



August 2000

EPA FACT SHEET PORTLAND HARBOR SITE Portland, Oregon

EPA Proposes Portland Harbor to National Priorities List

Why List Portland Harbor?

Studies have shown that elevated levels of contaminants threaten a six-mile stretch of the Willamette River from the southern tip of Sauvie Island to Swan Island, generally referred to as Portland Harbor (see map). The harbor sediments contain the pesticide DDT, polychlorinated biphenyls (PCBs), heavy metals, and polynuclear aromatic hydrocarbons (carcinogenic compounds found in petroleum products). These contaminants may pose risks to people, fish, and other wildlife, and the contaminant levels are high enough for EPA to propose Portland Harbor to the NPL.

The Lower Willamette is a very popular area for recreation, including fishing. The river provides a critical migratory corridor and rearing habitat for salmon and steelhead. Two runs of steelhead and two runs of chinook that use Portland Harbor are currently classified as threatened under the federal Endangered Species Act.

The upland area adjacent to Portland Harbor is highly industrialized, and the river has heavy marine traffic. Possible sources of the harbor contamination include hazardous waste and petroleum product storage; marine construction; oil gasification plant operations; wood treating; agricultural chemical production; natural gas plant operations; chlorine production; ship loading, maintenance, and repair; and rail car manufacturing.

Public Comments Due by September 25

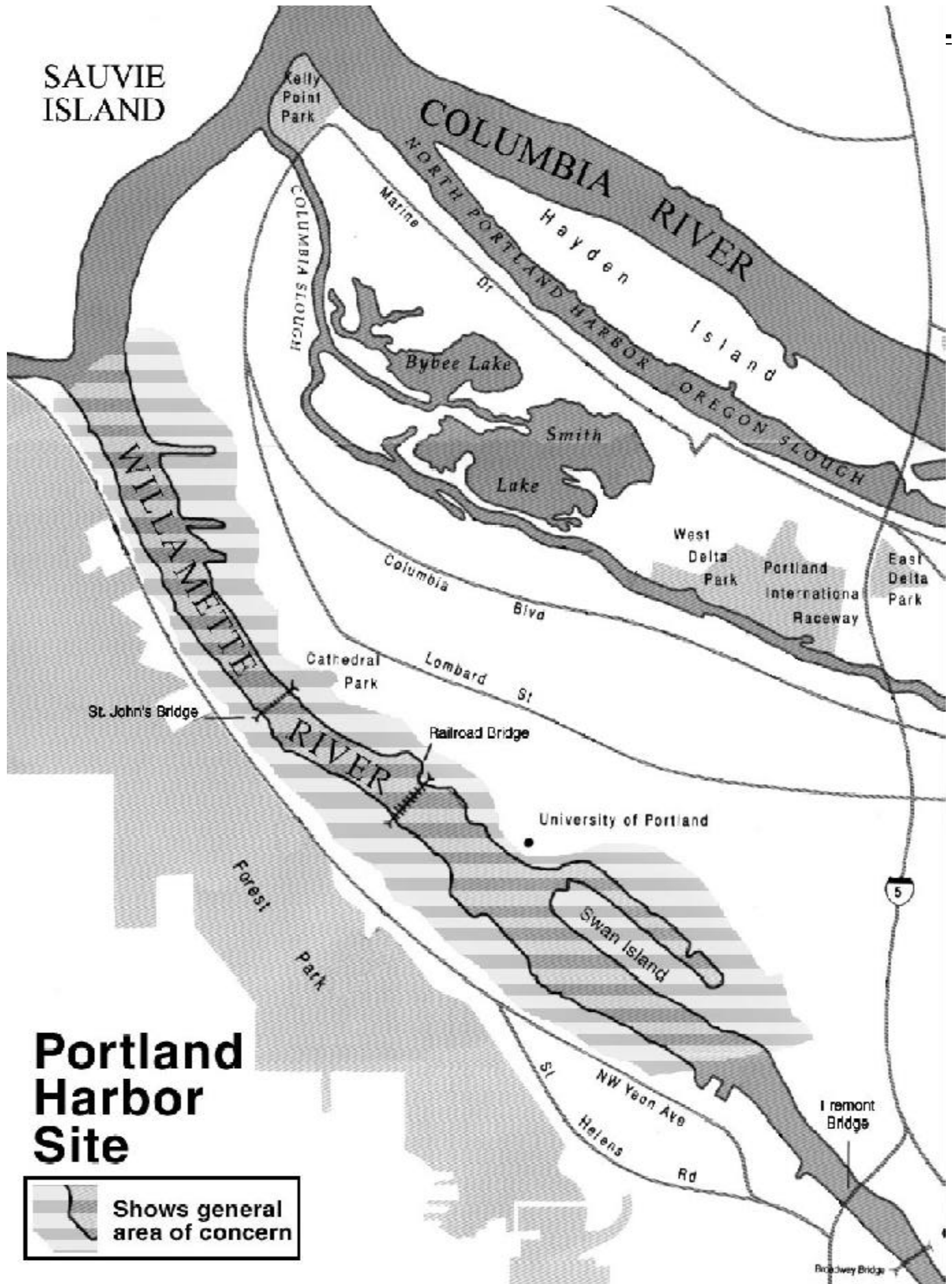
The U.S. Environmental Protection Agency (EPA) is requesting comments on its proposal to add the Portland Harbor site to the National Priorities List (NPL). The NPL is EPA's list of the nation's most contaminated hazardous waste sites that are targeted for cleanup.

The Oregon Department of Environmental Quality (DEQ), which is already involved in many cleanups on the Lower Willamette riverbanks, worked for over two years to develop a state-led cleanup approach to Portland Harbor. However, several of the criteria for deferring the cleanup to the state were not met. In July, Oregon Governor John Kitzhaber concurred with EPA's decision to propose that Portland Harbor be added to the NPL, with the understanding that DEQ and EPA will work together on the cleanup, and that it will be integrated with other state initiatives to restore the health of the river.

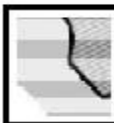
DEQ and EPA to Jointly Manage Investigation and Cleanup

DEQ and EPA will continue to work together, with DEQ taking the lead role on investigation of upland contamination and EPA taking the lead role on investigation of sediment contamination. As the investigation of the Portland Harbor site proceeds, the site boundaries will be defined.

SAUVIE ISLAND



Portland Harbor Site

 Shows general area of concern



PORTLAND HARBOR

Portland, Oregon
December 2000



Portland Harbor Added to “Superfund” List

The U.S. Environmental Protection Agency (EPA) has added the Portland Harbor site to the National Priorities List (NPL), commonly called the “Superfund” list. The NPL is EPA’s list of the nation’s most contaminated hazardous waste sites that are targeted for cleanup. EPA made the decision to add Portland Harbor to the NPL after considering comments received during a sixty-day public comment period.

What Happens Next?

The Oregon Department of Environmental Quality (DEQ) is already working on forty cleanup sites along the banks of the Willamette River, which are also known as upland sites. The work ranges from early stages of investigations to cleanup activities and includes identifying and controlling sources of harbor sediment contamination.

EPA is sending letters to land owners and business operators in the Portland Harbor area who may be responsible for contaminated sediments. The letters will inform these parties of their potential liability and ask them to fund or perform the investigation of the sediment contamination. EPA expects to begin negotiations with some of these potentially responsible parties early next year.

How Will the Portland Harbor Superfund Cleanup Be Managed?

EPA will have the lead on sediment work and DEQ will have the lead on the upland sites. The two agencies are coordinating very closely with six tribal governments and the other natural resource trustees for the site. The trustees are designated by law to act on behalf of the public or tribes to protect and manage natural resources, such as land, air, water, fish, and wildlife. For the

Background

Elevated levels of contaminants are present in a six-mile stretch of the Willamette River from the southern tip of Sauvie Island to Swan Island. The harbor sediments contain pesticides such as DDT, polychlorinated biphenyls (PCBs), heavy metals, and polynuclear aromatic hydrocarbons (carcinogenic compounds found in petroleum products).

The Lower Willamette is a popular area for recreation, including fishing. The river provides a critical migratory corridor and rearing habitat for salmon and steelhead, including endangered runs of steelhead and chinook. The area holds great importance to tribes as a natural and cultural resource, and the federal government has treaty obligations to protect “usual and customary” tribal uses of the area.

The upland area adjacent to Portland Harbor is highly industrialized, and the river has heavy marine traffic. Possible sources of the harbor contamination include former as well as current operations, such as hazardous waste and petroleum product storage; marine construction; oil gasification operations; wood treating; agricultural chemical production; chlorine production; ship loading, maintenance, and repair; and rail car manufacturing. The potentially responsible parties for the cleanup may include some that no longer have operations in the Portland Harbor area.

In July 2000, Oregon Governor John Kitzhaber concurred with EPA’s decision to propose that Portland Harbor be added to the NPL, with the understanding that DEQ and EPA will work together on the cleanup, and that it will be integrated with other state initiatives to restore the health of the river.

(Continued on page 2)

(Continued from page 1)

Portland Harbor site, the trustees include the following:

- Confederated Tribes and Bands of the Yakama Nation
- Confederated Tribes of Grand Ronde
- Confederated Tribes of Siletz Indians
- Confederated Tribes of the Umatilla Indian Reservation
- Confederated Tribes of the Warm Springs Reservation of Oregon
- Nez Perce Tribe
- National Oceanic and Atmospheric Administration
- National Marine Fisheries Service
- U.S. Fish and Wildlife Service
- Oregon Department of Environmental Quality
- Oregon Department of Fish and Wildlife

Both DEQ and EPA recognize that a successful project will require participation by all of these parties.

What Are the Steps in the Cleanup Process?

EPA will continue to work with all the parties identified above throughout the project, and anticipates working with some of the parties responsible for the contamination to implement the long-term Superfund cleanup process, including the following steps:

- Remedial Investigation (RI)—This detailed study will assess the cause, nature, and extent of the contamination. The study will include evaluating existing information and potentially taking and analyzing new sediment, groundwater, surface water, fish tissue, and other samples. As the investigation proceeds, the site boundaries will be defined. A risk assessment based on the results of the RI will evaluate the human health and environmental risks from the contamination.
- Feasibility Study (FS)—This study will use the information from the RI and the risk assessment to develop options for handling the

contaminated sediments. Together the remedial investigation and feasibility study are called the RI/FS.

- Proposed Plan—This document will describe various cleanup options. EPA and DEQ will work directly with our tribal and trustee partners to develop this plan and will solicit and consider public comments on this plan before making a cleanup decision.
- Record of Decision—This document will describe the cleanup decision that is selected by EPA and concurred on by DEQ after the agencies consider public comments.
- Remedial Design—The design will present detailed technical plans for carrying out the selected cleanup.
- Remedial Action—This phase will consist of the actual cleanup work at the site, which, for example, could include dredging or capping contaminated sediments.
- Operation and Maintenance—This phase will ensure that the cleanup continues to be effective. For example, if contaminated sediments were capped, there could be inspections and sampling to ensure the integrity of the cap.

How Can I Get More Information and Become Involved with the Site?

DEQ and EPA are beginning to plan joint public involvement activities for the project. The agencies will be revising DEQ's Draft Portland Harbor Public Involvement Plan this winter so that it reflects both DEQ and EPA's activities. The public is encouraged to review the draft plan, which is already available on the DEQ web site, and provide suggestions on activities that would encourage public involvement and understanding of the project. EPA and DEQ's Portland Harbor web sites are linked to each other and updated periodically. You can get more information about the project from these web sites and the project contacts at the end of this fact sheet.



Portland Harbor

Superfund Fact Sheet

October 16, 2001

This fact sheet provides information about the Portland Harbor Superfund site. On December 1, 2000, this site was added to the Environmental Protection Agency National Priorities List, a list of the most contaminated sites in the nation.

EPA and Lower Willamette Group Members Sign Cleanup Agreement

During the last week of September, the Environmental Protection Agency finished negotiating an agreement with the Lower Willamette Group, a coalition of Portland Harbor businesses and public agencies who voluntarily stepped forward to participate in the investigation and cleanup of the Portland Harbor Superfund Site.

The agreement, a legal document called an *Administrative Order On Consent*, establishes the details about conducting a *Remedial Investigation and Feasibility Study (RI/FS)*, including how it will be prepared, who will perform the work, and how EPA will recover costs incurred by the EPA and the Oregon Department of Environmental Quality in connection with the RI/FS. According to EPA Project Manager Wallace Reid, "This agreement is good for EPA, good for the businesses and good progress towards getting a plan in place for cleaning up Portland Harbor."

The parties who signed the AOC came forward voluntarily to participate in the cleanup process. EPA has not yet conducted a search for potentially responsible parties. Potentially responsible parties are individuals and corporations who are liable for past or present contributions to the contamination of Portland Harbor. It is likely that additional parties with past or present connections to pollution or contamination in Portland Harbor will be identified as potentially liable for the cost of investigation and cleanup.

In this Issue

- EPA and Lower Willamette Group Members Sign Cleanup Agreement
- Some Helpful Definitions
- The Agreement Establishes Some Important Concepts
- What Comes Next
- How to Get More Information

Some Helpful Definitions

Administrative Order On Consent: *A legal and binding agreement between EPA and other parties to complete investigation and cleanup of contamination at a federally designated Superfund Site.*

Remedial Investigation: *A study which determines how much contamination is present, where it is, how far it extends, and any threat to the public health, welfare or the environment caused by the release or threatened release of pollutants from the site, including oil. The remedial investigation also identifies early cleanup actions which may be needed.*

Feasibility Study: *identifies and evaluates alternative actions to clean up contaminated river sediments and prevent or minimize contamination at the site.*

The Agreement Establishes Some Important Concepts

The Administrative Order On Consent describes how the boundaries of the site will be determined, how EPA and DEQ will share responsibility for investigation and cleanup, and identifies the primary contaminants of concern.

The boundaries of the site will be determined at the conclusion of the Remedial Investigation and Feasibility Study in a *Record Of Decision*, in which EPA documents their findings and selects a preferred cleanup alternative. When EPA and DEQ did their initial assessment of sediment contamination in the Harbor, sampling was focused between Sauvie Island which is about 3.5 miles upstream from the mouth of the Columbia River, to Swan Island, which is about 9.2 miles upstream.

EPA and DEQ share responsibility for the investigation and cleanup of Portland Harbor. DEQ is the lead agency for upland work along the banks of the river, where many of the historic sources of contamination are located. EPA is the lead agency for the in-water work on contaminated sediments. For both upland and in-water work, the two agencies will provide logistical support to each other as they investigate, negotiate and plan the cleanup.

The site has been the subject of several studies by government and private entities. Sources of contamination at the site include releases over a long history of commercial shipping activities, releases from industrial and commercial operations, sewer outfalls, urban storm runoff, and agricultural runoff. The site has also been subject to dredging for many years.

The Administrative Order on Consent and an attached Statement of Work, describes the tasks to be performed and sets deadlines for finishing the work. It also sets forth the laws and regulations that govern the investigation and cleanup and clearly establishes that all work must be conducted by people with the proper technical qualifications. You can read the full text of the

Administrative Order On Consent at the EPA Portland Harbor website at www.epa.gov/r10earth/. Click the index button and select P, and Portland Harbor. You may also request a copy of the AOC from one of the EPA sources listed at the end of this fact sheet.

Contaminants found in Portland Harbor during the initial assessment include:

- *polychlorinated biphenyls (PCBs)*, • *polycyclic aromatic hydrocarbons (PAHs)*, • *polychlorinated dibenzo-dioxins and furans (PCDD/PCDF)*, • *total petroleum hydrocarbons (TPHs)*, • *semi-volatile organic compounds (SVOCs)*, • *dichloro-diphenyl-trichloroethane (DDT) and other pesticides*, • *herbicides*, • *tributyl tin*, • *mercury*, • *other metals*, and • *phthalates*.

What Comes Next

Many tasks needed to complete the investigation and develop cleanup alternatives will take place in the next seven months. First, the contractors for the investigation will be selected and approved. Next will come work to evaluate existing data for the site and identify additional data gathering needs. Computer data bases will be designed and created to meet project needs. In addition, a cultural resource survey and report will be done for the site.

While details about the site study are being figured out, many planning tasks will also get underway, such as developing a conceptual model of the site, looking for disposal site options and locating sources of capping material. One very important task is identifying clean up activities that can not wait until the investigation is completed and must be completed in the near future.

By spring of 2002, the initial planning tasks will be done, EPA will have a detailed plan of work in hand, ensuring that the investigation and cleanup of Portland Harbor can proceed quickly.



Portland Harbor

Superfund Fact Sheet

February 2002

This fact sheet provides information about the Portland Harbor Superfund site. This site was added to the Environmental Protection Agency (EPA) National Priorities List (NPL) on December 1, 2000. Portland Harbor is a Superfund site because the river sediments are contaminated with metals, pesticides, PCB's and petroleum products.

LAUNCHING THE INVESTIGATION FOR PORTLAND HARBOR

After months of negotiations, the Environmental Protection Agency finalized an Administrative Order on Consent (AOC), with members of the Lower Willamette Group in September 2002. The Lower Willamette Group is a coalition of Portland Harbor businesses and public agencies who voluntarily stepped forward to participate in the investigation and cleanup of the Portland Harbor Superfund Site.

The AOC is a legal agreement establishing the requirements for the Remedial Investigation and Feasibility Study for Portland Harbor. The AOC identifies contaminants of concern and establishes a schedule for the investigation, how it will be conducted, and who will perform the work. The AOC also describes how EPA and the Department of Environmental Quality (DEQ) will share responsibility for investigation and cleanup. According to EPA Project Manager Wallace Reid, "This agreement is good for EPA, good for the businesses and good progress towards getting a plan in place for cleaning up Portland Harbor."

The Statement of Work is an attachment to the AOC describing tasks to be performed between now and the end of April 2002. These tasks will help EPA and DEQ develop a complete work plan for the sediment investigation by the spring of 2002, and begin sampling in the river the summer or fall of 2002. Some studies about fish and physical systems of the river are already underway. The work plan will identify what types of samples will be taken and where the samples will be taken.

In this issue:

- ***Launching the investigation for Portland Harbor***
- ***What comes next?***
- ***What are these documents?
How should I view them? (sidebar)***
- ***What we heard at the
Community Forum on January 31***
- ***ATSDR Releasing Public Health Assessment***
- ***Join a Portland Harbor Discussion Group***
- ***Community Involvement Plan Released***

WHAT COMES NEXT

The Lower Willamette Group will produce and deliver several significant documents to EPA and the Portland Harbor Project Team for their review and approval this winter and spring, during the development of the work plan. These and other documents will be available to the public:

Site Visit Report –provides a record of initial observations of Portland Harbor by technical and project management staff and contractors. This report was submitted to EPA in late December and is available upon request. A video report will also be available in the near future.

Draft Risk Assessment Scoping Memo - provides an initial look at the different ways humans and wildlife could be exposed to contamination. Exposure could be due to eating, breathing or coming in skin contact with hazardous substances. A risk assessment evaluates levels of contamination and determines potential risks to people and wildlife. Target release date: early spring 2002

WHAT ARE THESE DOCUMENTS? HOW SHOULD I VIEW THEM?

In our early conversations with community groups, many people expressed a desire to see preliminary information so they could participate in the Superfund decision making process as early as possible. As a result, during the next six months, EPA and DEQ will announce the availability of a variety of early, EPA approved documents, reports and data related to Portland Harbor.

We are taking this open approach because EPA and DEQ feel it is important for the community to have ready access to information, and be able to provide input. These documents provide basic information the project team will use in making decisions. Because these reports and data may be technical in nature, a Technical Assistance Grant has been awarded to Willamette Riverkeeper to assist the community in interpreting and understanding the information.

We believe that early review opportunities provide the most effective way of making the concerns and issues of the community part of the scientific and technical investigation. Traditional public review and comment opportunities will still be available at key times later in the process. We look forward to hearing from you as the process unfolds.

Preliminary Remedial Action Objectives – identifies how success will be measured in terms of what uses might be restored or improved by the cleanup. Possible objectives might be to ensure continued fishing and recreational use or restore wildlife or fish habitat. These objectives will be included in the draft work plan. Target release date: late spring 2002

Facility Siting Evaluation –identifies potential sites for disposal of contaminated sediments, identifies sources of sediment capping materials, and outlines the process for evaluating the available choices. Target release date: late spring 2002

Early Action Criteria – It may be possible to identify specific opportunities for early cleanup and/or restoration activities before the RI/FS and cleanup plans are completed. The Lower Willamette Group will evaluate criteria for prioritizing such activities. These early actions are in addition to any emergency cleanup actions that may be required, which would be identified by EPA and DEQ. Target release date: mid-spring 2002.

You can see the full text of the AOC at the EPA website: www.epa.gov/r10earth/ Click the index button and select P, and Portland Harbor. For more information on the Portland Harbor Superfund Site, contact Judy Smith, EPA at 206-553-6246 or Kim Cox, DEQ at 503-229-6590.

WHAT WE HEARD AT THE COMMUNITY FORUM

Willamette Riverkeeper hosted a well-attended public meeting at the St. Johns Community Center on January 31, 2002.

The purpose was to provide detailed information on the Portland Harbor Superfund Site. The forum highlighted why the harbor is a Superfund site, what is currently going on, what will happen in the next several years, and most importantly - how you can get information and get involved.

In addition to staff from Willamette Riverkeeper, Chip Humphrey and Judy Smith from the EPA, Kim Cox from DEQ, and Ken Kaufmann from Oregon Human Services Division made short presentations and were available to answer questions.

Some of the topics raised by meeting attendees during the course of the evening were:

What are costs associated with collecting sediment, fish and organism samples and what sampling has been done so far?

How do potential upstream sources of contamination affect the Portland Harbor Superfund site?

Crayfish were identified as an edible organism of potential human health concern.

Someone asked for a definition of benthic organisms.

Will the cleanup address potential contaminants from abandoned vehicles in the river around the boat ramps?

Will EPA and DEQ do what is needed to make sure the decision-making process for cleanup is transparent to the public?

What happens to potentially responsible parties who are not actively helping out?

These concerns and questions will be addressed during the course of the investigation. We look forward to hearing more about the issues that are important to you and other community members. Information will be taken into consideration by the project team as they investigate contamination in Portland Harbor and formulates alternatives for cleanup.

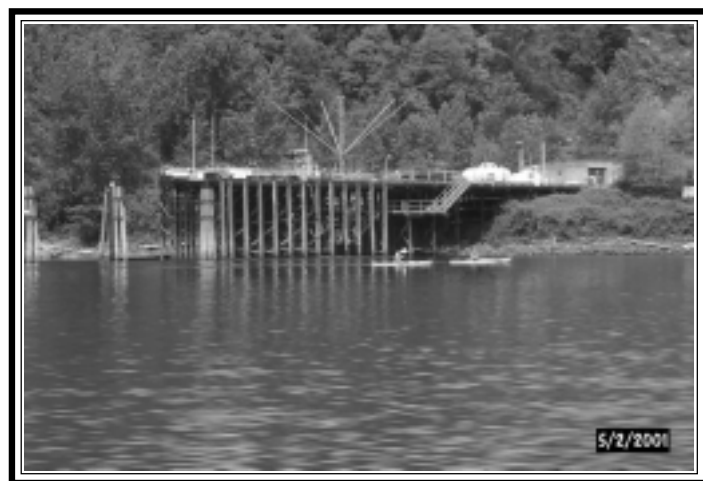
Willamette Riverkeeper has prepared a Citizen's Guide to the Portland Harbor Cleanup, which is available free of charge, as well as other materials about the Willamette River. For more information call 503-223-6418.

ATSDR RELEASES PUBLIC HEALTH ASSESSMENT

At the end of January, the Federal Agency for Toxic Substances and Disease Registry (ATSDR) released their Public Health Assessment for the Portland Harbor Superfund Site. The ATSDR is required to assess the potential health risks to the public from Superfund sites.

During the past year, representatives from this federal agency have been researching existing data, and talking with people who use the river or live nearby. The Assessment looks at possible ways the contaminants could reach humans through the air, water, soil or food chain.

To request a copy or get additional information contact ATSDR Health Communications Specialist, Dan Holcomb, at 404-498-1745 or dwh6@cdc.gov.



COMMUNITY INVOLVEMENT PLAN RELEASED

A Community Involvement Plan for Portland Harbor has just been completed. The five objectives of the plan are: (1) Provide opportunities for public participation that will effectively incorporate community concerns into cleanup decisions; (2) Provide consistent, regular and timely information about the investigation and cleanup plans and activities for Portland Harbor sediments and upland sites; (3) Identify affected communities and key stakeholders and establish regular and open dialogue to respond to questions, concerns and conflicts as they arise; (4) Meet statutory requirements regarding public notice and opportunities for public involvement; (5) Evaluate the effectiveness of this community involvement plan and make changes as needed.

The Community Involvement Plan outlines general outreach tools that will help EPA and DEQ achieve these objectives. We welcome your feedback about this plan. The Community Involvement Plan includes a six month action schedule of specific activities are going to take place (see box).

January 2002

EPA and DEQ participate in Community Forum sponsored by Willamette Riverkeeper

February 2002

Fact Sheet: documents and information available during the next six months.

Community Involvement Plan released

Fact sheet: Draft Risk Assessment Scoping Memo and Conceptual Site Model

Share information about Community Advisory Groups and provide information toolkit to interested citizens

March 2002

Fact Sheet: Introduce project team members and trustees, EPA Customer Service survey

Small group discussions to talk about issues and concerns

Major mailing list update

April/May 2002

Fact Sheet: Round 1 Work Plan

Public meetings and availability sessions: how to view and interpret work plan

July 2002

Update Community Involvement Plan

Other Tasks:

Update EPA website

Update DEQ website

Share key decisions on upland site cleanups with fact sheets or neighborhood meetings

Work cooperatively with city to develop Portland Harbor Superfund curriculum for local schools.

Work with Environmental Justice Action Group and Immigrant and Refugee Organization to make sure information about fish consumption is shared with affected communities

You can view the Community Involvement Plan on the web at the EPA or DEQ websites, or you can request a copy in the mail by contacting Judy Smith at EPA or Kim Cox at DEQ by phone or e-mail. Their contact information is provided on the last page.

JOIN A PORTLAND HARBOR DISCUSSION GROUP

Would you like to join a small focus group to share your issues and concerns about the Portland Harbor Superfund Site?

In early April, EPA is hosting several small group meetings to promote discussion among community members who have an interest in Portland Harbor. The purpose of these groups is to help provide information about community values and needs to the project managers early in the process so those needs can be incorporated into the investigation and cleanup at the very beginning.

If you are interested, contact EPA Community Involvement Coordinator, Judy Smith at 206-553-6246 or Smith.Judy@epa.gov. Judy can also be reached during business hours through the toll free number of 1-800-424-4372 Ext. 6246.

You could also indicate your interest using the form below. Fill it out and mail it in, to EPA Region 10 (ECO-081), 1200 Sixth Avenue, Seattle WA 98101.

Are you interested in receiving future information regarding EPA’s assessment of the Portland Harbor? *(check all that apply):*

- I want to be on the mailing list for future fact sheets.
- I would like to be notified by e-mail when information is available on the web.
- I would be interested in joining a Portland Harbor focus group.

(If the mailing label on the reverse side contains your correct personal information, you don’t need to fill in the blanks.)

Name: _____

Company or Group (optional): _____

Address: _____

City/State/Zip: _____

Phone: _____ E-mail: _____



Portland Harbor

Project Update Newsletter

Spring 2003

Introduction

The Environmental Protection Agency (EPA) added Portland Harbor to the National Priorities List in December 2000. EPA is responsible for cleanup of contaminated sediments in the river and the Oregon Department of Environmental Quality (DEQ) serves as the lead agency for cleaning up sites on the banks of the river.

Most of 2001 was dedicated to setting up a legal and organizational framework for the upcoming study of the site and contamination. The *remedial investigation and feasibility study*, a task required by the Superfund law, is underway. The investigation started in early 2002 and should take three to four years to complete. The investigation will provide project managers with information needed to make good decisions about the cleanup.

What Is Happening in 2003

The revised project work plan is anticipated in the spring of 2003. The work plan provides a road map for studying the harbor and developing alternative cleanup strategies leading to a Proposed Plan and Record of Decision.

Last June, the Lower Willamette Group (LWG) submitted the Draft Round 1 Work Plan to EPA. EPA, DEQ and the Interagency Technical Coordination Team reviewed the initial document, then asked for it to be revised and resubmitted to EPA. Technical Assistance grantee Willamette Riverkeeper also reviewed the work plan and provided written comments to EPA. In addition, the Portland Harbor Citizens Advisory Group reviewed the draft work plan and provided comments to EPA.

During spring 2003, fish tissue, river sediment and beach samples that were collected over the summer and fall of 2002 are scheduled for

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thorough and careful scientific analysis. EPA and DEQ will make sure the data meet acceptable quality assurance standards.

A field sampling plan for a second round of data gathering in 2003, by the Lower Willamette Group, is expected to be submitted to EPA for review and approval. After a preliminary review by EPA, the field-sampling plan will be available for public review.

Fish tissue data reports from the first round of sampling are planned for summer 2003. After EPA, DEQ and their inter-governmental partners receive the reports from the Lower Willamette Group, there will be a variety of public review opportunities that may include fact sheets, press releases, community meetings and open houses.

The second round of data gathering is planned for 2003. It will focus on the nature and extent of the contamination, sediment chemistry, sediment toxicity bioassays and surface water sampling. This work will enable scientists to better answer the questions about the contamination, including what chemicals are in the river, how much there is and where it is located. These studies will also help EPA understand risks to human health, fish, wildlife and the environment.

EPA and DEQ will also be studying ways to control ongoing sources of contamination to the river. Contaminants can be carried to the river by both surface runoff and groundwater.

Review of 2002

Three Sampling Efforts Completed Last Year

During 2002, contractors for the Lower Willamette Group completed the first round of data gathering on fish, sediment and riverbed structure. Samples were collected using rigorous scientific and quality assurance procedures, and the resulting data must be thoroughly analyzed to develop an accurate picture of site conditions. The project team will add information from future years to what they learned in 2002 in order to develop appropriate cleanup remedies.

Gone Fishing for Data

During July and August 2002, fish and other aquatic life were collected from sample sites throughout Portland Harbor. Species collected included juvenile Chinook salmon, brown bullhead, black crappie, carp, large-scale sucker, smallmouth bass, northern pikeminnow, peamouth, sculpin, clams and crayfish. This selection represents a broad cross section of aquatic life living in or traveling through Portland Harbor. There are many additional fish species in the Willamette River, but their feeding and movement habits are similar to individual species included in the sampling.

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Fish samples collected from the Willamette River will help assess public health and environmental risks.

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Fish were collected by three primary methods: electro-fishing, beach seining and trotlines. In addition, hook and line, standard crayfish traps, and benthic grab samplers were used to target specific species.

Both fish fillets and whole fish samples will be analyzed for pollutants that may have originated in Portland Harbor. The information will be used to determine the risk posed to people who eat fish from the Willamette River, and assess potential harm to the river ecosystem.

The fish tissue sampling results report should be available for public review by summer of 2003.

Getting to the Bottom of Things

A bathymetric survey was conducted for the Willamette River from near Ross Island down to the Columbia River from December 13, 2001 to January 14, 2002. This technology uses sonar to get an accurate picture of the depth and contours of the riverbed. The bathymetry helps scientists understand how sediments move in the river, where they are being deposited and removed by river currents, and how flooding and storm events affect the river bottom.

A contractor for the Lower Willamette Group used a multibeam sonar which records up to 101 soundings in a single sonar ping to get highly detailed data about the contours of the river bottom.

A draft bathymetric survey report was submitted to EPA on April 26, 2002. Additional bathymetric surveys are planned over the next couple of years. Bathymetric work takes place over a couple of years to provide information on how the riverbed changes over time. The bathymetric survey produced both full-sized drawings and digital images. If you would like to see 3-D video of the river channel, contact Judy Smith at EPA and request a CD copy of the 7-minute overview of Portland Harbor developed by the Lower Willamette Group.

Getting a Picture of Sediment Characteristics

Sediment profile imaging was conducted from November 28 to December 11, 2001 and a draft report was submitted to EPA in April 2002. A sediment profile camera was used to take pictures of cross-sections of the sediment. Photographs were taken at over 500 sample locations in the Willamette River between Ross Island and the Columbia River.

Data gathered during this sediment survey include grain size, depth, feeding voids excavated by benthic organisms, insects, presence of methane gas, and other technical information.

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What are Benthos and Why are They Important?

Things that live in the sediment at the bottom of a river are known as "benthos" and are sometimes called "benthic invertebrates." Some of the benthos you may have heard of include crayfish, segmented worms and midge larvae.

Because the primary concern at the Portland Harbor Superfund Site is contaminated sediment, it is important to identify what benthos are present and where they are located. These bottom dwelling critters feed in the sediment, so contamination such as metals, pesticides and polychlorinated biphenyls (PCBs) can accumulate in their body tissues. When fish, wildlife or people catch and eat contaminated benthos, they can absorb the toxins. Scientists refer to this process as "bioaccumulation." Some pollutants, like PCBs, become more concentrated as they move up the food chain. This is referred to as "biomagnification." Bioaccumulation and biomagnification may lead to dangerous contaminant exposures for fish consumers, like people and bald eagles.

In order to protect people, fish and wildlife from hazardous substances in the sediment, we must learn about the risk to and from benthos. In some cases, the health department might issue a fish consumption advisory to let the community know about the risk of eating certain benthos or organisms that prey upon them.

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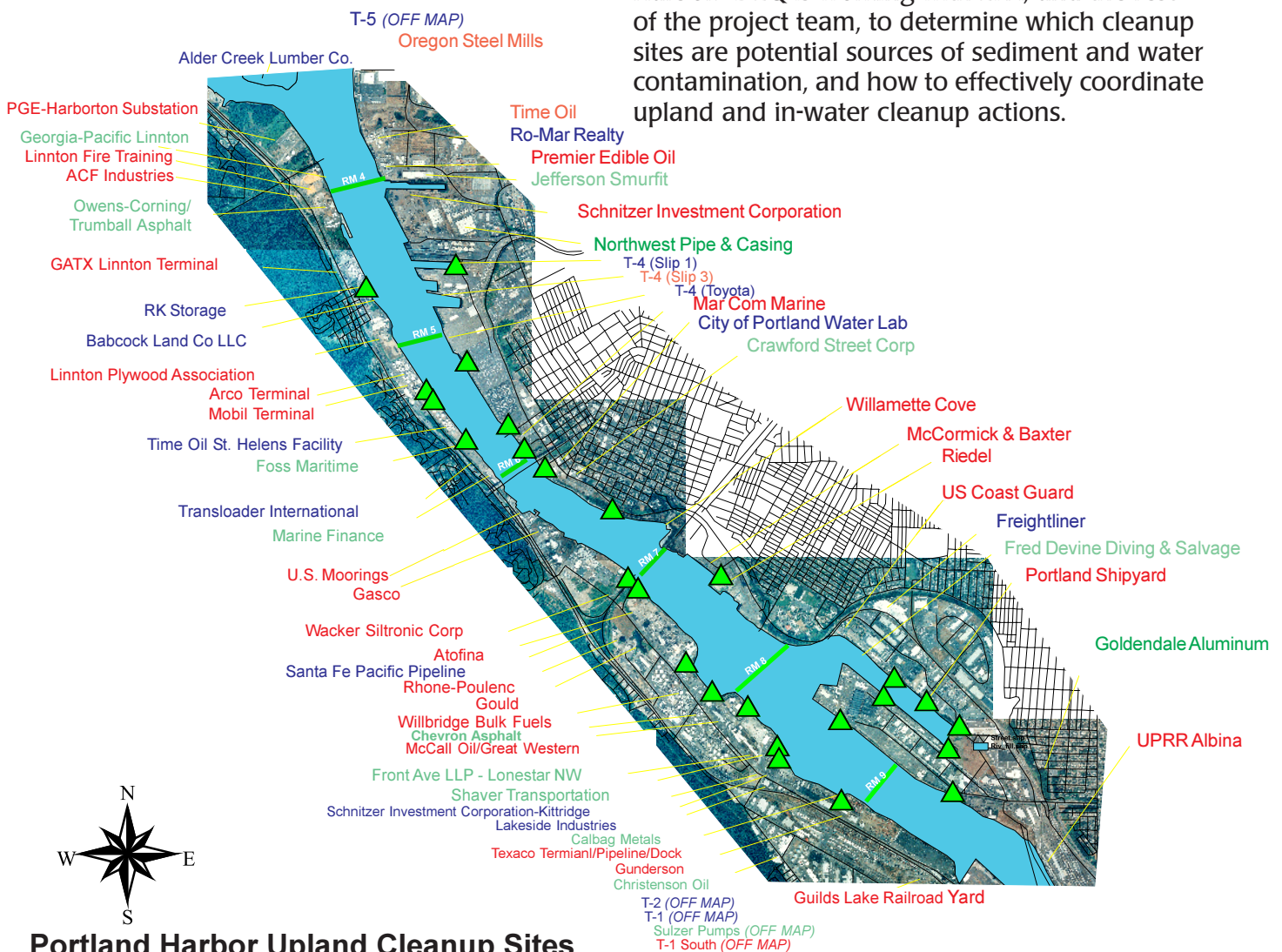
Observers also noted the presence of debris or organisms within the sediment column, sediment textures and features, organic content and how sediment is sorted and layered. In addition, the data provide a look at river dynamics such as whether the sediment is being eroded, being deposited, or is stable.

This sediment profiling information will be used to assess river bottom conditions, and evaluate the general quality of benthic habitat. This information may also be used to look at potential changes over time, by comparing it with earlier studies. Sediment profiling was originally developed for marine areas, and Portland Harbor was the first large-scale use of this technology in a large freshwater river system.

Uplands Update

As a key partner in the Superfund cleanup, DEQ is responsible for managing cleanup activities on the shores and upland areas of Portland Harbor. As of January 2003, DEQ is working with property owners on over 70 sites, including 44 high-priority sites. The work ranges from the very early stages of investigations to active cleanup actions. Check out the Portland Harbor site map, at www.deq.state.or.us/nwr/phmap.pdf, allows you to click directly on the map for site-specific cleanup information.

The goal of DEQ's upland work is to identify and eliminate sources of contamination to Portland Harbor. DEQ is working with EPA, and the rest of the project team, to determine which cleanup sites are potential sources of sediment and water contamination, and how to effectively coordinate upland and in-water cleanup actions.



Portland Harbor Upland Cleanup Sites

▲ City of Portland BES Outfalls (26)

Construction Begins at McCormick & Baxter

The McCormick & Baxter Creosoting Company site, located just south of Willamette Cove, near the University of Portland, was placed on EPA's National Priorities List (NPL) in 1994. It is located within the area of Portland Harbor Superfund Site, which was listed in 2000. Through an agreement with EPA, DEQ is leading the cleanup at McCormick & Baxter.

Over 33,000 tons of contaminated soil and debris and 1,950 gallons of creosote have been removed from the McCormick & Baxter site, but creosote continues to contaminate the Willamette River. EPA and DEQ will install an underground barrier wall encircling contaminated soils, to reduce the amount of creosote from migrating into the river. The barrier is an 80-foot deep buried metal wall along the riverfront, and an inland trench filled with an impermeable clay mixture.

Construction of the barrier wall begins April 2003 and should be completed by mid-summer. Work will take place weekdays between 7:00 am and 5:30 pm.

During the first two weeks in April, neighbors can expect about 15 trucks per day, traveling to and from the site via North Edgewater St.

The trucks will bring in loads of material and equipment. The trucks will travel to and from Interstate 5, along North Columbia Boulevard and North Portsmouth Avenue.

Contractors will install 1,400 linear feet of interlocking sheetpile along the riverbank of McCormick & Baxter. Similar to installing individual pilings, this involves driving the 80-foot sheetpiles into the ground. To lessen impacts to the nearby residential community, noise generating activities will not begin before 7:30 am. The contractors are using a vibratory method to install the sheetpiles, instead of the traditional hammer method. Noise levels at the riverbank are expected to be 90-95 decibels. Noise levels at the nearest residences, some 1,000 feet away, are expected to be under 60 decibels, the volume of a person talking.

In addition to the barrier wall, DEQ is working on the final design for a permanent sediment cap to protect the river from the underlying contamination. Installation of the sediment cap will begin in the summer of 2004. Design work will begin soon for the protective soil cap that will cover the surface of the site, and make it safe for people and wildlife.

❖ ❖ ❖ ❖ ❖ Hear about McCormick & Baxter on March 20th ❖ ❖ ❖ ❖ ❖

Come to the public information meeting to learn more about the construction and the continuing cleanup of McCormick & Baxter and to find out how you can participate in the design process that lays the groundwork for future public use of McCormick & Baxter. The Portland Harbor Citizen's Advisory Group will be on hand to invite public participation in the Harbor cleanup process.

Thursday, March 20th, 7- 8:30 pm
University of Portland
Buckley Center

For information, contact Kevin Parrett,
Project Manager, 503-229-6748,
parrett.kevin@deq.state.or.us

Visit our website:

<http://www.deq.state.or.us/nwr/mccormick.htm>

City of Portland and DEQ kick off Stormwater Pilot Project

The City of Portland operates 17 stormwater outfalls within Portland Harbor. These outfalls transport stormwater draining from city-owned rights-of-way and from private property, including local industry. City outfalls have been identified as a potential source of sediment and water contamination in the Harbor because stormwater may pick up and transport soil and contaminants such as metals, paint, oil, grease, and chemicals to the river.

DEQ and the City are working together on a pilot project at the M-1 outfall on Swan Island to investigate and control sources of contamination entering the storm drains. The goal of the pilot project is to minimize potential recontamination of sediments after the Superfund cleanup is completed.

The pilot project has three key components. First, DEQ technical assistance staff are visiting sites to help business owners develop proper waste management procedures and use best management practices to reduce or eliminate potential sources of contamination to the river.

Second, the City of Portland Bureau of Environmental Services Industrial Storm Water Program is inspecting industrial facilities whose operations may contaminate storm water runoff.

Third, the City is helping these facilities identify best management practices to minimize pollutants in storm water runoff. In some cases, a facility may be required to obtain a storm water permit. DEQ's Cleanup Program staff continue to assess whether current and historical property uses could contribute contamination to the river and whether further investigation is needed.

Results of the pilot project will be used to help DEQ and the City expand the interagency source control effort for the rest of Portland Harbor.

Cleanup Remedy Proposed for Port of Portland Terminal 4, Slip 3

The Port of Portland Terminal 4 facility is located along the east bank of the Willamette, near River Mile 5. Historically, Slip 3 was used in part as a bulk fuel transfer facility, moving diesel from marine vessels through a 1,500 foot underground pipeline to tanks owned by Union Pacific railroad at the east side of the property.

Fuel transfer operations ceased in 1983, however, pipeline leaks have released petroleum to soil and groundwater at the site.

The Port of Portland entered a Voluntary Cleanup agreement with DEQ in 1998, and completed the remedial investigation in 2000. In April 2002, DEQ reviewed and approved the Port's feasibility study, which identifies different cleanup options.

After evaluating the options presented in the feasibility study, DEQ proposed a final cleanup remedy for the upland area. The recommended cleanup includes pumping and treating groundwater to remove petroleum contamination, and excavating contaminated riverbank soil in Slip 3 and disposing of it at a location off-site. In addition, the presence of residual contamination in the soil will be documented to protect future site workers.

The remedy is designed to protect human health and eliminate harmful migration of petroleum products into the Willamette River. DEQ will consider feedback gathered during the public comment on the proposed remedy and incorporate it into the Record of Decision, expected to be issued by the end of March 2003.

Contaminated sediments in the river are being evaluated separately as part of the EPA Portland Harbor in-water cleanup investigation.

Citizens Advisory Group

Since forming last spring, the Portland Harbor Citizens Advisory Group has played an active role in making sure community concerns are considered during the early stages of the remedial investigation. This dedicated group of volunteers is made up of a diverse group of community members representing neighborhoods, environment, recreation, business, health and the community-at-large. The group reviewed the draft Round 1 Work Plan and provided feedback to DEQ and EPA. During the first week of February, the group held a press conference to introduce themselves, share their issues of concern and encourage citizen participation in the Portland Harbor investigation and cleanup.

Superfund Citizens Advisory Groups are made up of members of the community and are designed to serve as the focal point for the exchange of information among the local community and EPA, the State regulatory agency, and other Federal agencies involved in cleanup of the Superfund site.

The Portland Harbor Citizens Advisory Group meets on the second Wednesday of every month at NE 800 Oregon Street in Portland from 6 to 8 p.m. The next meeting is March 12. For information about the CAG contact Joe Keating at keats@teleport.com, or Willamette Riverkeeper at 503-223-6418.

PHCAG Mission statement: To ensure a Portland Harbor Cleanup that restores, enriches and protects the environment for fish, wildlife, human health and recreation through community participation.

Can Someone From EPA or DEQ come talk to our group about Portland Harbor?

Yes! The exchange of information between project staff and the community is very important to the long-term success of the cleanup. Contact Judy Smith or Fenix Grange using the information listed on page 8 to set up a time for a meeting.

Who Is Working on Portland Harbor:

Interagency Technical Coordination Team: A group of government agencies and tribes who are combining expertise during the investigation and cleanup of Portland Harbor. A Memorandum of Understanding outlining responsibilities and processes was signed in 2001 by the following parties:

Oregon Department of Environmental Quality
U.S. Fish and Wildlife Service
National Oceanic and Atmospheric Administration
Oregon Department of Fish and Wildlife
Confederated Tribes and Bands of the Yakama Nation
Confederated Tribes of the Grand Ronde Community of Oregon
Confederated Tribes of Siletz Indians
Confederated Tribes of the Umatilla Indian Reservation
Confederated Tribes of the Warm Springs Reservation of Oregon
Nez Perce Tribe
Oregon Department of Human Services

Lower Willamette Group: A group of potentially responsible parties from business, industry and public agencies who have entered into a consent order with EPA to conduct the remedial investigation and feasibility study under EPA oversight. The group consists of:

ATOFINA Chemicals, Inc.
Chevron U.S.A. Inc.
Gunderson, Inc.
Northwest Natural Gas
City of Portland
Port of Portland
Time Oil Co.
Tosco Corporation
Union Pacific Railroad Company
Oregon Steel Mills

Citizens Advisory Group: A group of community members who are volunteering time and effort to make sure community concerns are considered during the investigation and cleanup.

Technical Assistance Grantee: Willamette Riverkeeper received a grant from EPA to review technical information on the project and interpret and share it with the community.

Where to Find More Information

EPA Team Contact Information

Judy Smith

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Tara Martich

Remedial Project Manager
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DEQ Team Contact Information

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Jim Anderson

Project Coordinator
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EPA's Portland Harbor web site:

<http://www.epa.gov/r10earth/>

DEQ's Portland Harbor website:

<http://www.deq.state.or.us/nwr/ph.htm>



United States
Environmental
Protection
Agency



Oregon
Department of
Environmental
Quality

USEPA Region 10 Community Involvement and Outreach
1200 Sixth Avenue, ECO-081
Seattle, Washington 98101-1128

PORTLAND HARBOR PROJECT UPDATE

**COME TO A PUBLIC
INFORMATION MEETING
ON MARCH 20, 2003**