

***Protecting Public Health and the
Environment from Legacy Mining Toxins***



Mine Waste in the Northern Sierra

A PRIMER for
NONPROFIT ORGANIZATIONS
in the SIERRA NEVADA
by
The Sierra Fund
March 2010

The purpose of this document is to summarize the key issues that confront nonprofit organizations facing legacy mining issues in their communities.

THE SIERRA FUND is the only nonprofit community foundation dedicated to the Sierra Nevada. Our mission is to increase and organize investment in the region's natural resources and communities.



We pursue this mission three ways: through **Advocacy** to bring public funding to the region, **Philanthropy** to provide a vehicle for private funding, and **Strategic Campaigns** that pursue critically needed programs in the Sierra.

Since 2006, the Mining's Toxic Legacy Initiative has been our primary strategic campaign. The goal of this Initiative is to assess and address the ongoing impacts of toxins left over from the Gold Rush and subsequent mining in the Sierra Nevada.

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Hydraulic Mining

WHAT ARE THE MODERN-DAY EFFECTS OF HISTORIC MINING IN THE SIERRA NEVADA?

The Gold Rush, while it contributed enormously to the prosperity of California and the nation, devastated the land and people of the Sierra Nevada, and left behind pollution and other hazards that still affect our Gold Country communities and environment:

- 1. Physical Hazards** include open mine shafts that people and animals can fall into, and underground tunnels that can collapse, causing damage to houses, trails and water systems.
- 2. Environmental Hazards (exposure to toxins)** can affect the health of people in the Gold Country.
 - **Arsenic, asbestos, chromium and lead** occur naturally in this region, and can be a health hazard when crushed and distributed in the mining process. People can be exposed to these toxins by breathing the dust where they live, work or recreate.
 - **Mercury**, on the other hand, was brought to the Sierra in the form of quicksilver to process gold, and is still laced through our creeks and rivers. People who eat local fish, especially women and children, can be affected.

WHY DO NONPROFIT ORGANIZATIONS NEED TO BE AWARE OF THESE IMPACTS?

Legacy mining toxins can affect nonprofit organizations in several ways:

1. Many nonprofit organizations have purchased or been donated property contaminated with legacy mine waste or physical hazards.
2. Some nonprofit organizations may be considering acquiring land that may be contaminated with legacy mine problems.
3. Nonprofit organizations working to protect water quality may encounter mining toxins during restoration projects such as development of wetlands, building trails or restoring streams on public lands.



Mining equipment found on land trust property

WHAT CAN A NONPROFIT DO TO RESPOND TO LEGACY MINING HAZARDS IN ITS WORK?

Support public dialogue and participation in policies or programs to address mining impacts: The public needs to be involved in any mine remediation projects planned for the community, including those proposed by nonprofit organizations. Convene public meetings to talk about proposed remediation activities on your land, or projects in cooperation with government agencies.

Consult local tribes: Local tribal leaders should be contacted to ensure protection of cultural sites so that cultural practices do not continue to be affected by legacy mining contamination.

An *ALL APPROPRIATE INQUIRIES ASSESSMENT* will protect the buyer from legal liability under Comprehensive Environmental Response and Compensation and Liability Act (CERCLA) for cleanup of mine contamination already present on the property. Other assessments such as state assessments do NOT necessarily provide this protection.

Inventory lands and facilities for legacy mining problems prior to purchase: Nonprofit organizations should conduct an *ALL APPROPRIATE INQUIRIES ASSESSMENT* on lands that they are planning to acquire with a special eye towards mining hazards. This assessment is the only one that will shield the landowner from liability for prior contamination from mining toxins. In conducting this assessment, employ contractors with the expertise necessary to identify all potential mining hazards.

Assess lands that are owned: Assess lands for hidden mine shafts or tailings. If mine tailings are present, they should be sampled for toxins such as arsenic, asbestos and lead since people can be exposed by breathing the dust in these areas.



Historic Mine Access in an area citizens and organizations are working hard to preserve for its spectacular beauty and recreation opportunities

Limit liability by observing basic protocols: A nonprofit that finds that it has bought or been given land that has mining scars such as mine tailings, shafts and adits, or old mining equipment can limit liability by restricting access until the site can be cleaned up.

Take care when developing mine scarred land for recreation: Activities such as trail building, developing picnic sites or ball fields can disturb potentially hazardous materials. Create a good program to test for toxins before beginning improvements, and create a monitoring protocol for before, during and after project development.

Take care when restoring waterways impacted by mercury: Use best management methods for stream restoration projects, especially wetlands restoration, to minimize production of methylmercury.

Seek funding or other resources to clean up hazards and improve programs: State and federal programs have funds available to assist in assessing, planning, and implementation of remediation programs for legacy mining hazards. One such program is the federal EPA Brownfields program, which provides funding for community assessment for toxins, training, and cleanup. State funds for wetlands development and trail building may include support for remediation activities as well. Some private foundations have begun to show an interest in these issues and are a potential source of funding as well.

Work with The Sierra Fund: Since 2006, The Sierra Fund has been working to assess, address, and increase public awareness of historic mining impacts in the Sierra Nevada, through our “Mining’s Toxic Legacy” Initiative.

The Sierra Fund has a team of experts and a toolbox of resources available to provide assistance on all of the above activities. Contact our staff to learn more about these services:

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FURTHER INFORMATION

This document is intended to provide a brief overview of the issues that nonprofit organizations encounter in areas of legacy mining. For more detailed information on liability, regulations, protocols, and funding opportunities, contact The Sierra Fund or consult these resources:

PRINT RESOURCES

Abandoned Mine Lands Preliminary Assessment Handbook

This 75-page handbook provides basic information for conducting an initial investigation of AML sites. It was published in 1998 by California EPA Department of Toxic Substances Control. A printed copy can be obtained from DTSC, or it can be found online at: www.dtsc.ca.gov/SiteCleanup/Brownfields/upload/aml_handbook.pdf

Mining's Toxic Legacy: An Initiative to Address Mining Toxins in the Sierra Nevada

Published in 2008 by The Sierra Fund, this 85-page report was the first comprehensive look at the ongoing cultural, health and environmental impacts of historic mining in the Sierra Nevada. It can be obtained by contacting The Sierra Fund, or online at: www.sierrafund.org/campagins/mining

Protecting Public & Environmental Health: A Primer for Local Government Officials

This document summarizes key issues that confront local government officials with legacy mining in their jurisdiction

WEB RESOURCES

Reclaiming the Sierra: a website managed by The Sierra Fund that includes information and resources for addressing mining impacts in the Sierra Nevada. www.reclaimingthesierra.org

Sierra Environmental Services Directory: a networking resource designed to connect landowners who have environmental restoration needs with scientific, legal and financial expertise. www.reclaimingthesierra.org/services-directory

CA Department of Conservation Abandoned Mine Lands Forum: a venue for discussion and coordination on water quality, safety and environmental hazard issues that agencies and other groups face with their abandoned mine land remediation projects in California. www.consrv.ca.gov/omr/abandoned_mine_lands/Pages/amlu_forum.aspx

Abandoned Mine Lands Portal: a website with information on AMLs, national partners, and what is being done. <http://www.abandonedmines.gov/>

My Water Quality Web Portal: a website with information on current CA advisories for water quality or fish consumption. <http://www.waterboards.ca.gov/mywaterquality/>

CA Environmental Protection Agency Office of Environmental Health Hazard Assessment (OEHHA): www.oehha.ca.gov

CA Environmental Protection Agency Department of Toxic Substances Control (DTSC): <http://www.dtsc.ca.gov/>

CA Department of Public Health: www.cdph.ca.gov

US Environmental Protection Agency Brownfields cleanup program: www.epa.gov/brownfields

DEER CREEK TRIBUTE TRAIL

In Nevada City, CA, partners ranging from local restoration and land trust nonprofits to, the local tribe and city government had a vision for a cultural and ecological greenway through town, along Deer Creek. Nevada City, like most towns in the Sierra Nevada, was founded around and on top of the most productive gold mines. In the course of planning the trail, which runs through legacy mining areas, it was routed to avoid exposing volunteers and users to mining toxins.



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Calling Back the Salmon Ceremony, Hank Meals

The annual Calling Back the Salmon Ceremony is led by the Tsi-Akim Maidu Tribe, in order to involve all community members in healing the ongoing impacts of the Gold Rush.