

To: Bureau of Land Management
Topic: Twin Metals – Antofagasta Mine
Date: December 2021

I am writing as a long time Minnesota resident to encourage you to NOT support the Twin Metals mine. To allow this mine to go forward would be foolish considering the location and the risk presented by its proximity to watersheds. The environmental impact to the area is potentially immense. Please do everything in your power to stop the Twin Metals Mine from going forward.

It should go without saying that copper-nickel mining is notorious for its horrible environmental track record. The proposed mine is far too close to bodies of water and the rainy river watershed. Any type of copper-nickel mine should be off limits for Minnesota considering the need for maintaining precious water resources. Not only is there an extreme risk to the watershed in the vicinity of the proposed mine, but such mining will result in damage to habitat, and, due to the extraction process alone, release of thousands of metric tons of carbon dioxide into the atmosphere. In addition, in spite of being an underground copper-nickel mine, the proposed Antofagasta mine would produce mineral dust smaller than what is regulated and has been studied. It's not known if these fibers would cause harm to workers or nearby residents. Any serious health effects on workers will take years to manifest, and the mining company will be difficult to hold accountable.

There are dozens of examples of serious sulfide mining problems over the last 20 years throughout the U.S. You have likely been made aware of many examples. Acid mine drainage from such mines (e.g., check out the Iron Mountain mine and seepage into the Sacramento River) has polluted waters and killed hundreds of thousands of fish with permanent impacts on habitats. Cleanup costs are in the hundreds of millions for many such mines and the pollution often requires operation of treatment plants into perpetuity following mine closure. Not only is it necessary to neutralize unexpected spills and seepage, but the toxic sludge then needs to be removed from the bodies of water that are affected. Why open Minnesota up to such risks?

Why would the Federal government consider allowing such a mine in such a water rich state? The BWCA is a resource enjoyed by people from all over the U.S. In fact, it was just announced that the U.S. Forest Service may reduce access to the park in 2022 because of the natural resource disturbances that have occurred from overuse.

Please don't allow this project to move forward. It does not have Minnesota's best interests in mind nor the best interests of those outside Minnesota. Allowing copper-nickel mining in a state with such prevalent underground waters sets a dangerous precedent. The outcomes associated with the mine will undoubtedly leave Minnesota saddled with long term clean-up for years to come.

Kind regards,

Erica TenBroek, Ph.D.

