

PROTECTING AND RESTORING NORTHWEST RESOURCES



EPA Region 10's Cleanup Programs in Washington

April 2002



The U.S. Environmental Protection Agency (EPA) has several tools to ensure the efficient and safe cleanup of sites contaminated by hazardous substances. EPA can use its authorities under Superfund, the Resource Conservation and Recovery Act (RCRA) and Brownfields to ensure sites are made safe and reusable for local communities.

The heart of our work in the Superfund Program is cleaning up and promoting reuse of contaminated sites. In EPA Region 10, we have completed cleanups at 55 of the 94 Superfund National Priorities List sites, and 22 of these have been removed from the list. We also complete about 30 emergency responses annually. Superfund is most often used at abandoned sites or closed industrial facilities.

EPA uses its RCRA authorities to ensure proper management of hazardous wastes at operating facilities. EPA can also require these facilities to take cleanup actions when their operations have contaminated the facility itself or the surrounding environment. In Region 10, the RCRA program is currently overseeing 48 such high priority corrective actions.

The Brownfields program is an important part of our cleanup work. Over the past several years, working closely with our state partners, EPA Region 10 has funded 21 Brownfields assessments and showcase pilot projects totaling \$8.6 million. These grants have leveraged \$90 million in cleanup and redevelopment. We are looking forward to the positive impact of the new Small Business Liability Relief and Brownfields Revitalization Act, signed by President Bush on January 11, 2002.

We continue to explore ways to improve our efforts to clean up hazardous waste sites as efficiently as possible, and to return sites to productive use while protecting human health and the environment. Being flexible in making cleanup decisions and improving cooperation with states, tribes and local communities have contributed to our success. While we continue to face significant cleanup challenges in Region 10, we are proud of the progress we have made. We hope the information that follows is useful in answering your questions about hazardous waste cleanup activities in Region 10.

Michael F. Gearheard, Director
Office of Environmental Cleanup

Richard Albright, Director
Office of Hazardous Waste Management

Cover photo: Clear Creek fish ladder and habitat restoration, near Commencement Bay, Tacoma.

Here's where to look for more information:

Partnerships with Tribes, States and Communities page 3

Tribes, states, citizens and local governments' participation in cleanup is valued and encouraged through EPA's grants, training and technical assistance.

For Tribes

<http://yosemite.epa.gov/r10/cleanup.nsf/sites/tribes>

For State and Other Agencies

<http://yosemite.epa.gov/r10/cleanup.nsf/sites/state>

Emergency Response pages 4-5

Emergency responses include spills, counter-terrorism, drug labs, derailments and abandoned facilities.

Oil & chemical spill reporting

<http://www.nrc.uscg.mil/index.html>

Northwest Area Contingency Plan

<http://www.rrt10nwac.com/>

Map of Superfund Sites in Washington pages 6-7

Brownfields pages 8-9

EPA encourages cleanup and reuse of properties that are abandoned or underused because of perceived or actual contamination.

Brownfields in Region 10

<http://yosemite.epa.gov/r10/cleanup.nsf/sites/bf>

What's Happening in Washington? pages 10-11

Cleanup progress on specific sites in Eastern Washington and Puget Sound.

Region 10's Superfund Site List

<http://yosemite.epa.gov/r10/cleanup.nsf/sites/cleanup>

RCRA Sites List

<http://www.epa.gov/epaoswer/hazwaste/ca/eis/maps/r10map.htm>

Washington Department of Ecology

<http://www.ecy.wa.gov/programs/tcp/cleanup.html>

Partnerships

Communities have a say in cleanups

EPA strives to give community members meaningful opportunities to be involved in its decisions. Public participation in Superfund goes far beyond required hearings and comment periods. Site-specific Community Involvement Plans ensure that communities get the information they want, have the opportunities they desire to weigh in on decisions, and be confident that their views are considered.

EPA also supports the formation of community advisory groups and provides funding for independent experts. These experts can help groups interpret technical data, understand site hazards, and learn about cleanup technologies.

Washington beach gets new life

A former Naval dump in Manchester, Washington can now be safely used without exposure to hazardous wastes. Mike Johnston, from EPA's on-site lab, said, "The area looks great with the native wildflowers and shrubs."

The cleanup, carried out by the Army Corps of Engineers, removed contaminated debris and soil from the beach, covered contaminated sediment with clean sediment, and isolated the dump from sensitive intertidal areas. A wall was built around the dump to protect workers on the site, users of the shoreline, and the federally protected bald eagle and the chinook salmon.



Crews finish placing new sand and cap over old dump.

EPA funds Duwamish citizen group

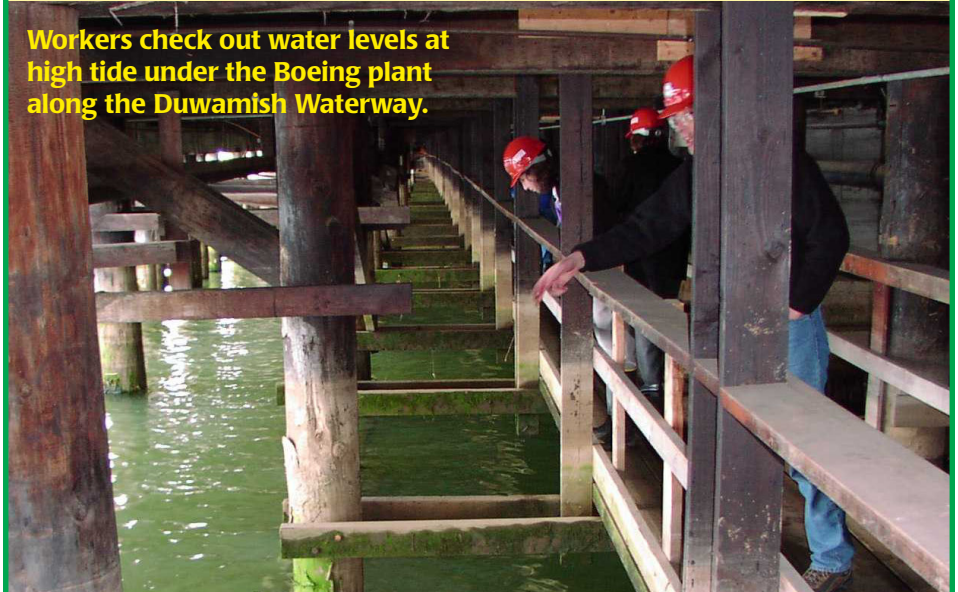
Many interests came together with support from EPA at the Lower Duwamish Waterway, a "mega" site added to the National Priorities List in 2001.

With an EPA Technical Assistance Grant of \$50,000, and funding from the State, the Duwamish River Cleanup Coalition is advocating for a resident-friendly cleanup of one of the most industrialized waterways in Washington State. The group is made up of business and tribal representatives, environmental groups and community activists. They represent members of the nearby communities, many of

whom do not speak English, are economically disadvantaged, or are people of color.

EPA closely coordinates with the coalition, and is coordinating the translation of a coalition brochure into a half dozen languages. The coalition reviews EPA's technical documents, works to involve the local community, gives presentations and prepares mailings – activities that assist EPA to achieve meaningful community involvement. For example, the Duwamish River Cleanup Coalition will help determine early cleanup areas.

Workers check out water levels at high tide under the Boeing plant along the Duwamish Waterway.



Boeing to dredge Duwamish sediment

At the Boeing plant on the Duwamish Waterway, extensive investigation of a PCB hotspot found that sediment is contaminated in front of and under the facility. A breakthrough in negotiations occurred when Boeing proposed to dredge sediment up to five feet deep or more and backfill the dredged area with clean soils. Boeing could begin this work as early as 2004.

Agencies protect ground water

Philip Services will construct a slurry wall to cut off their source of ground water contamination and prevent it from moving into the Georgetown neighborhood, under a recent EPA settlement. Philip, a RCRA-permitted facility, just constructed 50 wells to ensure that ground water contamination is not spreading.

EPA and the Washington Department of Ecology are concerned that solvents in the ground water may move into indoor air and pose a potential risk to residents. If so, Philip will vent the air to keep contamination out of residences.

Emergency Response

EPA responds to:

- Spills • Terrorism • Drug Labs • Train Derailments •
- Oil Recyclers • Pesticide Sites • Abandoned Drums •

Hazardous chemicals discovered, removed at lab

The possibility of fire, explosion or extremely toxic gases greeted inspectors when they arrived at an unoccupied laboratory north of Hermiston, Oregon. The laboratory was located in a light industrial area near a milk processing facility, and concerns about an accident were great.

EPA's inspection revealed acids, arsenic, potassium cyanide, mercury and other chemicals, stored in a haphazard manner. To reduce the risk to the public and the environment from the mix of chemicals, crews moved quickly to secure the site. Of 1,849 containers found, about 380 contained hazardous substances and were sorted and disposed. Sampling now shows that contamination has been successfully cleaned up and the site is safe.



EPA inspectors enter a Hermiston lab littered with unknown contaminants.

Region 10 helps clean up Senate

Region 10 Emergency Responders relieved exhausted mid-Atlantic EPA personnel at the Capitol Hill anthrax response. They prepared sampling plans and evaluated results to decide followup actions. Region 10 also directed contractors and other agencies in the cleanup of the buildings, monitored health and safety planning, and disposed of contaminated waste.

EPA Region 10's Emergency Response Unit and 25 local staffers from the Agency for Toxic Substances and Disease Registry (ATSDR) and the Department of Health and Human Services are ready to respond to anthrax contaminated sites and conduct a site assessment safely and quickly.



Responders are ready for anything.

The responders planned and practiced this quick response at the Anthrax Response Workshop, which included field exercises for collecting samples and decontaminating facilities and personnel.

Quick response protects Tacoma residents

A blaze swept through a 100-foot pile of crushed cars in Tacoma, causing a billowing cloud of black smoke that could be seen as far away as Seattle.

As black smoke passed over Tacoma's neighborhoods, a decision had to be made whether residents should be evacuated.

EPA worked with the Washington Department of Ecology and the National Weather Service to estimate the potential path and longevity of the plume. EPA's quick response and assessment of the situation avoided forcing any Tacoma residents to leave their homes.

EPA monitored levels of dust, particulates and volatile organic compounds, and tested for other poisonous gases. None was found at a harmful level.

Portland eyesore razed to remove contaminants



Crews demolish a Portland plating facility and remove 4,700 tons of contaminated soil and debris.

Local residents expressed their appreciation to EPA for cleanup of contaminated soils under the dilapidated Industrial Chrome Plating building in Portland, Oregon.

Located in a predominantly residential neighborhood, the chromium plating facility operated at that location for over 50 years. Soils were highly contaminated with lead and chromium. Exposure to chromium and lead was possible via direct exposure to soil, airborne particulates, and surface water runoff.

EPA disposed of 4,700 tons of contaminated soil and debris, backfilled the property with clean soil, and capped the site to prevent migration of remaining contaminants.

Three businesses are interested in buying this commercially attractive property just north of Interstate 84.

Grounded fishing ship leaks fuel, EPA responds

The fishing vessel *West Wind* ran aground and sank on February 23, 2002, releasing one-half gallon of diesel fuel per minute into the Yaquina River.

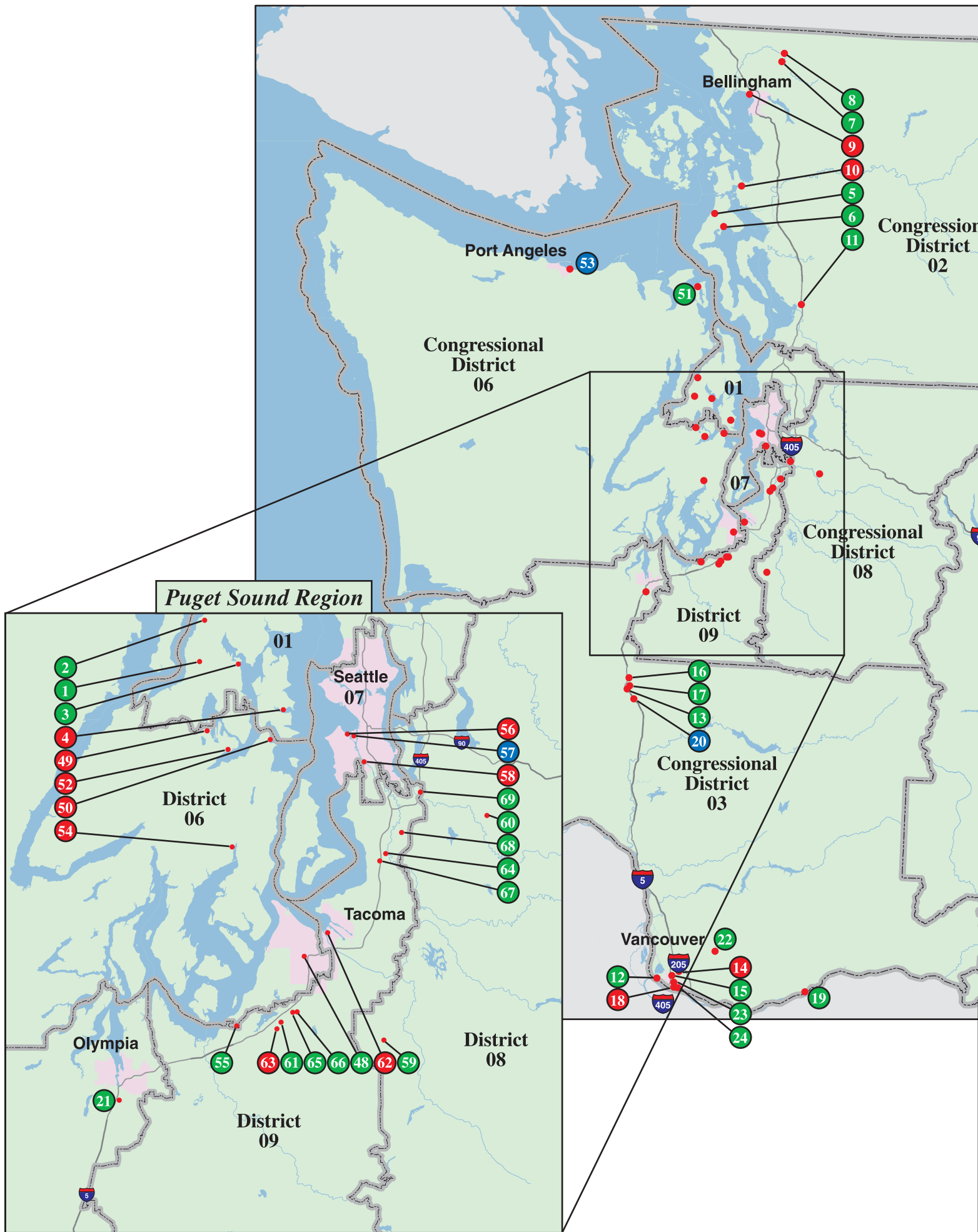
Cleanup crews from EPA and the Oregon Department of Environmental Quality used a containment boom around the vessel to stop fuel from spreading. Quickly saturated, the absorbent materials had to be replaced constantly. Cleanup crews recovered about 100 gallons of fuel.

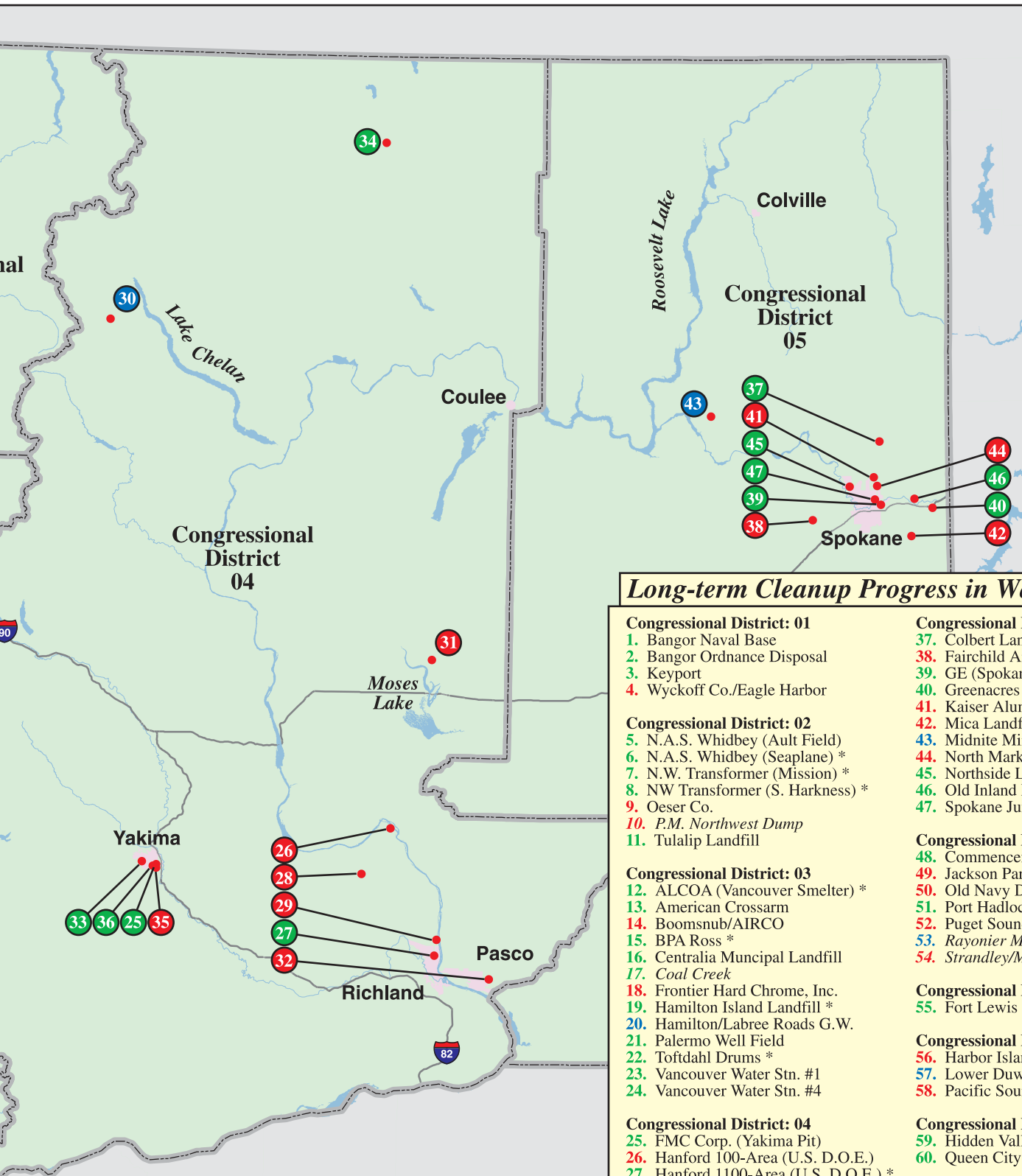
Divers inspected the *West Wind* and decided it would float. A barge and crane raised the ship before the next high tide, preventing any more fuel from leaking.

The river is home to the bald eagle, salmon and other federally protected species. Both the U.S. Fish and Wildlife Service and the Oregon Department of Fish and Wildlife surveyed the river and found no effects to the river's aquatic life.



A barge with a crane lifts the sunken and leaking *West Wind* out of the water and hauled her back to port for repairs.



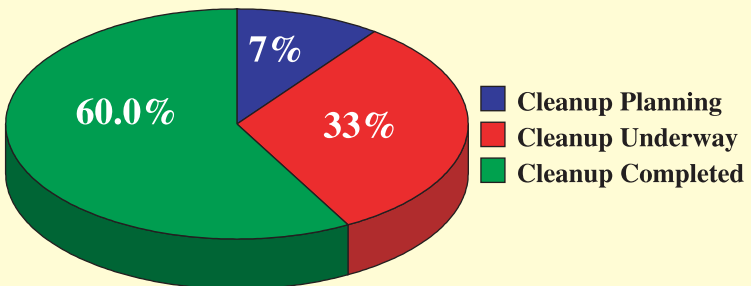


Long-term Cleanup Progress in Washington

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| <p>Congressional District: 01</p> <ul style="list-style-type: none"> 1. Bangor Naval Base 2. Bangor Ordnance Disposal 3. Keyport 4. Wyckoff Co./Eagle Harbor <p>Congressional District: 02</p> <ul style="list-style-type: none"> 5. N.A.S. Whidbey (Ault Field) 6. N.A.S. Whidbey (Seaplane) * 7. N.W. Transformer (Mission) * 8. NW Transformer (S. Harkness) * 9. Oeser Co. 10. <i>P.M. Northwest Dump</i> 11. Tulalip Landfill <p>Congressional District: 03</p> <ul style="list-style-type: none"> 12. ALCOA (Vancouver Smelter) * 13. American Crossarm 14. Boomsnub/AIRCO 15. BPA Ross * 16. Centralia Municipal Landfill 17. <i>Coal Creek</i> 18. Frontier Hard Chrome, Inc. 19. Hamilton Island Landfill * 20. Hamilton/Labree Roads G.W. 21. Palermo Well Field 22. Toftdahl Drums * 23. Vancouver Water Stn. #1 24. Vancouver Water Stn. #4 <p>Congressional District: 04</p> <ul style="list-style-type: none"> 25. FMC Corp. (Yakima Pit) 26. Hanford 100-Area (U.S. D.O.E.) 27. Hanford 1100-Area (U.S. D.O.E.) * 28. Hanford 200-Area (U.S. D.O.E.) 29. Hanford 300-Area (U.S. D.O.E.) 30. <i>Holden Mine</i> 31. Moses Lake Wellfield 32. Pasco Sanitary Landfill 33. Pesticide Lab, Yakima * 34. Silver Mountain Mine * 35. <i>Woods Industries</i> 36. Yakima Plating Co. * | <p>Congressional District: 05</p> <ul style="list-style-type: none"> 37. Colbert Landfill 38. Fairchild Air Force Base 39. GE (Spokane) 40. Greenacres Landfill 41. Kaiser Aluminum (Mead) 42. Mica Landfill 43. Midnite Mine 44. North Market Street 45. Northside Landfill 46. Old Inland Pit * 47. Spokane Junkyard * <p>Congressional District: 06</p> <ul style="list-style-type: none"> 48. Commencement Bay, STC 49. Jackson Park 50. Old Navy Dump/Manchester 51. Port Hadlock Detachment 52. Puget Sound Shipyard 53. <i>Rayontier Mill</i> 54. <i>Strandley/Manning Site</i> <p>Congressional District: 06, 09</p> <ul style="list-style-type: none"> 55. Fort Lewis Landfill #5 * <p>Congressional District: 07</p> <ul style="list-style-type: none"> 56. Harbor Island 57. Lower Duwamish Waterway 58. Pacific Sound Resources <p>Congressional District: 08</p> <ul style="list-style-type: none"> 59. Hidden Valley Landfill 60. Queen City Farms <p>Congressional District: 09</p> <ul style="list-style-type: none"> 61. American Lake Gardens 62. Commencement Bay N/T 63. Fort Lewis Log Center 64. Kent Highlands 65. Lakewood 66. McChord Air Force Base * 67. Midway Landfill 68. Western Processing Co. <p>Congressional District: 09, 08</p> <ul style="list-style-type: none"> 69. Pacific Car & Foundry Co. |
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Sites in italics are National Priorities List Equivalents * Sites are Deleted from the National Priorities List

Long-term Cleanup Progress in Washington



Brownfields and Redevelopment

From brownfields to jobs

The Environmental Extension Service, funded in part by the Region 10 Brownfields Program, is helping businesses in King County grow by providing site assessment and cleanup help.

- When a boat-building business in Seattle needed a new location to expand its operations, the Environmental Extension helped the business evaluate a new site and guided them through the cleanup. The business expanded, saved \$160,000, retained 63 jobs and created 20 new jobs.
- With help from the Environmental Extension, a former auto-wrecking yard is now a gas station and convenience store. The project leveraged over \$1,575,000 in private funds for cleanup and redevelopment and employed over 25 people.
- During an EPA Brownfields cleanup of a former chemical manufacturer, an entrepreneur asked the Environmental Extension to help find a location for a new cement recycling business. The Extension Service connected both parties and the cement company leased the property. Soon the new business had ten workers producing concrete blocks for retaining walls.

Polluters volunteer to clean up



Vancouver Center Superblock

About 700 tons of soil contaminated with gasoline at the former Lucky Lager Brewery were excavated and the once-abandoned property is now under redevelopment. Apartments, condominiums, retail and office space, and a parking garage will be open to Vancouver citizens starting in the spring of 2003.

New Brownfields law will ease redevelopment

The new Brownfields legislation will encourage and assist Region 10 states, tribes, communities and property owners in cleaning up and redeveloping Brownfields and protecting green space.

States, tribes and communities will benefit from new cleanup grants and expanded site assessment and job training grant opportunities. The new law provides more resources and flexibility to assess and clean up more types of sites, including petroleum and mining sites. This flexibility will be particularly important in the Northwest and Alaska.

Region 10 states and tribes will also benefit from increased resources to support their response programs. Small businesses, prospective purchasers and innocent landowners will benefit from Superfund liability relief.

Job training exceeds goals

Brownfields development in Tacoma has resulted in a local building boom and a shortage of skilled labor. The city of Tacoma's Job Training Pilot, funded by EPA, is developing a pool of skilled local workers to assess and clean up sites. The program offers a dual track in Environmental Technician Training and Construction Training. This 1-year-old pilot has far exceeded its goals: 54 students have completed training, and 35 students have jobs.



Students learn how to test a stream's pH level.

New condos shine at former metal plating site

The Sellwood Lofts are now open on the site of the former Rose City Plating facility. The Multnomah County Library leased the ground floor space in the new mixed-use building. Additional commercial space and 16 residential condominium units fill two upper floors.

The opening culminated nearly 10 years of work by Oregon DEQ and the EPA Portland Brownfields Showcase to clean up and re-develop the site. DEQ contractors removed about 24,000 gallons of chemical wastes, 37 tons of sludge and 58 cubic yards of contaminated debris from the site.

Oregon DEQ studied the site using an EPA Brownfields grant. A Prospective Purchaser Agreement with DEQ allowed a developer to purchase the property. The developer then demolished the old building, removed 558 tons of contaminated soil and completed construction of the Sellwood Lofts this year.

Multnomah County Library



Portland's new Sellwood Lofts house a library, apartments and office space.

EPA programs help tribe sell abandoned mill

EPA's Waste Management and Brownfields programs shared equipment and other resources to complete the STEDCO Mill site assessment in record time.

STEDCO is an idled lumber mill near the Yaquina River in Lincoln County, Oregon. The Confederated Tribes of the Siletz purchased the mill for redevelopment, but the previous owner did not assess the site's possible contamination.

EPA is sampling the soil and groundwater to identify any contaminants. The tribes will make any necessary cleanup part of the redevelopment.



A worker at STEDCO Mill drills soil samples.

Cleanup and reuse happen side by side

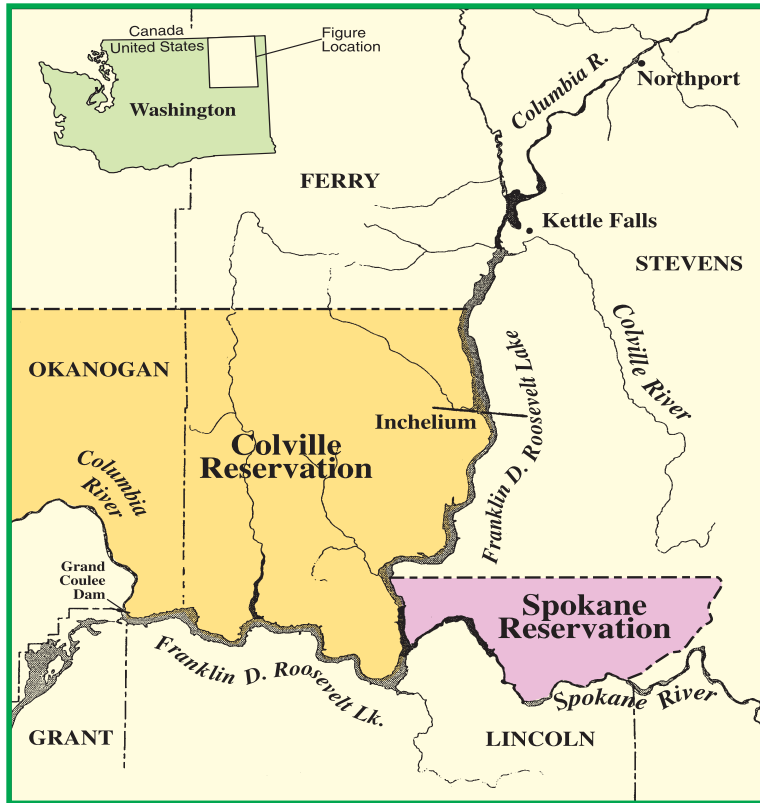
A 34-acre parcel of the Taylor Lumber facility, in Sheridan, was purchased by Pacific Wood Preserving of Oregon.

EPA negotiated with the new owners to facilitate the reuse of the facility while continuing the cleanup at the site. Chief operating officer, Elaina Jackson, told the McMinnville *News-Register* that EPA is concerned about the environment and the economy, and helped the deal go through. "They wanted the community to have jobs, so they worked very well with us to help us get this plant." The new owner will use preservatives that have a low environmental impact.

Water pumps already in place prevent pollution in the ground water under the plant from spreading to a supplemental source of drinking water for Sheridan.

New approaches to integrate RCRA, which governs operating facilities, and Superfund, are moving the Taylor Lumber site toward economic and environmental restoration.

What's Happening in Eastern Washington?



Decision on largest site assessment due soon

Sampling is now complete for one of the largest site assessments ever, and a decision on how to address contaminants found in this 70-mile stretch of the upper Columbia River is anticipated by December 2002.

The assessment found elevated levels of zinc, copper and lead in sediment. Fully analyzed results will be available in July 2002.

At the request of the Colville Tribe, EPA sampled the upper Columbia and visited 60 mines and mills along its banks. This large arm of the Columbia extends from the Colville Reservation at Inchelium, to the U.S.-Canada border.

EPA is working with state and local authorities, congressional staff, U.S. Embassy Ottawa, Environment Canada, and Canadian Foreign Affairs.

Washington plays key role in Coeur d'Alene

Government agencies, tribes and citizens in Washington are playing a vital role in creating plans to clean up the Coeur d'Alene Basin: participating in weekly conference calls, planning citizen advisory meetings, attending public meetings and commenting on technical documents.

EPA released its proposed cleanup plan for the Basin in 2001, calling for cleanup of contaminated sediments in the Spokane River and its beaches where mine waste contamination is above safe levels. EPA funded the Spokane Tribe to study risks posed to the tribe.

The cleanup plan for the Basin – the Record of Decision – is due out in summer 2002.

What EPA heard in Washington State

- EPA should clean up the Basin and maintain oversight of the cleanup.
- Washington should have an equal say in how cleanup is done.
- Contaminated sediments in the Coeur d'Alene River and Lake are a major concern.
- EPA should reduce zinc loading in the upper Basin.
- EPA should increase monitoring to protect downstream areas.

Making headway at Hanford

Progress to date includes:

- 3.3 million tons soil contaminated with radionuclides removed from the Columbia River corridor. About 30% of the soil has been removed and all of it will be by 2012.
- Two nuclear reactors "cocooned" and stabilized. Two more reactors will be made stable in the next two years and the remaining four by 2012.
- About 300 tons of spent fuel moved to dry storage. Almost 2,000 tons more to be moved by 2004.
- Treatment of highly radioactive tank wastes under way. The plant should be online in 2007.
- Over 1.3 billion gallons of contaminated groundwater processed through five pump-and-treat systems.

What's Happening in Puget Sound?

EPA and Navy work together to save \$33 million



Dredging of PCB contaminated sediments in Sinclair Inlet.

By streamlining the Superfund process for dredging PCB-contaminated sediments from Sinclair Inlet, EPA and the Navy saved \$33 million.

The Navy was planning navigational dredging to accommodate the arrival of an aircraft carrier. EPA saw an opportunity to remove contaminated sediments at the same time. They worked together to save both time and money.

Sediments from the dredging project, a total of 400,000 cubic yards, were placed in a large underwater pit. In October 2001, the pit was capped with a four-foot layer of clean native sediment and returned to the original grade of the sea floor.

Commencement Bay cleanup in final stages

EPA selected the last major cleanup plan for the Commencement Bay Superfund Site in late 2001. The plan for Middle Waterway calls for dredging contaminated sediments, capping, enhanced natural recovery, and long-term monitoring.

Negotiations will soon be under way for legal agreements with responsible parties to begin dredging in January 2003.

Cleanup plans for Thea Foss are in final negotiations now. In-water work will begin by summer 2002.

Innovative approach at Wyckoff

EPA made major cleanup progress at Wyckoff/Eagle Harbor on Bainbridge Island, a "mega" site, where over a million gallons of creosote remain underground.

A pilot thermal treatment plant is under construction. Steam will be pumped into the ground and contaminants will be extracted. If it is effective, EPA will move on to full-scale treatment and this prime real estate could be clean within a decade.

The site impacts everyone on the island in some way, so EPA will work closely with the community, carefully managing potential nuisances, hosting meetings, providing site information, and offering opportunities for public participation.



An underground sheet pile wall was installed to stop remaining contaminants from seeping into the harbor.

EPA accomplishments in 2001:

- Added underground sheet pile wall.
- Completed a sediment cap over the Eagle Harbor floor.
- Created new endangered-species-friendly beach with a habitat of native trees, plants and grasses.