, and a way of life deeply connected to the area's rich natural resources. The UP truly is a natural treasure. Clean, undisturbed waters flow here; an interconnected system of inland lakes, wetlands, streams and rivers feeds Lake Superior and Lake Michigan, supports rich forests, and provides habitat for the region's many game and non-game species. Preserving these waters is essential to the economic and cultural vitality of the UP.

What is Sulfide Mining?

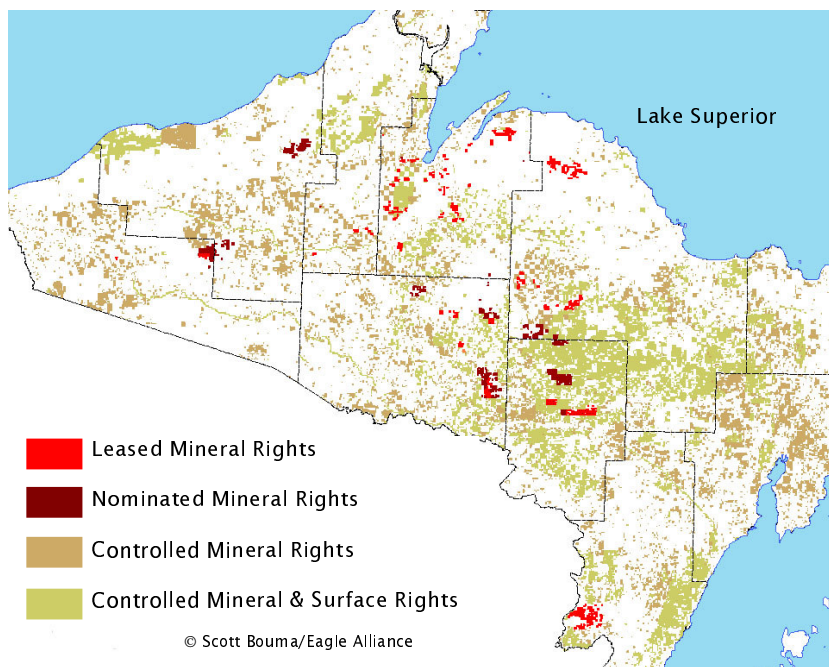
Abundant deposits of minerals lie beneath the Upper Peninsula's wetlands and forests. Kennecott Minerals Corporation and other mining companies have identified sulfide ores embedded with copper, nickel and other metals that occur in significant deposits across the central and western UP to Wisconsin and across Minnesota's North Shore. Several mining companies control mineral rights on hundreds of thousands of acres throughout the UP and are now poised to cut new mines in some of the state's most sensitive natural areas.

Mining in sulfide-rich areas, such as the Yellow Dog Plains in Marquette County, produces sulfuric acid that can leak into nearby wells, streams and lakes. Known as acid mine drainage, this phenomenon poses a long-term threat to the environment. Acid mine drainage from sulfide mining:

- Pollutes streams, rivers and waterways
- Disrupts wildlife habitat
- mars the natural landscape



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Tebo creek polluted by acid mine drainage in Missouri.



Where in the UP is Sulfide Mining a Threat?

Two new sulfide mining operations are now under development in the UP: the Eagle Prospect in the Yellow Dog Plains area of northern Marquette County and The Back 40 Joint Venture in Menominee County's Lake Township.

The Michigan Department of Natural Resources (MDNR) owns the mineral rights to all colored land parcels on the above map. Sulfide ore bodies lie beneath some of this land. Parcels marked as Leased Mineral Rights indicate areas with active leases and where the leasor is eligible to seek permits for exploration and mining. The parcels marked as Nominated Mineral Rights indicate additional areas that soon may be leased and developed.

New Mining Statute Seeks to Protect Michigan from the Risks of Sulfide Mining

Today iron ore mining remains an important segment of the area's economy. Sulfide mining, however, differs from traditional mining in the Upper Peninsula and brings certain unique challenges. In December 2004, the Michigan legislature enacted a new statute to govern sulfide mining. Strong regulations under the statute are essential to prevent the long-term, irreversible effects on the environment of acid mine drainage. A process to write these regulations is expected to last until at least December 2005. Rigorous application of Michigan's new sulfide mining statute can help ensure protection of our water resources and natural landscapes today and for generations to come.

In Harm's Way: The Yellow Dog Plains and the Coaster Brook Trout

Exploration for a proposed sulfide ore mine in Marquette County has occurred within 100 feet of the Salmon Trout River on the Yellow Dog Plains – one of the most remote and unspoiled places in the entire Great Lakes region. Five streams and rivers that empty into Lake Superior originate on the Yellow Dog Plains. The Salmon Trout River houses the last remaining run of native coaster brook trout along the entire south shore of Lake Superior. The highly prized and imperiled fish migrates each year from Lake Superior up the Salmon Trout River to spawn. The fry grow in nursery areas of streams, protected from predators, until they return to Lake Superior to feed and grow. Sulfide mining in the Yellow Dog Plains could alter water quality and flow, devastating this fragile population of coaster brook trout while hurting the local economy dependent on sport fishing and related recreation.

Sulfide Mining: An Uncertain Legacy

The Flambeau Mine near Ladysmith, Wisconsin operated between 1993 and 1997. Although the mine employed state-of-the-art mining technology, the area was not always safe from threats of acid mine drainage. Holding areas, for example, experienced frequent and numerous holes in the liners used to keep acid-producing waste rock from contaminating ground and surface water. The mine operated within 140 feet of the Flambeau River. In 2003, copper-contaminated soil was discovered along an eroding rail spur that required the top two feet of soil in the area to be removed. The wetlands and stream emerging from the contaminated area currently have elevated copper levels and are undergoing additional testing by the company and the Wisconsin Department of Natural Resources.

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