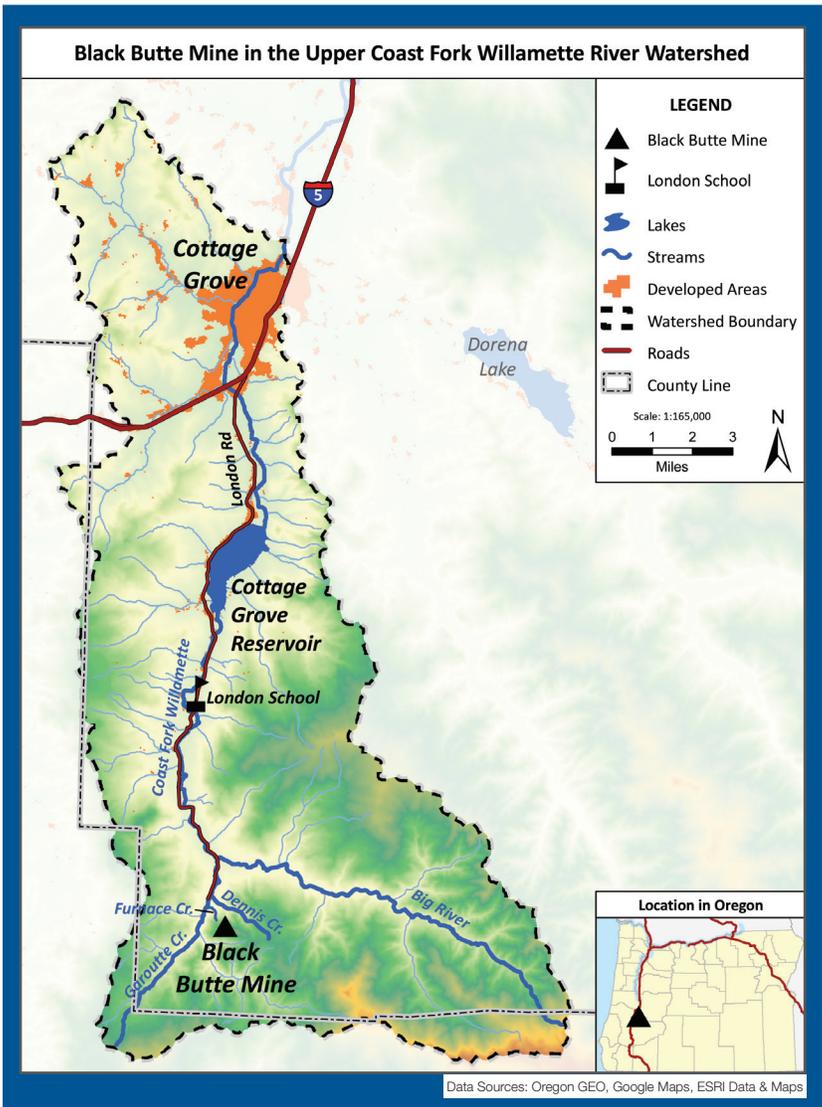




Black Butte Mine Summary



Background

Black Butte Mine is a former mercury mine located just south of Cottage Grove, Oregon, in the Coast Fork Willamette watershed. The mine site is on the northwest flank of Black Butte, near two creeks that empty into the Cottage Grove Reservoir, a popular recreational destination.

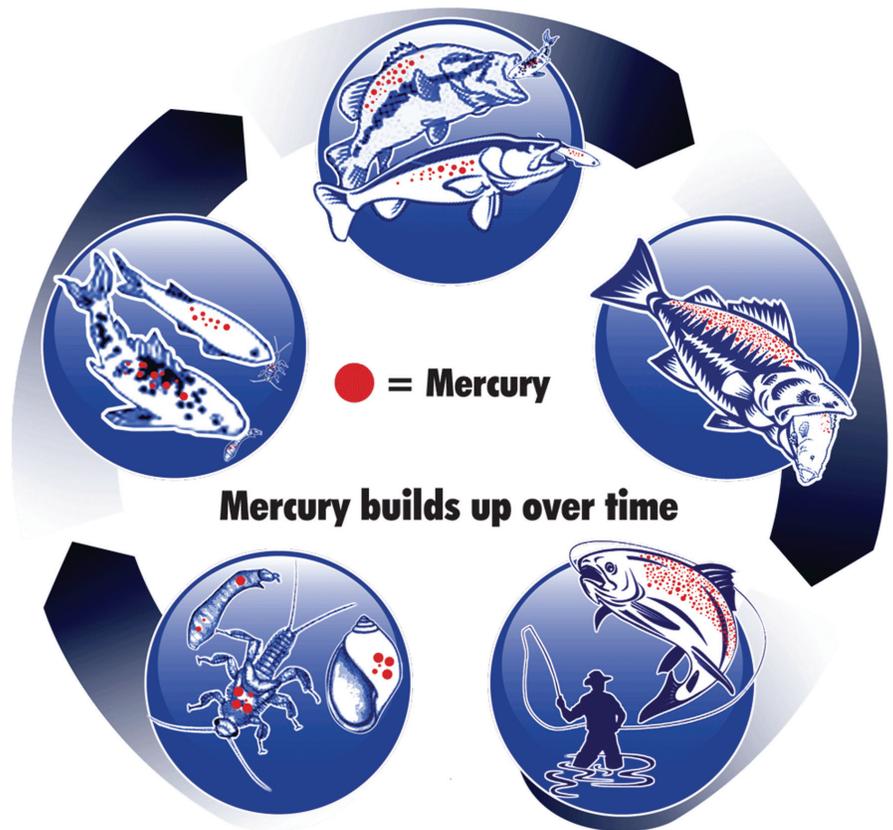
Black Butte Mine was listed as a U.S. Environmental Protection Agency (EPA) Superfund site in March 2010, and the Oregon Public Health Division, Environmental Health Assessment Program (EHAP) conducted a Public Health Assessment to assess the potential health risks of the mine to the communities living nearby.



What are the findings?

Fish consumption from Cottage Grove Reservoir:

The main public health concern is the high levels of mercury in the fish of Cottage Grove Reservoir. Eating more fish than what the current advisory recommends could put the health of children and adults at risk. Health problems related to mercury can range from memory loss and mood changes, to learning disabilities and permanent brain damage for small children and babies who are still in the womb. The current advisory can be found at www.healthoregon.org/fishadv.



The Cottage Grove Fish Advisory states:

- Women ages 18-45, children under 6, and people with liver and kidney problems should avoid eating fish from these waters.
- Healthy women beyond childbearing age (older than 45 years) and healthy adult males should eat no more than one meal per month. (A meal is about the size and thickness of the palm of your hand.)
- Mercury cannot be removed through cleaning or cooking methods.

EHAP recommends that fish caught from the reservoir not be given to others, unless the recipients are aware of where the fish were caught, and what the current fish advisory recommends.

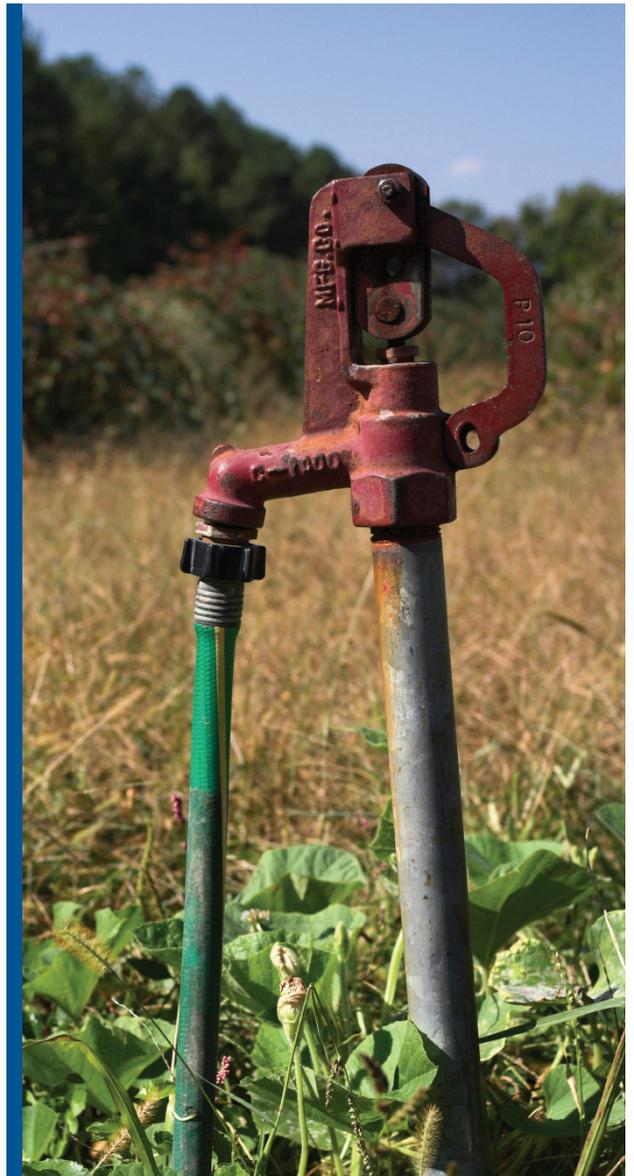
Naturally occurring arsenic in private wells:

Arsenic is a naturally occurring element in the earth's crust. As water flows through certain rock formations, it can dissolve arsenic and carry it into underground aquifers, streams or rivers that may be used as drinking water sources.

While not related to the mine itself, the Oregon Health Authority recommends that households using well water test their water for arsenic, along with nitrates and bacteria, at least once per year. Well water with arsenic levels above 10 ppb could harm the health of children and adults who drink it regularly, and should not be used for drinking, cooking, or washing fruits and vegetables.

However, well water with high levels of arsenic can still be safely used for washing dishes, doing laundry and showering. Keep in mind that small children would need supervision when bathing and brushing their teeth, in order to avoid accidentally swallowing the water.

Accredited laboratories throughout the state provide well water testing for private well owners. These labs can give you the information and instructions you need to have your well water tested.



For a list of accredited laboratories in Oregon, call the Oregon Environmental Laboratory Accreditation Program at **503-693-4122** or visit: <http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Documents/acclab.pdf>.

Tailings from the old mine site:

Tailings from Black Butte Mine may have been hauled off the site and used for construction purposes, including road construction and building foundations. The tailings are considered a health concern for toddlers who might swallow any, but there are no known locations where tailings from the mine have been placed.

If you have tailings from Black Butte Mine on your property, or know of tailings on public property, EHAP would like to hear from you (**1-877-290-6767**).

Recreational use of the reservoir and old mine site area:

- Swimming, recreating, and “catch-and-release” fishing in and around Cottage Grove reservoir is not a health concern. Mercury and arsenic do not go through your skin. Only when mercury undergoes a chemical process in the lake sediment does it become toxic in the food chain and bioaccumulate in the fish.
- There are no health concerns for recreational users of the old mining area, such as hunters and hikers. Working on the site as a logger, or as one of the previous employees of an on-site, temporary wood-chipping facility in the Old Furnace area of the mine property, is also not a health concern.

Other issues to consider:

- Trespassing on the site and playing in, on, or around the dilapidated buildings and equipment on the mine site in the New Furnace area could result in physical injury.
- There is not enough information to know if eating fish from Garoutte Creek, or from the Coast Fork Willamette, upstream from Cottage Grove Reservoir, is a health concern.

EHAP recommends that:

- The U.S. EPA clean up Furnace Creek in a way that it no longer carries mercury downstream into the Cottage Grove Reservoir. Tailings in the path of Furnace Creek continue to be the major source of mercury contamination in the downstream Cottage Grove Reservoir.
- EPA or Oregon Department of Fish and Wildlife (ODFW) test fish from the Coast Fork Willamette and Garoutte Creek, upstream from Cottage Grove Reservoir, for mercury levels.
- EPA either ensure that old mine buildings are structurally sound or tear them down to reduce the physical hazard to potential future residents or hunters/hikers passing through.



PUBLIC HEALTH DIVISION

Environmental Health Assessment Program

www.healthoregon.org/ehap

For more information about this Public Health Assessment, please contact EHAP at: ehap.info@state.or.us or call toll free: 1-877-290-6767.

This fact sheet is supported by the ATSDR grant award U61 TS000150

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