

SEPA

Pacific Sound Resources, West Seattle, Washington

U.S.Environmental Protection Agency, Region 10

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Capping of Contaminated Sediments in Nearshore Areas to Be Completed Ahead of Schedule

Cleanup of about 15 acres of contaminated sediments is continuing at the Pacific Sound Resources Superfund site in West Seattle. Workers will use clean sand, gravel, and rock to cap three areas near the shore this year. Some of the work that had been planned for next July through February is being done now and will save the cost of removing equipment from the site and returning it later. As with earlier cleanup, some work will occur at night.

Capping of the remaining 40 acres, which are steeply sloped or very deep, will take place after more funding becomes available. That work will complete the capping and the cleanup of the site.

Sediment Cleanup Completed to Date

THE U.S. ENVIRONMENTAL PROTECTION AGENCY is overseeing work by the U.S. Army Corps of Engineers and their contractors. A lot of work has already been completed:

- A barge-mounted crane with a bucket dredged about 10,000 cubic yards of contaminated sediment from an area near the shore in September 2003. This dredging maintains the water depth needed for barge and tug traffic, and allows the extension of an existing storm water outfall.
- Barges, trucks, and trains took the dredged material to Roosevelt Landfill in Klickitat County, Washington, for disposal.
- A barge-mounted crane, with equipment called a "skiff box," placed capping material along 2,000 feet of shoreline that is exposed between high and low tides. This intertidal area provides habitat for several species. Low tides at night during November and December 2003 all

Barge-mounted equipment places capping material to protect Elliott Bay from contaminated sediments. (Photo © Aerolistphoto.com used courtesy of ACC West Coast Hurlen)

at night during November and December 2003 allowed some of the work to be done more quickly with a backhoe.

Expanded Beach Can Be Seen from Park

PLACING A CLEAN CAP OVER CONTAMINATED SEDIMENTS HAS EXPANDED THE BEACH AREA AT THE PACIFIC Sound Resources site. The public access park, which had been expected to be closed during construction, is open. The public can view the beach and ongoing cleanup work from the viewing tower or the pier at the park, located off Harbor Avenue SW in West Seattle. The pier is sometimes closed due to nearby cleanup work.

Capping Materials Vary

The cap will prevent fish and wildlife from contacting contaminated material. A variety of conditions at the site require different cap designs, cap materials, and construction methods. Engineers created six cap designs, made up of eight different mixes of materials, to suit the varying areas at the site. Designs range from a 30-inch layer of sand to a 5-foot layer of sand, gravel, and broken rock.

The layers include clean capping material from navigational dredging of the turning basin on the Lower Duwamish Waterway. One component is "habitat mix," which is sand and gravel that forms the top layer of the cap and



The cap created new beach next to the public park. (Photo courtesy of U.S. Army Corps of Engineers)

creates a more natural environment for the animals that live in the sediments. The amount of material needed for capping the shoreline and the three areas near shore totals 170,300 cubic yards. Barges bring these materials to the site.

Computers Monitor Dredging and Capping

A computer helps control the underwater movement of the bucket used for dredging and the skiff box used for capping. The computer continuously tracks the location of the bucket or box, and accounts for variations in bottom elevation and tides. The equipment operator views this information on a monitor in the crane cab. After material has been placed for the cap, a boat uses computerized equipment to survey the area, and computers produce drawings of the cap that are compared to the cap design.

Background

The Pacific Sound Resources Superfund site is on the south shore of Elliott Bay, about a third of a mile west of the West Waterway near Harbor Island. From 1909 until 1994, the company used the site to preserve wood. Creosote, pentachlorophenol (PCP), and various solutions of copper, arsenic, and zinc were used as wood preservatives. Daily operations, spills, leaks, storage of treated wood products, disposal of wood-treating wastes, erosion, and runoff are the most likely sources of contamination of the soil, groundwater, and marine sediment. (continued)

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Background (continued)

EPA's addition of the site to the National Priorities List in May 1994 made the site eligible for investigation and cleanup under the federal Superfund program. Shortly afterwards, the Port of Seattle purchased the property.

Under EPA's direction, the Port funded and completed much of the cleanup work for the upland area. The Port demolished all the buildings and removed about 4,000 cubic yards of highly contaminated soil and sludge. The Port also installed a subsurface barrier wall, or slurry wall, to block most groundwater flow from the site into Elliott Bay. Monitoring wells were also installed.

In late 1997, the site was covered with clean fill and an asphalt cap. The Port has redeveloped the site, and it is now used for container transfer. The Port will maintain the asphalt cap, collect creosote from on-site wells, and monitor the groundwater to ensure that the cleanup continues to be protective of Elliott Bay.

During the summer and fall of 2003, in preparation for sediment cleanup, the Port and its contractor removed about 700 treated wood pilings and related structures that made up several old piers.

How to Get More Information

Visit our repository:

EPA Region 10 Records Center 1200 Sixth Avenue Seattle, Washington 206-553-4494

Please call for an appointment to review the 2003 Final Design Submittal, which outlines the sediment cleanup, and other documents about the Pacific Sound Resources site.

Call or email us:

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Visit our website:

http://www.epa.gov/r10earth/. Click on Index, then "P," and then "Pacific Sound Resources."



For people with disabilities, if you have special requests for reasonable accommodation, please call Cindy Schuster at 800-424-4372. For TTY users, call the Federal Relay Service at 800-877-8339.

SUPERFUND FACT SHEET PACIFIC SOUND RESOURCES WEST SEATTLE, WASHINGTON FEBRUARY 2004



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