Sulphur Bank Mercury Mine Superfund Site

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Since 1990, the United States Environmental Protection Agency (EPA) has worked to clean up mercury and arsenic contamination at the Sulphur Bank Mercury Mine (SBMM) Superfund site (site).

EPA

EPA has been studying cleanup options in a Focused Feasibility Study (FFS). When the FFS is complete, EPA will share it with the community and ask for input during a public meeting.

EPA will also look at the site's impact on human health by revising a site-wide Human Health Risk Assessment (risk assessment). EPA expects the FFS and the risk assessment document to be published by late 2019.

While EPA finalizes these documents, it will also cleanup the "Northwest Waste Rock Pile" area of the site, which is between the mine site (labeled "OU-1" on Figure 1) and the "North Wetlands" area (see Figure 1 for location). The Northwest Waste Rock Pile area has high levels of contaminants and feeds into to a sensitive habitat area. This area overlaps with Elem Indian Colony land. The cleanup will relocate the contaminated rock pile to an engineered waste management area on the mine site. The cleanup will reduce the chance of residents coming into contact with the material.



Figure 1: Sulphur Bank Mercury Mine Site Map. The site has been divided into two project areas, known as "operable units." EPA is working on cleaning up both operable units at the same time.

Site Contaminants of Concern

The soils and mine wastes at the site contain high levels of mercury and arsenic. Mercury is a neurotoxin (chemical that affects the nervous system), and arsenic causes cancer and can affect organ function.

For this reason, trespassing onto the SBMM site is prohibited and risks one's health.

EPA has also found that stormwater and groundwater leaving the site contains mercury and other contaminants. As a result, mercury from the site has built up in the sediments and fish in Clear Lake.

Eating fish from Clear Lake can expose you to site contaminants

Different types of fish have different levels of mercury in their meat. EPA strongly recommends the public follow the State of California's Clear Lake Fish Consumption Advisory. It advises limiting the eating of some types of fish and avoiding others completely. Pregnant women, children, and women of childbearing age are especially recommended to follow the fish consumption advisory, as they are especially vulnerable to the health effects of mercury exposure. Details regarding the fish advisory can be found at: www.oehha.ca.gov/advisories/clear-lake

EPA Actions at Sulphur Bank

EPA has taken various actions at the site to protect human health and limit the site's impact on the environment, including:

- 1) Stabilizing the Waste Rock Dam to limit contaminants moving into Clear Lake;
- 2) Removing contaminated soils from the Elem Indian Colony and residential areas south of the site;
- 3) Diverting stormwater away from the site;
- 4) Capping mine waste along Bureau of Indian Affairs Road 120 (Pomo Road);
- 5) Conducting annual groundwater and surface water sampling;
- 6) Conducting semi-annual storm water monitoring; and
- 7) Maintaining site controls to keep unauthorized individuals from entering the site.



Figure 2: Work to reduce waste rock entering clear lake.

Site Background

SBMM is a former mercury mine located near the southeastern shore of Clear Lake. The mine, once one of the largest producers of mercury in California, was mined from 1856 to 1957. About two million cubic yards of tailings and mine wastes are in several large waste piles on site. The waste and tailings also are found outside the site and in Clear Lake sediment, in the wetlands to the north of the mine property, and on the Elem Indian Colony (see Figure 1). The flooded mine pit, commonly known as the Herman Impoundment, has a maximum depth of 90 feet and covers approximately 20 acres.

EPA is cleaning up the site through the Superfund process. Superfund is the commonly-used name for the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and is a federal law. CERCLA gives EPA the authority to respond to hazardous waste sites that threaten public health and the environment.

What's next?

- OU-1 Mine Site Focused Feasibility Study
- Site-wide Human Health Risk Assessment
- Northwest Waste Rock Pile Relocation

Please Contact Us

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You can find more information at: www.epa.gov/superfund/sulphurbankmercury

