

Acid Mine Drainage
*Why we are concerned about
metallic sulfide mining*

Unlike iron and copper mining traditionally practiced in the UP, metallic sulfide mining extracts metal-bearing ore, commonly containing copper and nickel, from sulfide mineral deposits.

The sulfide minerals in a high percentage of these deposits react upon contact with air and water to produce sulfuric acid. Disturbing these mineral deposits through excavation, crushing or pulverizing increases the rate and degree of their reactivity. The waste rock, tailings and dust found at a mine site are especially reactive. When they interact with water, the sulfuric acid produced (which disperses at a much greater rate from a disturbed than from an undisturbed sulfide ores) creates acid mine drainage (AMD).

AMD can contaminate adjacent surface and groundwater, causing harm to people, other creatures, plants and human-made structures.

AMD also dissolves and releases heavy metals (lead, zinc, copper, mercury) from the surrounding environment. These metals then enter the ground and surface waters, becoming a serious environmental and public health issue.

Cumulative heavy metal toxicity can damage mental and central nervous system functions, affect vital organs, produce allergies, and possibly cause cancer.

AMD-impacted streams form red, orange, or yellow sediments. Associated chemicals can disrupt the growth and reproduction of fish and can kill aquatic plants and animals. AMD can require costly perpetual monitoring and remediation .

There is a very high probability that a metallic sulfide mine will contaminate water resources when abundant water is present, as in a region like ours, and when the water comes into contact with the products of mining. This matter will be examined carefully in the course of our action research investigations.