

## Contaminated Sites Issue Paper

### Background

#### An Industrial Past

The Willamette River flows north through Portland to its confluence with the Columbia River. Historically, the Willamette has been the backbone of Portland commerce and continues to play a vital role in the region's economy today. With its proximity to important infrastructure such as the docks, rail, and pipeline, the land along the Willamette River—and particularly the reach north of downtown known as the Portland Harbor—is home to much of the heavy industry that has helped Portland thrive. However, contamination from industrial activities as well as other sources has polluted many sites along the Willamette River as well as the sediments in the riverbed itself.

Some of the activities that may have contributed to the contamination include:

- hazardous waste and petroleum product storage
- marine construction
- oil gasification operations
- wood treating
- pesticide/herbicide manufacturing
- agricultural chemical production
- battery processing
- chlorine production
- ship loading, maintenance, and repair
- metal scrapping and recycling
- rail car manufacturing

In addition to industrial activities on lands directly adjacent to the river, municipal stormwater outfalls enable contaminants from streets and agricultural, industrial, commercial, residential, and vacant lands around the city to drain into the Willamette.

#### Definitions and Terms

Sites that are contaminated are often referred to as brownfields. Brownfields are generally known as “real property where expansion or redevelopment is complicated by actual or perceived environmental contamination.” The term “brownfield” also has an official legal definition and both the Oregon Department of Environmental Quality (DEQ) and the United States Environmental Protection Agency (EPA) have Brownfields programs. In order to avoid confusion with regard to terms and definitions, this paper will use the term “contaminated sites” to refer in a general sense to any site that is contaminated and requires further study, monitoring, or cleanup before redevelopment or reuse.

DEQ regulates the cleanup of contaminated sites in Oregon. To aid in this pursuit, DEQ maintains an Environmental Cleanup Site Information (ECSI) database to track sites that have, are suspected to have, or used to have contamination. This database has no regulatory function and is informational only. Included in the ECSI are sites on the Confirmed Release List (CRL). These are sites for which contamination has been confirmed. To add a site to this list, a procedure must be followed that includes notification and a comment period. When the site has been given a notice that No Further Action (NFA) is required, then (following notification and a comment period) the site is

removed from the CRL. The CRL is an official, regulatory designation. A subset of the CRL is the Inventory of Hazardous Substance Sites. The Inventory is another regulatory designation that indicates further investigation or cleanup is necessary. Again, to list a site on or remove a site from the Inventory requires an official procedure.

In the Spring of 2006, in the City of Portland there were about 650 sites in the ECSI database and about 165 sites on the CRL. In the Willamette Greenway, there were about 130 sites in the ECSI database and about 40 sites on the CRL (See Map).

### **Portland Harbor Superfund Designation**

DEQ has been overseeing cleanup of contaminated sites along the Willamette River since the mid-1980s. By the mid-1990s, cleanup of sites along both sides of the river and the addition of the McCormick and Baxter and Gould Electronics sites to the Superfund National Priority List through the EPA's CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) legislation indicated that it was quite likely the river bed itself could have significant contamination.

In 1997, DEQ and EPA began to collect and analyze near-shore river sediments in the Portland Harbor area for a variety of contaminants. Their joint study found sediments throughout the harbor area to be contaminated with heavy metals, petroleum hydrocarbons, PCBs, pesticides (including DDT), and dioxins.

On December 1, 2000, the Portland Harbor Sediments site was added to the Superfund National Priority List. The listing specifies that the EPA is the lead agency for in-water activities and DEQ is the lead agency on upland cleanup and source control. Currently DEQ is investigating over 70 upland sites to determine the sources of contamination to the Harbor sediments. Both agencies are coordinating closely with six Tribal governments and other natural resource trustees.

### **Cleanup**

After the Portland Harbor listing, a coalition of potentially responsible parties (PRPs) voluntarily stepped forward to move forward and help fund the initial phase of the Superfund work. Though over 70 PRPs have been identified, the Lower Willamette Group is composed of just 10 businesses and agencies: ATOFINA Chemicals, Chevron USA, ConocoPhillips, Gunderson, Northwest Natural Gas, Oregon Steel Mills, Time Oil, Union Pacific Railroad, the Port of Portland, and the City of Portland. The City of Portland is a PRP because of the potential for the City stormwater system to carry contamination from upland drainage basins to the river. The City's Superfund Program is housed in the Bureau of Environmental Services.

The Lower Willamette Group (LWG) signed an Administrative Order on Consent (AOC) with EPA in 2001. The AOC is a legal and binding document that identifies roles, responsibilities, and tasks for several parties involved in the Superfund process. The AOC requires the Lower Willamette Group to conduct the Remedial Investigation and Feasibility Study (RI/FS) that will investigate the nature and extent of the sediment contamination; assess the risks to humans, fish, and wildlife; and determine appropriate

cleanup options. The goal is to expedite the study and analysis phase of the Superfund work to help the EPA issue a record of decision regarding how the cleanup will proceed in a more timely manner than is typical at complex Superfund sites.

Three LWG members have signed orders with EPA to conduct Early Actions within the Portland Harbor Superfund Site. An Early Action is a site-specific removal of contamination within a larger Superfund site that can be conducted on an expedited schedule. The three early action sites are Terminal 4, Gasco, and Arkema.

### **Natural Resources Damage Assessment (NRDA)**

Federal Superfund legislation authorizes certain governmental organizations and the Indian Tribes to act on behalf of the public as trustees for natural resources that have been damaged by contamination. The natural resource trustees for the Portland Harbor Sediments site include six Tribal governments, the Department of the Interior, the National Oceanic and Atmospheric Administration, the National Marine Fisheries Service, the US Fish and Wildlife Service, and the Oregon Department of Fish and Wildlife.

The natural resource trustees are given responsibility to conduct a study to assess the damage to natural resources from contamination and then to develop a plan for restoration and compensation, called a Natural Resource Damage Assessment, or NRDA. The measure of damage is the cost of the damage assessment plus the cost of restoring injured resources to their baseline condition, replacing the resources, or acquiring equivalent resources. It may also include compensation for the interim loss of injured resources until recovery. However, restoration work planned in response to other mandates cannot count toward NRDA restoration.

## **The Issues**

### **Greenway Regulations Do Not Address Cleanup Activities**

The purpose of the Willamette Greenway Plan is to protect, conserve, maintain, and enhance the scenic, natural, historical, economic, and recreational qualities of lands along the Willamette River. However, the Willamette Greenway Plan, Code, and Design Guidelines do not address the issue of contamination or activities related to cleanup. Contamination and its cleanup is a critical issue for property owners along the Willamette and will play an important role in the future of the Portland Harbor.

### **Cleanup Activities Can Conflict with Other City Priorities for the Greenway**

Through their experiences during past site cleanups, City staff has become aware that proposed cleanup actions may conflict with City goals and regulations relating to the Willamette Greenway. For example:

- Certain cleanup solutions can limit the future uses of a site, which has the potential to negatively affect the vitality of Portland's waterfront, particularly the industrial lands in its working harbor.

- Capping contaminated sediments increases the amount of fill that is added to the floodway and the 100-year floodplain, which can trigger City regulations requiring “balanced cut and fill.”
- Armoring the bank or installing a sheet pile wall to contain pollutants conflicts with the City’s desire for more natural bank treatments with lower grades, greater bank roughness, and more vegetation to provide habitat and natural resource value.
- Certain cleanup solutions can necessitate restrictions on the infiltration of stormwater into the groundwater, which conflicts with the City’s desire to manage stormwater in a way that emulates natural processes.
- Laying pipe, installing monitoring wells, and building roads as part of a cleanup can impact habitat and other sensitive natural areas.
- Installing monitoring wells or other long-term visible cleanup equipment may compromise the scenic qualities of the Willamette Greenway.

### **Regulating Agencies’ Priorities May Not Correspond with City’s**

Though the ultimate aim of DEQ and EPA is to protect the environment, the agencies’ priorities for a cleanup site do not necessarily correspond to the City’s priorities for the Willamette Greenway. When DEQ and EPA are determining the best cleanup strategy for a site, cost and feasibility feature prominently in the decision. While it is important to the City that contaminated sites are cleaned up, the City’s goals for the Willamette Greenway tend to be broader than those of DEQ and EPA.

### **Inter-Agency Coordination Needs Improvement**

As a State agency, DEQ need not comply with any local permits, licenses, or other procedural requirements, though DEQ’s actions must satisfy the substantive requirements of local regulations. However, the procedure for ensuring that cleanup actions align with City requirements is not clear and does not always occur early enough in the cleanup process. Also, it is much easier to determine if substantive requirements have been met if the regulations are clear and specific to cleanup activities.

As a Federal agency, EPA must address only the substantive requirements of those State and Federal regulations that are determined to be Applicable or Relevant and Appropriate Requirements (ARARs).

## **Next Steps**

### **Determine Priorities**

The City needs to determine its priorities with regard to cleanup. At any given site, there are multiple cleanup alternatives, all with different benefits and costs. What does the City wish to achieve at cleanup sites? Are there any substantive requirements that the City would like observed? The discussion on priorities should cover future land use, balanced cut and fill, habitat preservation and enhancement, stormwater management, as well as landscaping and scenic quality.

An important consideration is the temporary yet long-term nature of cleanup activities. The Greenway regulations should acknowledge the fact that although cleanup is a multi-stage, long-term process, it is not ultimately the end use. However, some cleanup activities may continue for decades, meaning that preservation of the scenic qualities of the river may be a concern in the interim. As the City determines its cleanup priorities, it should differentiate between short-term and long-term requirements and goals.

For example, one issue that has come to the attention of staff is landscaping requirements. Development in the Willamette Greenway frequently triggers landscaping requirements. Should landscaping or habitat reconstruction be required at a cleanup site? If so, at what point in the process? How would such a requirement relate to NRDA?

### **Acknowledge Contamination and Cleanup in the Greenway Regulations**

The update to the Willamette Greenway Plan should include references to the contamination in and near the Willamette River in order to ensure the Greenway regulations facilitate and do not hinder cleanup of contaminated sites and also to aid the City in working with state and federal agencies to meet Greenway goals during cleanup. The City needs to articulate its goals clearly through the Greenway regulations. This may include drafting standards and/or design guidelines for cleanup activities and equipment in and near the river, such as wells, roads, pipes, and pile walls, as well as landscaping and/or habitat reconstruction requirements.

### **Coordinate with Other Agencies**

Finally, the new Greenway regulations should be written with an eye toward the coordination that needs to occur between the City and other agencies. The City needs to define what its role is in the cleanup process. How should the City be involved in the cleanup process? At what point in the process does it make sense for the City to be involved? Answering these questions will inform the way contaminated sites and cleanup activities are addressed in the Willamette Greenway update.