

Portland Harbor Q&A

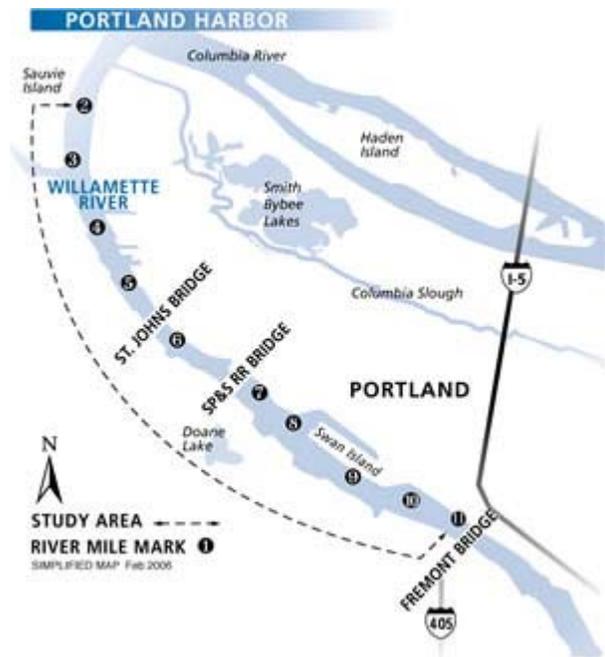
Overview

What is the Portland Harbor cleanup?

In December 2000, Portland Harbor was listed as a Superfund site by the federal government because there is contaminated sediment in the river. The Portland Harbor Superfund Site is the Willamette River from Sauvie Island to the Broadway Bridge.

What is “Superfund”?

Superfund is the name given to the environmental program established to address hazardous waste sites. It is also the name of the fund established by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). This law was enacted in the wake of the discovery of toxic waste dumps such as [Love Canal](#) and [Times Beach](#) in the 1970s. It allows the U.S. Environmental Protection Agency (EPA) to clean up such sites and to compel responsible parties to perform cleanups or reimburse the government for EPA-led cleanups.



With more than 1,000 Superfund sites across the U.S. and 13 in Oregon, what is special about Portland Harbor?

This is a complicated Superfund site – one of the most complex in the entire Superfund program. The site includes 10 miles of river that is used for transportation, commerce, recreation and habitat. The site was contaminated over many years with a variety of pollutants, involves over 100 potentially responsible parties, has Endangered Species Act considerations, and is of interest to six Native American tribes.

Who is leading the cleanup?

The U.S. Environmental Protection Agency (EPA) is in charge of the effort to determine the nature and extent of contamination, and ensure implementation of an effective in-water cleanup that will protect public health and the environment. The Oregon Department of Environmental Quality (DEQ) is the lead agency for upland work and source control along the riverbanks, where many current and historic industrial operations are located.

What is the Lower Willamette Group?

The City of Portland participates in the Lower Willamette Group (LWG), a group of potentially responsible parties who have voluntarily stepped forward for the initial phase of the Superfund work. This group conducted and paid for the Remedial Investigation and the Feasibility Study that will be used by EPA and all the parties that perform the cleanup. The members of the LWG are:

**Arkema Inc.
Bayer CropScience, Inc.
BNSF Railway Company,
Chevron U.S.A., Inc.
City of Portland
ConocoPhillips Company
Gunderson LLC
KinderMorgan Liquids Terminals,
NW Natural
Evraz Inc. NA, dba Evraz Oregon Steel
Port of Portland
Siltronic Corporation
TOC Holdings Co.
Union Pacific Railroad Company**

Why do we need to clean up the River?

This part of the Willamette River has been an industrial center for over 150 years with numerous manufacturing, shipbuilding, petroleum storage and distribution, metals salvaging and electrical power generation activities. Chemical handling and waste disposal practices from many years ago have likely contributed to sediment contamination in Portland Harbor.

What are the chemicals / contaminants of concern?

Four chemical groups primarily related to historical releases – PCBs, dioxin/furans, the pesticide DDT, and PAHs – account for most of the potential human health and ecological risks throughout the Portland Harbor area. Other chemicals present potential risks in localized areas.

What is the risk to human health? Is contact with the water dangerous for river users?

PCBs are the most significant and widespread chemicals posing potential risks to humans and wildlife. Ingestion of fish containing PCBs and other site-related chemicals represents the primary exposure pathway for risk to humans and aquatic mammals. According to the Oregon Health Authority, direct contact with sediments or the river water presents much lower risk to people.

The Oregon Health Authority conducted a public health assessment, based on data from the EPA and Lower Willamette Group to determine the risk of eating fish from the Portland Harbor. The Oregon Health Authority has concluded that frequent consumption of resident fish, such as carp, bass, and bullhead from the Portland Harbor could result in health problems.

Is it safe to swim and recreate in Portland Harbor?

The Oregon Health Authority published a Public Health Assessment for Portland Harbor in 2011, focusing on the effects of contamination on recreational users and fishers who come in contact with contamination in the Harbor. The Assessment reached three important conclusions: (1) People who boat, swim and recreate at the former GASCO site beach could be exposed to cancer-causing chemicals; (2) Swallowing or touching contaminants in water and sediment at other beaches is likely not harmful to boaters and swimmers; (3) Although not related to the Superfund site, contact with water near a combined sewer overflow pipe could cause bacteria-related illness. (Note: As described below, combined sewer overflows occur rarely since completion of the Big Pipe CSO Project.)

Benefits of Cleanup

Why is the Portland Harbor cleanup important? What are the benefits?

While the Portland Harbor cleanup's primary objective is the protection of human health and the environment, many communities have realized positive economic and social results from cleaning up and redeveloping contaminated sites. By eliminating or reducing health and environmental risks associated with hazardous waste sites, Superfund cleanups can help convert vacant and underutilized land into productive resources; reduce blight, uncertainty and other negative perceptions; and improve the aesthetics and general well-being in the communities surrounding the sites.

Why should Portlanders be interested in the Portland Harbor cleanup? Who will be most affected?

Portlanders want a healthy watershed and are interested in a cleanup that is not only cost-effective but that results in protection of human health and the environment and supports economic development in the region.

Will the cleanup create local jobs?

Portland Harbor is important to our local economy and its cleanup is a priority for Portland's future. A productive working harbor creates more jobs for the City. Cleanup of the Harbor will produce a safer, cleaner and better functioning harbor that can continue to provide jobs, recreation and habitat and support a thriving industrial economy.

How is the City of Portland involved?

The City of Portland is involved in Portland Harbor in many ways. The City's goal is to ensure that the cleanup is designed and carried out in a cooperative, collaborative manner between all governments and stakeholders, resulting in an efficient and cost effective remedy that manages sources of contamination, prevents or minimizes recontamination, improves the health of the river, promotes economic development and implements natural resource restoration. The City:

- is member of the Lower Willamette Group described above;
- is working with DEQ to identify sources of potential contamination to stormwater;
- has worked with DEQ and other private and public parties to sample sediments upriver of the site;
- has worked with EPA to conduct additional fish tissue sampling in the river;
- is working with the Port of Portland and U.S. Army Corps of Engineers on a proposal for federal funding for orphan sites in the Harbor under the Water Resources Development Act;
- is working with Natural Resource Trustees to identify areas for potential habitat restoration;
- is working with state and federal elected officials to keep them informed about Portland Harbor; and
- will be working with Portland citizens to ensure that EPA gets community feedback on the proposed remedy for Portland Harbor.

Why is the City Involved?

The City is involved because the Willamette River is crucial to the health and well being of our citizens and economy. The City is one of more than 100 parties that have begun a voluntary settlement process for allocating costs of investigating and cleaning up Portland Harbor. The Portland City Council designated the Bureau of Environmental Services as the lead agency for the City regarding City concerns in the Portland Harbor cleanup, with assistance from the Office of Healthy Working Rivers.

What is a CSO and do CSOs contribute to contamination in Portland Harbor?

A CSO -- combined sewer overflow -- is a mixture of stormwater and sanitary sewage that can overflow to the river when the capacity of the combined sewer system is exceeded. A CSO is a mixture of about 80% stormwater and 20% sanitary sewage. In Portland Harbor, many industries did not historically discharge their wastewater to the City's combined sewer system because they developed along the shore and discharged their wastewater and stormwater directly to the river. As the City's sewer collection system expanded, many of these industrial facilities connected to the sanitary sewer system to discharge their industrial wastewater, which went directly to the City's wastewater treatment plant.

Combined sewer overflows have been decreasing since the 1970s and after the "Big Pipe" CSO project was completed at the end of 2011, the combined sewer system overflows to the Willamette River only during extreme storm events. CSOs historically have been of concern because of the potential for human contact with bacteria, not because of the chemical contaminants from industrial activities that are the focus of the Portland Harbor cleanup.

Cleanup Process

What is happening now on the Portland Harbor cleanup? What's next?

The Lower Willamette Group has prepared a draft Feasibility Study that will present alternatives for the cleanup. The draft Feasibility Study was submitted to EPA at the end of March, 2012. Once EPA has reviewed and finalized the draft Feasibility Study, it will be used to prepare a proposed cleanup plan that will be published for public comment. Ultimately, EPA will make the final determination of which cleanup options best protect public health and the environment.

Why has it taken so long to get to this point in the process?

This is one of the most complex Superfund sites in the nation with multiple private and public organizations involved. Many are what are called potentially responsible parties that will need to be financially involved in the cleanup. Getting all organizations on the same page and working toward a common goal has taken considerable effort and time to study the issue, communicate each stakeholder's interests and develop baseline information from which EPA can then formulate a cleanup plan. The Remedial Investigation and Feasibility Study involved sampling and analysis of data over a number of years to evaluate the contamination in the river, identify risks to human health and the environment and to assess costs and benefits associated with a range of cleanup alternatives.

What cleanup options are being considered?

In-water options for the Portland Harbor cleanup may include:

- Dredging contaminated sediments and safely disposing them in a landfill
- Treating sediments to remove toxic chemicals
- Capping sediments with clean sand to isolate them from the environment
- Monitoring the river's ability to clean itself through natural recovery

These options are typical of the actions employed at other Superfund sites.

What criteria will EPA use to reach decisions on the cleanup plan?

EPA's decision criteria include:

- Protection of human health and environment
- Compliance with applicable federal and state environmental laws
- Short- and long-term effectiveness
- Reduction of toxicity, mobility and volume through treatment
- Implementability
- Cost
- State and community acceptance

Will community input be considered?

EPA created the Portland Harbor Citizen Advisory Group (CAG) to provide a forum to share information and receive input on the Portland Harbor project. The Group includes representatives from neighborhoods adjacent to the site, businesses in the Portland Harbor and environmental groups. The CAG meets monthly, and meetings are open to the public. Meetings are the second Wednesday of every month, starting at 6:00 p.m. Meetings are held at the City of Portland's Water Pollution Control Lab, 6543 N. Burlington Avenue. Information about the Community Advisory Group's activities can be found at <http://portlandharborcag.info/>

There will be additional presentations and information provided at community events around the city after the feasibility study is submitted to the EPA.

When will the cleanup work begin? How long will it take?

Planning and implementing a cleanup that is as large and complex as Portland Harbor has many steps. The draft Feasibility Study was submitted to EPA for review in late March 2012. EPA will review the document and may request more information before releasing its proposed cleanup plan for public comment. EPA will confer with the community, State, other Federal Agencies, Tribal Governments and a National Remedy Review Board before issuing a final cleanup plan. To turn that plan into action, detailed engineering designs for each cleanup area will have to be prepared. Choosing the right cleanup options and planning the detailed site cleanup work will take several years.

Will cleanup remove all contaminants?

No, it is not possible to remove all traces of contamination from the river. The cleanup will likely be a combination of the different technologies listed above; some contaminants may be removed, some areas may be capped and some areas with low levels of contamination may be monitored to determine if the contaminants will degrade naturally over time.

How will sediments with toxic chemicals removed from the river be safely disposed?

Depending on the nature of the contamination, contaminated sediments may be disposed of in an onsite confined disposal facility while others may be transported to a licensed offsite disposal facility.

Cleanup Costs and Who Pays

How much will the Portland Harbor cleanup cost? Who will pay? Can federal funds help pay for the cleanup?

Because cleanup actions have not yet been determined, Portland Harbor cleanup costs are not known at this stage. The Superfund law operates under the “Polluter Pays Principle,” so every effort will be made by EPA to have the cleanup work paid for by those who caused the pollution. Some of the industries may no longer exist -- and sometimes the entity that caused the pollution cannot be identified. In this case, the federal Superfund (which is currently unfunded) or the other responsible parties may end up paying a portion of the remedial costs of this “orphan share.”

Will the City of Portland pay some cleanup costs?

It is likely that the City of Portland will need to participate in and pay for some of the cleanup work in the harbor if it is determined that the City’s activities contributed contamination to the sediments. At this point in the process, the cost of this is unknown. The City will ensure that any cleanup the City is responsible for will be implemented in the most cost-effective manner, considering impacts on City taxpayers and ratepayers.

What has been spent to date on the investigation?

The Lower Willamette Group has spent almost \$100 million on the remedial investigation and feasibility study. The costs are for sampling, analysis and modeling to determine the nature and extent of contamination in the Harbor; development of human health and ecological risk assessments; development of a range of cleanup alternatives; EPA and DEQ oversight; EPA contractors; development of the Remedial Investigation and Feasibility Reports, and; participation costs for the six Tribal governments.

Looking Ahead

Is anything being cleaned up now?

Several “early action” projects are underway:

- A partial cleanup was completed at Port of Portland Terminal 4, Slip 3 and Wheeler Bay. A second phase of the project is planned.
- Planning continues for cleanup of contaminated sediments at the Arkema site. EPA is also considering early action cleanup at the GASCO-Siltronic site, and adjacent US Moorings site.
- Phase I of a removal action at the GASCO site at River Mile 6.5W was conducted by Northwest Natural.
- The University of Portland has agreed to provide funding for source control, cleanup and redevelopment of the Triangle Park uplands near River Mile 7.5 E.

Where can I go to learn more and stay informed about the Portland Harbor cleanup?

EPA is the lead agency for providing information to the public about the Portland Harbor cleanup. The Feasibility Study prepared by the Lower Willamette Group will be available at the end of March 2012. EPA and the Lower Willamette Group, will be hosting a series of public forums in April and May. Interested citizens can learn more about the Portland Harbor cleanup and stay informed by going to www.epa.gov/region10/portlandharbor. You can also become active in the Community Advisory Group that meets the second Wednesday of every month. <http://portlandharborcag.info/>

All Portland residents and businesses can help reduce pollutants in stormwater. For a list of Clean River tips, visit Environmental Services online at www.cleanrivers-pdx.org. The Office of Healthy Working Rivers website provides updates on information related to the Willamette River and the Portland Harbor project: <http://www.portlandonline.com/ohwr>.

Project documents are available on line at the EPA website listed above and for review at:

Multnomah County Library – St. Johns Branch
7510 N. Charleston Ave.