

SUPERFUND

Fact Sheet

BUNKER HILL

Kellogg, Idaho



U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 10

September 1998

This fact sheet summarizes cleanup activities at the Bunker Hill Site during the 1998 summer construction season. We also wanted to let you know about an effort to revegetate area hillsides which will be taking place in late September. It is hoped that soon native vegetation and wildlife will flourish on this reclaimed land. After a decade of focused cleanup, the Bunker Hill Site is moving towards revival and growth, showing how a concentrated cleanup effort can improve an area that had been heavily industrialized for more than a century.

1998 Summer Cleanup Activities

The biggest construction season ever is wrapping up at the Bunker Hill Superfund Site in northern Idaho. The U.S. Environmental Protection Agency, their construction manager the U.S. Army Corps of Engineers, and the Corps' contractor the Morrison Knudsen Company of Boise, Idaho, completed an ambitious cleanup schedule this summer. The State of Idaho's contractor, Terragraphics, was also very involved, among many other contractors and consultants.

With a fleet of 20 50-ton Haul-Pak trucks and two Komatsu 750 Excavators, running two 10-hour shifts four days each week, contractors and local workers temporarily rerouted a river to enable the excavation of contaminated mine tailings. They finished a six-mile, heavy-duty haul road, removed and disposed of 1.25 million cubic yards of contaminated soil, and capped and closed a 32-acre mine waste and demolition debris landfill.

Summer of 1998

Funded by over \$20 million in federal dollars this year, and the State of Idaho's 10 percent matching funds, the Bunker Hill Site's cleanup work this summer was directed by the U.S. Army Corps of Engineers, general contractor Morrison Knudsen, and their subcontractor, Morrison Construction Services of Richland. CH2M Hill did design work for EPA, and Spectrum Engineering did so for the State of Idaho.

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Helicopters to Assist Hillside Revegetation Effort

Beginning on September 21, crews working for Tri-State Hydroseeding, Incorporated will be mobilizing aircraft and hydroseeding equipment to begin the task of revegetating the hillsides near Bunker Hill in Kellogg, Idaho. In this first phase of a three-year project, approximately 200 acres will be revegetated using lime, organic amendments, mulch, native seed and tackifiers to hold the materials to the hillsides.

Because many of the hillsides are inaccessible by land based equipment, a Sikorski sky crane helicopter will be used to apply some of the revegetation materials. Work is slated to begin during the week of September 21st, and depending on weather conditions, should be completed no later than October 31st. The hillsides targeted for this year's efforts are the east and west slopes of Government Gulch and the hillsides on the west side of Deadwood Gulch.



South Fork Coeur d'Alene River and Smelerville Flats

Excavation of contaminated materials from Smelerville Flats, an area along the South Fork of the Coeur d'Alene River, is completed. By September 14, 1.25 million cubic yards had been removed from the Flats. The design of this removal project was the joint effort of EPA's contractor, CH2M Hill, the U.S. Army Corps of Engineers, and Terragraphics, the State of Idaho's Contractor.

Cleanup managers re-routed the South Fork of the Coeur d'Alene River using small dams and earth-moving equipment. This created a new river course within the existing floodplain. Using heavy equipment, workers are removing and hauling approximately 25,000 to 30,000 cubic yards of tailings each week.

Contractors are bringing in clean fill to reshape the river channel as the tailings are removed, and topsoil to revegetate the Flats. They haul the contaminated tailings six miles over a haul road where they are permanently deposited in the Central Impoundment Area (CIA), a historic mine tailings pond at the Bunker Hill Site.

Cleanup managers foresee that this project will improve fish habitats by creating more pools, meanders and in-stream structure for shade, as well as reduce further downstream damage from contaminated sediments originating from Smelerville Flats. Flats revegetation will be completed next year.

Landfill Closure, Tailings Disposal, and Gulch Cleanup

The contractors have also removed soils contaminated with zinc, lead, cadmium, arsenic and other heavy metals from several gulches and ravines within the Bunker Hill Site. Bunker Limited Partnership (BLP) has participated in the cleanup of Burgin and Deadwood Gulches. After workers cleared these areas of buildings and contaminated soils, they brought in clean materials and re-planted the areas.

The cleanup group has reconstructed about six miles of creeks, complete with grade control structures and check dams.

The capping and closure of a demolition debris landfill at the site of the old lead smelter is also nearing completion. It contains the remains of more than 200 industrial structures demolished in previous years, and is now capped off with two layers of slag material for cushioning and drainage, an HDPE (High Density Poly-Ethylene) liner, a six-inch layer of topsoil, and grass. This work will finish ahead of schedule this fall.

Yard Cleanups

The State of Idaho is overseeing yard cleanups in the residential areas of the site. State officials report the Upstream Mining Group (UMG) is on schedule to meet this year's goal of 200 yards. By the end of 1998, nearly 1,400 yards will have been cleaned up. So far, the year-to-date total is 165.

Next Steps

The next step in the cleanup process is the closure of the 260-acre Central Impoundment Area (CIA) and installing a waterproof PVC (polyvinyl chloride) cap to prevent any future leaching, as well as slag and soil. The CIA has been identified as the largest point source of metals loading to the river. EPA plans to advertise a contract for this project in January 1999.

Property Transfer Status

Under the Superfund Program, after cleanup is complete with performance standards in place, EPA will transfer this remediated property to the State of Idaho for long term operations and maintenance (O&M) activities. The State is currently working on a plan that will describe the specific O&M procedures that will be used, and will work with the community on this project over a period of several months.



Health District Survey

The Panhandle Health District plans to release the results of the 1998 blood lead level survey at the October 29, 1998 Task Force Meeting. Citizen participation in the survey was higher in 1998 than in 1997. Surveys have been taking place for the past several years, and the ongoing cleanup effort has helped decrease the blood lead level.

The Future for Bunker Hill

Under an EPA Brownfields Grant, the Panhandle Health District is working with the Silver Valley Economic Development Corporation and Shoshone County to assist local citizens in planning possible redevelopment projects. We hope the Summer of 1998 will be remembered as a large step forward for both the economy and the environment.

Site History

The Bunker Hill Mining and metallurgical complex covers 21 square miles and encompasses the communities of Kellogg, Smelterville, Wardner, Pinehurst, Page, Ross Ranch, Montgomery Gulch and Elizabeth Park.

Mining activities began in the late 1800's in the Silver Valley. In 1917 smelter operations began at the Bunker Hill Site. In 1968, Gulf Resources and Chemical Corporation (Gulf) purchased the Bunker Hill facility. In 1973, a fire at the baghouse (a system of cloth bags that filtered lead-contaminated dust from the smokestacks) all but destroyed the smelter's air pollution control capacity. As a result of the fire, lead emissions from the smelter increased dramatically. Less than a year after the fire, a sick child tested extremely high for lead contamination. Local officials subsequently began testing other children in the valley and discovered that many had very high levels of lead in their blood. As a result, the Panhandle Health District and the State of Idaho developed a lead intervention program and a yearly blood screening program to monitor area children.

Contamination includes tons of mine tailings that were directly deposited into the Coeur d'Alene River, causing major contamination of heavy metals throughout the floodplain. Lead is the primary contaminant in the valley. It causes brain and central nervous system damage, chronic kidney and cardiovascular disorders, and impaired fetal development.

In 1983, Bunker Hill was added to the National Priorities List (NPL), a list of the nation's most hazardous waste sites. EPA has identified 17 private companies believed to be responsible for site cleanup, some of whom are working in partnership with EPA and the Idaho Division of Environmental Quality (IDEQ) to support cleanup.

Site cleanup began with early public property/park cleanups in 1986 and yard cleanups in 1989. The smelter complex cleanup project commenced in 1995.

Cleanup decisions are documented in two Records of Decision (RODs). In 1991, the Populated ROD was signed, covering residential and commercial yard cleanup. In 1992, the Non-Populated ROD was signed, documenting cleanup decisions for the rest of the Bunker Hill site.

For More Information

For more information about the Bunker Hill site and access to all public documents related to the site, you can visit the following information repositories:

- Kellogg Public Library: 16 West Market, Kellogg, Idaho 83837
(The Kellogg Public Library holds the entire administrative record -- other local libraries have site information, but do not contain all site files).
- Pinehurst/Kingston Library: 107 Main Street, Pinehurst, Idaho 83850
- EPA Region 10 Records Center: 1200 6th Avenue, Seattle, Washington 98101
- EPA Toll Free number (1-800-424-4372)

Please visit or call (208-783-5781) the Superfund Project Office located at 1005 McKinley Avenue in Kellogg for information, as well.

Questions or Concerns?

Please call Jerry Cobb, Panhandle Health District in Kellogg at (208) 783-0707, Marianne Deppman, EPA Community Relations Coordinator in Seattle, at 1-800-424-4372 or directly at (206) 553-1237, or Debra Packard, EPA Community Relations Coordinator in Seattle, at 1-800-424-4372 or directly at (206) 553-0247.

To ensure effective communication with everyone, additional services can be made by calling EPA's toll-free number at 1-800-424-4372.

Web Surfing for EPA Region 10: Check out our homepage at:

<http://www.epa.gov/r10earth>



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***Bunker Hill
Kellogg, Idaho***