

A small, modern mine with no processing plant left behind pollution that could last thousands of years.



Question:

Is the Flambeau Mine an example of a sulfide mine that didn't pollute nearby waters?

The Flambeau Mine near Ladysmith, Wisconsin is cited by sulfide mining advocates as their example of a mine that hasn't polluted nearby waters. This is not accurate. **The Flambeau Mine has polluted surface water and ground water—and continues to today.** Flambeau shows that even small, short-lived sulfide mines leave long legacies of complicated water pollution behind.

What proof is there that Flambeau Mine polluted nearby waters?

The mining company's data show pollution of groundwater and surface water, and their models predict this will continue for thousands of years.

The Wisconsin Department of Natural Resources (WDNR) has recommended a stream flowing next to the site be designated "impaired" because **it exceeds acute toxicity levels for copper and zinc.** A 2012 assessment by the WDNR found samples from the stream exceeded acute toxicity criteria 92% of the time for copper and 46% of the time for zinc between 2002 and 2011.

The Flambeau Mine has also severely contaminated groundwater. Monitoring wells at the mine site show the groundwater contains high levels of manganese, zinc, copper, and sulfates—in some cases hundreds of times higher than drinking water standards. A monitoring well at the edge of the site has also found levels of iron and copper exceeding drinking water standards.

But didn't Flambeau Mining Company win a court case that showed they didn't pollute?

This pollution led to a lawsuit arguing Flambeau violated the federal Clean Water Act. In August 2013, the U.S. Court of Appeals overturned a District Court verdict that Flambeau Mining Company had violated the Clean Water Act. The Appeals Court did not rule on whether there is pollution, only whether the company is liable for that pollution under the Clean Water Act.



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Photo taken September 17, 1994 when floodwaters came within 20 feet of the pit edge.

Is the Flambeau Mine a good comparison to the PolyMet mine proposal?

In some ways, the Flambeau Mine is similar to the PolyMet proposal in Minnesota. Flambeau was an open-pit mine that extracted similar metals to what PolyMet proposes to mine. Flambeau was permitted under environmental laws similar to the standards that would apply to the PolyMet mine.

However, there are many significant differences between Flambeau and PolyMet:

- Flambeau produced 1.9 million tons of ore in its four year lifespan, PolyMet proposes extracting 225 million tons of ore. By this measure, **PolyMet would be over 100 times the size of the Flambeau mine.**
- Flambeau's single open pit was 35 acres in size and 225 feet deep. PolyMet proposes three open pits that total 521 acres in size, up to 696 feet deep.
- Flambeau shipped its high grade ore to Sudbury, Ontario for processing. PolyMet would process its low grade ore at a plant site near the mine. Because the Flambeau mine did not process ore, it had no processing plant, tailings ponds, or need to dispose of waste from processing as PolyMet would require if permitted.
- Flambeau produced 8.5 million tons of waste rock. After closure, they filled the pit with waste rock and covered it. PolyMet would produce 218,150,000 tons of waste rock, which would cover 763 acres of land with waste rock up to 240 feet high.

Flambeau was less than 1% of the size of PolyMet's proposed mine, and had no processing facility. PolyMet would create hundreds of millions of tons of tailings over the life of the plant, and hundreds of thousands of tons of processing waste at their plant site. Models show that PolyMet's plant site will create pollution requiring water treatment for 500 years.

What lessons should we learn from the Flambeau Mine?

Even a very small mine with no processing plant, permitted under modern environmental laws, and operating for a few years can create groundwater and surface water pollution that will last thousands of years. Despite efforts by the company to make Flambeau an example of a "clean mine" after closure, pollution persists. Flambeau probably represents the best case for a closed mine, and it is still not "done right."

Learn more at miningtruth.org

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