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BUNKER HILL MINING & METALLURGICAL COMPLEX SMELTERVILLE, ID

Cleanup Activities

On this page:

- [Background](#)
- [What Is Being Done to Clean Up the Site?](#)
- [What Is the Current Site Status?](#)
- [Activity and Use Limitations](#)
- [Sampling and Monitoring](#)
- [Emergency Response and Removal](#)
- [Enforcement Information](#)

On related pages:

- [Operable Units](#)
- [Cleanup Progress](#)

Background

The Coeur d'Alene Basin Cleanup is also known as the Bunker Hill Mining & Metallurgical Complex Superfund Site. It is located in northern Idaho and eastern Washington, in one of the largest historical mining districts in the world. The site spans 1,500 square miles and 166 river miles. Mining operations began in the area in 1883 and continue today. Historical mining and milling methods disposed of tailings in rivers and streams. Those practices spread contaminants throughout the floodplain of the South Fork Coeur d'Alene River. Contamination also comes from large waste piles, waste rock, and past air emissions from smelter operations. Soil, sediment, groundwater and surface water became contaminated with heavy metals such as lead. Lead and other metals pose serious risks to people and the environment, particularly to young children and pregnant women.

The site was first added to the National Priorities List in 1983. Since then, EPA and its partners have made great progress in cleaning up contamination. The EPA partners with many agencies and organization to achieve cleanup goals. These include the Idaho Department of Environmental Quality, the Basin Environmental Improvement Project Commission, the Panhandle Health District, and others. We've cleaned up properties, mine and mill sites, areas where people recreate, and many other places where metals pose a risk. However, much work still remains. A complete cleanup will take decades.

The Coeur d'Alene Basin Cleanup is one of the nation's largest and most complex Superfund sites. This site is divided into areas for manageable cleanup. One such area is known as "the **Box**" – a 21-square-mile area surrounding the historic smelter area. The Box includes the Shoshone County cities of Kellogg, Wardner, Smelterville, and Pinehurst. Much of the Box has been cleaned up. The part of the site outside of the Box where mining contamination is being addressed is called "the **Basin**." Unsafe lead levels are still a concern in some areas of the Basin.

What Is Being Done to Clean Up the Site?

The site is being addressed through federal, state, tribal and potentially responsible party (PRP) actions. EPA is cleaning up the site in three main areas, or operable units.

Cleanup of this large and complex site includes many activities. This includes removing and replacing surface soil in people's yards, public playgrounds, parks, commercial properties, and other areas. It also includes cleaning up mine waste at non-operating mine and mill sites in the Upper Basin. Other examples of activities include paving certain roads to block contamination, taking steps to keep cleaned up areas clean, and continuing public outreach and education.

Waste Repositories: Soil from cleanups of residential and commercial properties contains metals - like lead and arsenic - that can harm people. This soil needs a place where it can be safely contained. These waste repositories are carefully chosen and engineered to securely contain contaminated soil and reduce impacts to people and the environment. Waste repositories are managed long after they are closed to be sure the contaminants remain contained and secure. Waste repository locations for Bunker Hill include:

- Lower Burke Canyon Repository
- Canyon Creek Complex Repository
- East Mission Flats Repository
 - [East Mission Flats 2015 Annual Water Quality Report \(PDF\)](#) (54 pp, 10.55 MB)
 - [2016 East Mission Flats Repository Monitoring Report \(PDF\)](#) (101 pp, 5.56 MB)
 - [Appendix A - 2016 East Mission Flats Repository Monitoring Report \(PDF\)](#) (45 pp, 19.6 MB)
 - [Appendix B - 2016 East Mission Flats Repository Monitoring Report \(PDF\)](#) (379 pp, 6.42 MB)
 - [Appendix C - 2016 East Mission Flats Repository Monitoring Report \(PDF\)](#) (109 pp, 3.15 MB)
 - [Appendix D - 2016 East Mission Flats Repository Monitoring Report \(PDF\)](#) (9 pp, 2.99 MB)
- Big Creek Repository and its Annex
- Page Waste Repository

[2016 Optimization Review Report, Long-Term Monitoring Optimization Study, East Mission Flats and Big Creek Repositories \(PDF\)](#) (59 pp, 5 MB)

Another type of waste disposal area is called "Limited Use Repository." LURs accept waste only from replacement of local paved roads taking place under the cleanup. LURS operate only for short time periods. Once they are full, they are covered and could become suitable for redevelopment.

Lower Basin: EPA's data collection and analysis efforts in the Lower Basin are improving our understanding of how contaminants move and settle in the Basin. This understanding is supporting the development of cleanup alternatives to address contamination in the Lower Basin. The Upper Basin cleanup is expected to reduce the flow of contaminated sediments, reducing the potential for recontamination in the Lower Basin.

Five-Year Reviews: EPA has conducted several five-year reviews of the site's remedy. These reviews ensure that the remedies put in place protect public health and the environment, and function as intended by site decision documents. The most recent review concluded that response actions at

the site are in accordance with the remedy. EPA expects the remedy to be protective of human health and the environment upon remedy completion. In order for the remedy to be protective in the long-term several more actions must be taken.

What Is the Current Site Status?

Since the cleanup began, the area has become a healthier place to live, work, and play. Over 7,000 yards and public spaces have been "remediated," or cleaned up. Hillsides are lush and green again. The Trail of the Coeur d'Alenes draws recreationalists and visitors season after season. Many roads in the valley have been repaired to protect public health. Children's blood lead levels have dropped sharply.

Contamination still presents risks to public health and the environment. The cleanup is aimed at reducing risk and cleaning up contamination. It will take a long time. Here is some priority work going on now:

- Continuing property cleanups
- Starting contaminated groundwater collection and treatment
- Developing plans to address recreational and wildlife areas
- Managing the local Institutional Controls Program
- Paving public roads which serve as barriers to contamination
- Cleaning up mine waste at non-operating mine and mill sites
- Taking steps to keep cleaned-up areas clean
- Providing and operating repositories to safely secure waste soils
- Continuing public outreach and education

Activity and Use Limitations

At this site, activity and use limitations that EPA calls institutional controls are in place. Institutional controls play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use. They also guide human behavior. For instance, zoning restrictions prevent land uses – such as residential uses – that are not consistent with the level of cleanup.

For more background, see [Institutional Controls](#).

The Panhandle Health District manages the Institutional Controls Program. The ICP is a locally-enforced set of regulations that ensure clean soil and other barriers placed over contamination remain protective of public health. Permits are needed for many types of indoor and outdoor construction activities. Permits and consultations are free. You must comply with the ICP before digging on your property or starting some interior projects.

Sampling and Monitoring

EPA partners with many agencies as part of the cleanup's Basin Environmental Monitoring Plan. Sampling and monitoring of water, soils and sediments, and biota take place every year. The collected data helps us check on cleanup progress, assess Basin-wide trends, and inform cleanup decisions.

Emergency Response and Removal

Cleanup has also included several removal actions, or short-term cleanups, to address immediate threats to human health and the environment. These actions included removal of 8,750 cubic yards of contaminated soil from 16 public areas in the Bunker Hill Box such as parks and playgrounds, and disposal of the contaminated soil in an on-site repository. Removal actions also addressed contamination in the Basin residential areas (residential yards and playgrounds) and at some recreational areas in the Lower Basin.

Enforcement Information

Who pays for the Bunker Hill Superfund Site cleanup?

Funding from two settlements helps fund cleanup actions in the “Box” and the “Basin” areas of the Bunker Hill Superfund Site. EPA received about \$180 million from a settlement with Hecla Mining Company. As dictated in the court-entered Consent Decree with Hecla, these funds are held in an EPA site-specific special account for the Bunker Hill Mining and Metallurgical Superfund Site and must be used “to conduct or finance response actions at or in connection within the Site.” These funds can be used for cleanup actions in both the Basin and Box.

Additional funding for cleanup includes over \$435 million from the Asarco bankruptcy. This money was placed in the Coeur d’Alene Work Trust for cleanup in the Coeur d’Alene Basin. Another approximately \$50 million EPA received directly from the Asarco bankruptcy will also be placed in the Trust.

The funds in the Coeur d’Alene Work Trust are invested by the Trust and are expected to grow over time. The court order approving the Coeur d’Alene Work Trust requires that the Trust be used only to perform EPA selected cleanup actions in the Basin. Thus, the Coeur d’Alene Work Trust cannot be used for cleanup actions in the Box.

Since the cleanup needs in the Coeur d’Alene Basin are extremely large, EPA will need to manage this money very carefully to ensure there are sufficient funds for all the important work that needs to get done in both the Upper and Lower Basin. In addition, EPA Region 10, the office in charge of the cleanup, will continue to seek additional funding from EPA Headquarters to supplement settlement funds.

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