

United States Environmental Protection Agency, Region 9
Statement for the
State of California Assembly, Natural Resources Committee
Informational Hearing on Mercury and Abandoned Mine Lands
March 24, 2014

Thank you for the opportunity to provide testimony to the State of California Assembly, Natural Resources committee on EPA's perspective on Mercury and Abandoned Mine Lands.

The historical mining legacy is a daunting problem in California and the West. According to the California Department of Conservation, Abandoned Mines Unit, California currently has 47,000 abandoned mines, including between 550 and 2000 abandoned mercury mines. In addition to mercury mines, many gold and other non-mercury mines pose an environmental threat from mercury because mercury was used in the mineral extraction process.

EPA remains committed to prioritizing and addressing these sites in order to protect public health and the environment. EPA works with tribes and local, state, and federal agencies to assess, manage and clean up sites that pose a threat to local communities. To date, EPA has obligated \$75 million toward mercury related mine site cleanups in California. EPA Region 9 is currently working on the highest priority mine sites using the CERCLA National Priority Site listing process, CERCLA short term removal actions, and Brownfields assessments and cleanups. In addition, EPA is working with the California State Department of Toxic Substances, Water Quality Control Boards, and Department of Conservation to identify and prioritize additional mines for cleanup actions.

Region 9 is also working to advance the state of science in cleanup of mercury mines. The Region held a *State of the Science Workshop on Environmental Remediation of Mercury in Aquatic Environments* in September 2013 in San Francisco, attended by over 275 participants. Speakers were from EPA, BLM, Forest Service, USGS, State of California, Sierra Fund, and other stakeholders. The conference resulted in future direction for research and pilot projects to increase understanding of effective mercury remediation techniques.

In California, EPA Region 9 has assessed over 77 abandoned mines, of which 18 are mercury mines. Eight abandoned mines have been placed on the Superfund National Priorities List. Five are non-mercury, and three are mercury mines: Sulphur Bank, New Idria and Buena Vista/Klau Mine.

EPA has also responded to imminent threats to human health and the environment using our CERCLA removal authority. Region 9 has conducted removals at 15 abandoned mines in the State, including 10 mercury related mine sites. These include the Altoona Mine, Abbott/Turkey Run Mine, Buena Vista/Klau Mine, Gambonini Mine, Mt. Diablo Mine, Rinconada Mine, New Idria Mine, Polar Star Mine, Bodie State Park and Sulphur Bank Mine.

The following examples of EPA mercury mine cleanup activities illustrate the scope and complexity of abandoned mine problems in the State:

- **Altoona Mine** - This site was a primary contributor to the mercury contamination found downstream in Trinity Lake. Elevated concentrations of mercury in fish prompted EPA, in coordination with the US Forest Service, to develop a remedy for the mine. EPA and the Forest Service have spent \$7 million to clean up the site.
- **Gambonini Mine** - This mine was remediated after it was found that mercury contaminated drainage from the mine ended up in Tomales Bay near Pt. Reyes, an area with extensive sensitive wildlife and fish habitat. This mine was the major mercury contamination input into the Bay and cleaning up this one source resulted in a large benefit to the environment.
- **Abbott/ Turkey Run Mine** – This site, addressed by EPA after discussions with the California Water Quality Control Board, was one of the largest mercury contamination contributors to the Cache Creek watershed, which, in turn, had the highest proportion of mercury discharges to the Delta. EPA identified a responsible party and provided oversight of the cleanup.
- **Sulphur Bank Mine** - EPA has completed a number of removal actions at this site that have reduced exposure to mercury through reducing water and sediment discharges, sealing old abandoned geothermal wells and removing mine waste from the residential areas. EPA is selecting a permanent cleanup plan to stop contaminated groundwater discharges from the mine to Clear Lake.
- **New Idria Mine** - This mine is a source of mercury rich sediments and acid mine drainage to Silver and Panoche Creeks. EPA listed this site on the National Priorities List in September 2011 and, in addition to investigating the site, has conducted a removal action to reduce polluted runoff from the site.

Currently, EPA is engaged in drafting financial assurance regulations for mines, which will help prevent active and future mines from becoming abandoned without adequate funds for cleanup. These regulations, being developed with public comment, will be an important step in preventing future environmental harm from abandoned mines.