

**LOWER DUWAMISH WATERWAY SITE
MEMORANDUM OF AGREEMENT BETWEEN
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY**

November 2014

I. INTRODUCTION

The Lower Duwamish Waterway (LDW) Site was placed on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List (NPL), (65 Fed. Reg. 75179-01) on September 13, 2001. The LDW Site was added to the Washington State Department of Ecology (Ecology) Hazardous Sites List on February 26, 2002.

Through this Memorandum of Agreement (MOA), the Parties intend to provide a framework for coordination and cooperation in the ongoing management of the Lower Duwamish Waterway, the Site, and to optimize and prioritize federal and state available resources for addressing hazardous waste cleanup and water quality issues.

A Memorandum of Understanding (MOU) was originally entered into between the United States Environmental Protection Agency (EPA) and Ecology in April 2002 ("Lower Duwamish Waterway Site Memorandum of Understanding between the United States Environmental Protection Agency and the Washington State Department of Ecology"), which was revised in 2004. This document expands and clarifies the MOU to include all offices from EPA Region 10 and Washington State Department of Ecology. EPA and Ecology are collectively referred to as "the Agencies." This MOA is consistent with the March 2, 2000 "Ecology/EPA Agreement on Roles and Responsibilities at NPL Sites" (and subsequent updates to that agreement) and with the 2004 MOU. The LDW Site is an enhanced involvement site, and this MOA, in combination with the 2004 MOU, serves the purpose of a site-specific scope of work for an enhanced involvement site for the CERCLA cleanup, as defined by the Ecology/EPA agreement.

II. GENERAL AGREEMENTS

The Agencies agree:

- A. That EPA is the designated Lead Agency for the in-waterway portion of the LDW Site as defined in the Record of Decision (ROD) and Ecology is the Lead Agency for source control activities as detailed in Ecology's Source Control Strategy. The objective of the in-waterway cleanup and source control actions is to attain the Remedial Action Objectives, applicable or relevant and appropriate requirements (ARARs), and cleanup levels set forth in the LDW ROD.
- B. That source control is a complicated process that has a tiered level of achievement and ongoing, shared responsibility between the Agencies.

- C. That attaining Clean Water Act (CWA) and Washington Water Pollution Control Act (WPCA) requirements for the LDW is a priority for the Agencies. The Agencies intend to pursue CWA and WPCA objectives outside the context of the CERCLA action, or associated source control activities.
- D. Given the nature of the LDW Site as an urban waterway with a long history of alteration and industrialization, recontamination is a concern that can occur as a result of lateral upland sources, re-suspension of sediments from the cleanup activity, upward migration of sediment contaminants, or up-river sources.
- E. To establish a framework for collaboration to advance the cleanup given that both the source control and the in-waterway clean-up are complex. The framework shall facilitate regular communication and provide for the resolution of disagreements at the lowest level as quickly as possible.
- F. Nothing in this agreement requires EPA or Ecology to commit resources beyond their appropriations and allocations.
- G. To review and revise (if necessary) this MOA at least every five years to incorporate new information or conditions.

III. COORDINATION BETWEEN THE AGENCIES TO ADDRESS THE GENERAL AGREEMENTS

- A. State Involvement with the EPA-lead Cleanup. Due to the magnitude of the LDW cleanup, certain remedial actions defined in the ROD will require detailed planning and design phases. EPA will provide Ecology the opportunity to review and comment on remedial design-related documents.
 - a. Monitoring is an important component in determining the effectiveness of source control and the in-waterway cleanup, detecting recontamination, and determining the cause of recontamination. The Agencies agree that future sample locations, their schedules and densities may be adjusted based on the needs of source control and the in-waterway cleanup, consistent with the LDW ROD or any enforceable agreement. Given the importance of monitoring to source control, determining the effectiveness of the remedy, and attaining ARARs, EPA will coordinate with Ecology on monitoring design and the results of that monitoring. If long-term monitoring indicates additional reductions in contamination are needed, the Agencies will consider timely remedies under CERCLA, the Model Toxics Control Act (MTCA), CWA, WPCA, or other environmental laws.
 - b. The Agencies intend to work together on decisions regarding cleanup determinations. EPA, in coordination with Ecology, will perform five year reviews of the monitoring data to determine the effectiveness of the cleanup and evaluate trends in the data. As part of the five year reviews, EPA intends to evaluate the need to implement new sediment remediation technologies to assist in the further reduction of Contaminants of Concern in sediments, surface water and/or fish tissue.
 - c. The Agencies will review the status of sites that are upland and currently being remediated by the State under the MTCA, but which have a sediment component

to the site that is within the boundary of EPA's in-waterway portion of the LDW Site. The Agencies will determine if the sediment remediation portion will occur under MTCA or CERCLA or other legal authority.

- B. EPA Involvement with State-lead Source Control. Ecology intends to implement the LDW Source Control Strategy (2012, as revised or amended). EPA may use federal tools as appropriate to assist the state because source control is integral to cleanup of the LDW as described in the ROD.
- a. The Agencies intend to meet approximately every six months after the ROD is completed to work on sequencing of source control and the in-waterway cleanup to ensure that the plan is moving forward as intended.
 - b. The Agencies will coordinate work on source control, consistent with Ecology's Source Control Strategy and as informed by EPA's and Ecology's final Source Control Implementation Plans.
 - c. The following are the procedures for sequencing the CERCLA in-waterway cleanups with State-lead source control activities. The Agencies may in the future agree to further details about the sequencing in an amendment to this MOA.
 - i. The sequencing of active in-waterway sediment remediation and associated source control is likely to begin at the upper portion of the in-waterway portion of the LDW Site and work downstream;
 - ii. EPA intends to provide Ecology with the baseline monitoring data and remedial design data required by the ROD for the area targeted for active in-waterway sediment remediation activities at least six months prior to the anticipated date that a source control sufficiency evaluation and recommendation is needed;
 - iii. Ecology will coordinate with EPA in preparing Source Control sufficiency evaluations for areas targeted for active in-waterway sediment cleanup activities and will submit associated recommendations to EPA for its concurrence.
 - iv. After EPA concurs that an area is ready to begin active in-waterway sediment cleanup activities, EPA intends to direct PRPs to remediate the area in accordance with the LDW ROD and consistent with any enforceable agreement.
- C. Additional Focus on the Water Column within the Site. The Agencies will meet to discuss the relationship between the ROD remedy and ROD ARARs for water quality standards. If monitoring indicates that the ROD water quality standards ARAR is unlikely to be met within a reasonable timeframe, the Agencies will conduct additional studies to provide information on the water column within the Site and to determine if additional remedial action or source control actions directed at the water column is appropriate. As part of the Agencies' review of the status of the water column within the Site, the discussion may include:
- a. Review of the CWA designated uses and criteria for the LDW and the extent to which the selected remedy is supporting attainment of those uses/criteria;
 - b. Review of NPDES permit obligations for permittees within the in-waterway portion of the LDW Site;
 - c. Review and discussion of policies, procedures and guidance documents regarding appropriate water quality implementation tools to use on the LDW, including

those implementation tools established within Washington State's Water Quality Standards (WQS) (WAC 173-201A) that have been approved by EPA and additional tools that may require action by EPA under the CWA; and/or

- d. The potential applicability of a Use Attainability Analysis (UAA) for the LDW regarding the highest attainable use and the technical requirements of a potential UAA. If, in coordination with EPA, Ecology proceeds with a UAA, EPA intends to work with Ecology on the technical analysis. If a Technical Impracticability (TI) waiver is issued under CERCLA, the evaluation supporting a TI waiver may provide information that could be in a potential UAA or other evaluation of the overall water quality of the waterbody.
- D. Technical Impracticability Waiver. Ecology expects EPA will complete or oversee the completion of the active sediment remedial action and allow for ten years of natural recovery in the Lower Duwamish Waterway Site before pursuing a TI waiver and will coordinate any TI waiver with Ecology, considering implications for water quality requirements and improvement efforts within the site and the broader watershed.
 - E. Recontamination. Recontamination will be evaluated after construction of the CERCLA remedy has been completed or is partially completed. It is expected that the Agencies will use construction, post-construction monitoring and long-term monitoring data, including data from MTCA cleanup activities and other data from source control activities, to determine if the cleanup is working as designed, and, as necessary, to evaluate the cause or causes of any observed recontamination per their respective lead agency responsibilities as defined in the LDW ROD. The Agencies will meet to discuss which agency shall be on lead and how any recontamination will be addressed under CERCLA, MTCA, CWA, WPCA, or other environmental laws.
 - F. Pollutant Loading Assessment. To inform progress on the EPA-lead cleanup and to advance CWA and WPCA objectives, EPA will assist Ecology with developing and implementing a Pollutant Loading Assessment (PLA) project for the Green-Duwamish watershed. The Green-Duwamish PLA project will help to prioritize agency actions (such as source control) so that greater environmental benefits can be achieved. The Agencies intend to provide staff and financial support to the PLA project as resources allow.
 - G. Ongoing Agency Coordination. The Agencies will form an executive committee and an interagency task force to coordinate MTCA/CERCLA/CWA interaction to guide and inform policy on cleanup sites and Clean Water Act obligations. This may include, but is not limited to: Review of NPDES permit obligations within context of cleanup sites; new tools and technology to protect sediment from discharges, including analytical and modeling methods, and the relationship between human health criteria and cleanup requirements relative to tribal trust responsibilities held by EPA and/or treaty rights held by tribes. The Agencies will consider using the existing PLA steering committee as the platform for the aforementioned executive committee and interagency task force.

IV. AUTHORITY AND APPLICABILITY

- A. Each Agency has authority to enter into this MOA. EPA and Ecology have express statutory authority to respond to releases of hazardous substances related to the Site.
- B. Nothing in this MOA waives or supersedes any state right under CERCLA regarding applicable, or relevant and appropriate requirements (ARARs), ROD concurrence, and consent decree participation.
- C. This MOA is effective upon signature by both EPA and Ecology. Any Party may withdraw from this MOA upon thirty (30) days written notice. This MOA will be regularly reviewed by the Agencies and may be modified by written agreement by the Agencies.
- D. This MOA does not create any right or benefit, substantive or procedural, enforceable by law or equity, by persons who are not party to this agreement, against Ecology or EPA, their officers or employees, or any other person. This MOA does not apply to any person outside of Ecology and EPA.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BY:  11/20/14
Dennis McLerran Date
Region 10 Regional Administrator

WASHINGTON STATE DEPARTMENT OF ECOLOGY

BY:  11/20/14
Maia D. Bellon Date
Director