Case 11: The Gold King Mine Disaster

Legal authority and responsibility for managing environmental hazards lies with the Environmental Protection Agency. Beginning in the 1990s, the EPA sought to address the toxic leaking of water contaminated with heavy metals from the Gold King Mine near Silverton, Colorado. The contaminated water was flowing into the Animas River, putting the health of humans and wildlife at risk. The EPA suggested naming the mine a site of the EPA's Superfund program, which funds long-term projects to address environmental hazards that local communities and corporations cannot handle on their own.1

The community around the river refused the Superfund designation because the local economy is based on outdoor recreation tourism, and they did not want to discourage visitors and mine developers. However, since toxins were continuing to leak and had already killed all the fish in a tributary of the Animas, the EPA decided to address the issue without the additional funding and authority provided by a Superfund designation.

The EPA hired a professional group specializing in mine cleanup to assess the site, including the clay dam plug holding back water contaminated with metal tailings from the mine. Given the poor condition of the dam, one of the recommendations from this assessment was to build a retention pond to capture any tailings in case the dam were to break. Because the mine was not a Superfund site, the EPA asked the State of Colorado to fund this construction. However, the funding was not approved.

As a result, on August 5, 2015, the dam burst, releasing three million gallons of contaminated water.2 A dramatic orange plume laced with arsenic, cadmium and other heavy metals made its way down the Animas River into the San Juan River and eventually into Lake Powell, part of the Colorado River system. Local residents, recreation seekers, ranchers, and businesses were told to avoid touching, drinking, or using the water until weeks later, when testing showed the dangerous chemicals had dissipated. Bottled water had to be trucked in. Businesses closed temporarily or permanently. There is now concern that contaminated sediment settled at the bottom of the Animas River may cause long-term health problems for fish, other wildlife, and the people who depend on it for drinking water. The EPA has accepted responsibility for this incident.

In addition to the clay plug in the Gold King Mine, there are several other plugged mines in the same mountain or the same water system that are considered likely to burst at some point in the future. There are 22,000 abandoned mines in Colorado and over

500,000 nationwide. Not all are immediate public health and environmental threats, but it is unclear how many and how significant the threats are.

1 http://www.epa.gov/superfund/about.htm

2 http://www.usnews.com/news/us/articles/2015/08/11/officials-downstream-f...

Study questions:

1. Was it morally permissible for community members to lobby against Superfund status, delaying efforts to stop the leakage of contaminated water from the Gold King Mine?

2. Should the EPA have gone ahead in establishing the Gold King Mine as a Superfund site twenty years ago in spite of the local community's lack of support?

3. Should the EPA require local approval for Superfund designations when the environmental and public health impact of the hazard reaches far beyond the local community (i.e. downstream)?

Author: Inger Schultz is a writer with a background in chemical and environmental engineering. She has worked in the corporate world and has served as a consultant in the field of public water supply systems. Inger has a longstanding concern for preserving access to clean water. She has also been an early advocate for environmental education. In her role as development officer, she helped raise monies for the University of Michigan Nichols Arboretum's Reader Urban Environmental Education Center. Further, she co-founded the popular Shakespeare in the Arb theatre program and the Youth Strings Ensembles at the Community Music School of Ann Arbor. Her interest in the arts extends to her work in fundraising for the Arthur Miller Theatre at the U-M School for Music, Theater and Dance.