Portland Harbor Community Involvement Plan 2016

Stay Informed and Involved

This Community Involvement Plan is the Environmental Protection Agency (EPA) Region 10's updated strategy for engaging community members in the Superfund process for the Portland Harbor Superfund site. The plan also includes Oregon Department of Environmental Quality (ODEQ) engagement efforts.

Activities in this plan help EPA remain in regular contact with the community. This plan is the result of feedback from community meetings, interviews and presentations between 2012-2016.

EPA and Community Involvement

This Community Involvement Plan is a strategy to help promote meaningful community involvement throughout the cleanup of the Portland Harbor Superfund site. It specifies planned activities for 2015 and beyond. The plan is a working document, updated as more information about the site becomes available.

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EPA and ODEQ Contacts

Contact us if you have questions or need more information about this plan or the Portland Harbor Superfund site:

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Learn more: Sign up for updates and event notifications at bit.ly/ptlndhrbr
Visit EPA's web page http://go.usa.gov/3Wf2B
Visit ODEQ's web page www.deq.state.or.us/lq/cu/nwr/portlandharbor

Site at a Glance

Where Is the Portland Harbor Superfund Site?

The study area is a contaminated section of the lower Willamette River from the Broadway Bridge to approximately the Columbia Slough.

What Happened?

More than a century of industrial uses left areas of Portland Harbor contaminated with hazardous substances. They include polychlorinated biphenyls (PCBs), heavy metals, polycyclic aromatic hydrocarbons (PAHs), dioxin/furans, and pesticides.

Why Are We Cleaning It Up?

EPA is overseeing studies that look at ways people and wildlife may be exposed to contamination at the Portland Harbor Superfund site and, if so, whether the possibility of harmful effects is great enough that a cleanup is needed. Based on the studies completed to date, the EPA determined that risks posed by the site are high enough to take action. The term "***cleanup***" refers to remedial actions designed to lower risks posed by the contaminated sediment to an acceptable level.

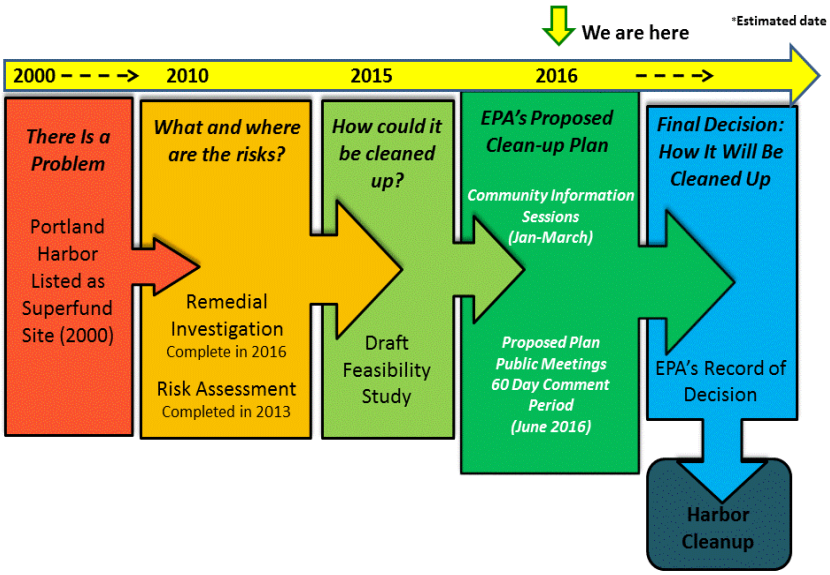
Eating Portland Harbor resident fish such as bass, catfish, and carp is a health risk, especially for subsistence fishers and infants breastfed by mothers who eat resident fish. PCBs are the primary contaminant associated with most of the risks from eating the fish. Contamination also poses ecological risks.

What Is Going on Now?

EPA is reviewing options to lower risks posed by contaminated sediment in the river and along the shoreline at Portland Harbor. The feasibility study is the document that presents these options. EPA uses the study to evaluate and select a preferred cleanup remedy. The proposed plan, anticipated in mid-2016, will outline cleanup options and propose a preferred course of action for lowering human health and ecological risks at the site. The public will have an opportunity to comment on the proposed plan. EPA will carefully consider public input on the proposed plan and issue a Record of Decision (ROD). A ROD is the official record that summarizes the alternative selected to cleanup a specific Superfund site.

EPA's efforts to clean up contaminated sediment will be coordinated with cleanup and pollution control efforts on land-based properties that are sources of river contamination. ODEQ is overseeing these efforts. The EPA and ODEQ will continue to meet with the public throughout the Superfund process to provide updates, answer questions, and listen to community concerns.

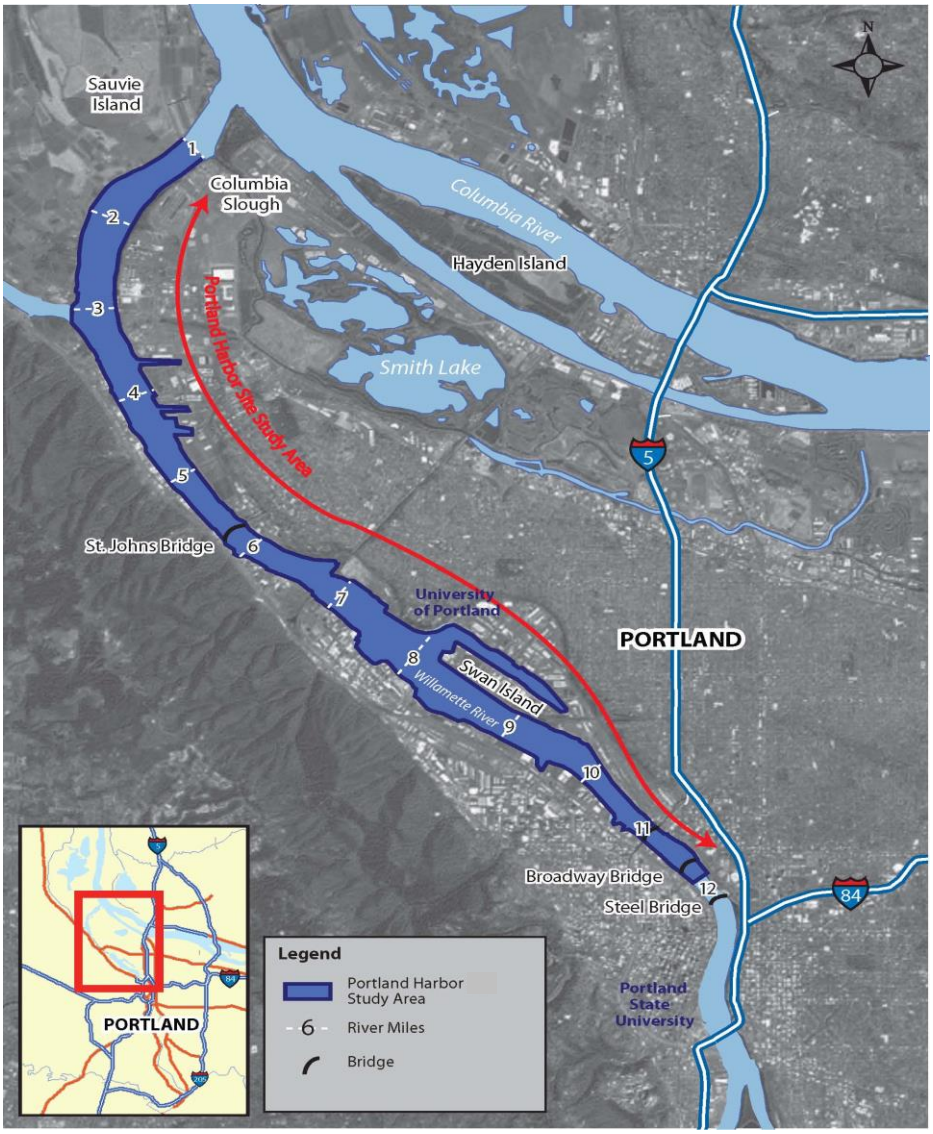
Key Milestones



What Are the Project's Goals?

- Reduce risks from contaminated sediment to acceptable levels. Decrease pollution sources to reduce the risk for people eating resident fish from the lower Willamette River and for wildlife and fish in the area.
- Provide cleaner habitat for wildlife and fish.
- Continued recreational uses and other river uses that support navigation, industry, commerce, and jobs.

Aerial view of the Portland Harbor study area



A Closer Look

The Portland Harbor Superfund site study area is located on the lower Willamette River, approximately between the Broadway Bridge and the Columbia Slough. The Portland Harbor waterfront is heavily industrialized and zoned primarily for commercial and industrial uses.

In addition to industrial activities, tribal fishing for both subsistence and ceremonial purposes occurred historically and continues to be a key activity along the river. Other people also use the river for subsistence fishing. *Subsistence fishing* refers to fishing, other than sport fishing, that provides a source of food for the fisher or the fisher's family. Many fish species such as salmon and steelhead migrate through Portland Harbor and the Willamette River. Unlike migratory fish such as salmon, *resident fish* such as bass, catfish, and carp may spend their entire life cycle in the Portland Harbor waterway.

Fish-eating birds, migratory waterfowl, and raptors seasonally visit the lower Willamette River. Swimming, boating, and community recreational events are other uses that bring people in contact with Portland Harbor. Transient communities were also observed living along some shoreline areas.

In December 2000, EPA added Portland Harbor to the Superfund program's National Priorities List of contaminated sites based on the results of a 1997 sediment sampling study. The list identifies the nation's most contaminated sites. Hazardous substances currently found at Portland Harbor are harmful to humans, fish, and wildlife. EPA focused its evaluation on the risks posed at the site and determined that there is a risk to people from eating resident fish. There is also ecological risk associated with contamination in Portland Harbor.

Since the late-1980s, ODEQ has been cleaning up sources of contamination at industrial sites along the banks of the river. The objectives of ODEQ's source control work are to identify, evaluate and control upland sources of contamination. These upland controls will help to protect the river from recontamination after the in-water cleanup of contaminated sediment. Watch a video to learn more about progress made to help prevent recontamination once the Willamette River cleanup begins, http://www.deq.state.or.us/lq/cu/nwr/portlandharbor/

Another helpful document is the Joint Source Control Strategy. The December 2005 ODEQ/EPA Portland Harbor Joint Source Control Strategy guides ODEQ's source control work and is available at www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm

Portland Harbor Community Advisory Group member fishing for bass.

From 2006 through 2016, ODEQ periodically published Milestone Reports on Upland Source Control at the Portland Harbor Superfund Site. These documents describe the status, next steps, and schedule for Portland Harbor source control, and are available at www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm

ODEQ's Upland Source Control Summary Report, which captures source control efforts throughout the Portland Harbor study area, is also available. Information on individual upland sites is available in ODEQ's Environmental Cleanup Site Information database at http://www.deq.state.or.us/lq/ECSI/ecsi.htm

In addition to overseeing the Lower Willamette Group's Portland Harbor investigation efforts, EPA is overseeing a number of in-river Early Actions. A couple of Early Actions have removed contaminated sediment from the river. Other Early Actions at high chemical concentration areas are getting more detailed analysis and information for the feasibility study and design so they may be some of the first areas cleaned up after the final remedy for the site is selected in the Record of Decision. A description of both ODEQ source control work and EPA's Early Actions are in Appendix D of this plan.

Community Background

Diverse neighborhoods, organizations, schools, businesses, religious institutions, the University of Portland, and government offices are located within an approximate 2.5-mile radius of the Portland Harbor Superfund study area. Approximately twenty-four percent of people living within the area of Portland Harbor are minorities; fifteen percent of homes are English as a second language households. Other communities, not necessarily living near the River, also recreate in the Portland Harbor area. These include Spanish-speaking, Vietnamese, Hmong, Chinese, Ethiopian, Somali, and Russian/Slavic communities.

Community Data		
	5-Mile Diameter of Portland Harbor	**Portland, Oregon (Multnomah County)**
Race % Minority	24%	30%
Race % White	80%	81%
Speak English Only	85%	81%
English as a Second Language Spoken at Home	15%	19%
Age of Population (less than 18 years old)	24%	21%
Per Capita Income	$34,383	$28,883
Household Income Less Than $15,000	14%	20%
NOTE: Demographic approximations based on *U.S. Census Bureau, American Community Survey (ACS) 2006-2010.*		

Portland Harbor Community Advisory Group (CAG)

A group of interested citizens and organizations formed a Community Advisory Group, or CAG, for the Portland Harbor Superfund site. The Portland Harbor CAG provides a public forum for community members to learn about the site and share community needs and concerns. The CAG also provides input and feedback to EPA and ODEQ on how to clean up the site by offering an opportunity to hear and consider community perspectives on site plans and activities. In November 2015, the CAG provided written recommendations to the National Remedy Review Board on the clean–up options appearing in the Draft Feasibility Study.

Portland Harbor Community Advisory Group

- Contact CAG Chair Jim Robison at 503-285-4805 or jimrobisonpdx@gmail.comAttend a CAG meeting held on the second Wednesday of every month at 6:00 p.m. at the Water Pollution Control Laboratory at 6543 North Burlington Avenue. All CAG meetings are open to the public.

Other Community Partners

There are other community members and organizations not represented on the CAG. Therefore, it is important to reach out regularly to others interested in the Portland Harbor site to hear ideas and concerns representative of the broader community. Some community groups and organizations that EPA and ODEQ have contacted include: Communities of Color, Portland Office of Neighborhood Involvement, Native American Youth Association, Latino Network, Right 2 Dream, Right 2 Survive, Ecumenical Ministries Oregon, Coalition of Black Men, Oregon Environmental Justice Task Force, Urban League, Oregon Tradeswomen, Inc., Iraqi Society, Czech Society, Slavic Immigrant Association (Oregon), League of Women Voters, Verde, Portland Harbor Community Coalition, Sierra Club Portland, Occupy St. John, Audubon Society, Asian Pacific American Network of Oregon, Immigrant and Refugee Community Organization, Spanish Chamber of Commerce, Wisdom of the Elders (Tribal), Vietnamese Community of Oregon, Portland North East neighborhood association and chairs, Portland Community College, University of Portland – Children's Water Festival, New Columbia Community, Southwest waterfront neighbors, and Groundwork Portland. EPA and ODEQ will also use community information sessions, fact sheets, websites, one-on-one discussions, and participation in community festivals and meetings as ways to share information with the broader community.

Willamette Riverkeeper

The Willamette Riverkeeper has been a community resource for sharing information and reaching out to the public about Portland Harbor Superfund site cleanup activities.

EPA advertised the availability of a technical assistance grant in December 2000 and awarded it to the Willamette Riverkeeper in August 2001. The purpose of the grant is to provide funds for a technical advisor. The advisor helps community members understand scientific and technical information related to the investigation and cleanup of the Portland Harbor Superfund Site. The advisor also helps the community prepare recommendations and comments to EPA on Portland Harbor documents.

Although not Portland Harbor-specific, EPA and ODEQ can provide information on other grant opportunities.

To Learn more about the Willamette Riverkeeper

- Contact Executive Director Travis Williams at 503-223-6418 or travis@willametteriverkeeper.org

What We Have Heard So Far

To ensure EPA and ODEQ remain current on community concerns and priorities regarding the Portland Harbor site, each agency participates in a variety of activities to connect with the public. The Portland Harbor CAG meetings, a Community Café at the Oregon Museum of Science and Industry featuring an artistic facilitator, small group discussions with Spanish-speaking communities, a boat tour with houseless community members, and interactive learning exercises with children attending the Native American Youth Association's afterschool program are just a few of the activities which provided an opportunity to hear a diversity of voices.

Here is a brief summary of the most common community feedback shared with EPA and ODEQ during outreach activities between 2012-2016.

Community Café with artistic facilitator
Photo source: EPA

Community Perspectives

- Ensure that outreach efforts include underrepresented communities, including houseless populations.
    - Outcome: EPA contacted organizations that support underrepresented communities to understand how to keep them informed about Portland Harbor progress. Due to other pressing priorities in the Portland area, various organizations requested that EPA continue to provide periodic status updates via email in lieu of direct involvement. Although some requested periodic updates, engagement activities with many of the organizations listed on page 6 resulted in expanded outreach efforts to historically underrepresented communities. Examples of expanded outreach includes attending cultural events such as Slavic festivals, providing translated community information cards, offering community information sessions with Russian and Spanish interpreters, and providing a training session for multicultural residents living in a North Portland neighborhood.
- Provide regular site status updates to communities on upcoming site activities and invite communities to quarterly briefings with EPA executives/managers.
    - Outcome: EPA offered quarterly Community Partner Briefings. During the briefings, the Regional Administrator of EPA provided site updates and met with community members to hear their concerns.
- EPA should host non-technical meetings where people can share their thoughts, ask questions, and provide input in an informal setting.
    - Outcome: EPA hosted Community Cafés that offered a space for community members to network and share values related to the river. An artistic facilitator captured community dialogue through illustrations during each Café. The March 2016 illustration and July 2015 illustration are available on EPA's website.

- Help identify community demographics and provide maps.
    - Outcome: EPA worked with a Portland State University graduate student to draft a map of community demographics within a 2.5-mile radius around the Portland Harbor study area. EPA requested assistance from community members to ground truth the map for accuracy. There has been rapid gentrification in Portland since the 2010 census. Community members continue to reach out to new neighbors with information about Portland Harbor.
- Hire local residents for cleanup jobs.
    - Outcome: EPA and ODEQ provided trainings to students matriculating through the Oregon Tradeswomen program. Some students are seeking careers in environmental jobs. EPA is considering Portland Harbor for the Superfund Job Training program when the project is closer to the construction phase. The program offers training and certifications at no cost to community members seeking employment in cleanup jobs when work begins at the site. EPA also presented information about the Superfund job-training program to the Oregon Environmental Justice Task Force. Learn more about the Superfund job training program at the following link: http://go.usa.gov/3Wf2B

Students learning about the site. Photo source: EPA

- Provide alternative ways for communities to provide input and learn – videos, illustrators, Saturday sessions. Develop multilingual outreach sheet.
    - Outcome: EPA produced a series of narrated videos on the various cleanup technologies presented in the feasibility study. Videos on Monitored Natural Recovery or MNR, Dredging, Capping, Monitoring are available on EPA's website.
    - Outcome: Community members assisted in translating community information cards with commonly asked questions about Portland Harbor. Community Information Card (PDF), En Espanol (PDF), In Russian (PDF), In Chinese (PDF), In Vietnamese (PDF)
- Coordinate the cleanup with efforts to prevent recontamination of the harbor. Monitor contractors performing cleanup. Citizen committee of "river watchers" – independent oversight by non-profit.
    - Outcome: ODEQ produced a video about Portland Harbor and progress made to prevent recontamination once the Willamette River cleanup begins.
    - EPA and ODEQ continue to listen to community ideas regarding this request.
- Ensure a strong cleanup that is protective of fish, wildlife, and overall health of river. Do not decrease access to the river.
    - EPA will continue to listen to community input and feedback regarding this concern.
- Request for a health impact assessment.
    - Outcome: EPA Environmental Justice coordinators offered a series of training sessions on the Community-Focused Exposure and Risk Screening Tool (C-FERST). C-FERST is a community mapping, information access tool to help inform community assessments and decision-making. EPA is conducting research to enhance community-based cumulative risk assessments and developing tools to communicate that research to the public.
    - Outcome: EPA broadly announced Environmental Justice grant opportunities to the Portland Community.

- Maintain the continued economic viability of the harbor and the Portland metropolitan area.
    - EPA will continue to listen to community input and feedback regarding this concern.
- Enable educational opportunities for students to learn about the site and its cleanup.
    - Outcome: EPA provided presentations to Portland Community College students and Oregon Tradeswomen. A *Portland Harbor Brain Bender Activity Book* is available to students. The interactive book has educational activities with math, geography, biology, and word finds to help 6th-8th grade students learn more about the Portland Harbor Superfund site.
- Hear community concerns to remove contaminated materials from the river to minimize long-term risks. Hear community concerns about the use of a confined disposal facility (CDF) and explore alternative treatment technologies.
    - Outcome: EPA participated in community-sponsored forums to discuss and answer questions about the CDF. A CDF Frequently Asked Questions guide developed for the community is available on EPA's website https://www3.epa.gov/region10/pdf/ph/sitewide/cdf_qanda_fs_011412.pdf
    - EPA will continue to listen to community input regarding this concern.
- Ensure the site's responsible parties pay their fair share of the cleanup.
    - EPA will continue to listen to community feedback regarding this topic.
- Provide periodic briefings to the media and local, state, and federal elected officials.
    - Outcome: EPA press officers have established periodic press events and EPA staff have participated in radio interviews to help reach a broader audience and provide information about the Portland Harbor Superfund site.
    - Outcome: EPA and ODEQ managers meet with elected officials to provide periodic updates and to hear concerns.

Children learning about Portland Harbor.
Photo source: EPA

Community Suggestions for Enhanced Engagement

General

- Reach out to underrepresented communities. Translate materials into Spanish, Chinese, Vietnamese, and Russian and share the information using ads in newspapers, public service announcements on the radio and television, and articles in community newsletters.
- Direct community outreach is also effective. Attending community celebrations and ethnic festivals are good ways to reach different communities and neighborhood associations in the area.
- Continue working with local non-profit community organizations and community leaders from culturally diverse groups to help share site information.

For Outreach to Spanish-Speaking Communities

- There is a need for more public awareness regarding the health risk posed by eating resident fish from Portland Harbor. People are catching and eating the fish.
- Information sharing needs to reach families and children. Possible options include passing out information in Spanish in schools, churches, and community centers, and placing television commercials on the local Spanish channel and ads in the community outreach section of the *El Hispanic* newspaper. Other options include hosting afterschool programs, providing public service announcements on Radio Latina, providing information during free-lunch-in-the-park programs, the Explorando el Colombia Slough Festival, Portland Sunday Parkways and the Laura Media Health Fair, and working with the Northwest Family Services organization to coordinate meetings and outreach.

For Outreach to Asian Communities

- There is a need for more public awareness regarding the health risk posed by eating resident fish from Portland Harbor. People are catching and eating the fish.
- People are very concerned about their health and being healthy. Outreach should focus on Vietnamese neighborhoods in southeast and southwest Portland, along 82nd Avenue, Powell Boulevard, Division Street, Foster Road, and Glisan Street.
- Public notices and warning signs work well. Ads highlighting the fish advisory in the *Phuong Dong Times* and *Asian Reporter* newspaper would also work well.

For Outreach to Russian and Slavic Communities

- There is a need for more public awareness regarding the health risk posed by eating resident fish from Portland Harbor. Eastern European groups fish the harbor most heavily on weekends.
- The EPA should work with Orthodox Christian churches in the area and Russian Oregon Social Services on outreach efforts. Attending and sharing information at community festivals is also a good option.
- Include articles in the *Kahoh Magazine* to notify residents of Portland Harbor related activities.

Community Questions and Concerns

Community members have frequently expressed the following questions and concerns. EPA considered the feedback when preparing the proposed cleanup plan.

- Where and how should contaminated sediments be disposed of?
- How do we ensure the polluters pay?
- How does EPA decide if a confined disposal facility will be a part of the cleanup plan?
- Will EPA monitor the air during cleanup?
- Will EPA monitor construction workers to ensure they do the job right?
- Whose voice has more power – politicians, industry, citizens?
- Will cost be the most important criteria for deciding the final cleanup remedy?
- How do we inform houseless communities about what is happening at the site?
- Community members lack the same access to political leaders as industry in expressing their concerns.
- Will businesses be able to continue to operate during and after the cleanup?
- How will people know that the fish in the harbor are safe to eat?
- How do we know when we reach cleanup goals?

- How will the involvement of different agencies and tribal governments slow down the investigation and cleanup?
- What is the plan for notifying people about unsafe conditions at the site?
- How do contaminated sediments affect water quality?
- How much contamination is there; how far does it extend?
- Financial assurance for future monitoring is needed.
- The final cleanup decision must survive political appointees.
- Do not destroy habitat areas in expectation of restoration.
- Some members of the community have expressed interest in off-site disposal of contaminated sediments.
- Some community members have expressed concern about PCB volatilization if dredging occurs.
- Some members of the community have asked about the impact of earthquakes on caps placed over contamination and the use of confined disposal facilities.

Community Involvement Objectives

Based on the community feedback EPA and ODEQ received between 2012-2016, our goals for the site's updated Community Involvement Plan are to:

- Provide regular and timely information about upcoming cleanup activities and plans.
- Continue to work with all affected communities and other interested parties, maintaining regular and open dialogue to respond to questions and concerns as they arise.
- Identify and reach out to underrepresented communities not represented on the CAG to hear their voices and collaborate with ODEQ and Oregon Health Authority to reach these communities.
- Seek resources outside the scope of the Superfund program that may support community objectives.

Community information session with southwest waterfront residents. Photo source: EPA

Community Involvement Activities

EPA and ODEQ have developed public outreach activities that we plan to use to keep you informed. Audiences for these efforts will include people who may be:

- Affected by environmental impacts or cleanup work in Portland Harbor.
- Involved in site investigation activities or cleanup activities.
- Interested in cleanup work in the harbor or issues related to the Willamette River.
- Part of communities of color, immigrant communities, and neighborhoods beyond the site boundary in southeast and southwest Portland.
- Responsible for the general welfare of area communities, businesses, organizations, and governments.

How You Can Stay Informed	
Review Portland Harbor Reports:	EPA will make reports, documents, and other relevant materials accessible to the public by posting them on EPA's Portland Harbor website and sending email notifications of their availability. EPA will also make hard copies available in the Multnomah County Central Library/St. Johns Library (space permitting) and in EPA's Oregon Operations Office. Copies of reports will also be available on CD-ROMs upon request.
Community Comments:	Comments received by EPA during the formal public comment period for the Proposed Plan and EPA's responses to comments will be publicly available. The comments will become a part of the administrative record. Comments received outside of formal public comment periods will not receive a written response nor be included as formal comments in the responsiveness summary for the proposed plan.
Attend and Participate in CAG Meetings:	EPA and ODEQ staff will continue to work closely with the Portland Harbor CAG, attend meetings, provide information, and serve as resources to answer community questions. As funding is available, EPA plans to continue supporting the site's technical assistance grant to provide independent technical review and interpretation of project information for the community.
Attend Public Information Sessions:	EPA and ODEQ will continue to host periodic open houses, public information sessions, and workshops to help make information widely available at significant milestones during the site's cleanup.
Briefings for Elected Officials:	EPA and ODEQ project managers and staff will routinely brief local, state, and federal legislators about progress on the Portland Harbor cleanup. These briefings will provide another way for project information to reach local constituents. In return, legislators will be able to share their constituents' concerns with EPA and ODEQ.
Contact Us with Questions or Concerns:	Alanna Conley and Marcia Danab are the project's community involvement contacts. They are available to talk with anyone who has concerns or questions about the Portland Harbor cleanup.
Where and How You Can Get More Information about Portland Harbor	
Fact Sheets:	EPA and ODEQ will issue periodic fact sheets about cleanup activities, significant milestones, technical information, and project findings. The fact sheets will be sent to the Portland Harbor email list (see page 1) and posted on EPA and ODEQ Portland

	Harbor Web pages. Hard copies of fact sheets will be distributed during CAG meetings and provided to community groups and individuals upon request.
Articles and News Releases:	EPA and ODEQ may periodically submit articles and provide interviews to trade publications, local newspapers, and radio broadcasts. Public notices for submission of public comments on the Proposed Plan will be posted in one or more newspapers.
Portland Harbor Email List:	Site agencies will maintain and regularly update their respective Portland Harbor email lists to ensure stakeholders and neighbors receive information updates. To join the email list, please send a request by email to EPA or ODEQ contacts listed on page 1.
Information Repositories:	Reports, technical documents, and other information requested from EPA and ODEQ can be delivered to Multnomah County Central Library (503) 988-5123 or the St. Johns Library (503) 988-5397 for public review, ***space permitting.*** If the libraries are unable to accept a copy of the document, EPA will work with the community to locate alternate viewing areas.
Websites:	EPA and ODEQ maintain project websites where people can access site information. To access EPA's Portland Harbor website, visit http://go.usa.gov/3Wf2B. To access ODEQ's website, visit www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/index.htm
Reaching Diverse Communities	
Outreach to Diverse Communities:	Reaching historically underrepresented communities near the site whose residents may not attend CAG and other site meetings is important. EPA and ODEQ will continue to host and participate in discussions and partner with the Oregon Health Authority to help identify the needs, concerns, and priorities of these communities. Efforts will be made to reach the following groups in affected communities: • *Subsistence fishers:* We will continue to work with the Oregon Health Authority and the Willamette Riverkeeper to develop and post signs near boat launches and in community parks, have interagency information booths at local events, and provide multilingual information about the site and health risks from eating resident fish. • *Non-English speaking groups:* Site information translated into other languages will be available. We are able to provide materials in Chinese, Russian, Spanish, Hmong, Vietnamese, and other languages upon request. • *Houseless populations:* We will continue to jointly work with State and County agencies, the City of Portland, and non-profit groups to improve outreach to citizens living along the river. • *Tribal populations:* We will work with tribal governments to identify specific tribal information and education needs and share project updates. We are available to participate in meetings, provide presentations, and participate in events. We are also reaching out to non-federally recognized tribal communities. • *Neighborhoods southeast and southwest of the site:* We will be conducting outreach to discuss the importance of the site's cleanup with area residents.

Community Outreach and Involvement Activities from 2015 and Beyond (estimated dates)*	
Ongoing activities	Participation in monthly CAG meetings, neighborhood association meetings, and presentations to community groups upon request.
	Participation in community festivals and other outreach events.
	Providing updates during Oregon Environmental Justice Task Force meetings.
	Quarterly EPA Community Partner briefings with the Region 10 Regional Administrator.
	ODEQ held multiple public information sessions and offered multi-media presentations to help prepare the community for the release of EPA's draft proposed plan for the Harbor cleanup and ODEQ's Upland Source Control Summary Report. An ODEQ source control video was released and shown during public outreach events.
Pre-Proposed Plan EPA engagement activities completed through the Spring of 2016 (See *Appendix A* for a detailed list of completed engagement activities)	2 Community Cafés: facilitated workshops for community networking around values and considerations for proposed plan comments.
	Community information sessions offered by EPA to prepare the public for the proposed plan release. Visit http://go.usa.gov/3Wf2B to view the list of sessions.
	Information series with community members to discuss the Draft Final Feasibility Study sections.
	Technology talks: Series of discussions on technologies evaluated in Final Feasibility Study to reduce risk from contaminated sediment (presentation and narrated powerpoint) Click Watch narrated presentation of methods that have been used to successfully clean up contaminated sediment https://yosemite.epa.gov/R10/CLEANUP.NSF/PH/Portland+Harbor+Superfund+Site+Community+Resources
	Technical assistance information sessions for CAG/TAG contractor for preparing National Remedy Review Board recommendations
	Activities and discussion of health risk and Portland Harbor with youth from schools, afterschool programs, and tribal youth from families who may practice subsistence fishing from the river.
	Site update presentation to Business Associations.
	Educational activities with students in NAYA afterschool program.
	Translated materials provided to Spanish, Russian, and Asian Communities on Portland Harbor status and engagement opportunities.
	Draft Final Feasibility Study made available to the public.
	Quarterly training session with Oregon Tradeswomen students seeking to participate in the Superfund jobs readiness program.
	Update presentations to the Oregon EJ Task Force and request for assistance in reaching diverse communities.
	Assistance to CAG: January – March 2016. Contributed articles to CAG newsletter, provided printed materials for CAG events, participated in CAG sponsored forums.
	EPA community information sessions on Portland Harbor background, cleanup technologies, alternatives, public comment, and process for submitting comments.

Coming Soon! June 2016 Proposed Plan Period– EPA Community Engagement	June - Public Notice in The Oregonian newspaper of: • Proposed Plan availability • Formal public comment period and Official EPA Public Meeting dates • Preferred remedy Additionally, the Proposed Plan availability will be announced via: • EPA email blast to Portland Harbor email list bit.ly/ptlndhrbr • EPA Region 10 Facebook https://www.facebook.com/eparegion10 • EPA Region 10 Twitter https://twitter.com/EPAnorthwest?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor • Portland community newspapers with ethnic and lower income focus • Portland Office of Neighborhood Involvement email blast
	Proposed Plan and Fact Sheet will be available via: • EPA Portland Harbor web site https://yosemite.epa.gov/r10/cleanup.nsf/sites/ptldharbor • Multnomah County Central Library • Kenton Firehouse • St. Johns Library
	Official EPA Proposed Plan Public Meetings Share Your Comments with EPA. Attend one of the official EPA public meetings to provide oral and written comments, and to hear an EPA presentation on the Proposed Plan. Meetings will be held on the following dates in Portland, Oregon: • June 24, 2016, 11:30am-8pm, City of Portland Building, 1120 SW 5th Ave. • June 29, 2016, 11:30am-8pm, EXPO Center, 2060 N Marine Dr. • July 11, 2016, 11:30am-8pm, University Place Conference Center, 310 SW Lincoln St. • July 20, 2016, 11:30am-8pm, Ambridge Center, 1333 NE Martin Luther King Jr. Blvd. EPA will offer two presentations on the Proposed Plan during each public meeting at the following times: • 12noon to 12:30pm • 6pm to 6:30pm. **All locations are easily accessible via MAX trains and bus lines.** **Russian, Spanish, Vietnamese, and Chinese interpreters will be available during the June 24th meeting.** Please notify Laura Knudsen knudsen.laura@epa.gov or 503-326-3280, no later than ***two weeks prior*** to the other public meetings to request language interpretation assistance.

	60-day public comment period on the Proposed Plan. This time includes a 30-day extension required by law, based on requests already received by EPA for additional time.
	Federally recognized Tribal consultation on Proposed Plan.
Fall-Winter 2016	EPA provides response to Proposed Plan comments. Comments and responses become a part of the administrative record.
Winter 2016	EPA prepares Record of Decision (ROD)
2017 and Beyond	ROD provided for public review, posted on site Web page, sent to site email list, and shared with community partners and tribal governments.
	Public meetings and community presentations on the ROD.
	Notifications of ROD availability published in in local media.
	Public information session on ROD.
	Remedial design and remedial action.

Source: www.epa.gov/superfund/community/process.htm

Action	Status	Description
Preliminary Assessment / Site Investigation	Complete	Initial investigations of site conditions.
NPL Listing	Complete	Listed in 2000. Placement of site on EPA's list of the most serious hazardous waste sites identified for long-term cleanup under Superfund.
Draft and Draft final Remedial Investigation / Feasibility Study	Complete	Studies to determine the nature and extent of contamination. Draft and Draft final reports provided to the public in 2012 and 2015.
Remedial Investigation	Complete	Completed February 2016.
Final Feasibility Study	Complete	June 2016* (Anticipated)
Proposed Plan and Public Comment Period	Proposed Plan release date: June 8, 2016 Public Meetings June 24, 2016, 11:30am-8pm, City of Portland Building, 1120 SW 5th Ave. June 29, 2016, 11:30am-8pm, EXPO Center, 2060 N Marine Dr. July 11, 2016, 11:30am-8pm, University Place Conference Center, 310 SW Lincoln St. July 20, 2016, 11:30am-8pm, Ambridge Center, 1333 NE Martin Luther King Jr. Blvd.	Comments on the proposed plan will be accepted from June 9 until August 8, 2016. The 60-day public comment period for the Portland Harbor Superfund Site Proposed Plan includes a 30-day extension required by law, based on requests already received by EPA for additional time.
Record of Decision		After proposed plan December 2016*(anticipated) Decision document selecting site remedy.
Remedial Design / Remedial Action		Preparation and implementation of plans and specifications for site remedies.

Construction Completion		Completion of physical cleanup construction (cleanup may remain ongoing).
Post-Construction Completion		Activities ensuring Superfund response actions provide for long-term protection of human health and the environment.
NPL Deletion		Removal of site from NPL once all response actions are complete and all cleanup goals achieved.
Reuse		Return of site properties to safe and productive use following cleanup.

Project Roles and Responsibilities

Site Agencies

EPA and ODEQ signed a Memorandum of Understanding in February 2001 to work collaboratively on the cleanup of the Portland Harbor site. EPA is responsible for investigation and cleanup of contaminated sediments in the river. ODEQ is the lead agency for investigating and controlling upland sources of contamination threatening the river. ODEQ is also responsible for coordinating the Portland Harbor work with other state and local efforts such as the Governor's Oregon Plan and the City of Portland Combined Sewer Overflow (CSO) and Portland Harbor stormwater outfalls projects. The Oregon Health Authority works with EPA and ODEQ to explain site health risks to the public. The organization also collaborated with EPA to develop new fish advisory signage.

Regulatory Overview

EPA and ODEQ's work in Portland Harbor is governed by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 as well as the State of Oregon's Environmental Cleanup Law (Oregon Revised Statutes 465-200 et. seq.), the Clean Water Act, the Endangered Species Act, and other applicable laws and regulations.

Portland Harbor Natural Resource Trustee Council

EPA and ODEQ are also part of a larger intergovernmental project team that includes natural resource trustee organizations designated by law to act on behalf of the public or tribes to protect natural resources such as salmon, migratory birds, and their habitat. To coordinate their damage assessment and restoration planning actions, the Trustees for Portland Harbor natural resources formed the Portland Harbor Natural Resource Trustee Council in 2002.

The trustees involved in the Portland Harbor project include the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the Oregon Department of Fish and Wildlife, and six tribal governments. The tribal governments are the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe.

The tribal governments have expressed interest in the Portland Harbor work because of:

- Treaty rights that provide access to the river's resources.
- Historical use of the area for fishing and cultural purposes.
- Importance of fish and lamprey eel for sustenance and ceremonial purposes.
- Their roles as natural resource trustees charged with protection of fish and wildlife.

The Confederated Tribes and Bands of the Yakama Nation withdrew from the Portland Harbor Natural Resource Trustee Council in June 2009 over whether, how, and when to address potential harm to juvenile salmon, other fish, and natural resources in the Columbia River caused by Portland Harbor releases. The Yakama Nation continues to be actively involved in Portland Harbor cleanup matters and is working to settle natural resource damage liability, specifically in the Columbia River.

The relationship and responsibilities of the intergovernmental project management team are also established in the site's February 2001 Memorandum of Understanding. The Memorandum is available at EPA and ODEQ websites or upon request from the agencies.

EPA and ODEQ staff will continue to work with the tribal members of the intergovernmental project team to identify the specific needs of tribal members. Both EPA and ODEQ have obligations to consult with tribal governments on a government–to-government basis, and EPA has a trustee responsibility to the tribes as a federal agency. Community outreach activities are separate from trustee responsibilities and consultation between governments.

Potentially Responsible Parties

The Lower Willamette Group is a coalition of Portland Harbor businesses and public agencies who stepped forward in 2001 to participate in site investigations. The members of the Lower Willamette Group and EPA have a legal agreement called an *Administrative Settlement Agreement and Order on Consent*, and a *Statement of Work* that outline: (1) how a remedial investigation and feasibility study will be prepared; (2) who will perform the work; and (3) how EPA will recover costs incurred by EPA and ODEQ. To date, EPA has identified about 150 parties that are potentially responsible for site cleanup costs. Once a cleanup plan is in place, EPA will request that the potentially responsible parties negotiate an agreement to fund and implement the site's cleanup.

What's Next in the Cleanup Process?

The remedial investigation and feasibility study reports are used to help prepare a proposed plan to clean up Portland Harbor. The Proposed Plan will summarize cleanup alternatives and propose a preferred course of action. EPA will ask for public comments on the Proposed Plan. Tribal consultations and a review by ODEQ will also take place.

After carefully considering public input on the Proposed Plan, EPA will issue a Record of Decision (ROD) for Portland Harbor. EPA will then work with the potentially responsible parties to design and implement the selected remedy.

ODEQ is the lead agency overseeing Portland Harbor upland source control. The objectives of upland source control are to identify, evaluate, and control sources of contamination that threaten the river in the Portland Harbor study area. ODEQ's goal is to control the major sources by the time of the Portland Harbor ROD, particularly so that the sources do not pose a threat of recontaminating in-river cleanup actions. ODEQ will continue to work with upland responsible parties to control sources through the Proposed Plan, ROD, and beyond.

The Feasibility Study

The Feasibility Study outlines the different methods available for sediment cleanup and describes a wide range of ways to combine those methods into cleanup alternatives.

Methods to clean up contaminated sediment include:

- Digging it up (dredging).
- Covering it with clean soil (capping).
- Treating it in place (in-situ treatment).
- Allowing cleaner upriver sediments to cover it up (natural recovery).

View videos that explain the methods at https://yosemite.epa.gov/R10/CLEANUP.NSF/PH/Portland+Harbor+Superfund+Site+Community+Resources

Dredging

Capping

Appendix A: Superfund Community Involvement Activities

The activities proposed in this Community Involvement Plan for Portland Harbor include public involvement requirements established by law or regulation for all Superfund sites. The information in this appendix has been included as a helpful reference. The citation at the end of each paragraph uses the following abbreviations:

- NCP: National Contingency Plan
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)
- CFR: Code of Federal Regulations

The numbers and letters in parentheses indicate the chapter, section, and paragraph where this information originates. People can request copies of these laws and regulations from any EPA office.

Upon Completion of the Feasibility Study and Proposed Plan

Site Activity: RI/FS and Proposed Plan Notification and Analysis
Minimum Requirements: The lead agency must publish a notice of the availability of the RI/FS and Proposed Plan, including a brief analysis of the Proposed Plan, in a major local newspaper of general circulation. The notice also must announce a comment period.
Reference: SARA 117(a) and (d); NCP 40 C.F.R. 300.430(f)(3)(i)(a)

Site Activity: Public Comment Period on RI/FS and Proposed Plan
Minimum Requirements: The lead agency must provide at least 30 days for the submission of written and oral comments on the Proposed Plan and supporting information available in the administrative record, including the RI/FS. The agency will extend this comment period by a minimum of 30 additional days upon timely request.
Reference: SARA 113(k); NCP 40 C.F.R. 300.430(f)(3)(c)

Site Activity: Public Meeting
Minimum Requirements: The lead agency must provide an opportunity for a public meeting regarding the Proposed Plan and supporting information at or near the site during the comment period.
Reference: SARA 113 and 117(b); NCP 40 C.F.R. 300.430(f)(3)(i)(D)

Site Activity: Meeting Transcript
Minimum Requirements: The lead agency must have a court reporter prepare a publicly available meeting transcript.
Reference: SARA 117(a)(2); NCP 40 C.F.R. 300.430(f)(3)(i)(E)

After the Record of Decision (ROD) Is Signed

Site Activity: ROD Availability and Notification
Minimum Requirements: The lead agency must make the ROD available for public inspection and copying at or near the site prior to the commencement of any remedial action. In addition, the lead agency must publish a notice of the ROD's availability in a major local newspaper of general circulation. The notice must state the basis and purpose of the selected action.
Reference: NCP 40 C.F.R. 300.430(f)(6)
Site Activity: Revision of the Community Involvement Plan
Minimum Requirements: Prior to the remedial design, the lead agency should revise the CIP, if necessary, to reflect community concern, as discovered during interviews and other activities, that pertain to the remedial design and construction phase. *Reference:* NCP 40 C.F.R. 300.435(c)(1)

Remedial Design

Site Activity: Fact Sheet and Public Briefing
Minimum Requirements: Upon completion of the final engineering design, the lead agency must issue a fact sheet and provide a public briefing, as appropriate, prior to beginning remedial action.
Reference: NCP 40 C.F.R. 300.435(c)(3)

SPECIFIC COMMUNITY INVOLVMENT ACTIVITIES
The following table includes engagement activities hosted by or attended by EPA and ODEQ between 2016 through 2012. This list is not exhaustive of all outreach activities hosted or attended, but rather a snapshot of major engagement activities.

Date	Group	Activity or topics	By whom
Jan 12, 2016	Cathedral Park Neighborhood Association (BES Lab 7pm)	EPA provided updates, next steps and listened to community concerns.	EPA
Jan 27	EPA INFORMATION SESSION North East Coalition of Neighborhoods - Land Use Transportation Committee	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period info.	EPA
Jan 26	St. Johns Community Center; Public forum hosted by the Portland Harbor Community Advisory Group	EPA presented background information, risks, cleanup methods, options, public comment period information during the forum.	Whom?
Jan 28	Native American Youth Association	Interactive youth activities using Portland Harbor Brain bender book	EPA
Jan 31	Earth Care Summit	Information booth with background information, risks, cleanup methods, options, public comment period info. Discussion with participants of the Summit.	EPA
Declined in person briefing, but accepted list of and Invitation to attend Community Information Sessions	Communities of Color	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period info.	EPA
EPA provided list of and Invitation to attend general meetings	Asian Pacific American Network of Oregon (APANO)	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period.	EPA

Feb 4	INFORMATION SESSION Portland City Building Auditorium, 1120 SW 5th Ave, Portland, 2nd Floor Auditorium	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period.	EPA

Feb 5	EJ Task Force Meeting (Salem, OR)	Update on information sessions and EPA follow-up with suggested organizations	EPA
Feb 8	EPA INFORMATION SESSION, Audubon Society, 5151 NW Cornell Rd, Portland, OR	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period.	EPA
Feb 9	League of Women Voters, Multnomah County Building Board Room, 501 SE Hawthorne Boulevard, Portland, OR	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period.	EPA
Feb 11	EPA INFORMATION SESSION, Matt Dishman Community Center, 77 NE Knott St, Portland, OR	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period.	EPA
Feb 18	EPA INFORMATION SESSION, Woodrow Wilson High School Cafeteria, 1151 SW Vermont St, Portland, OR	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period.	EPA
Feb 23	Elected official briefing: • Multnomah County • Metro Portland	Information briefing sessions and dialogue.	EPA
Feb 23	Community Advisory Group Forum, Linnton Community Center, 10614 NW St Helens Rd, Portland, OR	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period.	EPA
Feb 29	Student/EPA Information Session, Portland Community College, Rock Creek Environmental Science students	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period participation	EPA
March 31	Portland area Legislators	Briefing and dialogue on site status and next steps.	EPA
March 30	Oregon Congressional Delegation	Briefing and dialogue on site status and next steps.	EPA

March 30	Business Association briefing (Invited: Associated Oregon Industries, Business Oregon, State of Oregon, Clackamas County Business Alliance, Columbia Corridor Association, East Metro Economic Alliance, Greater Portland INC., Oregon Business Association, Oregon Business Council, Port of Portland, Portland Business Alliance, Swan Island Business Alliance, Westside Economic Alliance, Working Waterfront Coalition	Briefing and dialogue on site status and next steps.	EPA
March 23	EPA INFORMATION SESSION, Immigrant and Refugee Community Organization (IRCO) with Spanish and Russian interpreters	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period participation.	EPA
March 19	EPA INFORMATION SESSION, Matt Dishman Center, 77 NE Knott St, Portland	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period participation	EPA
March 17	EPA INFORMATION SESSION, Gray's Landing-Community, South West Waterfront	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period participation.	EPA
March 7	EPA INFORMATION SESSION North Portland Neighborhood Chairs Meeting	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period participation.	EPA
March 3	EPA INFORMATION SESSION Live Webinar (online participation)	Information sessions and dialogue: Background information, risks, cleanup methods, options, public comment period participation	EPA
March 8	Children's Water Festival at the University of Portland	Presentations and hands on activities on contamination cleanup with middle school students	EPA
12/15/2015	Oregon Tradeswomen	Superfund/PH Training and discussion	EPA
11/30/2015	Native American Youth Association	Afterschool program with Portland Harbor brain bender activity book - activities and overview of Portland Harbor to discuss risks	EPA
11/24/2015	Federal legislators, Governor Brown	General update	ODEQ
11/12/2015	Pearl District Neighborhood Association	General PH information/neighborhood discussion	ODEQ

11/21/2015	LWV Portland	General PH info as part of EPA's Superfund 101 series	ODEQ
10/20/2015	Overlook Neighborhood Association	General PH information/neighborhood discussion	ODEQ
10/12/2015	St. Johns Neighborhood Association	General PH information/neighborhood discussion	ODEQ
10/5/2015	Latino Network	Information packets with children's environmental health growth charts, Portland Harbor info card in Spanish provided to Latino Network's health care workers. All materials are in Spanish and health care workers are able to share with the Spanish speaking families they work with.	EPA
10/19-20/15	St. Andrews Nativity School	Title 1 School with 99% minority population to provide several 45 minute hands-on environmental science based lesson and activity for the students. The activities were based on Portland Harbor Brian Bender activity book and C-FERST demonstration.	EPA
10/20/2015	Native American Youth Association	Information session and Portland Harbor activities, discussion of risks with students in afterschool program.	EPA
9/29/2015	Warner Pacific College	General PH information session and discussion	DEQ
September and October 2015	NRRB/CSTAG review	Series of information sessions to Review of cleanup options in FS with CAG and community groups in preparation of NRRB recommendations.	EPA
9/18/2015	Cathedral Park information session	Mini-Superfund 101 training and discussion	EPA
9/16/2015	Rachel Carson Middle School	Portland Harbor children's activity books provided to students/teachers	EPA
9/2/2015	Linnton Neighborhood Association	General PH information/neighborhood meeting	DEQ
9/1/2015	Houseless/Homeless community group presentation	Provided Q&A and discussion with Right to Dream Right to Survive during Port of Portland boat tour	EPA
8/15/2015	Seaport Celebration	PH community event on river sponsored by the Port of Portland, EPA to provide multilingual materials and brain bender book for children, discussion with community members	EPA and DEQ
8/12/2015	CAG meeting	2nd Wed of month, CAG meets	EPA
8/7/2015	Release of FS Section 4 to community	Provided overview and discussion of Chapter 4 to CAG/community groups	EPA

8/2/2015	Cathedral Park environmental fair	General PH information/neighborhood concerns	DEQ
8/2/2015	Willamette River Revival	Community and Tribal celebration of River. EPA provides outreach material to community and Tribes for event.	EPA
7/25/2015	Slavic Festival	EPA to provide Russian (translated) outreach material and children's activity books	EPA and ODEQ
7/16/2015	PH Community Café	Community engagement event & networking around shared values /concerns related to the river cleanup. Discussion and prepping community for commenting on proposed plan. St. Johns community	EPA and ODEQ
6/18/2015	Oregon Trades Women	Presentation of PH/SF 101 training and discussion	EPA and ODEQ
6/10/2015	PH Community Advisory Group, community members at large and Technical Coordination Team	Briefing and update, PH information session and discussion	EPA and ODEQ
6/2/2015	Science on Tap (community event)	Source control	ODEQ
5/21/2015	Sierra Club	Presentation of PH/SF 101 training and discussion	EPA and ODEQ
4/16/2015	Oregon Environmental Quality Commission	Cleanup overview, source control focus (premiere of the kiosk video)	ODEQ
4/9/2015	Northwest Environmental Business Council	General PH information	ODEQ
4/7/2015	Portland State University	General PH information	ODEQ
3/28/2015	Multicultural/New Columbia community	Presentation of PH/SF 101 training and discussion	EPA and ODEQ
3/12/2015	Verde/Portland Harbor Community Coalition	Mini PH/SF 101 training (Spanish) and discussion	EPA
3/11/2015	PH CAG Meeting	Information and discussion on Capping technology	EPA
2/28/2015	In it together Summit	Citywide meeting about city community concerns. PH booth with multi-lingual information. One-on-one discussions with participants	EPA and ODEQ
3/1/2015	League of Women Conservation Voters	General PH information and discussion	ODEQ
3/10/2015	University of Portland H2O festival	Classroom education - taught approx. 150 students about Portland Harbor (6-8th grade)	EPA
2/17/2015	DEQ internal staff meeting: Headquarters and Eastern Region Cleanup Program staff	General PH information, program specific detail	ODEQ
2/10/2015	CAG working meeting	FS Section 1 overview and discussion	EPA
2/11/2015	CAG meeting	Monitored Natural Recovery overview and discussion	EPA

1/25/2015	Earth Care Summit	Mini PH/SF 101 training and discussion	EPA
8/23/2014	Willamette Speaks Storytelling	Printing resource support to community	EPA
8/2-3/2014	Dirty Side of PDX- Portland Community Coalition	Presentation on PH by EPA, mini-informational session	EPA
3/9/2014	Slavic Society PDX	Presentation and discussion, questions/answers. Provided translated information cards	EPA
12/7/2013	Czech Society of PDX	Presentation and discussion on Portland Harbor	EPA
10/27/2013	Iraqi Society of PDX	Presentation and discussion on Portland Harbor	EPA
9/20/2012	US Coast Guard	Presentation and discussion of Portland Harbor status and risks	EPA
7/28/2012	Friends of Baltimore Woods	Presentation and discussion of Portland Harbor status and risks	EPA
7/8/2012	St. Johns Community Festival	Booth at festival on site and risk	EPA
6/30/2012	Slavic Festival of Oregon	Presentation and discussion of Portland Harbor status and risks	EPA
6/13/2012	Swan Island Business Association	Presentation and discussion of Portland Harbor status and risks	EPA
6/12/2012	Friends of Cathedral Park Neighborhood Association	Presentation and discussion of Portland Harbor status and risks	EPA
6/7/2012	Latino Network	Presentation and discussion of Portland Harbor status and risks	EPA
5/24/2012	Vietnamese group discussion	Presentation and discussion of Portland Harbor status and risks	EPA
5/21/2012	NE Association of Neighborhoods	Presentation and discussion of Portland Harbor status and risks	EPA
5/15/2012	Slavic Immigrant Association	Presentation and discussion of Portland Harbor status and risks	EPA
4/11,12,18, 12; 5/10/2012	St. Johns Neighborhood Association, Portland Building Auditorium, June Key Delta Community Center, Ecotrust	Public Information Session on FS	EPA
4/11/2012	Swan Island Business Association	Presentation and discussion of Portland Harbor status	EPA
3/28/2012	Portland City Council Mtg	Attendance during PH presentation (Dean Marriot)	EPA
3/22/2012	Latino Network and Verde	Presentation and discussion of Portland Harbor status and risks	EPA
3/17/2012	Coalition of Black Men	Presentation and discussion of Portland Harbor status and risks	EPA
3/13/2012	Friends of Cathedral Park	Presentation and discussion of Portland Harbor status	EPA
3/9/2012	EJ Task Force meeting	Briefing update on site status, public feedback	EPA
1/30/2012	Earth Care Summit	Public information Session and dialogue on PH status	EPA

Appendix B: Area Context and History

The city of Portland is located in Multnomah County, Oregon. About 15 percent of the state's population lives in Portland. The Portland metropolitan area has a population of about 2.3 million.

Historically, the area's economy focused on the harvest of fish, timber, minerals, and agricultural products. The principal industries of the Portland metropolitan area are now manufacturing, tourism, transportation, and wholesale and retail trade.

Portland Harbor is one of the busiest seaports on the Pacific Coast. Since the mid-1800s, when the first wharves began supporting international and intercoastal steamship service, the shoreline of the river near Portland was altered for urban development and a growing shipping industry. The first dredging of the river took place in 1968. Since that time, the Willamette River has been dredged regularly for navigation and maintenance.

The Willamette River

The Willamette River runs through the middle of Portland, flowing north through the city to where it joins the Columbia River. Parts of the shoreline have steep banks, many covered with large rocks and seawalls. Many piers and wharves extend out over the water. To accommodate shipping, the river was extensively dredged. Channel depths currently range from 10 to 140 feet, with an average depth of 45 feet. As the river flows through Portland, it is deep and slow moving, and the water level rises and falls from tidal influence.

The Port of Portland is a hub for goods importing and exporting in the region. Past and present industrial operations in Portland Harbor include:

- Marine construction
- Bulk petroleum product storage and handling
- Construction material manufacturing
- Oil fire-fighting training activities
- Oil gasification plant operations
- Pesticide and herbicide manufacturing
- Wood treating operations
- Agricultural chemical production
- Battery processing
- Liquid natural gas plant operations
- Hazardous waste storage
- Chlorine production
- Ship loading and unloading
- Ship maintenance, repair and refueling
- Rail car manufacturing
- Metal scrapping and recycling

In addition to the major industrial activities along the river and in Portland Harbor, other equally important uses benefit the region. Recreational users boat and swim in the area. Recreational and subsistence fishing takes place in the harbor and up and downstream. Tribal fishing for both subsistence and ceremonial purposes continues to be a key activity. Recent studies identified many species of fish and wildlife species using Portland Harbor and the Willamette River as a migratory pathway, including threatened and endangered runs of salmon. Fish-eating birds, migratory waterfowl, and raptors seasonally visit the lower Willamette River and Spring Chinook support sport and recreational fishing.

The Willamette River was used historically for transportation, water supply, and waste disposal. Disposal of raw sewage and waste degraded water quality. By the 1920s, water pollution made the water unsafe for human use and toxic for wildlife. In the 1950s, the City of Portland implemented a sewage management plan to minimize the discharge of raw sewage into the river. Other cleanup activities in Portland Harbor and surrounding portions of the Willamette River have been ongoing since the early 1970s. Controls were placed on industrial discharges and municipal waste disposal facilities built throughout the Willamette Basin. Today, these environmental cleanups, controls, and regulations have either eliminated or greatly reduced the number of contaminant discharges to the river and the mass of contamination reaching the river.

Appendix C: Cleanup Work to Date

Cleanup of several areas is already underway. Some of these cleanup activities are complete.

Early Action Cleanup Areas

Early action cleanup areas are parts of the Portland Harbor Superfund site that have high concentrations of hazardous substances. Although cleanup activities have already begun in these areas, they will be included in the Sitewide cleanup plan for the river. EPA plans to sequence these areas for high priority starts in the site wide cleanup plan.

- **River Mile 11 East –** EPA entered into a settlement agreement in April 2013 with several potentially responsible parties to conduct additional investigations along a section of Portland Harbor known as River Mile 11 East (11E). This area is generally located between the Fremont and Broadway Bridges on the east side of the Willamette River. Previous studies show this area has elevated concentrations of PCBs and other contaminants. The purpose of the supplemental remedial investigations for River Mile 11E is to obtain additional information needed to select and design the cleanup remedy for this section of the Portland Harbor site. The intent is to begin cleanup of River Mile 11E and other hot spots (areas with elevated contaminant concentrations) such as Arkema and Gasco-Siltronic before starting cleanup of the rest of the Superfund site.

  Extensive upland source control investigation and controls for soil, groundwater, and stormwater pathways have taken place under ODEQ oversight at approximately 10 sites in the River Mile 11E area starting in the late 1990s and early 2000s.

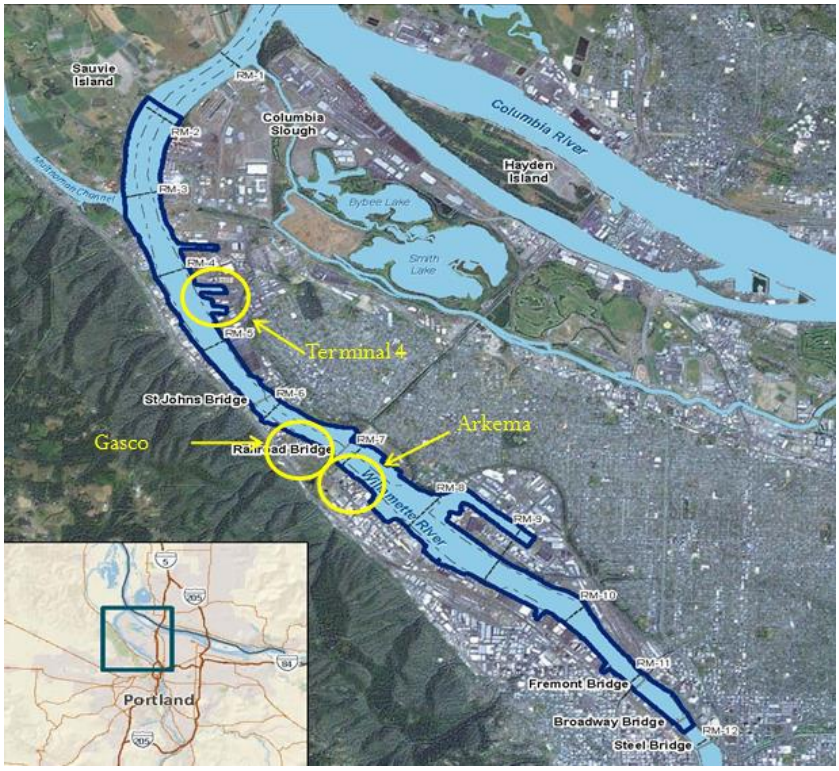
- **Arkema –** Former pesticide manufacturing facility contaminated with high levels of DDT and other chemicals. An early action is underway to address this "hot spot" in Portland Harbor. EPA is also evaluating a draft alternatives analysis for this area for inclusion in the feasibility study and proposed plan. Extensive upland source control investigation and controls for soil, groundwater, and stormwater pathways have taken place under ODEQ oversight since 1993.

Photo source: EPA

- **Gasco-Siltronic –** Former manufactured gas plant contaminated with tar deposits from past manufacturing. Removal of tar deposits in the river (see picture to the right) finished in fall 2005. EPA is evaluating a draft alternatives analysis for this area for inclusion in the feasibility study and proposed plan. Extensive upland source control investigation and controls for soil, groundwater, and stormwater pathways have taken place at both large sites under ODEQ oversight since 1991.

- **Terminal 4 –** Former industrial site contaminated with pesticides, PCBs, metals, and PAHs. These contaminants are the focus of the in-water early action cleanup. Phase I of dredging in slip 3 and cleanup of Wheeler Bay was completed in 2008. An alternatives analysis developed during the early action, including the 60 percent confined disposal facility design, are being included in the feasibility study and will be part of the proposed plan for public comment. Phase II of the Terminal 4 cleanup will take place after issuance of the site's Record of Decision. Upland source control efforts at the site are on-going under oversight by ODEQ.

- **Triangle Park –** A 35-acre former industrial site with soil and low-level, limited ground water contamination. After extensive remedial investigation under ODEQ oversight between 1986 to 2006, the University of Portland signed an agreement with EPA in 2008 to clean up the area as part of its plans for new athletic facilities and trails. The University completed the removal action under EPA oversight and approval. Work began in late summer 2012 and finished in winter 2013. Contaminated soil removed from the entire length of the shoreline was placed on the future location of a baseball field, where it will be capped as part of the ballfield's construction. Some soil was removed and disposed of at an approved off-site disposal facility. Residential development and ground water use at the site are restricted. Institutional controls will also be put in place to ensure that future site users are aware of contamination left on site and take proper precautions to limit exposure.
- **U.S. Moorings** – A former industrial site contaminated with metals, solvents, and petroleum byproducts from boat maintenance activities. The feasibility study for the site's cleanup was completed in 2012. The U.S. Army Corps of Engineers, the site's owner, will implement a removal action to address the potential for contaminated soil to migrate from the site via stormwater runoff. No other actions are likely in the uplands.



Early action cleanup area location map. S*ource: 2012 LWG Feasibility Study.*

Other Sites

Beginning in the late 1980s, ODEQ's cleanup program began working with parties associated with known releases to Portland Harbor, providing oversight of investigation and cleanup activities at industrial sites along the banks of the river. ODEQ continued this work up through December 2000 listing and to the present. The objectives of ODEQ's source control work are to identify, evaluate, and control upland sources of contamination that pose a direct risk to river users and to prevent recontamination of any in-river cleanup action. ODEQ's source control work is guided by the December 2005 ODEQ/EPA Portland Harbor Joint Source Control Strategy, available at www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm.

At the BP (ARCO) site, for example, ODEQ worked with responsible parties to clean up petroleum contamination from a storage and transport facility. The primary threat from the site was contamination of the Willamette River via ground water migration. Cleanup actions included removal of contaminated bank soil and sediment from a portion of the river during installation of a new seawall and groundwater treatment system. Cleanup started in May 2007 and finished in November 2008. Information on other upland projects under ODEQ oversight is documented in Milestone Reports – Upland Source Control at the Portland Harbor Superfund Site, published periodically between 2006 and now, and available at www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm or in ODEQ's Environmental Cleanup Site Information database at http://www.deq.state.or.us/lq/ECSI/ecsi.htm

EPA listed two other sites – the McCormick and Baxter and Gould sites –on the Superfund program's National Priorities List. EPA and ODEQ worked cooperatively on site investigations and cleanup.

- **McCormick and Baxter Superfund site** – Former wood treating facility located on the northeast shore of the Willamette River in north Portland. Over the last 15 years, EPA and ODEQ and agency partners cleaned up the site and are supporting its return to productive use.
- **Gould Superfund site** – Former lead-acid battery recycling, lead smelting and refining, and lead oxide production facility near the Willamette River. Cleanup of contaminated sediment and waste material finished in 2002.

Portland Harbor: Fish Consumption Advisory

Although we work and recreate along Portland Harbor, the primary way people are exposed to contamination from the site is by eating fish such as bass, catfish, and carp. These fish, called resident fish, carry levels of chemical contaminants that may cause cancer or developmental problems. PCBs are the primary contaminant associated with most of the risk from eating resident fish. Young children, nursing infants, and babies in the womb are the most sensitive to the chemicals: mothers and children should avoid eating Portland Harbor resident fish. For fish advisory information, visit www.healthoregon.org/fishadv or call (877) 290-6767.

Appendix D: Acronyms

BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COI	Contaminant of Interest
CSO	Combined Sewer Outflow
CWA	Clean Water Act
DSL	Oregon Division of State Lands
DWR	Department of Water Resources
EPA	U.S. Environmental Protection Agency
MCL	Maximum Contaminant Level
NCP	National Contingency Plan
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRDA	Natural Resource Damage Assessment
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PRP	Potentially Responsible Party
RCRA	Resource Conservation and Recovery Act
RD/RA	Remedial Design/Remedial Action
RDT	Regional Decision Team
RfD	Reference Dose
RI/FS	Remedial Investigation/Feasibility Study
RM	River Mile
ROD	Record of Decision
TAG	Technical Assistance Grant
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	Volatile Organic Compound

Appendix E: Glossary of Terms

Background Level: The concentration of a substance in an environmental media (air, water, or soil) that occurs naturally or is not the result of human activities.

Bioaccumulation: The ratio of the concentration of a chemical in an organism to the concentration of the chemical in an ambient medium (usually water).

Carcinogens: Any substance that can cause or aggravate cancer.

Cleanup: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health or the environment. Agencies often use the term broadly to describe various response actions or phases of remedial activities, such as an RI/FS. "Cleanup" is sometimes used interchangeably with the terms "remedial action," "remediation," "removal action," "response action," or "corrective action."

Cleanup Level: Residual concentration of a hazardous substance determined to be protective of public health, safety and welfare, and the environment under specified exposure conditions.

Community Advisory Group (CAG): A committee, task force, or board made up of stakeholders affected by a Superfund or other hazardous waste site. A CAG provides a way for representatives of diverse community interests to present and discuss their needs and concerns related to the site and the site cleanup process. CAGs are a community initiative and responsibility. They function independently of EPA.

Community Involvement Plan (CIP): A formal plan of communication and public participation activities developed by EPA to ensure opportunities for community members to learn more about Superfund site activities and provide input to inform site decision-making. The plan is the result of information collected through community meetings and interviews and a review of site-related documents.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): This law, enacted by Congress on December 11, 1980, created the Superfund program. Specifically, CERCLA: (1) established prohibitions and requirements concerning closed and abandoned hazardous waste sites; (2) provided for liability of persons responsible for releases of hazardous waste at these sites; and (3) established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA was amended by the Superfund Amendments and Reauthorization Act of 1986.

Consent Order: Legal vehicle to ensure cleanup moves forward at a contaminated site. It typically contains stipulated penalties for non-performance by the liable entity and can not be terminated unilaterally.

Ecological Risk Assessment: The process for evaluating how likely it is that the environment may be impacted because of exposure to one or more environmental stressors such as contaminants and hazardous wastes.

Environmental Cleanup Law: Oregon's revised cleanup law, enacted in 1995, which expanded ODEQ's authority related to the identification, investigation and cleanup of hazardous substances.

Environmental Protection Agency (EPA): Federal agency whose mission is to protect human health and safeguard the environment.

Feasibility Study: An assessment of cleanup alternatives. A feasibility study, or FS, takes place if the risk assessment performed during a remedial investigation establishes the presence of unacceptable risks. During an FS, EPA screens and evaluates alternatives to clean up a site based on nine evaluative criteria, including effectiveness, cost, and community acceptance.

Hazardous Waste: Solid wastes that possess at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity), appear on special EPA lists, or are defined as hazardous by Oregon rules and statutes.

Hot Spots: Localized areas with unacceptably high levels of contamination.

Human Health Risk Assessment: The process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemicals in contaminated environmental media, now or in the future.

Institutional Control: Non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that ground water will be returned to its beneficial use whenever practicable, institutional controls play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site.

National Contingency Plan (NCP): The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly known as the National Contingency Plan, or NCP, is the federal government's blueprint for responding to both oil spills and hazardous substance releases.

National Priorities List (NPL): EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term cleanup under Superfund. The list is based primarily on the score a site receives from the Hazard Ranking System. EPA is required to update the NPL at least once a year.

ODEQ: State agency whose job is to protect the quality of Oregon's Environment. ODEQ is responsible for protecting and enhancing Oregon's water and air quality, for cleaning up spills and releases of hazardous materials, and for managing the proper disposal of hazardous and solid wastes.

Potentially Responsible Party: An individual, company, government agency, or other entity (such as owners, operators, transporters, or generators of hazardous waste) potentially responsible for, or contributing to, contamination at a Superfund site. Whenever possible, EPA requires a PRP, through administrative and legal actions, to clean up hazardous waste sites it has contaminated.

Preliminary Assessment (PA): An assessment of information about a site and its surrounding area. A preliminary assessment determines whether a site poses little or no threat to human health and the environment or if it does pose a threat, whether the threat requires further investigation.

Proposed Plan: A plan for a site's cleanup that is available to the public for review and comment.

Public Comment Period: A formal opportunity for community members to review and contribute written comments on various EPA documents or actions.

Public Meeting: Formal public sessions characterized by a presentation to the public followed by a question-and-answer session. Formal public meetings may involve the use of a court reporter and the issuance of transcripts. Formal public meetings are required only for the Proposed Plan and ROD amendments at a site.

Record of Decision (ROD): The public document issued by EPA that explains the cleanup alternatives selected to clean up a Superfund site.

Remedial Action: The selected remedial alternative documented in a site's Record of Decision.

Remedial Investigation (RI): The first of the two-part site study known as a remedial investigation/feasibility study. The remedial investigation involves collecting and analyzing information about a site to determine the nature and extent of contamination that may be present. The risk assessment, conducted with the remedial investigation, determines how conditions at a site may affect human health or the environment.

Removal Action: Short-term immediate action that addresses releases of hazardous substances that require expedited responses. It may take place at any point in the site response process and may include source control measures, removal of highly contaminated material, and/or posting warning signs or constructing fences around a contaminated site.

Risk: Probability that a hazardous substance, when released into the environment, will cause adverse effects in exposed humans or ecological receptors.

Risk Assessment: The process of evaluating whether a hazardous substance poses a potential threat to human health and the environment, either now or in the future.

Sediment: Soils, sand, organic matter or minerals that accumulate on the bottom of a water body.

Site Assessment: Process to evaluate potential or confirmed releases of hazardous substances that may pose a threat to human health or the environment. Criteria established under the Hazard Ranking System guide the process, which EPA, state, tribal, or other federal agency environmental programs carry out.

Site Discovery: Process of identifying and documenting a release of hazardous substance to the environment.

Subsistence Fishing: People who obtain a significant portion of their dietary protein from eating self-caught fish of various species.

Superfund: The program operated under the legislative authority of CERCLA that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions. Superfund is the common name for CERCLA. People often use the term as an adjective for hazardous waste sites and the investigation and cleanup process directed by the EPA.

Voluntary Cleanup Agreement: Legal agreement to ensure cleanup moves forward at a contaminated site; entered into voluntarily by site owners, enforceable by administrative penalties or court action.

Glossary terms are from the EPA's Terminology Services Web page (iaspub.epa.gov/sor_internet/registry/termreg/home/overview/home.do), CERCLA and NCP guidance, and the Oregon Administrative Rules.