

Executive Summary - PHSMP

State Commitment to Manage Sediments in Portland Harbor

A 6-mile reach between the southern tip of Sauvie Island and Swan Island, known as Portland Harbor, comprises the most industrialized segment of the Willamette River. The manufacturing and ship building/repair history dates back more than a century. The area now encompasses several active, land-based cleanup projects dealing with site contaminants including but not limited to wood preservatives, pesticides, and metals. Proximity of these sites to the Willamette River naturally led to concerns about impacts on in-river sediments, both from known and suspected or unknown, other sources. In 1997, a joint Department of Environmental Quality (DEQ) and U.S. Environmental Protection Agency (EPA) study identified elevated levels of a variety of contaminants in shallow, near-shore sediments, throughout Portland Harbor.

Portland Harbor has served the economy of the City of Portland, the State of Oregon, and the region, for decades. At the same time, the Harbor has been a valuable resource for recreation and fishing, a migratory passageway for anadromous fish species, and has served broad navigation purposes. The recent Endangered Species Act (ESA) listing of selected salmon species as threatened heightens the importance of a clean and healthy waterway. Efforts are under way to deepen the navigation channel within the Harbor, and brownfields redevelopment options are stimulating interest in renewing waterfront properties. Maintaining a broad range of uses and the health of the Harbor, and the Willamette River itself, is a priority for the State of Oregon and for the many other entities with an interest -- federal, state and local agencies, Native American tribes, industry and business, environmental and conservation interest groups, and the workers, neighborhoods, and citizens surrounding the River and the Harbor. Portland Harbor is critical to Oregon's economic well being.

The State of Oregon is committed to protecting human health and the environment in Portland Harbor. This commitment is demonstrated in the Portland Harbor Sediment Management Plan (PHSMP), which lays out the technical approach for investigating the nature and extent of contamination and assessing risk to human health and the environment from contaminated sediments in Portland Harbor. It provides the framework for achieving investigation and necessary cleanup at both specific sites and throughout the Harbor. DEQ will focus attention on achieving effective cleanup at identified sites. In addition, however, DEQ will assess contamination beyond specific sites and, if necessary, identify harbor-wide cleanup actions. The PHSMP outlines the enforcement mechanisms that will be used to ensure necessary cleanup is accomplished; and describes essential programmatic activities such as funding and community involvement. Of equal importance is the State's commitment to continue its collaborative relationship with the EPA, the natural resource trustee agencies (federal and state), Native American tribal governments, and the citizens who live, work, and use the areas surrounding Portland Harbor.

Today, the State is prepared to build on the existing investigation and cleanup ongoing in Portland Harbor, in which it already plays a lead role, and to identify and, where indicated, clean up sediments that contain contaminant concentrations that present unacceptable risks to human health or the environment. Oregon is also committed to making investigation and cleanup happen fast. Through the collaborative process used to develop this plan, a majority of the parties who will participate in the assessment and potential future remediation are already participating, and thus will be able to hit the ground running as they continue their involvement during implementation of the PHSMP. An integrated schedule, already prepared and in the process of being implemented, will ensure that ongoing investigations and cleanup activities continue while further harbor-wide investigations and assessments are under way.

Oregon's current role should continue. A state-led approach is the best option for investigating and cleaning up contaminated sediments in Portland Harbor in a timely and effective manner. The strengths of the approach include:

- **Environmental Protection Through a State-Led Effort.** While the results from a state or federal-led investigation and cleanup would be comparable, a state-led approach to Portland Harbor offers the best chance for an integrated, comprehensive approach to the waterway. This 6-mile stretch of the Willamette River provides an opportunity to focus on sediment issues in a relatively limited part of the river. However, DEQ recognizes the need to consider and coordinate with other statewide efforts along the river.
- **Natural Resource Trustee Coordination.** DEQ and the Portland Harbor Group (10 entities owning and operating businesses along Portland Harbor) are working on an agreement in principle with the federal natural resource trustees. The intent is to ensure trustee participation and protection of natural resources through implementation of the PHSMP providing any needed restoration or mitigation in coordination with harbor-wide remediation. DEQ has made a strong, affirmative commitment to work closely with trustees and tribes on all aspects of PHSMP implementation

- **Tribal Coordination.** DEQ has and will continue to communicate with individual tribes to identify tribal issues in Portland Harbor and determine the appropriate level and type of involvement that will meet tribal needs. DEQ is willing to enter into formal agreements with tribal governments that outline their participation and involvement during implementation. Native American tribal interests in treaty rights and protection of natural resources will be included in these discussions as requested by tribal governments.
- **Capacity and Expertise.** The PHSMP provides an opportunity for Oregon to expand on technical work already under way, and build upon historical working relationships with sites along the River and with other river users. DEQ's understanding of the environmental issues along the River has provided it a head start in preparing this plan and will supplement future investigations.
- **Enforcement.** DEQ has statutory authority to make responsible parties pay for and clean up their pollution. Oregon has a strong track record of using its enforcement program to ensure that all sites that pose an unacceptable risk to human health or the environment are cleaned up. While DEQ has had great success with voluntary cleanup agreements, DEQ will not hesitate to use full enforcement authority to make responsible parties pay their fair share of investigating and cleaning up the Harbor.
- **Public Involvement.** DEQ will continue efforts to include all affected stakeholders in the work in Portland Harbor. Public involvement has been and will continue to be a major part of any investigation and cleanup activity. This commitment requires DEQ's on-the-ground understanding of the issues and concerns expressed by community groups, environmental groups, members of the public, and tribal governments.
- **Source Control.** Source control is an integral part of DEQ's cleanup program and the PHSMP. Ongoing analyses and oversight of site-specific work will emphasize implementation of effective source control measures to stop discharges and avoid recontamination. The PHSMP also outlines plans to address upstream contamination.
- **DEQ Leadership.** DEQ has a strong and capable cleanup program, modeled after EPA's federal Superfund program. Oregon has readily and effectively implemented the Superfund remedial investigation and feasibility study process (Superfund's process of investigation and cleanup) at a large number and wide variety of sites. DEQ will implement the investigation and cleanup of individual sites within the Harbor through an integrated framework incorporating expanded work at those sites and harbor-wide sediment issues. DEQ's leadership in this area will be enhanced by the formation of an internal Sediment Strategy Group, which will address technical, regulatory, and programmatic issues during implementation.
- **Cooperative and Collaborative Efforts.** This plan was developed through a unique collaborative effort involving both DEQ and EPA, other federal and state agencies, local government, and a group of private and public entities that own or conduct business in the Portland Harbor area, known as the Portland Harbor Group. DEQ is committed to building on these working relationships during implementation of the PHSMP. This involvement will take place in the form of cooperative agreements, technical workgroups, and public outreach activities.
- **Development and Dredging.** DEQ is determined to be proactive in coordinating with development and dredging activities so that these issues will not hamper cleanup efforts. Ongoing maintenance dredging needs will be anticipated and effectively integrated into the Portland Harbor process in order to address potential environmental impacts. In addition, the lower Willamette segment of the Columbia River Channel Deepening Project will also need to effectively integrate recent and upcoming study findings for the purpose of enhanced environmental protection.

Mission and Goals of the PHSMP

A mission and set of goals for the PHSMP helped guide its development and will continue to be used to measure success as cleanup progresses. The mission of the Portland Harbor approach is to use a new, cooperative approach to expedite cost-effective and efficient source control and sediment remediation, for protection of human health and the environment in Portland Harbor, now and in the future, under the laws applicable to cleanup and water quality. The PHSMP provides flexible processes and collaborative opportunities for federal, tribal, state, and local agencies, and public and private stakeholders, to achieve solutions for contaminated sediments in Portland Harbor.

The State of Oregon has demonstrated ability and leadership by establishing a harbor-wide framework for investigating and remediating contaminated sediments that reflects the input of all stakeholders. The PHSMP, implemented under state leadership, will ensure that proper steps are taken to assess, establish and maintain sediment quality in Portland Harbor; to provide a safe passageway for migratory fish; to protect threatened and endangered species, resident fish, and water-dependent wildlife; and to support recreational and commercial uses of the Harbor. Impacts and potential injury to natural resources will be assessed and addressed in coordination with federal, tribal, and state trustees.

State leadership has been and will continue to be clearly demonstrated by:

- Identifying sources that contribute to sediment contamination;
- Using existing methods and developing new methods for assessing contamination and risks, including: sediment quality objectives to guide remediation, sampling and analysis approaches, and assessment protocols that can be applied harbor-wide and at individual cleanup sites;
- Implementing a comprehensive regulatory approach that involves responsible parties, regulatory agencies, trustees of natural resources, tribes, local governments, and the public to further investigate and remediate contaminated sediments to the extent necessary;
- Identifying, procuring and maintaining an added level of needed resources to implement the program within DEQ;
- Addressing harbor-wide contamination that encompasses areas beyond identified sites; and,
- Using tools, knowledge and approaches developed for Portland Harbor to expedite other contaminated sediment remediation efforts throughout Oregon.

How Sediments Will be Managed in Portland Harbor

The management of sediments in Portland Harbor is directly tied to the mission and goals, builds on information known today, and gathers additional site-specific and harbor-wide information. This information will be the foundation for any future cleanup activities. The goal of investigations will be to characterize the nature and extent of contamination, evaluate the need for remedial action by assessing the risk to human health and ecological receptors, and provide the basis, if warranted, for the resulting remedial actions. All of the investigation activities will be supported by a number of programmatic activities, which will determine whether sediment contaminants represent a risk to human health and the environment.

Investigation and cleanup of Portland Harbor is a complex task, and DEQ will implement it in an integrated and coordinated fashion. Site-specific remedial investigations and actions that are already under way will continue without delay, and additional identified sites will be assessed, investigated and, if necessary, remediated as quickly as possible. Information from site-specific work will support development of harbor-wide assessment tools, and those tools in turn will be used at specific sites to ensure consistent and scientifically sound investigations.

Programmatic activities, while not directly part of the investigation process, are critical to developing and supporting needed scientific and technical tools. These programmatic activities will include development of sediment and tissue guidelines, as well as selection of comparative reference areas to determine what levels of sediment contamination exist in Portland Harbor. With these harbor-wide tools, DEQ will assess risks to human health and ecological receptors on a harbor-wide basis. Any identified unacceptable risks will be the basis for harbor-wide and/or site-specific cleanup actions.

Investigation and assessment of contamination present in Portland Harbor could lead to the identification of additional sites which require cleanup and/or the expansion of existing site boundaries. Therefore, site assessment strategies have been included in the PHSMP and DEQ is committed to ensuring they are completed as required. Also, DEQ is committed to assessing the need for, and to the extent necessary, institution of best management practices to ensure that contamination does not recur.

Dredging in the Willamette River and Portland Harbor is necessary to maintain the waterway for waterborne commerce and water-related industry, shipping, and for new port and marina construction. DEQ is committed to coordinating any cleanup activities conducted as a result of this plan with navigation and maintenance dredging so as to provide environmental protection, reduce uncertainties in regulatory activities, ensure continued operation and maintenance of navigation facilities, minimize delays in scheduled maintenance dredging, and assure state and federal-cross program consistency.

Cleanup Is Already Occurring

Progress is Being Made. Investigation and cleanup have been occurring in Portland Harbor since the early 1990s. This includes DEQ oversight at 14 sites and the identification of 3 additional cleanup sites through the site assessment process. The majority of these sites (10 of the 17) are completing environmental investigation and cleanup under the oversight of DEQ at the initiative of the site owner/operator through the voluntary cleanup program. Of the remaining seven sites, three are at the beginning stages of remedial investigation and four are subject to enforcement orders (two being federal Superfund sites). This ongoing cleanup work with significant DEQ oversight and involvement places the State in a strong position to continue and build on its existing working relationships in order to address harbor-wide issues.

Continued Source Investigation. In 1997, DEQ approached EPA for assistance in identifying sources of elevated sediment contamination detected at sites within the Harbor. The result was a sediment investigation that covered the 6 miles of Portland Harbor considered likely to have the highest levels of contamination, based on the presence of a

large number of potential industrial sources. The study findings suggested that there were several areas of elevated contamination in the sediments. Based on these findings and the value of the Harbor area, DEQ has aggressively pursued further study. DEQ is committed to continuing the site discovery effort to ensure that all potential sources of contamination are identified and any necessary cleanup is completed. This will occur in parallel with the implementation of the PHSMP and be integrated with any ongoing harbor-wide work.

Existing Information is the Foundation for Continued Investigation. In addition to the joint DEQ/EPA study of Portland Harbor in 1997, there are numerous other studies which have or are currently being conducted to determine chemical concentrations in Portland Harbor, and for which data exist or will be available in the next few months. Many of these investigations were conducted to assess contamination associated with specific sites in the Harbor. Several studies have been conducted to evaluate the quality of sediments that may be removed as part of a planned dredging project. Still other studies were associated with larger studies of environmental conditions in the Willamette River Basin conducted by DEQ, the U.S. Geological Survey (USGS), and Oregon State University. Together these data provide a significant amount of information on the nature and extent of sediment chemical concentrations in Portland Harbor. The known data have been compiled into a central database (SEDQUAL). These data were used as the foundation for the PHSMP and reviewing the data will be a critical step in designing necessary investigation. DEQ expects and commits to performing additional harbor-wide investigations to more fully understand the condition of sediments.

Who has reviewed the PHSMP?

The PHSMP addresses all the elements needed to move ahead and successfully complete the Portland Harbor assessment and any needed cleanup. The PHSMP outlines legal, technical, and administrative capabilities, describes financial and programmatic arrangements, and includes an approach to effectively involving the broader community in Portland Harbor issues.

The draft PHSMP was issued for public review from April 19 to May 19, 1999. DEQ worked with community groups and the media to inform people about the availability of the plan, including holding a press conference and a community open house. Many briefings with community organizations and interest groups helped publicize the review opportunity and provided a forum for citizens to understand and read the plan. A technical review grant to an environmental organization allowed their added review and public outreach. In addition to this executive summary, the full PHSMP (approximately 100 pages in length) was made available, with technical appendices. Technical appendices include:

- Sediment Assessment Methodology
- Public Involvement Plan
- Description of Sites Currently Under Cleanup Agreements
- Site Discovery Results to Date
- Dredging Coordination Plan
- Public Activities Conducted During Plan Preparation
- Public Review Comment Responsiveness Summary
- Glossary of Terms
- Acronyms/Abbreviations

Over 400 copies of the full plan and the technical appendices were distributed, and the plan was available on the DEQ web site. Detailed comments were received from over 30 individuals and groups, and at public meetings, and have been considered in preparing this final version of the plan. Responses to comments are provided in Appendix K.

The final PHSMP and appendices are available on DEQ's web page at:

<http://www.deq.state.or.us/wmc/cleanup/PortlandHarbor/portlandharbor.htm>. For a copy of the plan or appendices, please call Bill Knight, DEQ at 503-229-5774.