Scoping Report for the Lower Duwamish River Draft Restoration Plan and Programmatic EIS Development

October 2007

Prepared by
National Oceanic and Atmospheric Administration

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I. Introduction

Background

Under the Comprehensive Environmental Response, Compensation and Liability Act, (CERCLA), 42 U.S.C. Section 9601 *et seq*., parties responsible for releasing hazardous substances into the environment (Potentially Responsible Parties or PRPs) are liable both for the costs of responding to the release (by cleaning up, containing or otherwise remediating the release) and for damages arising from injuries to publicly owned or managed natural resources resulting from the release. Natural resource damage assessment (NRDA) is the process of assessing the nature and extent of the resulting injury, destruction or loss of natural resources and the services they provide. NRDA also includes the process of determining the compensation required to make the public whole for such injuries, destruction or loss. CERCLA authorizes certain federal and state agencies and Indian tribes to be designated as Trustees for affected natural resources. Under CERCLA these agencies and tribes are authorized to assess natural resource injuries and to seek compensation from responsible parties, including the costs of performing the damage assessment. Trustees are required to use recovered damages only to restore, replace or acquire the equivalent of the injured or lost resources.

For the Lower Duwamish River (LDR) the natural resource trustees (Trustees) include the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), U.S. Department of the Interior, Fish and Wildlife Service, Washington State Department of Ecology, Washington Department of Fish and Wildlife, Suquamish Tribe of Indians, and the Muckleshoot Tribe of Indians. There have been numerous releases of hazardous substances in the LDR that have resulted in natural resource injuries. Information gathered as part of the Environmental Protection Agency (EPA) and Washington State remedial investigation process shows that releases of a number of hazardous substances have contaminated extensive areas of the LDR. Studies completed in the Duwamish and at other contaminated sites and existing scientific literature provide strong evidence that the level of contamination from a number of hazardous substances has harmed the organisms that inhabit the estuarine sediments in the LDR, as well as fish and wildlife that come into contact with the contaminated sediments or that eat contaminated prey items.

Proposed Action

Pursuant to 43 CFR Part 11.81, the Trustees are authorized to develop restoration plans as part of their mandate to restore, replace or acquire the equivalent of natural resources and services injured by hazardous substances, and to compensate for interim losses of such resources and services. To streamline the NRDA process and provide a systematic approach to restoring injured natural resources in the LDR, the Trustees are developing a Draft Restoration Plan and Programmatic Environmental Impact Statement (Draft RP/PEIS) before a full assessment of the natural resources injuries and determination of liability has been made. The Final RP/PEIS will provide a framework and procedures that will enable the Trustees to select and implement projects in the LDR that compensate for injured resources and that maximize ecological benefit for the defined region as a whole, consistent with CERCLA NRDA requirements. The RP/PEIS will also identify and address the environmental impacts that could result from construction and maintenance of selected restoration projects. Following the RP/PEIS, the Trustees will use recovered damages to restore, replace or acquire the equivalent of the injured or lost resources.

In addition, at the discretion of the Trustees, PRPs may implement restoration consistent with the RP/PEIS, with Trustee oversight.

Action Area

The Trustees define LDR as the area of salt water intrusion, which is approximately from North Winds Weir down to the mouth of the River. Within the geographic area of the LDR are two National Priorities List (NPL) sites Lower Duwamish Waterway and Harbor Island, which also contain Resource Conservation and Recovery Act areas. EPA's remediation and clean-up process is focused within the boundaries of these two NPL sites. The trustees have expanded the NRDA restoration process beyond the immediate NPL sites to include the full extent of salt water intrusion up to North Winds Weir. This expansion will allow the Trustees to maximize benefits to injured resources.

The Draft RP/PEIS will focus on restoration projects that address natural resources injuries within the LDR. While it is anticipated that a majority of the restoration projects will be conducted within this area, restoration projects that are outside of the reach, but have direct benefits to the injured natural resources, may also be considered and ranked within the planning process. Restoration planning will focus on providing benefits to juvenile Chinook salmon (as surrogate for anadromous fish species), English sole (as surrogate for marine fish species), and migratory and residential birds.

IV. Public Participation Process

Notice of Intent and Scoping Process

As part of the process to develop the Draft RP/PEIS, NOAA, on behalf of the LDR Trustee Council, solicited the input of stakeholders and the public on the scope and scale of the Draft RP/PEIS. NOAA began the formal scoping process by publishing a Notice of Intent in the *Federal Register* on May 25, 2007 (79 FR 29304). NOAA also released public notices about the scheduling of two public meetings for June 6th and June 7th; these notices were sent though e-mail distribution lists on May 21st and published in the Seattle Times newspaper from May 21 through the 23rd. Both through the Notice of Intent, and the public meetings, NOAA requested written comments from the public regarding potential environmental concerns or impacts, additional categories of impacts to be considered, measures to avoid or lessen impacts, and suggestions on restoration priorities and projects.

At the two public meetings NOAA, as the Lead Administrative Trustee, gave presentations on the NRDA process, the process for developing a Draft RP/PEIS, and examples of restoration projects completed in the LDR that may be considered in the Draft RP/PEIS. A website was also developed and made available to the public that contained much of the same information released through the Notice of Intent and the public meetings.

V. Summary of Restoration Alternatives and Issues Identified

NOAA received six written comments, which are included in Attachment A. In addition, NOAA used the public meeting as a forum to collect comments and questions from the public about the Draft RP/PEIS as well as NRDA in general. Below is a summary of the written and oral comments collected through the Notice of Intent and public meetings. The comments have been grouped into categories.

General Content and Process

- The Draft RP/PEIS should discuss how to respond to improved scientific understanding of the Duwamish estuary ecosystem as well as "lessons learned" from current and future habitat restoration projects in this and other Puget Sound estuaries. The Duwamish and individual restoration sites probably will continue to change as a result of future restoration actions and habitat improvements in the watershed, changes in practices in hatcheries in the watershed that may alter fish migration patterns, as well as climate change and sea-level rise. Consequently, the NRDA-associated restoration process should consider whether and how to take into account new information and new opportunities/challenges at some point 5-10 years in the future. The adaptive management approach will be even more effective if the NRDA process deliberately develops and monitors projects in ways that can produce improved understanding of the ecology of the estuary and the merits of particular restoration approaches. For information on how WRIA 9 is approaching adaptive management, see *Implementation Guidance for the WRIA 9 Salmon Habitat Plan.*
- Recommend that the Trustees include a special section in the PEIS that addresses global climate change and its impact on toxic pollution (as part of the damage assessment) and potential needs for restoration goals.
- Demonstrate how compensation from potentially responsible parties will adequately fund the cleanup and restoration necessary to reduce risk to aquatic species.
- Explain how this action differs from or complements other plans to restore the Duwamish (such as the Puget Sound Salmon Recovery Plan/WRIA 9 Salmon Habitat Plan and the US Army Corps of Engineers Green/Duwamish Restoration Plan).
- Detail the mechanisms that are in place to ensure implementation of proposed projects is completed.
- Resources to consider during the development of the Draft RP/PEIS:
    - WRIA 9 Strategic Assessment Report - Scientific Foundation for Salmonid Habitat Conservation (November 2005)
    - Historical Aquatic Habitats in the Green and Duwamish River Valleys and the Elliott Bay Nearshore (September 2005)
    - Evaluation and Assessment of Hatchery and Wild Salmon Interactions in WRIA 9 (November 2005)
    - Lower Duwamish Inventory Report (May 2004)
    - 2005 Juvenile Chinook Duwamish River Studies (May 2006)
    - The Port of Seattle has prepared restoration planning materials identifying future large scale and potential "corridor" habitat restoration actions. In addition, the port is compiling a new shoreline plan for submittal to the City of Seattle, outlining future port development and habitat restoration actions. These design

and planning materials as well as performance monitoring data portraying the success of past habitat restoration projects, are an important aid in compiling an area-wide restoration plan. Habitat planning materials prepared previously by the port should be included in the PEIS effort.

Geographic Scope

- The Draft RP/PEIS should discuss the area in which restoration is desirable; this should mirror the area of the natural resource damages and encompass the area that was designated as the Lower Duwamish Superfund site. Large restoration sites are hard to find within the Superfund area; however, the estuarine functions of this area cannot be duplicated or replaced by restoration in the freshwater portion of the Duwamish or the Green River.
- If it is deemed desirable to include areas for restoration outside the Lower Duwamish Superfund area – for example, to allow early restoration before widespread cleanup occurs – restoration should be limited to estuarine areas whose habitat functions cannot be duplicated or replaced by freshwater or nearshore restoration sites. For the Duwamish, this is limited to river miles 5.5 (immediately above Turning Basin #3) to 9.0 (Interstate 5 crossing of the Duwamish).
- Extend scope to include Elliott Bay. The resources damaged include the entire system of the estuary, including its bay. There are multiple Superfund action areas in the river and East and West Waterways as well as other sites that have not been designated as "cleanup sites" that are adversely impacting the health of the bay.
- Only genuine projects that will repair the damage in the Duwamish itself should be considered. Opportunities might arise that are farther afield, but the Trustees should resist these potential opportunities in favor of harder to find but highly needed projects with direct benefit.

Habitat Types and Valuation

- Transition zone habitat – where juvenile Chinook, chum, and other salmonids transition from freshwater to saltwater – is believed to represent a bottleneck for salmonids in the Green/Duwamish Watershed. Most of the Lower Duwamish Superfund area provides or could provide transition zone habitat; the stretch from River Mile 3.0 to 5.5 is likely to be a core area for transition zone habitat. The focus of the Draft RP/PEIS in this area will allow other entities, such as WRIA 9, to more effectively focus their efforts in other areas of the watershed such as the marine nearshore, the Duwamish estuary upstream of the Lower Duwamish Superfund area, and the Green River and its tributaries. This division of labor will further accelerate improvements to watershed health.
- For salmonids, the most needed habitat type includes mudflats within the entire intertidal range between -4 and +12 ft Mean Lower Low Water (MLLW), with an emphasis on mudflats in the low intertidal between -4 to +4 ft MLLW. These mudflats would ideally have a relatively shallow grade, a silt/clay to fine sand substrate, and be unvegetated. Other needed habitats that complement mudflats include low marsh from +5.5 to +10.0 ft MLLW, vegetated with aquatic vascular plants, and high marsh from +10.0 to +12.0 ft MLLW, vegetated with aquatic vascular plants and terrestrial plants.
- Increasing riparian habitat should also be a priority for restoration planning. A healthy riparian edge will produce food for fish and cover, food and nesting habitat for birds.

- Prioritize the edge of the river. In addition to needed off-channel areas, simply removing the hard edges such as bulkheads and riprap would be a big benefit for the river – this might entail skinny long sites along the river in addition to deeper, larger sites. These types of sites would be compatible with many of the existing industrial uses of the river-adjacent parcels.
- Take advantage of small pocket areas along the Duwamish that can help create continuity of habitat along the River for migrating salmon. Smaller restoration projects should be given high priority in areas where large projects are unlikely but where small habitat pockets could be created, such from the south end of Kellogg Island to the South Park Bridge. Strategies and incentives for using street ends and private property (including that owned by individuals as well as businesses) should be developed.
- The Draft RP/PEIS should address the types of habitat desired and the relative value of each habitat type. This is an important component of the Draft RP/PEIS and will allow potentially liable parties to assess options for addressing their liability.
- For each desired habitat type the Draft RP/EIS should discuss:
    - The desired proportions of each type of habitat at the end of the NRDA process;
    - The relative value to each habitat type based on the gap between the existing proportion and the desired proportion of different habitat types;
    - The practical considerations of siting different habitat types based on the location in the estuary and adjacent land uses; and
    - An approach to decision making/crediting that maximizes the likelihood that the desired proportion of the different types of habitats is achieved.

Species Considerations

- Prey impact should be included in damage assessment. An area of weakness in the Superfund process for the Duwamish has been the lack of an assessment of the loss of prey species (e.g., aquatic invertebrates) due to toxic pollution that would have supported potentially much larger populations of higher trophic level species.
- Consider impacts to and restoration of clam and shellfish populations and habitat. Clam habitat represents both an environmental and cultural resource that has been nearly eliminated in the Duwamish estuary.
- An ecosystem approach will help ensure benefits to threatened species as well as other trust resources that were injured.

Early Action and Timing

- It is important for the Trustees to do early action restoration projects (or provide early credits) and not wait until EPA has completely finished with the clean-up activities. Early action will allow the Trustees to take advantage of restoration opportunities during the clean-up process including sediment remediation, which can result in predictability and cost savings for PRPs. Combining clean-up and restoration can create the opportunity for restoration at sites that might not otherwise be restored.
- The Draft RP/PEIS should discuss how to maximize the feasibility of constructing restoration projects in conjunction and concurrent with the sediment remediation of Superfund Lower Duwamish cleanup. One possible approach would be to create a mechanism for lead agencies involved in the cleanup to solicit partners amongst the PRPs for restoration in conjunction with cleanup. Enabling such coordination will ensure the

most efficient use of funds and more timely development of habitat. It may also result in habitat development at sites which otherwise might not be the focus of restoration efforts.

- The Draft RP/PEIS should discuss opportunities for banking habitat against potential liabilities so that development of restoration sites might precede completion of liability allocation. This could speed up the restoration implementation process and allow restoration sites to be larger in size. NRDA banking opportunities should be made available as soon as possible in order to take advantage of available land and projects as soon as such opportunities present themselves.
- NRDA process and implementation of specific restoration actions should be timely in order to effectively benefit species recovery efforts, such as those for Chinook salmon.

Recommended Priority Sites

- Early Action Areas (EAAs) to be considered for combining clean-up and restoration include Slip 4, Terminal 117, Boeing Plant 2 among others. Specifically, NRDA restoration credit should be available in time to conduct shoreline and off-channel restoration at the Port of Seattle's Terminal 117 Early Action Area as early as 2008.
- Project Duw-11: Shallow Water Habitat Creation (10 Acres) at RM 5.5-4.7 (Both Banks)
- Project Duw-12: South Park Bank Restoration and Shallow Water Habitat Creation at RM 3.8-3/7 (Left Bank)
- Project Duw-13: Kellogg Island Rehabilitation at RM 1.4.-1.2
- WRIA 9 has documented a critical stretch along the Duwamish for salmon restoration.
- A number of projects already drafted in the residential district including three street ends and five or six private properties.
- Emphasize innovative projects, such as ECOSS' "Duwamish River Revival" in South Park, which envisions a collective contribution by individual landowners in order to compile a large restoration project.

Long-term Maintenance

- The Draft RP/PEIS should address the need for on-going maintenance of restoration projects. The increasing number of restoration projects poses a challenge to agencies and volunteer groups that work to maintain them. Failure to conduct regular maintenance will undercut the ecological values sought through NRDA-associated habitat restoration. The greatest maintenance need is controlling invasive vegetation but specific sites may have additional needs (litter, homeless camping, and erosion) that should be addressed. Restoration project design and associated NRDA-credit agreements should have a provision for on-going maintenance beyond the common three-year maintenance period following construction. Projects should be sited and designed to facilitate cost-effective maintenance. Options for providing long-term maintenance include:
    - Requiring the project proponent to maintain the project for a period of at least 20 years following construction;
    - Establishing standards for long-term performance of vegetation; and/or
    - Allocating a portion of NRDA-collected funds to create a fund to pay for on-going maintenance by third parties.

Contaminants and Liability

- Adverse effects from air pollution have not yet been adequately assessed in the Superfund process. It is recommended that these impacts be included in the NRDA process.
- Please include information on how cleanup will address chronic ongoing pollution problems in the lower Duwamish such as stormwater runoff from local roads.
- The list of PRPs should include those responsible for pollutant discharge other than the Superfund target chemicals. The Superfund process focuses solely on the sediment quality. There are a large number, however, of groundwater and possibly surface water discharges of chemicals that are adversely impacting aquatic species in the water column but are not accumulating in the sediments.
- King County and the city of Seattle may still have unresolved liability stemming from additional CSO releases since the NRDA settlement in the 1990's. Trustees should ensure that the additional liability of these groups is addressed and allocated properly so that the burden of liability does not fall to smaller businesses that have not settled early in the process.

Land Use

- Access to the river and natural habitat areas are an important component to restoration projects along the Duwamish River and can help increase public understanding of and stewardship for these areas. These restored areas can become important cultural and social resources for the public. Public access should be integrated into many projects.
- Safety is a concern if the public is accessing restored habitats by using heavy traffic alleys in industrial zones.
- In light of the habitat types and general locations in the Duwamish Waterway outlined during the June discussion, it is essential to note that publicly-owned port marine terminal facilities are located throughout the project area. In addition to existing active marine cargo and vessel access sites, publicly-owned port property includes significant riparian, inter-tidal, and shallow and deep sub-tidal area along the entire length of the Duwamish Waterway. Any aquatic habitat restoration action in the Duwamish Waterway, with the exception of restoration actions located in existing non-waterway slip locations (e.g., Slips 2, 3, 4, and the east Turning Basin Number Three slip), would require use of publicly-owned port property.

Economy

- Restoration projects should not negatively impact the local economy by interfering with the navigability of the river.
- There is a strong need for balancing economic infrastructure with remediation of contaminated areas and habitat restoration.

Public Involvement and Agency Coordination

- The Duwamish Trustees should ensure a robust public involvement and review process for each NRDA restoration project under consideration.
- It is essential that the PEIS process be conducted in an open and visible manner, including frequent joint planning sessions, with the opportunity for local government interests and property owners/facility operators to assist with shaping the restoration plan.

- A public/operator/property owner participation plan should be prepared to accompany the EIS process.
- A scoping document be assembled, reporting scoping comments received for public review.
- Request that all property owners on the Duwamish be sent notices of settlements and decisions.
- Detail how the Trustees will coordinate with other groups and agencies to implement the various proposed restoration projects.

IV. Summary of Questions Regarding the Alternatives and RP/PEIS

During the two public meetings, a number of questions were raised about the NRDA process as well as the development of a Draft RP/PEIS. This section summarizes these questions as well as the responses provided to the audience about the issues raised. Please note that this is not a verbatim account of the question and answer sessions and that for some questions additional information has been provided for clarification.

General Content and Process

Q How is the EIS to be used and will it provide the exact details of the restoration actions to be performed?

> **A** The Draft RP/PEIS sets the framework for identifying and prioritizing potential projects as part of the NRDA process. The Draft RP/PEIS will detail the priority habitats and services for restoration and any priority areas. If there are particular restoration sites or actions that are of a high priority they will be included in the document. The specific details of individual restoration actions will be determined once the project has been approved, at that time the project will undergo an Environmental Assessment for project specific impacts.

Q Are restoration plans already developed and projects selected or are the Trustees going to take into account public opinions and ideas? Do we have any particular restoration sites in mind and would the trustees welcome additional site recommendations?

> **A** The restoration project plans have not yet been developed. The Trustees are at the very first step in the restoration planning process, developing the Draft RP/PEIS. Part of this first step is to gather information on what has already been accomplished in the LDR and get input from the public on what they would like to see incorporated or taken into account in the Draft RP/PEIS.

Q Is there a baseline of habitat or salmon run levels that we are trying to reach through the NRDA process? Are we trying to restore back to the predevelopment condition?

> **A** The LDR has been highly altered from its original state and it is not a goal of this process to try and restore it to the pre-Euroamerican state. There has to be a balance between habitat restoration and commerce, and removal of all facilities along the LDR is not a goal of the Trustees. As a result we must take into account the carrying capacity for the Duwamish River and must set realistic goals and expectations for natural resource recovery.

Q Is there a sequence of priorities for human use of restored areas, such as tribal use, recreational and commercial fisheries, or a healthy waterfront?

A We will take into account tribal, recreational and commercial fisheries as well as intrinsic values of these habitats; however, no one use is prioritized over another. The goal of the NRDA restoration process is to bring back as full a suite of services as can be provide given the current use, landscape, and commercial importance of the area.

Q Have the Trustees calculated the injury?

A The Trustees have not conducted a full NRDA, but have evaluated existing information and knowledge drawn from studies conducted both in the Duwamish and at other areas, such as Commencement Bay, to develop estimates of injury. We know enough to understand what resources might have been injured as well as the anticipated scope and scale of that injury. There may be a need to conduct specific injury studies to address certain contaminants and areas within the LDR, but no decisions have been made at this point to conduct additional studies beyond those already completed or in progress.

Q Is there a sense of a dollar value or amount of acreage that should be obtained through the NRDA process?

A There is a sense of the injury level in ecological terms, but not in a specific dollar amount or acreage. Specific dollar values will depend on project details, and overall acreage will be determined by the composition of the different habitat types since the restoration benefits vary between types of habitats.

Q Can the NRDA Trustees sue up to ten years after clean-up?

A The statute of limitations is three years following the completion of the remedial action.

Q If one were to develop a restoration bank to aid in injury recovery, would they have to follow Army Corps of Engineers and state processes for developing a bank?

A If the Trustees were to consider a restoration bank under NRDA, they would use a separate process that takes into consideration the Army Corps and state processes.

Species Considerations

Q There is no marine mammal surrogate in the Trustees' analysis. EPA is looking at potential risk to marine mammals for the clean-up particularly marine otters. Why are marine mammals or a surrogate for marine mammals not in the injury assessment?

A The methods used by Trustees to estimate injury in the Duwamish do not directly evaluate injury to marine mammals, but take them into account by determining injury to their prey species. By taking restoration actions to provide more abundant and less contaminated prey items, marine mammals will benefit.

Contaminants and Liability

Q Is liability only for those who have contaminated the river system?

A Under CERCLA those with liability for damages to natural resources include 1. the current owner and operator of a vessel or a facility involved in the release of hazardous substances; 2. any person who at the time of the release owned or operated any vessel or facility from which hazardous substances were released; 3. those responsible for generating the hazardous substances that were released; and

4. anyone who transported the hazardous substances to disposal or treatment facilities, incineration vessels or other selected sites, from which there is a release**.**

Q Is the PRP list from the EPA superfund clean-up different than the liable parties for resource damages?

A EPA is in the process of developing its PRP list. It is likely to be more extensive than the NRDA PRP list.

Q If the Trustees settle with PRPs that have larger liability, will the smaller PRPs be forced to take responsibility with any left over liability that is not accounted for, even though they may not be responsible for that injury?

A The method used to estimate liability for the small PRPs is the same as that for larger PRPs, however later settling PRPs will be responsible for relatively higher Trustee assessment costs than those settling when assessment costs are lower.

Q Superfund only focuses on contaminants in sediments; will NRDA address contaminants in air and water in addition to sediment contamination?

A The current approach used to estimate NRDA liability in the Duwamish focuses primarily on contaminant levels in sediments, similar to what was done in Commencement Bay.

Economics

Q Will the restoration projects impact the navigability of the Duwamish River?

A A main category for analysis under any EIS is the impact to the local economy. The Trustees recognize that the Duwamish River is an important industrial and commercial area and that the navigability of the Duwamish helps to maintain this economic resource. The Trustees do not anticipate that restoration planning and project implementation will reduce the navigability of the Duwamish River.

Q Will the rights of property owners be infringed upon? Can the Trustees force people to do restoration on their land or give up their property in order to have continuous habitat?

A There will be no condemnation of property through this process. No one will be forced to do restoration on their property. Restoration on private property or the sale of property will only happen if the landowners want to take these actions.

Public Involvement and Agency Coordination

Q How does this plan fit in with existing plans?

A This plan will have a specific and narrower focus than many of the existing plans, because its goal is to develop a method to select and prioritize restoration projects that restore injured resources in a NRDA context. The Draft RP/PEIS will incorporate components from other already existing plans where appropriate, but because of its focus on injured natural resources in the LDR, the Trustees cannot adopt an already existing plan that has a larger scope and scale and does not consider NRDA restoration selection criteria.

Q How will the public be able to find out if and when the Trustees reach a settlement with a potentially responsible party? Can all of the property owners be personally notified of these settlements as they occur?

A The NRDA settlements and individual restoration plans will go through a public review and comment process, and there will be appropriate public notice of these as well as being posted on the website.

Q Why is the Army Corps of Engineers (Corps) not a Trustee? Will the Trustee work with the Corps?

A The Army Corps of Engineers is not a Trustee agency because it is not an agency that manages or protects natural resources, such as fish and wildlife. Federal Trustee agencies are identified in the National Contingency Plan. The Trustees will coordinate and collaborate with the Corps in the development of the Draft RP/PEIS and any future restoration projects.

Attachments A – Written Public Comments

City of Seattle
Gregory J. Nickels, Mayor

Seattle Public Utilities
Chuck Clarke, Director

July 24, 2007

John Kern
NOAA Restoration Center
7600 Sand Point Way NE
Seattle, WA 98115

Re: Scoping Comments: Draft Duwamish PEIS

Thank you for the opportunity to submit comments about the scope of the PEIS planned in relation to the Natural Resource Damages Assessment and Allocation on the Lower Duwamish River.

The City of Seattle has several comments which we would like you to consider.

1. We suggest the PEIS should discuss the area in which restoration is desirable. We suggest that the area ought to mirror the area of the damages and not cover areas outside the Lower Duwamish Superfund site. We know that opportunities for large restoration sites are somewhat limited in the Lower Duwamish and it is tempting to look for larger sites elsewhere in the Green/Duwamish system. The Lower Duwamish, however, is unique estuarine habitat whose functions cannot be duplicated or replaced by freshwater restoration sites.
2. We suggest the PEIS should discuss the types of habitat desired and the relative value of various types of habitat. We think this is an important part of the PEIS which will help liable parties assess options for addressing their liabilities. We hope that the trustees will acknowledge the importance of intertidal habitat but also give value to increasing riparian vegetation. A healthier riparian edge will produce food (in the form of insect drop) for fishes and cover, food and nesting habitat for birds.
3. We suggest the PEIS should discuss mechanisms for including NRDA credited habitat restoration in connection with required sediment remediation. Enabling such coordination will ensure the most efficient use of funds and more timely development of habitat. It may also result in habitat development at sites which otherwise might not be the focus of restoration efforts.
4. We suggest the PEIS should discuss opportunities for banking habitat against potential liabilities so that development of restoration sites might precede completion of liability allocation. This might provide motivation to develop habitat sooner, rather than later. It also might promote the development of cooperatively funded restoration sites where shares could

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be sold—resulting in larger sites than the small sites likely to be developed as independent actions.

We look forward to commenting on the draft document and hope you find these comments useful in your planning.

Sincerely,

Judith Noble

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Subject: Duwamish Restoration Scoping Comments
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CC: Heather Trim <htrim@pugetsound.org>

July 27, 2007

Mr. John Kern
NOAA Restoration Center
DuwamishPEIS.DARRP@noaa.gov

Dear Mr. Kern:

The Duwamish River Cleanup Coalition is the Community Advisory Group for the Lower Duwamish River Superfund Site. We represent ten stakeholder organizations, including the Duwamish Tribe, Environmental Coalition of South Seattle, South Park Neighborhood Association, Georgetown Community Council, People for Puget Sound, Puget Soundkeeper Alliance, Community Coalition for Environmental Justice, IM-A-PAL Foundation, Washington Toxics Coalition and Waste Action Project. We have attended the two Public Scoping Meetings for the Lower Duwamish River Restoration Plan and Programmatic Environmental Impact Statement, and have the following comments on the process for determining restoration priorities for the river.

1. Restoration opportunities and credits should be made available early in order to be conducted simultaneously with cleanup actions at Early Action Areas (EAAs) at Slip 4, Terminal 117, Boeing Plant 2 and others. Specifically, NRDA restoration credit should be available in time to conduct shoreline and off-channel restoration at the Port of Seattle's Terminal 117 Early Action Area as early as 2008. In addition, NRDA banking opportunities should be made available as soon as possible in order to take advantage of available land and projects as soon as such opportunities present themselves.

2. Smaller restoration projects should be given high priority in areas where large projects are unlikely but habitat pockets are scarce, such from the south end of Kellogg Island to the South Park Bridge. Strategies for using street ends and private property (including that owned by individuals as well as businesses) should be developed. Innovative projects, such as ECOSS' "Duwamish River Revival" in South Park, which envisions a collective contribution by individual landowners in order to compile a large restoration project, should be emphasized.

3. Attention should be given to creating clam and shellfish habitat as well as fish habitat. Clam habitat represents both an environmental and cultural resource that has been nearly eliminated in the Duwamish estuary.

4. Emphasis should be given to the fish habitat needs and goals developed by the Green-Duwamish Fish Habitat Enhancement Group/WRIA 9 Steering Committee.

5. Projects that integrate habitat restoration and public access should be prioritized, in order to increase public understanding and stewardship of the resource.

6. NOAA and the Duwamish Trustees should ensure a robust public involvement and review process for each NRDA restoration project under consideration.

Thank you for the opportunity to comment on the scoping stage of the Lower Duwamish Restoration Plan and PEIS. We look forward to reviewing a draft of the Plan later this year.

Sincerely,
BJ Cummings

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DATE: July 27, 2007

TO: John Kern
NOAA Restoration Center

FROM: Kathy Bahnick and Geo. Blomberg
Seaport Environmental Services

SUBJECT: Scoping document: Draft programmatic environmental impact statement
Lower Duwamish River Restoration Plan

The port is grateful for the opportunity to provide scoping notes as a guide to natural resource trustees in preparation of a programmatic environmental impact statement evaluating the formulation of a lower Duwamish River restoration plan. The proposed action, including the rationale for the planning work and the objectives for fish and wildlife habitat restoration in the Duwamish Waterway, was clearly presented during a June 6, 2007 draft PEIS scoping meeting. Please find below, scoping comments emphasizing: (1) the port's experience with contamination cleanup and habitat restoration in south Elliott Bay and the Duwamish Waterway purpose and (2) the opportunity to work collaboratively to compile restoration strategies and plans for the area of interest.

During the June 6 scoping meeting it was indicated that the focus of habitat restoration planning includes near-shore aquatic areas, inter-tidal substrate, emergent vegetation, and shallow sub-tidal aquatic areas. It will be important to include riparian habitat restoration in natural resource restoration planning as well. The June 6 presentation also indicated that three principal restoration locations will be highlighted: (1) south Elliott Bay; (2) the area near Kellogg Island; and, (3) the vicinity of Turning Basin Number Three.

In light of the habitat types and general locations in the Duwamish Waterway outlined during the June discussion, it is essential to note that publicly-owned port marine terminal facilities are located throughout the project area. In addition to existing active marine cargo and vessel access sites, publicly-owned port property includes significant riparian, inter-tidal, and shallow and deep sub-tidal area along the entire length of the Duwamish Waterway. Any aquatic habitat restoration action in the Duwamish Waterway, with the exception of restoration actions located in existing non-waterway slip locations (e.g., Slips 2, 3, 4, and the east Turning Basin Number Three slip), would require use of publicly-owned port property.

The port has constructed fish and wildlife habitat restoration sites in south Elliott Bay, adjacent to Kellogg Island, and at Turning Basin Number Three in recent years and has substantial experience with planning, design, project implementation, and performance monitoring. The port has also prepared restoration planning materials identifying future large scale and potential "corridor" habitat restoration actions. In addition, the port is compiling a new shoreline plan for submittal to the City of Seattle, outlining future port development and habitat restoration actions.

The port is committed to continuing use of existing marine cargo areas and redevelopment of existing marine industrial, water-dependent infrastructure for the purpose of sustaining marine cargo capability in south Elliott Bay and the Duwamish Waterway. The port also understands the need for remediation of contaminated sediments and restoration of fish and wildlife habitat, as demonstrated by numerous recent environmental benefits linked with port marine terminal projects. The port was pleased to note that habitat planning will focus on conditions "…in the Duwamish today and bringing conditions to what can reasonable by attained today". This statement underscores the need for balancing economic infrastructure with remediation of aquatic area contamination and fish and wildlife habitat restoration. It is important to emphasize the need for coordinated action, integrating contamination remediation and habitat improvements throughout the lower Duwamish River. In some instances, public use of restored shoreline areas must also be considered.

The port would be pleased to share design information and performance monitoring data portraying the success of past habitat restoration projects, including compensatory and demonstration habitat restoration work, as an aid in compiling an area-wide restoration plan. It is hoped that habitat planning materials prepared previously by the port will be included in the PEIS effort.

It is essential that the PEIS process be conducted in an open and visible manner, including frequent joint planning sessions, with the opportunity for local government interests and property owners/facility operators to assist with shaping the restoration plan. Materials presented at the June 6 discussion noted that a draft PEIS would be prepared in fall/winter 2007, with a final EIS presented in late 2008. It is important that a public/operator/property owner participation plan be prepared to accompany the EIS process. In particular, it is suggested that a scoping document be assembled, reporting scoping comments received for public review. Affected interests require an opportunity to confirm the scope of the EIS work, prior to commitment of significant effort by the trustees.

GREEN / DUWAMISH AND CENTRAL PUGET SOUND WATERSHED

July 31, 2007

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Algona
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Federal Way
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SeaTac
Seattle
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Tukwila

Re: Scoping Comments: Draft Lower Duwamish River Restoration Plan and Programmatic Environmental Impact Statement

Thank you for the opportunity to submit comments on the scope of the Draft Restoration Plan and Programmatic Environmental Impact Statement (Draft RP/PEIS) for the Lower Duwamish River.

The following comments are offered by staff of the WRIA 9 Watershed Coordination Services Team and are intended to complement the comments provided by WRIA 9 partner jurisdictions such as Seattle, Tukwila, and King County.

Importance of Timely and Effective Restoration for Watershed Salmon Habitat Recovery

Successful recovery of Chinook salmon in Puget Sound under the Endangered Species Act requires the restoration/rehabilitation of estuarine ecosystems throughout the region, including the Duwamish River. In the Lower Duwamish, it is vital that habitat restoration associated with the Natural Resources Damage Assessments (NRDA) process proceed in a timely manner and result in effective restoration in order to contribute to Puget Sound salmon recovery.

The Lower Duwamish is a critical link in the string of aquatic habitats that make up the Green/Duwamish Watershed. Transition zone habitat – where juvenile Chinook, chum, and other salmonids transition from freshwater to saltwater – is believed to represent a bottleneck in the Green/Duwamish Watershed. Most of the Lower Duwamish Superfund area provides or could provide transition zone habitat and the stretch from River Mile 3.0 to 5.5 is likely to be a core area for transition zone habitat.

Because of the likely importance of transition zone habitat in the Green/Duwamish Watershed, the *WRIA 9 Salmon Habitat Plan: Making Our Watershed Fit for a King* (August 2005) sets forth the following overall priorities:

> ***MS1**: The focus of management action implementation efforts in this Habitat Plan will be on the following distinct habitats that are limiting viable salmonid populations in WRIA 9:*
>
> - Duwamish Estuary transition zone habitat [emphasis added];
> - *Middle Green River, Lower Green River, Duwamish Estuary, Marine Nearshore rearing habitat; and*
> - *Middle Green and upper Lower Green River spawning habitat.* (page 5-16)

The priorities of the *WRIA 9 Salmon Habitat Plan* were incorporated into the *Puget Sound Salmon Recovery Plan*, which was approved by the federal government in January 2007. While NRDA-associated restoration is not exclusively salmon-focused, we believe that its ecosystem restoration focus is consistent with the salmon habitat recovery needs in the watershed. Consequently, effective habitat restoration in the Lower Duwamish that occurs sooner rather than later – albeit within the constraints of the Superfund cleanup and source control – will contribute to recovery of species listed under the Endangered Species Act.

Successful NRDA-associated restoration in the Lower Duwamish will allow the WRIA 9 governments and other partners to direct funds for watershed salmon habitat recovery to other areas of the WRIA 9 watershed such as the marine nearshore, the Duwamish estuary upstream of the Lower Duwamish Superfund area, and the Green River and its tributaries. This division of labor will further accelerate improvements to watershed health.

Coordination With Superfund Cleanup

The *WRIA 9 Salmon Habitat Plan* recommends:

> ***Policy DU2:** Encourage the Natural Resource Trustees to develop Natural Resources Damages Assessment (NRDA) approaches that allow habitat creation/restoration concurrent with Superfund cleanup of the Lower Duwamish Waterway. This will accelerate the rate at which mitigation occurs and be more efficient.* (page 7-78)

Consequently, the Draft RP/PEIS should discuss how to maximize the feasibility of construction of restoration projects in conjunction and concurrent with the sediment remediation of Superfund Lower Duwamish cleanup. One possible approach would be to create a mechanism for lead agencies in the cleanup to solicit partners amongst the Potentially Responsible Parties for restoration in conjunction with cleanup. Enabling such coordination will ensure the most efficient use of funds and more timely development of habitat. It may also result in habitat development at sites which otherwise might not be the focus of restoration efforts.

In a related vein, the Draft RP/PEIS should discuss opportunities for banking habitat against potential liabilities so that development of restoration sites might precede completion of liability allocation. This might provide motivation to develop habitat sooner rather than later. It also might promote the development of cooperatively funded restoration sites where shares could be sold, which could result in larger sites than the small sites likely to be developed as independent actions.

Geographic Area

The Draft RP/PEIS should discuss the area in which restoration is desirable. We suggest that the area ought to mirror the area of the natural resource damages and encompass the area that will be designated as the Lower Duwamish Superfund site. However, if it is deemed desirable to include areas for restoration outside the Lower Duwamish Superfund area – for example, to allow early restoration before widespread cleanup occurs – we suggest that restoration be limited to estuarine areas whose habitat functions cannot be duplicated or replaced by freshwater or nearshore restoration sites. In the case of the Duwamish, the additional potential area for estuarine restoration is limited to river miles 5.5 (immediately above Turning Basin #3) to 9.0 (Interstate 5 crossing of the Duwamish).

Projects

The Draft RP/PEIS should consider the three projects within the anticipated Lower Duwamish Superfund area that are recommended in the *WRIA 9 Salmon Habitat Plan*:

- Project Duw-11: Shallow Water Habitat Creation (10 Acres) at RM 5.5-4.7 (Both Banks) (page 7-94)
- Project Duw-12: South Park Bank Restoration and Shallow Water Habitat Creation at RM 3.8-3/7 (Left Bank) (page 7-95)
- Project Duw-13: Kellogg Island Rehabilitation at RM 1.4.-1.2 (page 7-96)

Type of Habitat

The Draft RP/PEIS should address the types of habitat desired and the relative value of various types of habitat.

The habitat feature *most needed* in the Lower Duwamish from a salmonid perspective is mudflat within the entire intertidal range between -4 and +12 ft Mean Lower Low Water (MLLW), with an emphasis on mudflats in the low intertidal between -4 to +4 ft MLLW. These mudflats would ideally have a relatively shallow grade, a silt/clay to fine sand substrate, and be unvegetated.

Also needed and complementing mudflats are

- Low marsh from +5.5 to +10.0 ft MLLW, vegetated with aquatic vascular plants, and
- High marsh from +10.0 to +12.0 ft MLLW, vegetated with aquatic vascular plants and terrestrial plants (the mix of high marsh plants will vary considerably by location/soil conditions)

All three habitats listed above are necessary for the ecological health of the Lower Duwamish and the Draft RP/EIS should discuss:

- The desired proportions of each type of habitat at the end of the NRDA process;
- The relative value to each habitat type based on the gap between the existing proportion and the desired proportion of different habitat types;
- The practical considerations of siting different habitat types based on the location in the estuary and adjacent land uses (for example, upland riparian habitat may be the most feasible habitat type where the adjacent land uses involve deep draft vessel navigation that precludes shallow water habitats); and
- An approach to decisionmaking/crediting that maximizes the likelihood that the desired proportion of the different types of habitats is achieved.

Maintenance

The Draft RP/PEIS should address the need for on-going maintenance of restoration projects. The increasing number of restoration projects that have been constructed to date in the Lower Duwamish already challenge the agencies and volunteer groups that work to maintain them. Some previously-restored sites, such as Boeing Public Access at Slip 4, have been completely overwhelmed with invasive plants, which likely reduces their habitat value. Failure to require regular maintenance will undercut the ecological values sought through NRDA-associated habitat restoration.

The greatest maintenance need is controlling invasive vegetation but specific sites may have additional specific needs (litter, homeless camping, erosion) that should be addressed. Specifically, restoration project design and associated NRDA-credit agreements should have a provision for on-going maintenance beyond the common three-year maintenance period following construction. Options for providing this maintenance include:

- Requiring the project proponent to maintain the project for a period of at least 20 years following construction;
- Establishing standards for long-term performance of vegetation; and/or
- Allocating a portion of NRDA-collected funds to create a fund to pay for on-going maintenance by third parties.

Lastly, projects should be sited and designed to facilitate cost-effective maintenance.

Adaptive Management

The Draft RP/PEIS should discuss how to respond to improved scientific understanding of the Duwamish estuary ecosystem as well as "lessons learned" from current and future habitat restoration projects in this and other Puget Sound estuaries. While the Duwamish has been extensively studied, the level of information will continue to grow. Moreover, the Duwamish probably will continue to change as a result of restoration within the Lower Duwamish Superfund area, habitat improvements elsewhere in the watershed, and changes in practices in hatcheries in the watershed that produce changes in fish migration patterns. In the long-term, climate change and sea-level rise also may affect the success of NRDA-associated restoration.

Consequently, the NRDA-associated restoration process should consider whether and how to take into account new information and new opportunities/challenges at some point 5-10 years in the future. The adaptive management approach will be even more effective if the NRDA process deliberately develops and monitors projects in ways that can produce improved understanding of the ecology of the estuary and the merits of particular restoration approaches. For further information on how WRIA 9 is approaching adaptive management, see our *Implementation Guidance for the WRIA 9 Salmon Habitat Plan* at http://dnr.metrokc.gov/Wrias/9/pdf/WRIA9implementplan11-8-06.pdf.

Scientific Resources

Lastly, the development of the Draft RP/PEIS should be informed by the past scientific work done to understand the Duwamish estuary and its role in the larger watershed. We expect that the Natural Resource Trustees are well aware of most of these resources but we particularly wish to highlight the following, all of which are available on the WRIA 9 website (http://dnr.metrokc.gov/Wrias/9/participant.html#tech):

- WRIA 9 Strategic Assessment Report - Scientific Foundation for Salmonid Habitat Conservation (November 2005)
- Historical Aquatic Habitats in the Green and Duwamish River Valleys and the Elliott Bay Nearshore (September 2005)
- Evaluation and Assessment of Hatchery and Wild Salmon Interactions in WRIA 9 (November 2005)
- Lower Duwamish Inventory Report (May 2004)
- 2005 Juvenile Chinook Duwamish River Studies (May 2006)

Thank you for the opportunity to comment on the Draft RP/PEIS. We are hopeful that NRDA-associated restoration will contribute to a healthier Duwamish estuary for the benefit of both people and fish and strongly support your efforts.

Please contact WRIA 9 staff Dennis Clark, 206-296-1909, dennis.clark@kingcounty.gov with any questions and regarding future comment opportunities.

Sincerely,

Doug Osterman

Doug Osterman
Watershed Coordinator
Green/Duwamish and Central Puget Sound Watershed (Water Resource Inventory Area 9)

Cc: Mayor Steven Mullet, City of Tukwila
Councilmember Richard Conlin, City of Seattle
Judith Noble, Seattle Public Utilities
Jeff Stern, King County
Ryan Larson, City of Tukwila
Paul Meyer, Port of Seattle
Charlie Cunniff, Environmental Coalition of South Seattle

Subject: comments on scoping process
Date: Wed, 01 Aug 2007 17:28:17 -0700
From: George Ritchotte <gritchotte@gmail.com>
To: DuwamishPEIS.DARRP@noaa.gov
CC: rebeccaphelps@comcast.net <rebeccaphelps@comcast.net>

Dear Mr. Kern -

After attending the June 6th, 2007 Public Scoping Meeting for the Lower Duwamish River Restoration Plan and Programmatic Environmental Impact Statement I have the following comments:

1. Please include how cleanup will address chronic ongoing pollution problems in the lower Duwamish such as stormwater runoff from local roads.

2. Please demonstrate how compensation from potentially responsible parties will adequately fund the cleanup and restoration necessary to reduce risk to aquatic species.

3. Please explain how this action differs from or complements other plans to clean up the Duwamish (such as the Puget Sound Salmon Recovery Plan/WRIA 9 Salmon Habitat Plan and the US Army Corps of Engineers Green/Duwamish Restoration Plan). How will the Trustees coordinate with other groups and agencies to implement the various proposed restoration projects? What mechanisms are in place to ensure implementation of proposed projects?

Thank you,

George Ritchotte
Wildlife Biologist
Water and Salmon Committee
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August 1, 2007

John Kern
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Via email: DuwamishPEIS.DARRP@noaa.gov

RE: Scoping Document: Draft Lower Duwamish River Restoration Plan and Programmatic Environmental Impact Statement Development

Dear Mr. Kern,

Thank you for the opportunity to comment on Scoping Document for the Lower Duwamish River Trustees to develop a Draft Restoration Plan and Programmatic Environmental Impact Statement (Draft RP/PEIS).

People For Puget Sound is a nonprofit, citizens' organization whose mission is to protect and restore the health of Puget Sound and the Northwest Straits.

It is heartening to know that the Trustees are soliciting comments from the public to help shape the scope and scale of the Draft RP/PEIS document, incorporating and addressing public concerns from the beginning of the process.

We agree with and support the Duwamish River Cleanup Coalition comments on this project:

- early credits so that restoration can be coordinated with cleanup actions and with other potential opportunities;
- higher priority for smaller restoration projects in areas where large projects are unlikely but habitat pockets;
- incentives and strategies for using street ends and private property (including that owned by individuals and businesses) as well as innovative projects, such as ECOSS' "Duwamish River Revival" in South Park which allows for collaboration between individual landowners;
- focus on creation of clam and shellfish habitat as well as fish habitat;
- attention to fish habitat needs and goals developed by the Green-Duwamish Fish Habitat Enhancement Group/WRIA 9 Steering Committee; and
- integration of habitat restoration and public access in many projects.

In addition, we offer the following comments:

1. **Clarity of geographic scope.** The scoping document describes area of interest as the Lower Duwamish River defined as " the area of salt water intrusion, which is

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approximately from North Winds Weir down to the mouth of the River." Further projects can be in a larger area: "While it is anticipated that a majority of the restoration projects will be conducted within this area, restoration projects that are outside of the reach, but have direct benefits to the injured natural resources, may also be considered and ranked within the planning process." We are concerned that only genuine projects that will repair the damage in the Duwamish itself be considered. Opportunities might arise that are farther afield, but we feel that the Trustees should resist these potential opportunities in favor of harder to find but highly needed projects with direct benefit.

2. **Extend scope to include Elliott Bay.** That being said, we would like the scope of the project to include Elliott Bay. The resources damaged include the entire system of the estuary, including its bay. There are multiple Superfund Sites in the river and East and West Waterways as well as other sites that have not been designated as "cleanup sites" yet that are adversely impacting the health of the bay.

3. **Prey impact should be included in damage assessment.** An area of weakness in the Superfund process for the Duwamish has been an assessment of the loss of prey species (e.g., aquatic invertebrates) due to toxic pollution that would have supported potentially much larger populations of higher trophic species.

4. **PRP list.** We are concerned that the list of potentially responsible parties (PRPs) for this project include those that are responsible for pollutant discharge other than the Superfund target chemicals. We have been repeatedly told that the Superfund process focuses solely on the sediment quality. There are a large number, however, of groundwater and possibly surface water discharges of chemicals that are adversely impacting aquatic species in the water column but are not accumulating in the sediments.

5. **Climate change.** We recommend that the Trustees will include a special section in the PEIS that addresses global climate change and its impact on toxic pollution (as part of the damage assessment) and potential needs for restoration goals.

6. **Air quality**. We feel that adverse effects from air pollution have not yet been adequately assessed in the Superfund process. We recommend that these impacts be included in this NRDA process.

7. **Restoration priorities.** We hope that you will prioritize the edge of the river. In addition to needed off-channels, simply removing the hard edges such as bulkheads and riprap would be a big benefit for the river – this might entail skinny long sites along the river in addition to deeper, larger sites. We feel that these types of sites would be compatible with many of the existing industrial uses of the river-adjacent parcels.

We look forward to seeing the Draft Restoration Plan and Programmatic Environmental Impact Statement.

Thank you for your consideration. If you have any questions, please contact me at (206) 382-7007 or at htrim@pugetsound.org.

Sincerely,

Heather Trim
Urban Bays Coordinator