

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No. 6b
Date of Meeting September 22, 2015

DATE: August 27, 2015
TO: Port Of Seattle Commission
Ted Fick, Chief Executive Officer
FROM: Stephanie Jones Stebbins, Director, Maritime Environmental and Planning
Kathy Bahnick, Manager, Environmental Programs
SUBJECT: Motion regarding the Remediation of the Lower Duwamish Waterway for the Benefit of Local Communities, Waterway Users, and the Environment.

ACTION REQUESTED

Request Commission adopt a motion supporting continuation of the remediation of the Lower Duwamish Waterway for the Benefit of Local Communities, Waterway Users, and the Environment.

SYNOPSIS

The proposed motion acknowledges the degradation of the Lower Duwamish Waterway (LDW) due to historical industrial uses in the area and the varied communities of people who live, work and fish along the waterway who potentially will be impacted by the cleanup of the waterway. It cites the Port's efforts and investments over the last fourteen years (with the Lower Duwamish Waterway Group) to complete investigation and feasibility studies and conduct early action cleanups. And, it highlights the Port's priority to improve the air quality in the Duwamish Valley.

Within this context, the proposed motion encourages continued efforts by the Port as the waterway cleanup planning moves to the next phase. These efforts include:

- Supporting appropriate technologies for the cleanup and continued efforts at source control to reduce/eliminate contaminants entering the river;
- Continued participation in the EPA-led outreach efforts to local communities; and
- Continuation of the ongoing work (Fisher Study and carbon amendment pilot study).

BACKGROUND

The Lower Duwamish Waterway (LDW) Superfund site is the last 5.5 mile stretch of the Duwamish River that flows into Elliott Bay. The waterway is flanked by industrial uses as well as the South Park and Georgetown neighborhoods. This portion of the river was straightened and widened beginning in 1911 to create an industrial river for navigation. The Duwamish core

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

August 27, 2015

Page 2 of 5

supports about 100,000 jobs, 80% of City's industrially zoned land and 20% of the County's manufacturing. The Green Duwamish drainage area is approximately 500 square miles.

In 2001, the LDW was formally listed as a Federal Superfund site, and in February 2002, the LDW was formally listed as a Washington Model Toxics Control Act (MTCA) site.

In 2000, the Port, City of Seattle, King County, and The Boeing Company formed the Lower Duwamish Waterway Group (LDWG) and signed a joint Administrative Order on Consent to conduct a Remedial Investigation (RI) and Feasibility Study (FS) for the LDW, with oversight by the US Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology). Under the Order, the LDWG has studied the contamination in the waterway and evaluated cleanup options. Total cost for the RI/FS work was about \$40 Million.

A legacy of chemical pollution is present in the Lower Duwamish Waterway sediments at the river's bottom. This pollution came from many sources, including industries along the waterway, combined sewer overflows and stormwater runoff from upland activities, streets, and roads. Most of the pollution is historical, from times before modern pollution controls were in place.

EPA and Ecology have approved the RI and FS, which are the two major studies leading to the development of the proposed cleanup plan. The Feasibility Study evaluated a range of cleanup alternatives, leading to EPA's choice of a cleanup proposal (the Proposed Plan"). During the course of this investigation and remedy alternatives evaluation process, EPA held quarterly stakeholder meetings and the stakeholders reviewed and commented on numerous drafts of the RI/FS before they came out for the official public comment period along with the Proposed Plan. The public comment period on the RI/FS, EPA-developed Proposed Plan and the EPA-developed Environmental Justice report began in February 2013. This included several EPA hosted public meetings to discuss the Proposed Plan. The EPA considered all the comments they received during the public comment period and developed the Record of Decision (ROD). Over time the overall approach to cleaning up the Duwamish has focused into 3 major prongs. In addition to the work to determine the best way to clean up the main waterway, the work to clean up "Early Action Areas" and to prevent further contamination are important elements of the overall clean up.

The three clean up elements include:

- Clean up of the main river: The RI/FS and ROD relate to this;
- Early Action Areas; and
- Source Control

Record of Decision:

EPA released its ROD in December 2014 prescribing a "remedy" or cleanup plan for the remaining contamination (after performance of the Early Actions) in the waterway, including long-term monitoring to assess the success of the remedy in achieving cleanup goals. The remedy for sediment cleanup is considered the first piece of the overall remedy, which also includes the early actions and source control, as described below. In the ROD, EPA concluded

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

August 27, 2015

Page 3 of 5

that people will be able to safely eat more fish and seafood and 90 percent of the pollution will be addressed after the cleanup is complete. However, fishing advisories will remain in effect which is consistent with other urban waterways such as Lake Washington and urban bays of Puget Sound. The ROD identifies a mix of technologies to be used in the cleanup based on criteria established in various flow charts. The ROD states that the cleanup will take 17 years – seven years of active cleanup followed by 10 years of monitoring and natural recovery for an “order of magnitude engineering” cost estimate of \$342 million net present value. The ROD incorporated many revisions based on public comments during review of the Proposed Plan, including several from LDWG.

Early Action Areas:

Early in the process a number of potential early action areas were identified by LDWG in an effort to expedite cleanup. These early actions were hot spot areas where it was clear they would need cleanup under any overall cleanup scenario. To date, five areas were cleaned up by LDWG, they include Duwamish/Diagonal, Slip 4, Boeing Plant 2/Jorgenson Forge, Terminal 117 and Norfolk. The early actions areas cleaned up 29 acres of sediment and additional adjacent upland acres and together are reducing half of the polychlorinated biphenyls (PCB) contamination in the waterway in advance of the overall cleanup. LDWG has invested more than \$150 million performing the early action areas. Terminal 117 was a Port and City of Seattle sponsored cleanup. The sediment and upland portion of the cleanup was performed in 2013 – 2014. The City is currently performing cleanup of the adjacent city streets. The sediment and upland cleanup removed 15,000 cy of sediments and 50,000 cy of soil and cost over \$20 million. The site is now available to become a habitat restoration site. The early action areas are considered the second piece of the overall LDW cleanup strategy. Costs for the early action area cleanups are not included in EPA’s cleanup cost estimate.

Source Control:

In addition, Ecology has taken the lead on implementing Source Control in the LDW. The scope and cost of these efforts is not included in the EPA costs for sediment cleanup, but is considered the third part of the overall cleanup. Source Control is the process of working to find and control releases of pollution to waterway sediments to prepare for cleanup and prevent sediment recontamination after cleanup. Source control efforts are coordinated through the Source Control Work group (SCWG) which includes Ecology, the City of Seattle, King County, Port of Seattle, and EPA. The SCWG shares information, discusses strategy, develops action plans, implements source control measures, and tracks progress. As part of the source control effort, the Port has recently worked with Ecology to stabilize eroding banks at T108 and to cleanout Port-owned storm lines that drain to the LDW. The Port will continue to work with its tenants and Ecology on source control projects as they are identified.

Moving forward: next steps

In an effort to continue progress on cleanup, LDWG stepped forward to perform some additional studies that will support the cleanup. A fisher study will identify who is fishing in the river, where they are fishing and why are they fishing. The purpose of this study is to help gather information that will be used by EPA to formulate effective institutional controls that will be required after the cleanup is performed. This study was begun in 2013 and is expected to be complete in 2016 for a cost over \$0.6 million. The second study is a pilot study to refine the

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

August 27, 2015

Page 4 of 5

cleanup technology assumptions, such as the potential use of activated carbon treatment. This study was begun in 2013 and is expected to be completed by 2020 for a cost of around \$5 million. LDWG is also in discussions with EPA about other pre-design activities that can be prioritized to help expedite cleanup decisions.

Other Port Efforts to improve the environment in the Duwamish corridor:

In addition to our work with the Lower Duwamish Waterway group and the early action site, the Port has made other significant investments to improve the environment in the Duwamish corridor. The Port has reduced diesel particulate emissions from its operations by more than 34% per ton of cargo through its Northwest Ports Clean Air Strategy since 2005 and has a goal of reducing diesel particulate emissions per ton of cargo by 80% by 2020, thereby reducing health impacts to communities in the Duwamish corridor. The Port has created, restored and enhanced over 30 acres of habitat in the Duwamish waterway and Elliott Bay. The Port Commission has adopted the Lower Duwamish River Habitat Restoration Plan, which identifies over 70 acres of additional habitat restoration and enhancement opportunities on Port-owned properties along the Lower Duwamish Waterway. Port-owned public shoreline access areas along the Duwamish River include Terminal 105, Terminal 107, Diagonal Avenue/Terminal 108, and Eighth Avenue in South Park providing public amenities and viewpoints as well as community gathering sites for events including the Duwamish Alive! community restoration and Duwamish Revealed art celebration.

The draft motion communicates and reiterates the Port's commitment to reducing our environmental footprint in general and to moving forward with other parties on the cleanup of the Lower Duwamish in particular. It is consistent with existing Port direction and Policies.

ATTACHMENTS TO THIS REQUEST

- Draft Motion of The Port of Seattle Commission Regarding Remediation of the Lower Duwamish Waterway for the Benefit of Local Communities, Waterway Users and the Environment
- LDW PowerPoint presentation

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

August 27, 2015

Page 5 of 5

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

February 19, 2013 – The Port Commission authorized execution of the First Amendment to the Lower Duwamish Waterway Group Administrative Order on Consent

January 22, 2013 - The Port Commission authorized execution of the First Amendment to the Lower Duwamish Waterway Group Memorandum of Agreement

October 12, 2010 – Briefing on the Lower Duwamish Waterway Feasibility Study

August 11, 2009 – The Port Commission authorized execution of amendments to four professional service contracts to support investigations for the Lower Duwamish Waterway and Harbor Island superfund sites

May 5, 2009 – Briefing on the Lower Duwamish Waterway Feasibility Study

November 4, 2008 – Briefing on the Lower Duwamish Waterway Remedial Investigation and Feasibility Study

November 6, 2007 – Briefing on the Lower Duwamish Waterway Sediment Superfund site

June 11, 2002 – The Port Commission authorized spending \$1,500,000 previously reserved for aquatic sediment management and to revise the existing contract with Windward Environmental, Inc. to provide services required by the Environmental Protection Agency's Order on Consent to continue work on the Lower Duwamish Sediments Superfund site and the East Waterway Sediment Operable Unit of the Harbor Island Superfund site

March 14, 2000 - The Port Commission approved the 1) expenditure of \$1,000,000 in funds which have been previously reserved for aquatic sediment management; and 2) the Managing Director, Marine Division, to enter into a contract with Windward Environmental Inc. to provide a variety of services to assist the Port in participating in the development and implementation of federal and state laws and regulations relating to the disposition of contaminated aquatic sediments.