



The more you know, the less gold glows.

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Poisoned Waters

Gold mining can have a devastating effect on nearby water resources. Long term effects include **acid mine drainage**, which raises acid levels in rivers and lakes (harmful to wildlife and people). Some mines regularly dispose of toxic waste in rivers, lakes, and even oceans. Others store the soupy, semi-solid mine waste known as tailings in dammed up reservoirs, which can leak or burst. **Cyanide used in leaching gold from** ore can pollute water resources and kill fish and other life. (A rice-grain sized dose of cyanide can be fatal to humans; cyanide concentrations of 1 microgram (one-millionth of a gram) per liter of water can be fatal to fish.)



Discharge from the Ok Tedi mine into the Ok Tedi River, Papua New Guinea
Credit: Steve D'Esposito/Earthworks



Stream near a mine waste dump
Peruvian highlands of Junin. Farmers

Mine wastes also include byproducts like mercury and heavy metals, which can work their way into the food chain and sicken people and animals for generations.

A few of the more egregious examples of mining-related water pollution:

Tailings Dam Failures

Sign the pledge to end dirty gold mining!

SIGN NOW!

Did You Know?

Experts predict that the abandoned Iron Mountain mine in California will continue to poison its watershed with acid mine drainage for over 3000 years.



rely on this stream to water their llamas.
Credit: Nancy Delaney/Oxfam America

In 1995, a tailings dam broke at the Omai gold mine in Guyana (one of the largest open-pit mines

in the world), releasing some 3 billion cubic liters of cyanide-laden tailings into nearby rivers. According to the Pan American Health Organization, the spill eliminated all aquatic life in the Omai River. In 1996, the Marcopper Mine in the Philippines (producing copper, silver and gold) leaked 3 to 4 million tons of tailings into the Makulapnit and Boac River system over several months. The initial spill caused a flash flood that required the evacuation of 1,200 residents, destroyed road crossings, and eliminated all aquatic life downstream from the mine.

Ocean Dumping

In Northern Sulawesi, Indonesia, the Minahasa Raya gold mine, which the US-based Newmont Corporation opened in 1996 and closed in late 2003, discarded more than 4 million tons of tailings into the nearby Buyat bay. Local people reported skin rashes after contact with seawater and a toxicologist has found heavy metals in fish and plankton. In northern Chile, near the small fishing town of Chanaral, a Chilean National Copper Corporation (CODELCO) mine was dumping tailings into a nearby bay, depleting local fish populations, until the town sued the company in the mid 1980s to stop the practice.



Tailings pipes from the Marcopper mine in Marinduque entering the sea at Calancan Bay, Philippines.

Credit: Catherine Coumans/MiningWatch Canada

Mercury Pollution

In the 19th century, gold prospectors in California used mercury to purify gold. They disposed of an estimated 4,000 tons of mercury in rivers and streams. Fish in the Sacramento River and San Francisco Bay still show elevated levels of mercury. State officials estimate that the hundreds of mercury mines still leaking into waters would cost billions of dollars to clean up.

For more information: