

APPENDIX A

**Closure Report for the City of Portland
Outfalls Project**

*Intergovernmental Agreement – DEQ No. LQVC-NWR-03-10
Environmental Cleanup Site Information (ECSI) Database No. 2425*

Closure Report for the City of Portland Outfalls Project

This Closure Report documents the City of Portland's (City) completion of the Intergovernmental Agreement (IGA) between the City and the Oregon Department of Environmental Quality (DEQ) for the City of Portland Outfalls Project (Outfalls Project; DEQ No. LQVC-NWR-03-10). The City and DEQ developed the joint objectives for the work performed under the IGA, which included using respective regulatory authorities to (1) identify sources to the municipal stormwater conveyance system and require sources to implement controls, (2) modify programs to meet Portland Harbor stormwater source control objectives, and (3) evaluate the potential for City outfalls to contribute to Willamette River sediment contamination (DEQ, 2003).

The tasks for this project were identified in the Scope of Work included as Attachment B of the IGA (DEQ, 2003). The approach for the basin evaluations was developed in the *Programmatic Source Control Remedial Investigation Work Plan*, which was submitted by the City and approved by DEQ (CH2M HILL, 2004b).

Section 3 of the *Municipal Stormwater Source Control Report for Portland Harbor* (Municipal Report) describes the City's general approach to completing the investigation of sources to City outfalls. This approach included early identification of major sources (i.e., those where contaminant concentrations were much higher than DEQ screening levels and remedial investigation and/or action may be warranted). Sources with lower contaminant concentrations (i.e., those that were not likely to require remedial investigation or action and that were more likely to achieve source control through minor operational changes and controls) were referred to other state or City stormwater quality programs. Section 4 of the Municipal Report describes the City programs that help to (1) ensure that contaminant discharges from upland sites are controlled by site owners and operators and (2) improve the quality of stormwater being discharged to the harbor.

Modeling of stormwater impacts to river sediment was included in the draft Portland Harbor Feasibility Study (FS) as part of a recontamination assessment.¹ Using stormwater loading estimates from 2008 upland conditions, the modeling found that at larger spatial scales "stormwater loads did not appear to cause large changes in sediment concentrations or cause substantial recontamination of post active remediation areas" (see Appendix Ha, Section 6, of the FS). Given that modeling may not accurately reflect potential adverse impacts at smaller spatial scales, the City conservatively assumed that additional load reductions were needed, especially for outfalls that discharge either to an area where inriver remediation may occur or to quiescent areas, such as the Swan Island Lagoon.

The City prepared the attached Outfall Basin Completion Summaries to demonstrate how source investigation and control objectives have been met for each of the 39 City outfalls in the Portland Harbor Study Area. To date, the City has delivered more than 50 technical reports to DEQ that document source investigation findings and source control

¹ *Portland Harbor RI/FS Draft Feasibility Study*. Prepared for the Lower Willamette Group by: Anchor QEA, LLC; Windward Environmental, LLC; Kennedy/Jenks Consultants; and Integral Consulting, Inc. March 30, 2012.

recommendations for the Outfalls Project. Given the magnitude of the work completed, and the previous submittals of detailed reports documenting investigation findings during the course of the project, the City worked with DEQ and the U.S. Environmental Protection Agency to develop a streamlined format for this final basin report.

These Completion Summaries do not present all the data collected in each basin; instead, each basin report:

- Provides general background information specific to the basin.
- Synthesizes the source investigation approach implemented in the basin and references relevant technical reports.
- Presents a weight-of-evidence evaluation to support the conclusion that additional City source tracing is not needed.
- Identifies the control mechanisms for the sources located within the basin.

The figures accompanying each Completion Summary display general information about the basin, such as land use and the configuration of the conveyance system, as well as the control mechanisms in place at upland sites within the basin. Information related to source controls at individual sites is subject to change (e.g., as sites in the DEQ Cleanup Program complete source control implementation, stormwater permits are issued and terminated, and properties undergo redevelopment). Data presented in the figures in each Completion Summary represent information available as of September 15, 2013. A key to the symbology and data sources used in the figures is provided in Attachment A-1 for reference.

Information presented in this appendix represents the culmination of more than a decade of coordinated targeted joint work by DEQ and the City to evaluate each of the 39 City outfalls in Portland Harbor. Completion of this work included identifying all significant sources to the municipal stormwater conveyance system and ensuring that all sources have been referred to an appropriate program for the implementation of long-term source controls. Table A-1 summarizes the Scope of Work requirements and how the City has satisfied each requirement.

Under the “Duration and Termination” terms of the IGA, the City is required to submit a written notice of completion to DEQ upon completion of work under the agreement. This Closure Report is intended to satisfy this requirement.

Table A-1. City of Portland Outfalls Project: IGA Requirement Summary

Scope of Work Section ⁽¹⁾	Requirement	IGA Completion
III.	Initial Outfall Characterization	<p>The City submitted two reports characterizing all outfalls in the Initial Study Area:</p> <p><i>Preliminary Evaluation of City Outfalls - Portland Harbor Study Area - Notebook 1: Eastshore Stormwater and CSO Outfalls (July 2000).</i></p> <p><i>Preliminary Evaluation of City Outfalls - Portland Harbor Study Area - Notebook 2: Westshore Stormwater and CSO Outfalls (December 2000)</i></p>
IV.	Outfall Pilot Project	<p>DEQ and the City conducted a pilot project at two City outfalls (OF18 and OFM-1). Work Plans and reports associated with the pilot project are itemized in the OF18 and OFM-1 Completion Summaries.</p>
V.	Remedial Investigation Work Plan	<p>The City submitted a work plan that described the approach for identifying sources to the municipal stormwater system:</p> <p><i>Programmatic Source Control Remedial Investigation Work Plan for the City of Portland Outfalls Project (March 2004).</i></p> <p>DEQ approved the work plan and the City completed the Site Characterization Plan for Outfall Basins described in the work plan (see reports identified in Section VII).</p>
VI.	Evaluation and Implementation of Source Control Measures	<p>DEQ and the City worked closely to identify and evaluate source control measures (SCM) and programs to address contaminant migration to the river. See the Outfall Basin Completion Summaries described under Task VII for source control implementation and Section 4.4 of the <i>Municipal Stormwater Source Control Report</i> for program evaluation. Examples include:</p> <ul style="list-style-type: none"> • Provided technical assistance on stormwater source control to industrial sites under City Code and/or under a separate agreement with the DEQ Water Quality Program to administer the NPDES industrial stormwater permits. • Provided technical assistance to DEQ Cleanup Program managers for stormwater SCMs proposed at upland sites through comments on site work plans and reports, as well as joint site inspections. • Monitored the effectiveness of source control actions at specific outfalls (see Completion Summaries for Outfalls 11, 19, 43, 44, 48, 49, 50, and 53A). Reviewed effectiveness monitoring data collected by upland sites under DEQ oversight. • Evaluated City stormwater source control programs and modified them where needed to ensure long-term protection of river sediment and water quality. • Assisted DEQ in evaluating NPDES general industrial stormwater permit coverage and additional requirements for future permitting.
VII	Reports	<p>The City submitted quarterly reports to DEQ from January 2003 to January 2014. More than 50 Source Investigation reports were submitted to DEQ presenting results of various source investigation efforts by the City. Each Completion Summary identifies the relevant reports for that basin; the Completion Summaries constitute the final Remedial Investigation Reports for each outfall.</p>

Note:

(1) Sections I and II of the IGA Scope of Work identify the schedule and overall objectives.

Attachments:

Attachment A-1: Figure Notes

Attachment A-2: Outfall Basin Completion Summary Reports