

Activities in Region 10 and the State of Washington

May 2001



Superfund in Region 10 and the State of Washington

The heart of our work in the Superfund Program is cleaning up and promoting reuse of contaminated sites. In Region 10 of the U.S. Environmental Protection Agency (EPA), we have completed cleanups at 51 of the 92 Superfund National Priorities List sites, and 22 of these have been removed from the List. We also complete about 30 emergency responses annually.

The Brownfields program is an important new part of our Superfund work. Over the past several years, working closely with our state partners, EPA Region 10 has funded twenty Brownfields assessment and showcase pilot projects at a cost of \$4.9 million. These grants have leveraged \$67 million in cleanup and redevelopment.

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, I am proud of the progress we have made. I 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 EPA Region 10

Here's where to look for more information:
Site Assessmentspage 1
Investigations determine if hazardous waste cleanup is needed at a site Region 10's Superfund Assessments http://yosemite1.epa.gov/r10/cleanup.nsf/sites/pa
Partnerships with Tribes, States and Communities
http://yosemite1.epa.gov/r10/cleanup.nsf/sites/tribes For States and Other Agencies
http://yosemite1.epa.gov/r10/cleanup.nsf/sites/state
Brownfields
Trends in Region 10
What's Happening in Washington?

Demand for Site Assessment Remains High

We are responding to a growing number of requests for site investigations from tribes, communities, states and federal agencies. A cooperative approach using local knowledge and good science has proved effective in determining where cleanup action is needed. We also continue to conduct investigations in response to national priorities and immediate health threats.

Most sites are not placed on the National Priorities List. For those that are, EPA has access to federal Superfund dollars to conduct cleanup and strong regulatory authority to compel responsible parties to conduct cleanup. For sites with less serious contamination, which are not placed on the List, the Region plays a vital role in identifying the appropriate agency (e.g., state or federal agency) to oversee any necessary cleanup.

In 2000, the Site Assessment Program investigated more than 70 sites, including 23 vermiculite facilities, 25 Formerly Used Defense Sites, three Brownfields sites and Lake Roosevelt. The Region's actions at many of these sites set national precedents on how EPA works with tribes and communities.

Garibaldi, Oregon: EPA Action Lays Residents' Fears to Rest

When staff at the Oregon Department of Environmental Quality (DEQ) needed fast action at the Old Mill Marina in Garibaldi, they asked EPA for assistance. EPA quickly gained property access, informed the community of the investigation, and collected 108 soil, water, and sediment samples. EPA's sampling results assured DEQ and the community that no imminent public health threat was present. However, contaminants such as lead, mercury, arsenic and polychlorinated biphenyls (PCBs) may



EPA technicians collect water samples in Chubbuck, Idaho to assess possible contamination from solvents

threaten fish, wildlife and plants. EPA is now working with DEQ to remove contaminated soils.

Dutch Harbor, Alaska: EPA Responds to State and Tribal Needs

After a private study of Dutch Harbor revealed PCBs in mussel tissue, the Alaska Department of Environmental Conservation (ADEC) asked EPA Region 10 to take action. The Region investigated, collecting more than 100 soil and sediment samples for environmental analysis. In a unique partnership with the Qawalangin Tribe, EPA and the tribe also collected samples from mussels, sea urchins, fish and sea lion blubber. EPA is now working with ADEC,

the City of Unalaska, the Qawalangin Tribe, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration to evaluate risks and move toward cleanup.



Samples taken in Unalaska, Alaska indicate that harbor sediments are contaminated with toxins such as PCBs, lead, dioxin, and petroleum.

North-Central Washington: "Mega-Site" Demands Mega-Cooperation

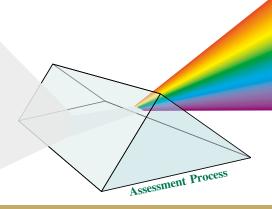
This summer, EPA will continue work on one of the largest site assessments the Region has ever done. The investigation will sample suspect areas including 70 mine sites and areas along 70 miles of the Upper Columbia River. Samples will also be taken in Canada, above all of the mine sites, to measure naturally occurring background levels.

EPA began the project in response to an urgent petition by the 12 Confederated Tribes of the Colville Indian Reservation and the Spokane Tribe, who fear that the contamination poses a public health threat. To tackle the project, EPA is cooperating with Environment-Canada, the British Columbia Ministry of Environment, Lands and Parks, the Tribes, Washington Department of Ecology (Ecology), community groups and federal trustees.

Action plans for the investigation are already in place. By integrating the project with ongoing Ecology work, developing up-front agreements with each tribe and simplifying paperwork, EPA was on site for preliminary screening work within two weeks of the Tribes' request. Said Flora Goldstein, Toxics Cleanup Program Manager at Ecology, "EPA's responsiveness to the Tribes and the speed at which the assessments are being conducted is very impressive."

EPA's Assessment Process helps identify the appropriate agency to lead cleanup, in response to a wide range of requests

Requests from: Tribes Communities State Agencies Federal Agencies Other EPA Programs Private Citizens



EPA Lead Cleanup

- Enforcement
- NPL
- Removal

State Lead Cleanup

- Voluntary
- Enforcement
- NPL

No Further Action



Tribes have asked for EPA's help to assess possible contamination in Lake Roosevelt

Partnerships: A Foundation for Progress

Building Partnerships with States

Supporting States Through Funding EPA continues to work closely with state environmental agencies, and is committed to these partnerships to achieve environmental progress. EPA funds a range of state cleanup programs:

- Preliminary Assessments/Site Investigations funds for states to investigate sites to determine eligibility for the National Priorities List.
- Core Cooperative Agreements funds for building basic Superfund program capacity.
- Voluntary Cleanup Programs funds for building programs to support voluntary cleanup of sites by their owners.
- Multi-Site funds that state programs can use to support EPA work on NPL sites.
- Site-Specific funds for investigating or cleaning up specific sites.

Teaming Up to Get the Job Done At very large, complicated sites, EPA teams up with state programs. For example, Washington Department of Ecology and EPA share the lead role for cleaning up the Commencement Bay site in Washington. Ecology has the lead for addressing contaminant sources, and EPA has the lead for in-water cleanup. A similar arrangement with Oregon Department of Environmental Quality was recently established for the Portland Harbor site in Oregon.

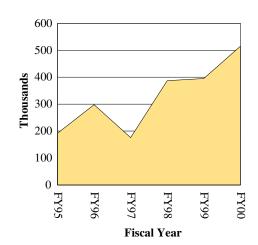
Both Washington and Oregon also manage Superfund sites under their own environmental laws. The state of Washington is managing 18 Superfund sites, and the state of Oregon is currently managing the Union Pacific Railroad Tie Treatment and McCormick & Baxter Creosoting sites. Both states are expected to work on more sites in the future.

Building Partnerships with Tribes

Ramping Up Government-to-Government Consultation A new area of emphasis for Superfund is consultation with tribal governments whenever an EPA action may affect tribal interests or resources. There are over 270 federally recognized Indian tribes in Region 10, nearly half of all the tribes in the United States. The Region has developed a strategy and guidelines for tribal consultation, as well as individual agreements with nine tribes. These facilitate early and effective tribal involvement and allow the cleanup process to run more smoothly.

Supporting Tribes With Funds Seventeen tribes and a consortium of 176 Alaskan villages will receive funding this year to participate in technical aspects of site cleanup. EPA Region 10 will continue to support this program at the highest possible level within budget constraints.

EPA's funding for tribes has doubled



Alaska Inter-Tribal Council Coeur D'Alene Colville Grand Ronde* Muckleshoot* Nez Perce Puvallup Qawalangin Shoshone-Bannock Siletz* Spokane Suquamish Swinomish Tulalip Umatilla* Village of Tanacross

Warm Springs*

Yakama*

Tribes with funding agreements include:

* New cooperative agreements anticipated this year

Building Partnerships With Communities

EPA strives to give community members meaningful opportunities to be involved in its decision making process. 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 provide input on decisions, and feel confident that their views are considered. EPA also supports the formation of community groups and provides funding for independent experts to help groups interpret technical data, understand site hazards, and become more knowledgeable about cleanup technologies.

Technical Assistance Grant Brings Community Issues to the Table At the Wyckoff/Eagle Harbor Superfund Site in Bainbridge Island, Washington, the input of a community group working under an EPA grant enhanced site cleanup plans. At the group's urging, EPA altered its schedule to complete noisy construction in the winter when residents were more likely to have windows closed and be indoors. In response to traffic safety concerns, EPA changed the site's road configuration. The group is helping shape plans for buffer zones around the site.



EPA meets with residents concerned about hazardous wastes affecting the Duwamish River

Citizen Group Influences EPA Decision-Making Citizens for a Healthy Bay is another example of a successful community group in Region 10. Due to this group's persistence and passion, and EPA's commitment to considering local concerns, EPA improved plans for disposal of contaminated sediments at the Commencement Bay site in Tacoma, Washington. Instead of placing contaminated sediments in a waterway fronted by a residential area, EPA adopted the citizen group's proposal to dispose of them at an upland landfill. EPA and Citizens for a Healthy Bay have maintained a positive, constructive working relationship for years, and that relationship continues to pay off in a tangible way.

A School group learns more about Cleanup plans for the Duwamish River

EPA Brownfields Program: Tools Help Communities Assess, Clean Up and Redevelop Brownfields Properties

Brownfields are properties that are abandoned or under-used because of real or perceived environmental contamination. Potential liability for the pollution can make development, sale, or expansion of a property complicated.

EPA's Brownfields Program is not just about restoring contaminated properties. It's about protecting public health and the environment, and adding vitality and strength to communities. One way of doing this is providing the right tools to help communities assess, clean up, and reuse or redevelop abandoned or underused properties.

Assessing Brownfields Properties

Bellingham, Washington: Assessing Properties & Leveraging Funds

In one pilot project, the Port of Bellingham completed Brownfields assessments on ten properties. These assessments prompted \$1.6 million in cleanup and \$14 million in redevelopment.

EPA Performs Brownfields Assessments Under the Targeted Brownfields Assessments program, EPA conducts assessments for communities to clarify how cleanup will be done to redevelop abandoned or under-used properties. Region 10 has completed over 20 assessments to date, totaling over \$1 million in assistance.

\$4.9 million for Brownfields assessments prompted \$67 million in cleanup and redevelopment.

Twenty Assessment/Showcase Pilot Projects provide more than \$4.9 million in funding assistance. These competitive grants are awarded to communities to investigate and plan for cleanup and redevelopment of under-used sites. Showcase communities are also assigned a federal employee to help coordinate efforts and create partnerships with other agencies and private developers.



Targeted Brownfields Assessments
Leveraged Cleanup and Redevelopment Dollars
(Dollars in Millions)



The City of Bellingham Assessment Pilot Project targets a 43-acre municipal landfill along Whatcom Creek. The City has completed assessment work on six out of ten targeted properties.

Brownfields and Redevelopment

Cleaning Up Brownfields Properties

Training a Future Workforce: Region 10 Has Awarded Two Job Training Grants, totaling \$347,500. This competitive grant program offers communities funding to provide training for hazardous waste cleanup. Local residents can learn skills for new jobs in the hazardous waste industry. Region 10's job training programs have enrolled over 69 students, 49 of whom have completed training and obtained employment.

Providing Funding for Cleanups: \$3.5 Million awarded for three Revolving Loan Fund Pilots The Brownfields Revolving Loan Fund Program is a competitive grant program, available to communities interested in offering low interest loans for cleanups at abandoned or under-used properties.

Assisting State Cleanup Programs: \$3.4 Million Provided to Region 10 States; Over 4,000 Properties Have Entered State Programs. EPA awards non-competitive grant funding to states to help set up and run Voluntary Cleanup Programs (VCPs). VCPs provide ways for owners and operators of under-used properties to efficiently investigate and safely clean up their sites with minimal state oversight. Through environmental cleanup, VCPs facilitate the use, sale, refinancing, and/or redevelopment of under-used properties.

Redeveloping Brownfields Properties and Superfund Sites

In the early years of the Superfund program, once a site was cleaned up, it was often left fenced and unused. Now, here in Region 10 and nationally, EPA strives to select site cleanup solutions that return a property to usable condition.

Supporting Superfund Site Redevelopment: Region 10 has awarded two Superfund Redevelopment Pilots with total funds of \$199,665. The Redevelopment Initiative is a program where EPA works with communities to return contaminated sites to productive use. This initiative includes a pilot program providing financial and technical assistance for communities to determine the future reuse of a site.

Asarco Smelter Site being Readied For Reuse

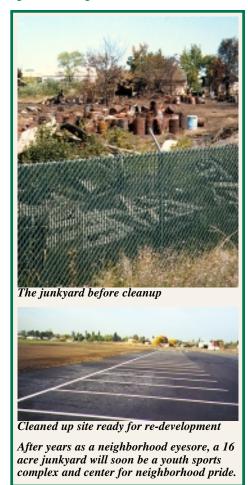


After a massive site cleanup effort and with the implementation of stringent land use controls, the 100 acre site will be safe and ready for redevelopment.

Almost a century of copper smelting operations at Asarco had contaminated the site and offshore sediments with copper, arsenic and other metals. Now the company is working to cleanup the site under an agreement with EPA. Cleanup of the property began with a bang in 1993 when the 560 foot high smelter stack was brought down, starting the demolition of the smelter's buildings and structures.

The last phase of site cleanup began in 1998. Contaminated soil will be placed in an on-site hazardous waste landfill and the entire site will be capped. Contaminated offsite sediments will be excavated or capped with clean sediments. Cleanup is scheduled for completion in 2005.

Spokane Junkyard to Become Sports Complex



The site, in the Hillyard neighborhood of Spokane, was contaminated with PCBs, lead and solvents from 50 years of metal recycling,

The area has now been planted with grass, and a parking lot has been installed over the hazardous waste containment cell. Construction of the sports complex will be completed by Spring 2002. As a result of the cleanup, much needed affordable housing has been constructed north of the property.

Region 10 Trends

We are working closely with tribes, states, and other federal agencies to address contaminated sediments and mining wastes throughout Region 10, and to improve our emergency response capabilities.

Mining and Superfund in the Pacific Northwest

From abandoned mercury mines in Alaska, to gold and silver mines in Idaho, releases from mine sites have impaired the use of surface waters, contaminated soils and sediment, polluted groundwater resources, and destroyed habitat. Mining impacts are not limited to those from historic mining



Smelter wastes containing up to 12% arsenic near Bunker Hill have been removed to a safe containment facility.

practices: several modern mines in the Region pose significant environmental threats.

Superfund authorities have been instrumental in achieving privately funded cleanup of residential properties contaminated with arsenic from the Asarco Smelter in Tacoma, Washington, as well as lead contaminated properties in the Silver Valley of northern Idaho. Investigations at mine sites in Oregon and Washington assessed the impact of mining on surface waters. Cleanups at a number of mines sites, including the Douglas Mine in Idaho and the Kaaba-Texas mine in Washington, were federally financed.

Cleaning Up Contaminated Sediments

Across the Northwest, Region 10 is making progress in investigating and cleaning up contaminated sediments. These sediments threaten fish and bottom-dwelling organisms which can accumulate toxic compounds and pass them up the food chain. Sediment areas are often ecologically sensitive, and may include habitat for salmon and other threatened species. Our natural resource-based economy depends on a healthy and productive marine and freshwater environment.

EPA's Emergency Response Program

In Region 10, ten On-Scene Coordinators (OSC) direct federal response to oil spills, hazardous materials incidents, natural disasters and terrorist incidents. A large part of OSC time is spent on planning, training, and doing outreach with local, state, and other federal responders.

EPA practices handling chemical emergencies with industry and local governments. When the worst happens such as train derailments, tank truck accidents, oil spills or chemical fires, EPA is ready for emergency response.



Regular spill drills ensure that EPA and the states are ready to respond to emergencies

Cleaning up contaminated sediment sites presents unique challenges. Because the contamination is typically spread over large areas and comes from many sources, investigations, cleanup plans, and legal settlements can be complicated. Tribes and other ethnic groups who depend on fish as a major food source must be included in every phase of the clean-up. When these sites are in active industrial port areas, investigation and cleanup must coexist with active businesses, port facilities, and navigational dredging projects.

Spills Keep Response Teams Busy

Region 10 receives as many as 2,000 phone calls a year which include notifications of spills, air releases, and requests for assistance. EPA conducts actual response actions 30 to 50 times each year (roughly 2% of the incoming calls).

Oil and Hazardous Materials Drills

During the last 15 months, EPA Emergency Response staff in Washington, Oregon, and Idaho have participated with industry in 23 oil and hazardous materials drills, including drills with area refineries, Olympic Pipeline, five counter-terrorism drills, and one exercise with the Oregon Chemical Weapons Depot.

What's Happening in Washington?

Commencement Bay Nearshore/ Tideflats: Notable Progress



Commencement Bay has 8 waterways. Four of eight problem areas have been addressed.



EPA sampling contaminated sediments in Hylebos Waterway.

Notable progress toward cleaning up marine sediments in Commencement Bay has been achieved. The site was heavily contaminated from industrial activities including shipbuilding, oil refining, chemical manufacturing and storage, and pulp and paper mills dating from the turn of the century.

Source Control is Nearly Complete

Washington Department of Ecology has inspected hundreds of facilities in the tideflats which may have contaminated the waterways, and is working with the facilities to clean up identified sources. Currently, 67 of 70 cleanups have been completed. All cleanups are scheduled to be complete by the end of 2001.

Three other Waterways are Moving Towards Cleanup

EPA published a decision in 2000 detailing Region 10's plan to dredge and dispose of 1.8 million cubic yards of contaminated sediment from the Thea Foss, Wheeler-Osgood, and Hylebos Waterways. Negotiations with potentially responsible parties are beginning this year, and are expected to result in agreements for private party cleanups. In summer 2001, EPA will propose its plan for the last area requiring cleanup in the Middle Waterway. Work on the Sitcum and St. Paul Waterways is already complete.

Lower Duwamish Waterway: Work Underway to Identify Sites for Early Cleanups

The EPA and Ecology are making good progress towards identifying areas that need to be cleaned up first in the Lower Duwamish Waterway. Under a Superfund order signed in December 2000, the City of Seattle, King County, the Port of Seattle, and the Boeing Corporation are evaluating data to determine risks to the public and the environment. Their recommendations for cleanup priorities and additional investigations are due in the Fall of 2001.

In a parallel effort, EPA and the Department of Ecology are developing a strategy to identify, assess and control over 100 storm drains, combined sewers, and other outfalls that are currently discharging pollutants into the Duwamish River. That strategy is due in Fall 2002.



Contamination in the Duwamish River poses a risk to local fishermen.

Other Sediment Sites in Washington:

Sediment cleanups completed at

- •Sitcum Waterway, Tacoma, WA
- •St. Paul Waterway, Tacoma, WA
- •Old Navy Dump/Manchester Lab, Manchester, WA
- •Eagle Harbor, Bainbridge Island, WA

Sediment cleanups in design or underway:

- •Puget Sound Naval Shipyard, Bremerton, WA
- •Hylebos, Thea Foss, Wheeler-Osgood, and Middle Waterways, Tacoma, WA
- •Asarco Sediments, Tacoma, WA
- •Pacific Sound Resources, Seattle, WA

Local Involvement Key to Spokane River Work

The State of Washington, Washington Citizens Advisory Committee, local agencies, and elected officials have been active participants in the study of mine waste contamination in the Coeur d'Alene and Spokane River Basin. With the help of local representatives, three studies were conducted last year. Results confirmed that Spokane River sediments and nearby soils are contaminated with mine wastes. While the metals do not present an immediate health risk, the Spokane County Health District posted signs at several public beaches advising people about how to minimize their exposure.

EPA is now working closely with the State of Washington and others to evaluate and prioritize possible cleanup options for the Spokane River, and a final cleanup plan is scheduled to be released by the end of this year.

New Brownfields Pilots Awarded in 2000

Washington Coalition Revolving Loan Fund Pilotfunded for \$1.5 million to capitalize a revolving loan fund that meets one of the most critical needs in the Brownfields redevelopment process: access to low interest loans to conduct cleanups.

City of Tacoma Job Training Pilot ... funded for \$200,000 to facilitate cleanup of sites and to prepare 90 trainees for future employment in the environmental assessment and hazardous waste cleanup field. The trainees will be recruited from Tacoma's Downtown, Port and South Tacoma Way neighborhoods.

Colville Confederated Tribes .. funded for \$200,000. This pilot will target two former federal facilities, totaling more than 100 acres, located on the Colville Reservation. The pilot will investigate potential environmental hazards at these two sites, and formulate redevelopment plans to foster opportunities for the Tribe.

Kitsap County ... funded for \$200,000 for assessment work, and an additional \$50,000 for green space purposes. The pilot targets urban sites in Kitsap County to promote economic diversification in an area where the military is downsizing and many residents have to commute to neighboring communities.

Residents can Breathe a Sigh of Relief: Groundwater Cleanup Protects Tumwater Drinking Water

The final phase of construction needed to clean up contaminated groundwater near the Palermo Wellfield in Tumwater, Washington, was completed in January of this year. The new subdrain has already dried up the pools of groundwater contaminated with dry cleaning solvents that had collected in crawl spaces and yards of homes. Water drained from the homes is routed to a new treatment lagoon. Indoor air sampling is planned to verify that the cleanup has been effective.

A treatment system completed early in 2000 brought three city water supply wells back on line and a soil vapor extraction system installed near the source of the contamination successfully removed over 400 pounds of solvents before they reached the groundwater.

Midnite Mine: EPA Teams With Spokane Tribe on Risk Assessment

EPA is working closely with the Spokane Tribe on a human health risk assessment. Tribal members in the Midnite Mine area may be exposed to contaminants through sweat lodges, subsistence diets of wild fish, game, and plants, and greater exposure to contamination during hunting, gathering, and outdoor activities.

Midnite Mine is an inactive, open-pit uranium mine on the Spokane Indian Reservation. Acid mine drainage containing heavy metals and radionuclides has contaminated water, soils, and sediments. Mine buildings have been fenced, access roads gated, and signs posted to alert people of potential contamination.

Hanford Fire Sparks Radioactive Concerns

During the height of fire season, an automobile accident and high winds sparked a fire that burned 170,000 acres on the Hanford Nuclear Reservation. On the scene, EPA monitored potential releases of radioactive material and collected samples for total radiological analysis. The Tri-Cities watched and worried as the most contaminated nuclear site in the nation was burning shortly after the Los Alamos Nuclear Reservation fire. Samples taken from areas near the Tri-Cities following the fire showed an elevated, but not dangerous, level of plutonium.



The extent of the fire was apparent in Satellite images



High winds cause smoke and ashes to spread quickly

Region 10 Cleanup

http://yosemite1.epa.gov/r10/cleanup.nsf/sites/cleanup

Washington Department of Ecology Toxics Cleanup Program http://www.ecy.wa.gov/programs/tcp/cleanup.html