



Contaminated Sites Staff Report & Recommendations

DRAFT for River Plan Committee Consideration

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1. INTRODUCTION

PURPOSE OF THIS REPORT

The purpose of this report is to propose staff recommendations regarding hazardous material cleanups in the North Reach of the Willamette River to help enhance coordination between the City and other regulating agencies, reduce regulatory barriers to cleanup, and achieve optimal cleanup solutions. This report was developed with the advice of the Contaminated Sites Task Group but does not necessarily represent a consensus recommendation of that group.

The River Plan Committee will provide staff with direction on the recommendations described in this proposal at its May 15, 2007 meeting. During the summer and fall of 2007, River Plan staff will consider the work of all the task groups while drafting the River Plan / North Reach. The recommendations included in this proposal may or may not be incorporated into the River Plan / North Reach document that is recommended to River Plan Committee. The River Plan Committee's proposal will be forwarded to the Planning Commission for consideration. The Planning Commission's decision will be forwarded to City Council for consideration. The final version of this report will be included as an appendix to the River Plan.

There will be multiple opportunities for public comment on the draft River Plan / North Reach before it is submitted to City Council in spring/summer 2008.

WHAT IS THE RIVER PLAN?

The River Plan is a comprehensive multi-objective plan for the land along the Willamette River. It is an update of the 1987 Willamette Greenway Plan, zoning code and design guidelines. The Willamette Greenway Plan serves as Portland's compliance with Statewide Planning Goal 15. The River Plan also helps to implement the River Renaissance Strategy and fulfill the five River Renaissance goals:

- Ensure a clean and healthy river
- Maintain and enhance a prosperous working harbor
- Create vibrant waterfront districts and neighborhoods
- Embrace the river as Portland's front yard
- Promote partnerships, leadership, and education

The first phase of the River Plan focuses on the North Reach of the Willamette River in Portland (roughly the Broadway Bridge to the Columbia River) and will include a working harbor reinvestment strategy component. Future planning will address the Central City and southern areas of the river.

The River Plan / North Reach will address a broad set of issues related to the Willamette River and its corridor in order to update the Greenway Plan and refine and streamline Portland's zoning code and design guidelines. These topics include:

- **Industry** – reinvestment in labor, land, and infrastructure; river-related/river-dependent definitions
- **Neighborhoods** – North Beach, St. Johns, others.
- **Recreation** – trails, viewpoints, parks, boating.
- **Natural Resources** – habitat conservation and restoration, bank treatment, landscaping, and stormwater management.

PLANNING PROCESS

A key part of the River Plan process is the use of stakeholder task groups. Each group is formed to review and comment on a particular issue area to help ensure that staff considers all aspects of the issues and solutions. The groups are not asked to try to reach consensus but rather to provide staff with information that will help focus on specific issues and provide perspectives on the recommendations. Appendix B to this document describes the work of the Contaminated Sites Task Group.

In addition to input from the task group, staff gathered information for this report from interviews with multiple agency and community stakeholders, including the 25 businesses, property owners, and other industry stakeholders interviewed as part of the Working Harbor Reinvestment Strategy.

2. BACKGROUND

CONTAMINATION IN PORTLAND'S WILLAMETTE GREENWAY

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 docks, rail lines, and a 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 building and demolition
- ship loading, maintenance, and repair
- metal scrapping and recycling
- rail car manufacturing

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

The Oregon Department of Environmental Quality (DEQ) regulates the cleanup of contaminated sites¹ in Oregon. To aid in this pursuit, DEQ maintains an Environmental Cleanup Site Information (ECSI) database

¹ 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, this document will use the term “contaminated sites” to refer in a general sense to any site that is contaminated with hazardous substances and requires further study, monitoring, and/or cleanup before redevelopment or reuse.

to track sites with known or potential contamination from hazardous substances and to document sites where DEQ has determined that no further action is required. The purpose of the ECSI database is to provide information to the public and has no regulatory significance. When a site is remediated and no longer poses a risk to human health or the environment, the site remains in the database and its No Further Action status is logged in ECSI. Retaining such sites in ECSI provides historical or "case-study" information on sites that have been through the cleanup process.

The ECSI should not be confused with lists that do carry regulatory significance, such as the Confirmed Release List (CRL) and the Inventory of Hazardous Substance Sites. The Confirmed Release List contains sites at which contamination has been confirmed. Some sites on the CRL are also on the Inventory of Hazardous Substance Sites, a list of sites where confirmed releases pose threats to human health or the environment and require further investigation/cleanup. These two lists have formal listing and delisting criteria and procedures.

In the spring of 2007 there were about 670 sites in the City of Portland that were included in the ECSI database, about 170 sites on the CRL, and about 120 sites in the Inventory.

According to a dataset derived from DEQ's ECSI database by City of Portland Bureau of Environmental Services GIS technicians, in the fall of 2006 the ECSI included about 145 sites in the Willamette Greenway, 105 of which were in the North Reach. These data are illustrated on *Map 1: Contaminated Sites in the Willamette Greenway*.

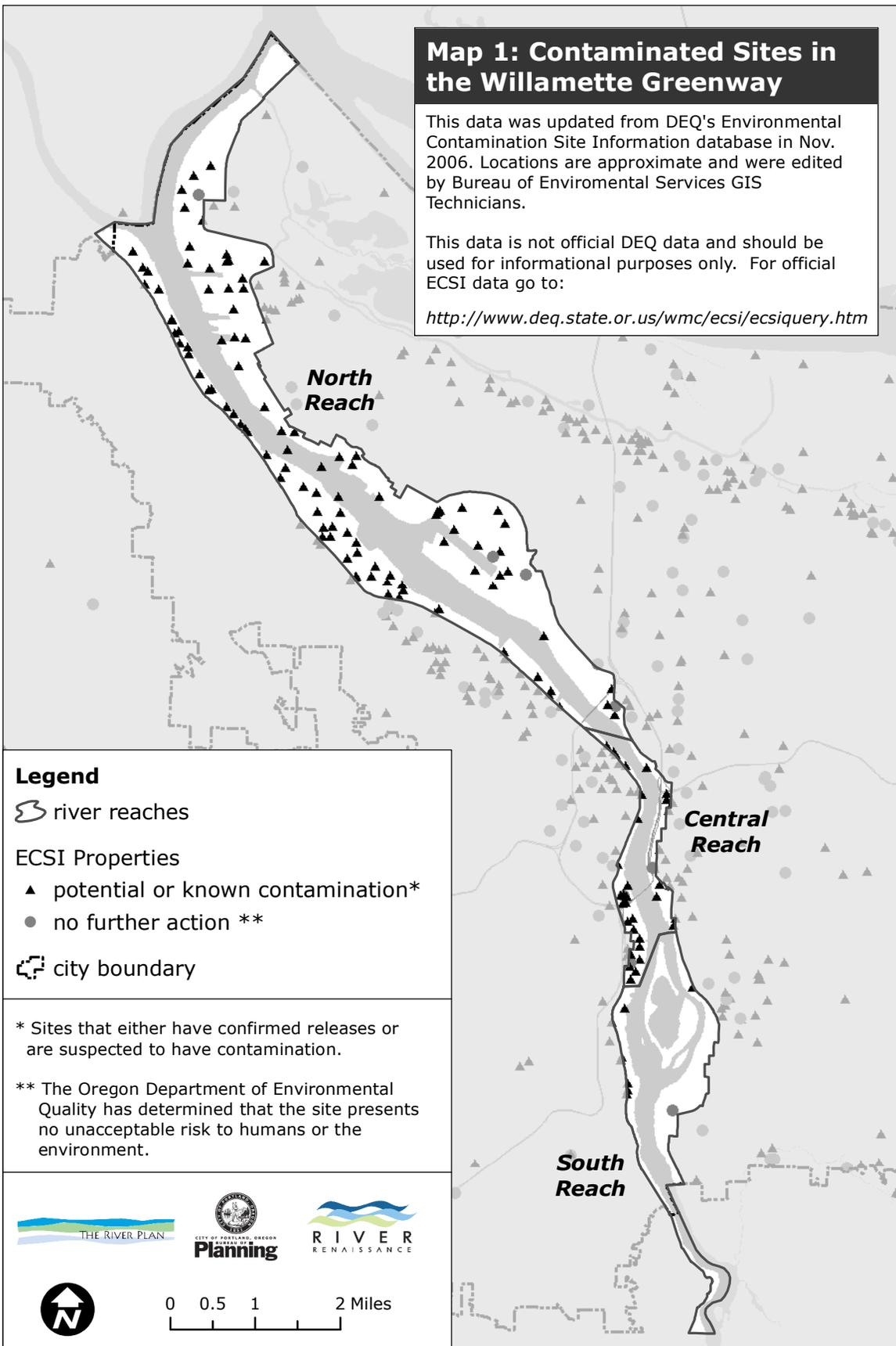
Database / List	Description	Sites in Portland (Spring 2007)	Sites in Willamette Greenway (Fall 2006)
Environmental Cleanup Site Information Database (ECSI)	<ul style="list-style-type: none"> ▪ Tracks sites with known or potential contamination and documents sites where no further action is required ▪ no regulatory significance 	670	145 (105 of which are in North Reach)
Confirmed Release List (CRL)	<ul style="list-style-type: none"> ▪ Contamination has been confirmed ▪ regulatory list 	170	<i>Data unavailable</i>
Inventory of Hazardous Substance Sites (Inventory)	<ul style="list-style-type: none"> ▪ Site poses threat to human health or the environment and requires further investigation and/or cleanup ▪ subset of CRL 	120	<i>Data unavailable</i>

Map 1: Contaminated Sites in the Willamette Greenway

This data was updated from DEQ's Environmental Contamination Site Information database in Nov. 2006. Locations are approximate and were edited by Bureau of Environmental Services GIS Technicians.

This data is not official DEQ data and should be used for informational purposes only. For official ECSI data go to:

<http://www.deq.state.or.us/wmc/ecsi/ecsiquery.htm>



Legend

 river reaches

ECSI Properties

▲ potential or known contamination*

● no further action **

 city boundary

* Sites that either have confirmed releases or are suspected to have contamination.

** The Oregon Department of Environmental Quality has determined that the site presents no unacceptable risk to humans or the environment.



0 0.5 1 2 Miles

THE CLEANUP PROCESS

Contaminated sites are cleaned up using standard processes that are defined by state and federal regulatory authorities. This section briefly describes these processes for the purpose of understanding how they interact with the City's greenway planning process.

DEQ (State) Cleanup Process and Programs

Oregon Revised Statutes (ORS) 465.200 – 465.545 and 465.900 give DEQ the authority to enforce and oversee contaminated site cleanups and to issue a No Further Action determination (NFA). The NFA determination indicates that the cleanup meets Oregon's environmental cleanup laws and that the site presents no unacceptable risk to human health or the environment. The NFA is generally required by banks and lenders, and thus cleanup is often initiated prior to or as part of a real estate transaction.

There are several pathways by which sites are investigated and cleaned up in Oregon:

- Potentially Responsible Parties (PRPs) or interested parties elect to investigate or clean up sites without DEQ knowledge;
- Independent Cleanup Pathway – PRPs or interested parties work independently without ongoing oversight by DEQ on qualifying low or medium priority sites – the party enters into a formal agreement prior to submitting the final cleanup report;
- Voluntary Cleanup Program - PRPs or interested parties voluntarily work with DEQ on low, medium, or qualifying high priority sites through a formal agreement;
- Site Response Program - PRPs are compelled to take action by DEQ, generally on high priority sites, through an enforcement order; and,
- Orphan Program - DEQ performs the investigation and cleanup, generally on high priority sites at which PRPs are unknown, unwilling, or unable to complete cleanup in a timely manner.

Sites cleaned up through the Voluntary Cleanup Program, Site Response Program, and Orphan Program generally follow the process shown in *Figure 1: DEQ Cleanup Process*. In order to receive an NFA from DEQ, the PRPs or interested parties must work under direct oversight by DEQ or through the Independent Cleanup Pathway. Sites which have been cleaned up by PRPs or interested parties without DEQ knowledge are not eligible for an NFA unless they sign a letter agreement with DEQ, allowing DEQ to review work done and evaluate whether the site presents no significant risks to human health or the environment (assuming such an evaluation is possible).

Cleanups Under DEQ Oversight Must Comply with Requirements but not Process

The Oregon Legislature has granted what is known as a "permit waiver" to cleanups that are conducted under DEQ oversight. ORS 465.315(3) states that while such cleanups must meet the requirements of state and local regulations, they need not obtain any state or local permits, licenses, or other authorizations. The person performing the cleanup must notify the government agency of the procedural requirements that are waived and pay any applicable fees.

Cleanups that proceed through DEQ's Voluntary Cleanup Program, Site Response Program, or Orphan Program qualify for the permit waiver. Cleanups that occur without DEQ's knowledge or direct oversight, including those under the Independent Cleanup Pathway, do not qualify for the permit waiver and must comply with all City of Portland requirements and processes.

Remedy Selection

DEQ uses a risk-based approach to cleanup, which means that cleanup levels depend upon the unique site conditions and are determined by the current and reasonably anticipated future land uses in the locality of

the property. When choosing a remedial design, the most important criterion is whether it is protective of public health, safety, welfare, and the environment. This standard applies to all cleanups. When DEQ assesses cleanup alternatives for sites that proceed through the Voluntary Cleanup Program, Site Response Program or Orphan Program, DEQ must consider two other sets of criteria when making its decision. First, the remedies are evaluated against the following balancing factors:

- Effectiveness
- Implementability
- Long-term reliability
- Implementation risk
- Reasonableness of cost

Second, the remedies are evaluated against their ability to treat “hot spots of contamination” to the extent feasible. When the contamination does not qualify as a hot spot under cleanup law, there is a preference for choosing the least expensive cleanup option that will protect human health and the environment.

EPA (Federal) Cleanup Process

Although most cleanups that occur in the Willamette River Greenway are conducted under State authority, there have been several Superfund sites in the North Reach, including Gould Electronics, McCormick & Baxter, and currently the Portland Harbor Superfund site.

Superfund Cleanup Process

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, provides broad Federal authority for the Environmental Protection Agency (EPA) to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. The federal cleanup process used by EPA at Superfund sites is similar to the state process used by DEQ (see *Figure 2: Superfund Cleanup Process*). After the site is added to the National Priorities List, a Remedial Investigation and Feasibility Study (RI/FS) are completed to evaluate cleanup alternatives and recommend a preferred remedy.

When possible, PRPs complete the work under EPA oversight. If viable PRPs cannot be located, EPA will do the work. In some cases, such as at McCormick and Baxter, EPA may delegate the lead authority for cleanup to DEQ. When the RI/FS is completed, EPA issues a Proposed Plan for public comment. After public comments are incorporated, EPA issues a Record of Decision (ROD). Following the ROD, the cleanup remedy is designed and then implemented. After construction is complete, there are long-term actions that take place to ensure protection of human health and the environment, including institutional controls, operation and maintenance, long-term response actions, five-year reviews, and remedy optimization. When all cleanup goals have been met, EPA may delete the site from the National Priorities List.

Cleanup Options

There are three main ways to address contamination. The optimal cleanup solution depends on site conditions, the nature and extent of the contamination, the cleanup standard, and other factors. The remedial action frequently incorporates more than one of these technologies.

- *Removal*—excavate or dredge the contaminated material and dispose of it in a landfill.
- *Containment*—isolate the contaminated material to ensure it cannot come in contact with humans and the environment. Includes capping and barrier walls.
- *Treatment*—reduce the level of contamination or the amount of contaminated material through a variety of techniques, including monitored natural attenuation, bioremediation, incineration, or pump and treat.

Applicable or Relevant and Appropriate Requirements (ARARs)

Cleanup actions conducted under federal CERCLA legislation are required to comply only with federal and state laws that are determined to be Applicable or Relevant and Appropriate Requirements (ARARs). Generally, ARARs are limited to federal environmental laws and more stringent state environmental or facility siting laws, but other local or regional requirements may be submitted to EPA for consideration as ARARs. State laws and local regulations that are not determined to be ARARs may be classified as “To Be Considered” material and may have some influence over the final remedy.

Remedy Selection

Similar to DEQ, EPA uses a risk-based approach to cleanup. EPA selects the final remedy based on nine criteria. The first two are threshold criteria that the alternative must meet:

- Overall protection of human health and the environment
- Compliance with ARARs

The next five criteria are balancing criteria that are evaluated:

- Long-term effectiveness and permanence
- Reduction of toxicity, mobility or volume through treatment
- Short-term effectiveness
- Implementability
- Cost

The last two criteria are modifying criteria:

- State acceptance
- Community acceptance

In addition, EPA has a preference for the treatment or removal of “principle threats,” which are similar to “hot spots” under DEQ regulations.

Removal Actions

Removal actions are taken in response to a release or threat of release of a hazardous substance that may present an imminent and substantial danger to the public health or welfare. There are three kinds of removal actions:

- *Emergency Response:* When there is a spill or release of a hazardous substance, coordinators on the scene must rapidly assess the situation and determine appropriate cleanup actions. The removal complies with ARARs to the extent practicable, given the urgency of the situation.
- *Time Critical Removal:* A removal falls into this category if the planning horizon is less than six months and the cleanup cost is relatively low. In this case the decision of how to proceed with cleanup is made based on the administrative record (the existing information about the site). There is a 30-day public comment period on the administrative record, then EPA issues an action memo explaining the work that will be conducted on the site.
- *Non-Time Critical Removal:* When there are more than six months before work must begin, EPA prepares an Engineering Evaluation and Cost Analysis (EE/CA). The EE/CA is similar to but not as comprehensive as an RI/FS. The EE/CA also lays out alternatives and recommends a preferred alternative. After a 30-day public comment period on the EE/CA, EPA issues an action memo and work begins.

Portland Harbor Superfund

In 1997, DEQ and EPA conducted a joint study of near-shore river sediments in the Portland Harbor area and found sediments throughout the harbor to be contaminated with various toxic compounds, including metals, petroleum hydrocarbons, polychlorinated biphenyls (PCBs), chlorinated pesticides (including DDT) and dioxins. On December 1, 2000, the Portland Harbor site was added to EPA’s National Priorities List and became a Superfund site. The initial study area was described as the Willamette River between Swan

and Sauvie islands. Following initial investigations, the study area was expanded to river miles 2-11, from the Fremont Bridge to the Oregon Steel site.

Following the listing, notice letters were sent to 69 PRPs. Ten of these parties entered into a voluntary legal agreement with EPA to complete the Remedial Investigation and Feasibility Study (RI/FS) under EPA oversight. These PRPs, known informally as the Lower Willamette Group (LWG), include Arkema/Legacy Site Services (Atofina), Chevron USA, ConocoPhillips, Gunderson, Northwest Natural, Oregon Steel Mills, Time Oil, Union Pacific Railroad, the Port of Portland and the City of Portland (represented by the Bureau of Environmental Services). The City of Portland is a PRP because of the historical potential for the City stormwater collection system to carry contamination from upland drainage basins to the river.

A Memorandum of Understanding (MOU) specifies that EPA leads the in-water investigation and cleanup and DEQ leads upland cleanup and source control actions. Currently DEQ is investigating over 50 upland sites to determine the sources of contamination to the Harbor sediments. A map showing the status of each of the upland sites and linking to further information about the individual sites can be accessed online at <http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/docs/PortlandHarborMap.pdf>. The MOU also provides for coordination with the natural resource trustees, who are designated by law to act on behalf of the public and the Tribes to protect and manage natural resources. The natural resource trustees include six tribal governments and five state and federal agencies.

Early Actions are removal actions that are conducted before the ROD is issued. EPA is currently working with property owners on early actions on three sites in the Portland Harbor—Gasco, Port of Portland's Terminal 4, and Arkema.

A preliminary list of potential ARARs has been compiled for the Portland Harbor site. The final list of ARARs will be determined by the EPA in consultation with the City and others when the ROD is issued.



Figure 1: DEQ Cleanup Process

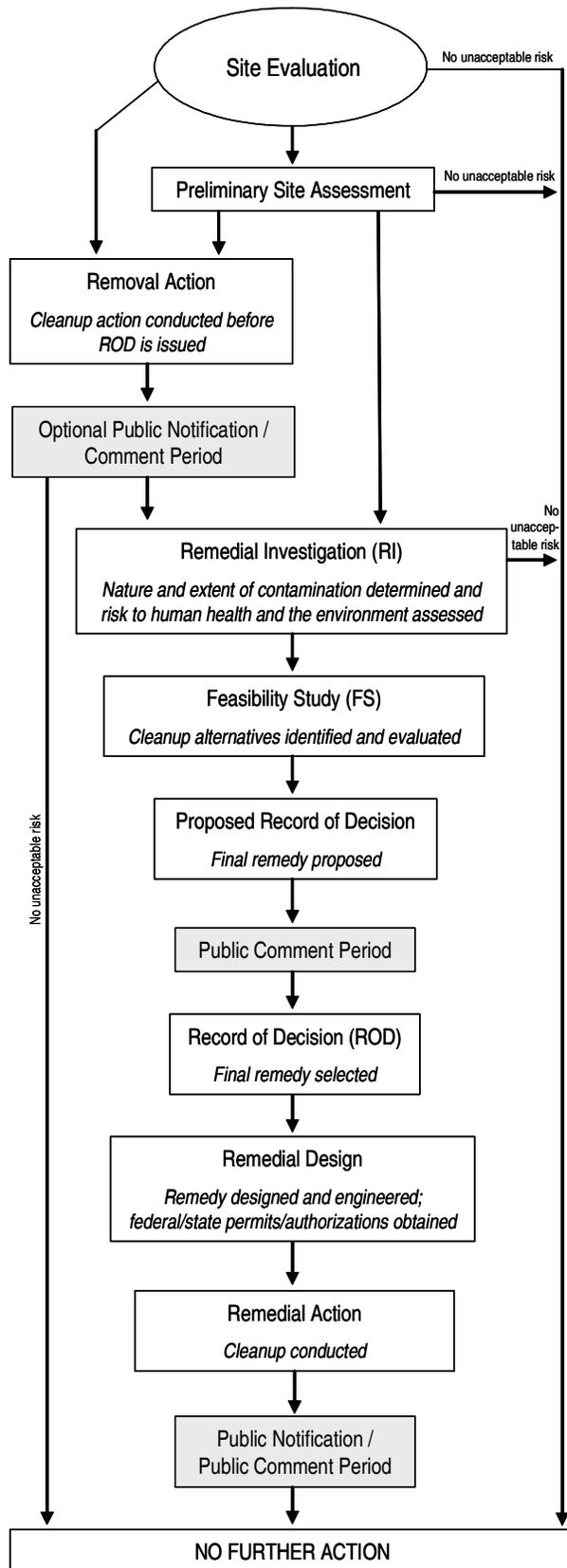
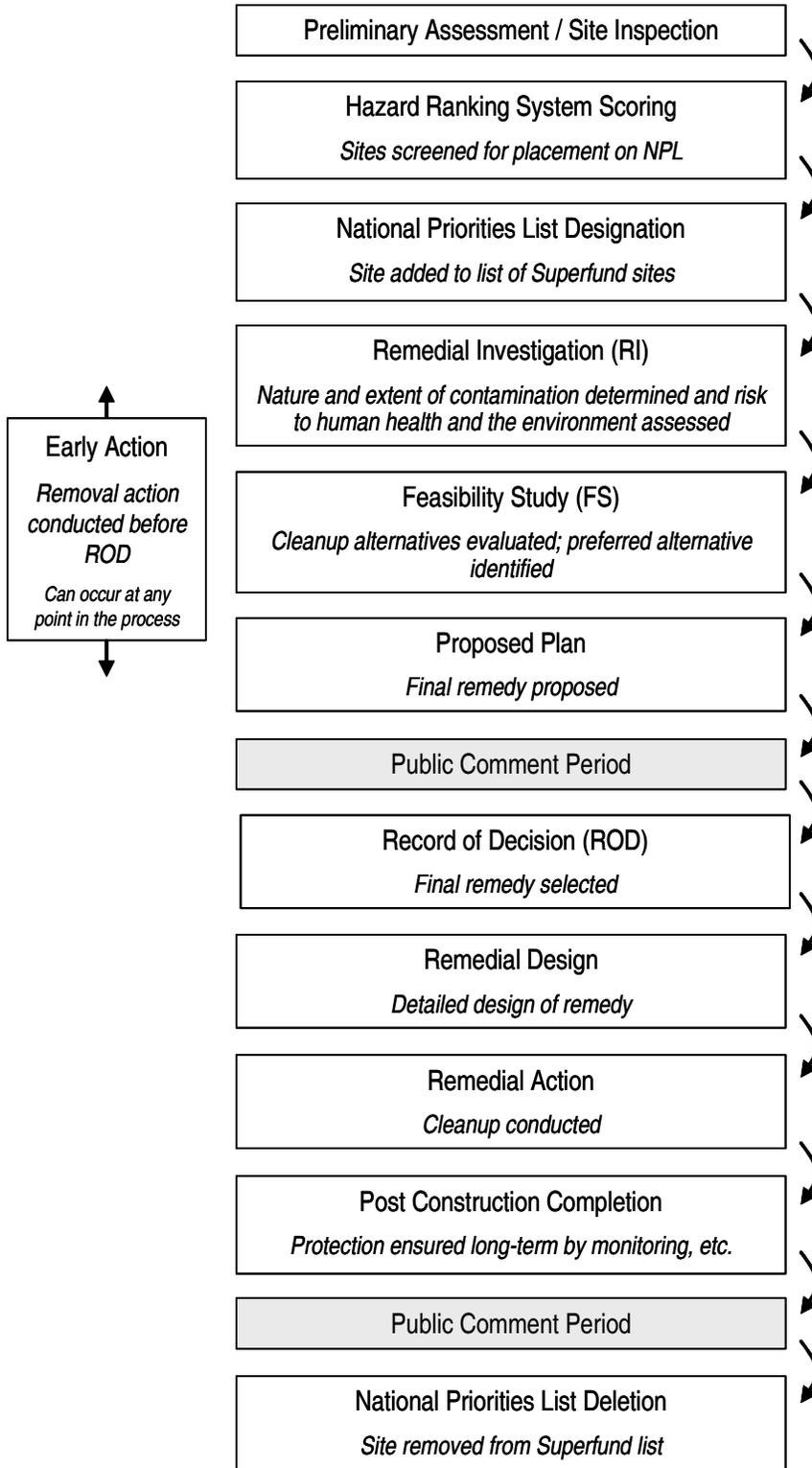


Figure 2: Superfund Cleanup Process



3. ISSUES

This section covers the issues that agencies, property owners, and other stakeholders identified with regard to City involvement in the cleanup process in the Willamette River Greenway.

GREENWAY PRIORITIES

Contamination is a difficult problem for the City of Portland, owners of property along the Willamette River and the community as a whole. Concerns about potential liability and the risks posed by contamination means that many properties will likely remain vacant or underutilized until the ROD is established for the Portland Harbor Superfund site.

Existing City policy related to the river generally and contamination specifically has been expressed through various City Council actions:

- In 1987 the City Council adopted the Willamette Greenway Plan and implementing tools. The overall policy direction states: *“to protect, conserve, maintain, and enhance the scenic, natural, historical, economic, and recreational qualities of lands along the Willamette River.”*
- In 1992 the City Council passed Resolution 35036 acknowledging and endorsing the State’s Lower Willamette River Management Plan.
- In 2001 the City Council endorsed the River Renaissance Vision that established five themes: *Ensure a Clean and Healthy River; Maintain and Enhance a Prosperous Working Harbor; Create Vibrant Waterfront Districts and Neighborhoods; Embrace the River as Portland’s Front Yard; and, Promote Partnerships Leadership and Education.*
- In 2001 the City Council passed Resolution 35962 establishing BES as the lead agency for the Portland Harbor Superfund site and stating the City’s significant interest in *“ensuring that the Willamette River and Portland Harbor are restored to a condition that is protective of human health and the environment in a timely and cost-effective manner”*
- In 2006 the City Council endorsed the River Concept as guidance for the River Plan. It states that the North Reach of the Willamette River is *Portland’s Working Waterfront: The North Reach will continue to provide Oregon with access to global markets and support the region’s economy as a West Coast distribution hub and a heavy industrial area. Environmental cleanup, recreational access, and watershed health actions will contribute to the harbor’s long-term vitality.* The document also states that *“contaminated sites will be cleaned up to protect human health and the environment, and restoration projects will reestablish natural function.*

As this policy direction indicates, it is important to the City that contaminated sites are cleaned up. However, the City’s current goals for the Willamette Greenway tend to be broader than those of DEQ and EPA. The state and federal agencies’ priorities for a cleanup site give great weight to the adequacy, cost, and feasibility of a remedy and may not be aligned with other City and River Renaissance priorities, including the following:

- **Economic Vitality:** Certain cleanup actions can affect the potential for a site to be redeveloped for an industrial use. For example, the cap at the Gould Electronics Superfund site forms a 5-foot high mound that renders industrial reuse difficult and expensive. In the Portland Harbor, in-water caps may make river-dependent industry infeasible due to restrictions against docks and dredging. Portland’s river industrial zoning currently requires that new uses on the riverfront be river-dependent or river-related, which generally means they must rely on docks and perform maintenance dredging.

- **Natural Resources:** Cleanup actions can affect riparian and upland habitat and sensitive natural areas.
- **Bank Design:** Armoring the bank or installing a barrier wall to contain pollutants may conflict 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.
- **Flood Storage:** Cleanup actions involving caps may increase the amount of fill within the 100-year floodplain, violating the City's balanced cut and fill regulations. Nonconformance with the City's balanced cut and fill requirements could result in floodrise increases within the Willamette River. In addition, Portland's balanced cut and fill requirements contribute to the credit Portland receives for adopting standards above the National Flood Insurance Program (NFIP) minimum regulations. As a result of this credit, Portland property owners with flood insurance currently receive a 20% reduction in flood insurance premiums.
- **Scenic Quality:** One purpose of greenway regulations and review is to ensure that development will conserve, enhance, and maintain the scenic qualities and natural habitat of lands along the river. City staff has found in greenway review cases that a variety of common cleanup actions may compromise the scenic qualities of the Willamette Greenway. Examples include: monitoring wells, access roads, security fences, above ground piping, sheds, bank armoring, installation of bulkheads, and removal of vegetation during excavation.

PROCESS AND INTERAGENCY COORDINATION

Cleanups under DEQ Oversight are Exempt from City Processes

Oregon law recognizes the unique goals and constraints of cleanup actions, and thus exempts responsible parties from obtaining permits and complying with procedural aspects of State and local regulations as long as the cleanup actions are conducted under DEQ oversight. Because many of the City's Greenway requirements are determined through a discretionary review process, it is difficult for the City, the party performing the cleanup, and DEQ staff to determine the substantive (non-procedural) requirements unless the complete review is conducted. To address this, the City has developed an "exempt" process for cleanups conducted under DEQ oversight. However, the "exempt" process has not solved the inherent inconsistencies between State and City regulations. There are several difficulties, including:

- **Greenway Regulations Lack Clear and Objective Substantive Requirements.** The State cleanup process requires responsible parties to follow the substantive requirements of local regulations, but the City's greenway regulations do not contain easily identifiable clear and objective standards that are specific to cleanup activities.
- **City Input Occurs Too Late in the Cleanup Process.** Currently, the City doesn't provide input on the cleanup until the permitting stage, which occurs very late in the cleanup process. By the time a project is being permitted, the project plans and specifications are nearly complete, the party performing the cleanup has invested time and resources in designing the final remedy, and any changes will delay the project and increase cost. Often it is at this point in the process that PRPs become aware of the City's greenway requirements.

Cleanups under CERCLA law only address State and Federal regulations designated as ARARs

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).

Interjurisdictional Conflicts

Greenway requirements can conflict with those of other Federal and State agencies. For example, concern about visible monitoring wells affecting the scenic quality of the greenway may conflict with Oregon Water Resources Department rules to protect groundwater, and planting requirements may conflict with long-term DEQ institutional controls against perforating a cap.

Development Standards

The temporary nature of cleanup differentiates it from other development projects. It raises the question: When should development standards, such as landscaping, be triggered? Landscaping planted during an investigation or cleanup may be torn out during the remedial actions or during redevelopment of the property. On the other hand, it could take years for landscaping to be planted if it is deferred until cleanup is complete or until redevelopment of the property occurs.

4. RECOMMENDATIONS

River Plan staff is proposing the following changes to requirements and process in order to:

- Improve coordination between the City and DEQ and EPA on cleanup matters
- Reduce regulatory barriers to cleanup of contaminated sites in and along the Willamette River
- Achieve cleanup solutions that meet the City's goals for the greenway

The staff recommendations are organized into three categories: those recommendations that are meant to improve the cleanup process for PRPs, recommendations that will provide clarity for the new River Plan code, and recommendations specific to the Portland Harbor Superfund cleanup. Figures 3 and 4 summarize the City involvement that is being proposed for DEQ and Superfund cleanup processes.

IMPROVE PROCESS

Two-Track Process with Standards for Cleanup Activities

Recommend that the City create a two-track review process for cleanup activities. The City should create a set of standards that supports the City's goals for the Willamette River Greenway and allows most cleanups to avoid review. Developing these clear, substantive requirements will ensure that PRPs whose cleanups are exempt from City process can understand and comply with greenway requirements.

Recommend that cleanups under DEQ oversight meet these standards or participate in a consultation with City staff to explain why the standards cannot be met. In the case of an independent cleanup proceeding without oversight by DEQ or EPA, the property owner would have to apply for a permit and show that the cleanup will meet the standards. If the standards cannot be met, the property owner would go through a greenway land use review.

Submit Regulations as ARARs

Recommend that the City submit the revised Willamette Greenway Plan (River Plan), zoning code, and other relevant regulations and policies to EPA for consideration as ARARs and To Be Considered material for the Portland Harbor Superfund cleanup. The City should ensure that the information submitted illustrates and explains all of its goals for the Willamette Greenway, including those relating to retention and

support of heavy industry and river-dependent industry, protection of riparian and upland habitat, preservation and enhancement of the natural and vegetated bank, and maintenance of the greenway setback.

Educate Property Owners

Recommend creation of a guidance document to help applicants understand the River Plan regulations and process. Recommend that the City work with DEQ to distribute the document to potentially responsible parties as early as possible in the cleanup process.

Comment Early and Often

Recommend that the City continue to review and comment on cleanups under DEQ and EPA oversight during the review periods they provide. Recommend that the City allocate funding and staff time for commenting on cleanup activities.

and

Recommend that the City establish an agreement or memorandum of understanding with DEQ that states that DEQ will notify the City of cleanups early in the process and prior to start of construction and that the City will provide comments early in the cleanup process.²

and

Recommend that the City work with DEQ to establish a best practice of early consultations for complex cleanups. This consultation should occur before the cleanup alternatives are determined and analyzed.

and

Recommend that BES establish a clear procedure for soliciting and consolidating comments from the other City bureaus on Portland Harbor cleanup activities so that the City continues to speak with one voice and can more effectively achieve its goals in the Portland Harbor.

Solutions for Interjurisdictional Conflicts

Recommend that the City allow flexibility in the application of the new River Plan regulations if necessitated by requirements from other agencies.

and

Recommend the City expand its Streamlining Team to help private applicants address interjurisdictional permitting conflicts.

² Any agreement should be integrated into the existing intergovernmental agreement between DEQ and the City which governs interactions relating to Portland Harbor Superfund source control.

Figure 3: City Involvement in Cleanups Conducted under DEQ Oversight

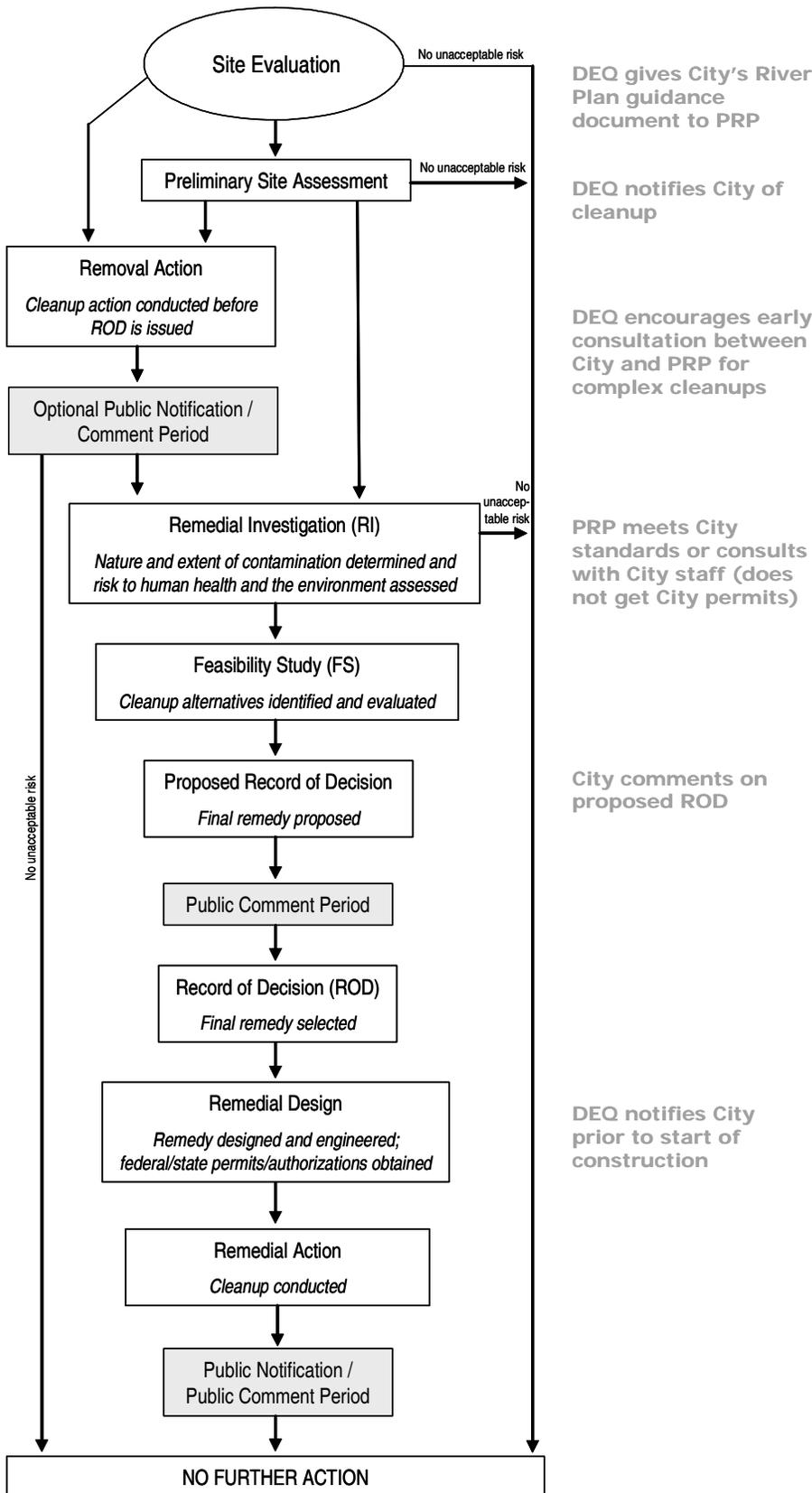
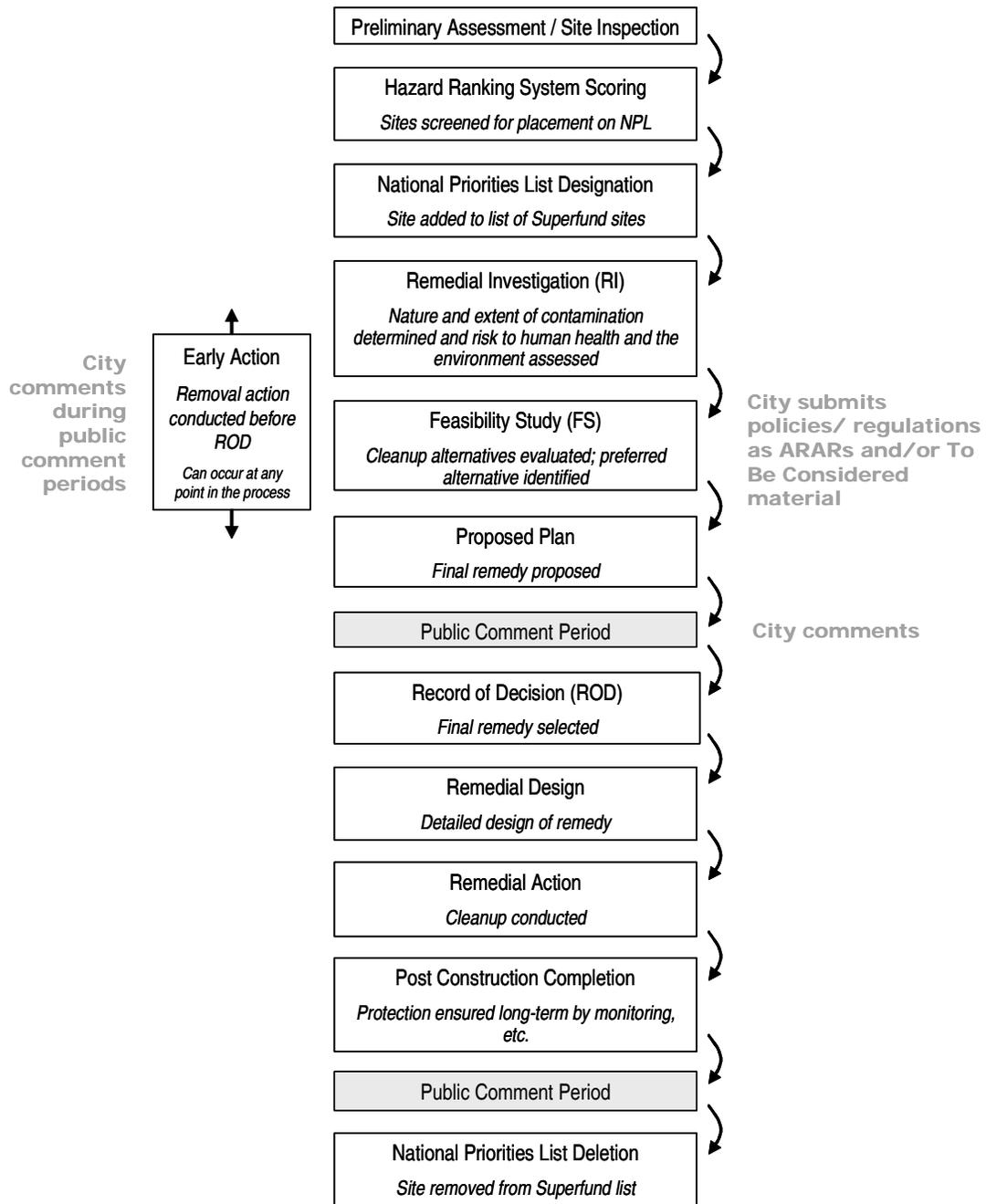


Figure 4: City Involvement in Portland Harbor Superfund Cleanup Process



ESTABLISH GUIDANCE FOR CLEANUP

Staff have heard that the Willamette Greenway Plan, code and guidelines, along with other City regulations that are frequently triggered by contaminated site cleanup in the Willamette River Greenway, are not clear and do not provide adequate direction specific to cleanups. The table below contains River Plan staff's recommendations for river-related topics and regulations as they relate to contaminated site cleanup.

The goal is to find ways to achieve the City's objectives during cleanups without impeding the cleanup process. One way to achieve this goal is to develop clear, non-discretionary, substantive standards which the party conducting the cleanup can incorporate into the project design without the need to consult with City staff, thereby minimizing the number of proposals that must go through a discretionary review process. Many of these recommendations can be implemented through standards. See Appendix A for a list of standards explored by the Contaminated Sites Subcommittee.

Recommendations for Contaminated Site Cleanup in the Willamette River Greenway	
Greenway Setback	<ul style="list-style-type: none"> ▪ Placement of permanent buildings and structures within or riverward of the greenway setback should be avoided.
Greenway Trail	<ul style="list-style-type: none"> ▪ Dedication and development of the greenway trail should not be required as a result of a contaminated site cleanup. ▪ Development associated with a contaminated site cleanup should not preclude future development of the greenway trail on sites with the trail designation.
Natural Resources	<ul style="list-style-type: none"> ▪ Disturbance to identified natural resource areas should be avoided where possible, necessary disturbance should be minimized, and lost habitat functions should be restored or mitigated.
Bank Design	<ul style="list-style-type: none"> ▪ Activities associated with contaminated site cleanup should not trigger compliance with greenway landscaping standards or guidelines. ▪ Cleanup activities that involve significant disturbance to the bank should trigger a requirement to enhance the riparian habitat on the portion of the bank where the work takes place. To this end, the slope of the bank should be shallow enough to allow it to be stabilized by vegetation. ▪ Staff should continue to work with other agencies and stakeholders to develop bank treatments that address the City's goals and expectations for the riverbank. Designs should be drafted for excavations of various sizes as well as situations that typically require caps, barrier walls, and other types of bank armoring.
Economic Vitality	<ul style="list-style-type: none"> ▪ When a site is zoned Industrial, the development associated with a contaminated site cleanup should not preclude the future use of the site for industrial purposes. Generally, this requires that the site contain a large, flat developable area and that access to loading docks, rail, pipeline, and moorage dredging is retained. ▪ Representatives from the Portland Development Commission and BES should continue to meet with EPA and DEQ to develop strategies for supporting the cleanup and redevelopment of vacant industrial sites in Portland's harbor.

Scenic Quality	<ul style="list-style-type: none"> ▪ Temporary structures, buildings, and cleanup activities should not trigger any standard or guidelines associated with maintaining or enhancing the scenic qualities of the Willamette River Greenway. ▪ River Plan staff should initiate discussions with other City staff and stakeholders to review the City’s interpretation of the State Planning Goal 15 requirement to preserve identified scenic qualities and viewpoints. The City should clarify the scenic qualities it wishes to protect in the North Reach. In its discussion, the City should consider the difficulty of regulating scenic quality below Ordinary High Water, given the manifold competing concerns and priorities for the area and the other regulating agencies involved.
Flood Storage	<ul style="list-style-type: none"> ▪ In the industrial North Reach, finding land suitable to cut can be challenging. The City should explore developing a program to facilitate off-site balancing for filling on-site. ▪ Stakeholders have raised questions regarding whether filling in the North Reach has any impact on flood rise. Staff should work with Metro and other technical experts to evaluate eliminating the balanced cut and fill requirements for the Lower Willamette.*
Upgrading Nonconforming Development	<ul style="list-style-type: none"> ▪ The value of contaminated site cleanup should not be counted toward the threshold that triggers a requirement to upgrade development that does not meet certain development standards.** ▪ When expansion or alteration of existing development is planned in tandem with a cleanup, the value of the expansion or alteration should continue to count toward the threshold that triggers upgrades to nonconforming development.
Other City Goals	<ul style="list-style-type: none"> ▪ Planning staff should convene a discussion between other City agencies and DEQ for the purpose of facilitating the development of clear and objective standards related to stormwater management, erosion control, impacts to nearby communities, infrastructure, etc.

**Several members of the task group argued that the best solution for balanced cut and fill is to eliminate the requirement altogether in the Lower Willamette. River Plan staff will explore this with Metro and others but it may be a long-term process. In the meantime, facilitating off-site compliance with balanced cut and fill may relieve some of the burden on property owners.*

***These standards include parking lot landscaping, pedestrian connections, bike parking, etc.*

5. NEXT STEPS

This document will provide guidance for River Plan staff to consider during the summer and fall 2007 when staff develops a comprehensive River Plan / North Reach proposal. There are a number of issues that will be explored by River Plan staff. These include the following:

- **Off Site Mitigation:** The conservation/mitigation bank task group will be evaluating off-site approaches for satisfying habitat and other planting requirements, as well as balanced cut and fill requirements.
- **Balanced Cut and Fill:** River Plan staff will convene a group of experts to seek ways to improve the implementation of the balanced cut and fill regulations and to evaluate eliminating the requirement for the Lower Willamette.
- **Future Land Uses in the North Reach:** The cleanup standard in the Portland Harbor may depend upon the expected nearby land uses. Anticipated future land use affects the risk levels deemed acceptable and therefore the cleanup standards that must be achieved. The City will play an important role in helping determine the cleanup standard, in part by establishing the future zoning for the sites along the river. The River Plan team will assess this issue and may recommend some changes to zoning in the North Reach. Other factors, such as proximity of recreational activities, will be discussed as needed by City staff.
- **Greenway Requirements and Liability Concerns:** One stakeholder has expressed concern that planting and other requirements that involve disturbing the soil on the bank could make property owners vulnerable to liability. The River Plan team will explore this issue.
- **Land Divisions:** The potential liability for the Portland Harbor Superfund in-water cleanup presents challenges for property owners trying to sell their riverfront property. One of the strategies property owners have adopted to make potential purchasers more secure is to perform a land division that separates the riverfront property from the rest of the site. The new lots are not directly linked to the river. However, because the new lots do not have river frontage, they are not required to be used for river-dependent industry. The River Industrial Zoning Task Group will discuss this loophole in City code.



APPENDIX A: POTENTIAL STANDARDS DISCUSSED BY TASK GROUP SUBCOMMITTEE

A subcommittee of the task group was convened twice to have a more in-depth conversation about the issues raised during the cleanup process. The group suggested potential standards to support the City's priorities in the greenway. These standards are not recommended by River Plan staff at this time, but will be reviewed and considered as the development of the River Plan / North Reach continues.

Greenway Setback and Greenway Trail

No permanent buildings in the setback.

Natural Resources

1. No removal of trees over 6 inches in diameter.
2. Disturbed areas must be replanted with native herbaceous vegetation.
3. No ground disturbance that covers an area greater than 10,000* square feet.
4. If temporary roads are built, all non-soil material must be removed.
5. No disturbance of wetlands and streams.

Bank Design

1. No increasing the grade of the bank.

Scenic Quality

1. Permanent monitoring wells above Ordinary High Water shall be flush-mounted if practicable and if allowed by the Oregon Department of Water Resources.
2. Permanent monitoring wells and any risers and bollards above Ordinary High Water that are not flush-mounted shall be painted brown if allowed by the Oregon Department of Water Resources.

**The subcommittee did not settle on an exact threshold that should trigger City consultation or review, but discussed a range from 5,000 – 20,000 square feet.*

APPENDIX B: SUMMARY OF TASK GROUP NOTES

Meeting 1 November 30, 2006

At the introductory meeting, the task group members reviewed task group purpose and schedule and discussed the issues with cleanup of contaminated sites in the Willamette River Greenway that staff had identified thus far. Three presentations helped to orient the task group members to these issues. The presentations outlined the EPA and DEQ cleanup processes and the unresponsiveness of the Greenway Code to contaminated site issues. Following the presentations, the task group members reviewed and discussed the issues identified in the *Summary of Issues Related to Contaminated Site Cleanup in the Willamette River*.

Meeting 2 December 11, 2006

The second meeting began with a brief overview of Willamette Greenway Plan, Code & design guidelines and how they relate to hazardous material cleanup activities. Discussion ensued with suggestions for improving the Code and the Greenway Review process to facilitate cleanup and reuse of contaminated sites.

Meeting 3 January 11, 2007

Greenway Review Case studies were presented to show whether and how City involvement through Greenway Review added value to the determination of appropriate cleanup processes. A subsequent presentation on the DEQ cleanup process for McCormick and Baxter touched on these same issues. The task group continued to discuss and refine the issues presented in a *Revised Summary of Issues Related to Contaminated Site Cleanup in the Willamette River*. During this discussion it was suggested a subcommittee be formed to distill the issues and report back to the larger committee with recommendations.

Meeting 4 January 25, 2007

The task group continued to refine the issues and discussed solution concepts related to the appropriate role for the City in cleanup processes and redevelopment, and how to address balanced cut and fill and interjurisdictional challenges. Potential code changes were also discussed. At the conclusion of the meeting the subcommittee was formed and charged with refining the issues and identifying solutions.

Subcommittee Meetings February 8 and 15, 2007

The subcommittee met twice and discussed the goals that the City has for the Greenway. The subcommittee suggested changes to the cleanup process that could help support City goals. In some cases, specific standards were suggested.

Meeting 5 February 22, 2007

The results of the subcommittee were presented to the task group, including the best identified approaches for meeting the City's goals. The discussion focused on habitat protection standards, bank design, future economic vitality of contaminated sites, scenic quality concerns, stormwater management, community impacts and infrastructural concerns. Draft recommendations from staff based upon the work of the subcommittee and full task group were also reviewed and discussed. This feedback informed the development of the *Draft Contaminated Sites Task Group Report*.

Meeting 6 March 22, 2007

Task group members discussed and commented on the *Draft Contaminated Sites Report & Recommendations*. Task group members also discussed the issue of demolition, which frequently precedes cleanup. Stakeholders have indicated that going through greenway review for demolition is an unnecessary expense. Task group members indicated that demolition should be treated like any other cleanup activity and be subject to the standards and processes recommended in this document.