

Completion Summary for City of Portland Outfall Basin 43

1 Summary

The City of Portland (City) has been addressing source control concerns related to the City conveyance systems for more than four decades, and several City programs have evolved to meet changing regulatory requirements and watershed health objectives. Following the 2000 listing of Portland Harbor on the National Priorities List, the City initiated a new partnership with the Oregon Department of Environmental Quality (DEQ) Cleanup Program to identify specific sources of contaminants to City stormwater conveyance systems in the harbor that were not being adequately controlled. This report summarizes the results of this collaborative effort in Outfall Basin 43.

This Completion Summary includes a weight-of-evidence evaluation to demonstrate that source identification in the current Basin 43 is complete and a summary of source controls (implemented or planned) that will control future contaminant discharges to the Willamette River.

Outfall 43 is located at approximately River Mile (RM) 11.4, on the east side of the Willamette River within the historical Albina area. The outfall discharges to a reach of the river (RM11E) that has been targeted for focused inriver and upland investigations in response to detections of elevated concentrations of polychlorinated biphenyls (PCB) and other contaminants in river sediment, water, and fish tissue samples collected from this area.

Before 2011, the basin consisted of 51 acres of mostly light industrial land. By the time the Portland Harbor Study Area expanded upstream and included this basin, design was underway for the City's Combined Sewer Overflow (CSO) Abatement Program, and the City had determined that the majority of the Basin 43 industrial area would be diverted to the Columbia Boulevard Wastewater Treatment Plant (WWTP) via the new East Side Big Pipe tunnel. Stormwater from the eastern portion of the basin (see Figure 1) was diverted to the City's WWTP in 2011. As a result, the current basin now consists of about 14 acres of small manufacturing and commercial businesses, parking areas, railroad and light-rail corridors, and paved roads.

Once the CSO plans were finalized, the City modified the source investigation objective in the portion of Basin 43 that was slated for diversion (i.e., the eastern branch). The investigation in the eastern branch focused on identifying sources of contaminants that could violate current City wastewater discharge limitations and prohibitions after the diversion was complete.

Source investigation results in the current basin (i.e., western branch) did not indicate the presence of major contaminant sources, and the City concludes that no additional source investigations are warranted. DEQ has issued a source control decision/No Further Action determination to one of the two DEQ Cleanup Program sites in the current basin, and a stormwater pathway evaluation is underway at the second site (Cargill, Inc. [Cargill]) under DEQ oversight. Implementation of source control measures (SCM) under current and future source control programs, along with completion of the source control evaluation (SCE) at the

Cargill site, is expected to provide any necessary source control for Outfall 43 discharges. Therefore, the City has met the remedial investigation (RI)/SCM objectives for Basin 43.

2 Introduction

This Completion Summary presents a weight-of-evidence evaluation of whether further source investigation is needed in Basin 43, and the rationale for concluding that current and future discharges from the basin are not likely to be significant sources of contaminants to river sediment. The purpose of this report is to demonstrate that, for Basin 43, the City has met the joint RI/SCM objectives of the August 13, 2003, intergovernmental agreement (IGA) between the City and DEQ. Together the City and DEQ are using respective authorities to ensure that source controls are implemented where needed.

This report is included in Appendix A of the *Municipal Stormwater Source Control Report for Portland Harbor* (Municipal Report) which provides additional background and detail regarding the City's harborwide source control efforts, including regulatory and non-regulatory programs to address current and future sources and to minimize recontamination potential.

3 Outfall and Basin Setting

3.1 Basin Location and Configuration

Outfall 43 discharges to the east side of the Willamette River at approximately RM 11.4. Before the 2011 CSO diversion, the separated stormwater basin associated with this outfall was 51 acres. The current drainage area for this outfall is approximately 14 acres. Before the diversion, the stormwater conveyance system consisted of two main branches: a western branch (between the river and N. Interstate Avenue) and an eastern branch (between N. Interstate Avenue and Interstate Highway 5). The City diverted the entire eastern branch to the East Side tunnel in 2011. Figures 1 and 2 show the location of the outfall and the drainage basin boundaries and provide an overview of the associated stormwater conveyance system.

Additional detail on the Outfall 43 stormwater conveyance system and associated drainage basin is included in the *Albina Riverlots: City Basin Information and Source Investigation Approach Technical Memorandum* (BES, 2008) and the *Outfall Basin 43 Source Investigation Report* (BES, 2011).

3.2 Land Use and Potential Upland Sources

Basin 43 is located within the historical Albina area. This area has been used for industrial purposes since at least the early 1900s. Zoning in the basin is mostly light industrial. The area zoned as heavy industrial includes artist studios¹ (see Figures 2 and 3), a portion of the Cargill site (a grain distribution facility), a rail corridor, and paved parking. The light industrial area consists of light manufacturing operations (e.g., window inserts), artist studios², offices, parking areas, light-rail and rail corridors, and paved roads.

¹ The former fire station and Willamette Valve office at 820 and 822 N. River were converted to the River Street Studios in the mid-1980s. See http://www.portlandartstudios.com/rs_hist.html

² The former North Coast Seed Company building at 2127 N. Albina transformed into a collective of artist studios in the mid-1980s. See http://www.portlandartstudios.com/ncs_hist.html.

Sites that were identified initially as potential sources to the City's storm system (i.e., western branch) include one DEQ Cleanup Program site, as listed in DEQ's Environmental Cleanup Site Information (ECSI) database. Additionally, as a result of changes to the City's conveyance system during CSO construction activities, a small portion of another Cleanup Program site (Cargill) was added to the basin drainage area. Table 1 lists sites in both the western branch and the diverted eastern branch, indicates the associated contaminants of interest (COI), and the status of stormwater and preferential groundwater pathway evaluations. As shown in Table 1, one Cleanup Program site in the current basin (Tucker Building) has received a source control decision/No Further Action determination from DEQ, and the other (Cargill) currently is conducting an SCE. The City completed remediation (e.g., building demolition, soil removal) and redevelopment (e.g., construction of asphalt cap) of the Tucker Building site in 2004 as part of the construction of the N. Tillamook on-ramp to N. Interstate Avenue.

Operations in the diverted eastern branch include the City of Portland Water Bureau maintenance facility (which now includes the former Westinghouse site, former Master Chemical site, and former Kenton Foundry described in Table 1), the Portland Public Schools Headquarters building, and small manufacturing facilities. The three DEQ Cleanup Program sites in the eastern branch are being remediated and redeveloped as part of the Portland Water Bureau facility expansion.

Table 1. DEQ Cleanup Program Sites in Basin 43

DEQ Cleanup Program Site	Site COIs	Site Pathway Evaluations	
		Stormwater Pathway ⁽¹⁾	Preferential Groundwater Pathway ⁽²⁾
Sites Within and Partially Within Current Basin			
Cargill Incorporated (ECSI #5561) ⁽³⁾	No information ⁽⁴⁾	Source Control Evaluation in Progress	Source Control Evaluation Completed – Source Control Determination Pending
Tucker Building (ECSI #3036) ⁽⁵⁾	Stormwater COI: PAHs, TPHs, PCBs, metals ⁽⁶⁾ Groundwater COI: VOCs, PAHs, TPH, metals ⁽⁶⁾	Source Control Decision /No Further Action Issued	Source Control Decision /No Further Action Issued
Sites in Former Basin (pre-2011 CSO diversion)			
Westinghouse Property (Former) (ECSI #4497)	Stormwater COIs: PCBs ⁽⁶⁾ Groundwater COIs: No information ⁽⁷⁾	Source Control Evaluation In Progress	Source Control Evaluation in Progress
Kenton Foundry (Former) (ECSI #5758)	No information ⁽⁸⁾	Not shown	Not shown
Master Chemical Inc. (ECSI #1302)	None ⁽⁹⁾	Source Control Evaluation Not Needed	Not shown

Notes:

PAHs = polycyclic aromatic hydrocarbons; TPH = total petroleum hydrocarbons; VOCs = volatile organic compounds; ECSI = Environmental Cleanup Site Information; CSO = combined sewer overflow; COIs = contaminants of interest; PCBs = polychlorinated biphenyls

- (1) Source: DEQ Milestone Report, Figure 1b, "Status of Stormwater Source Control Evaluations, January 2013" (DEQ, 2013).
- (2) Source: DEQ Milestone Report, Figure 3, "Groundwater Source Control Evaluation Status, January 2013" (DEQ, 2013).
- (3) A small portion of this site was connected to Basin 43 as a result of City stormwater system changes affiliated with the CSO abatement project completed in 2011 (see Figure 1).
- (4) The site joined DEQ Cleanup Program in April 2011 and is not listed in Appendix Q of the draft FS (Anchor et al., 2012). ECSI database (DEQ, 2011) indicates no information is available.
- (5) This site also is part of the PacifiCorp - Albina Riverlots site (ECSI #5117) that is currently in the process of a source control evaluation.
- (6) Source: Table 4.2-2 in the Portland Harbor RI/FS Draft Final Remedial Investigation Report (Integral et al., 2011).
- (7) Groundwater COI are not listed in Appendix Q of the draft FS or Table 4.2-2 of the Portland Harbor RI/FS Draft Final Remedial Investigation Report (Integral Consulting et al., 2011), or in ECSI database (DEQ, 2012a).
- (8) Site joined DEQ Cleanup Program in October 2012 and is not listed in Appendix Q of the draft FS (Anchor et al., 2012). ECSI database (DEQ, 2012b) indicates no information is available.
- (9) DEQ ECSI database (DEQ, 1995) states there is no indication that significant spills have ever occurred or that any kind of persistent toxic substances were used at this site.

Industrial sites covered or historically covered by National Pollutant Discharge Elimination System (NPDES) stormwater regulations also were considered as potential sources of pollutants to the City conveyance system. One upland site within the basin (TEMCO, LLC Irving Elevator) currently holds an NPDES permit to discharge to the Basin 43 stormwater conveyance system; operations at this site (aka the Cargill site) have been covered by an NPDES permit since 2001.³ Note that the City operates under an NPDES Municipal Separate Storm Sewer System (MS4) stormwater permit that covers basin drainage areas.

3.3 Outfall Setting

Outfall 43 discharges to a reach of the river (referred to as RM11E) that the U.S. Environmental Protection Agency (EPA) designated as an area of potential concern (AOPC 25) based on elevated concentrations of PCBs, metals, and pesticides (EPA, 2010). In addition to Outfall 43, 3 other City outfalls (Outfalls 44, 44A, and 45), 3 Oregon Department of Transportation outfalls (WR-306), and approximately 12 private industrial outfalls also discharge to AOPC 25. Overwater activities (e.g., dock operations, material loading and unloading, dredging) occur within the AOPC in the vicinity of Outfall 43 (see Figures 1 and 2).

4 Basin Screening and Source Investigations

The City's initial source investigations in the basin were in the eastern branch in conjunction with remediation activities at the former Westinghouse site. The City collected stormwater solids samples from the Basin 43 conveyance system in the vicinity of the site before (in 2006) and after (in 2008) site remediation and interim redevelopment (BES, 2010b). PCB concentrations were elevated in these samples, upstream and downstream of the Westinghouse site, suggesting possible multiple current sources of PCBs to the eastern branch. PCBs were not elevated in the western branch (BES, 2011).

The City subsequently conducted phased investigations in the eastern and western branches of the basin, to determine whether there were major contaminant sources in the basin (BES, 2011). During Phase 1 of the investigation, the City collected and analyzed stormwater grab samples and concurrent inline sediment trap samples in 2008-2009 at multiple locations as part of a screening step to help inform subsequent sampling for source tracing purposes (Phase 2). The Phase 1 stormwater samples were collected at locations representative of cumulative discharges from the western and eastern branches, respectively; the samples were analyzed for a broad suite of analytes and the results evaluated using a conservative screening approach. Phase 1 results indicated the presence of PCBs and cadmium sources in the eastern branch and a low-level PCBs source in the western branch (BES, 2011).

Additional stormwater and stormwater sediments were collected (Phase 2) throughout the basin to evaluate potential source areas in each branch. Investigation work included line cleaning to remove possible legacy contaminants in inline solids in the Basin 43 conveyance system. Following line cleaning, concentrations of PCBs in stormwater in the eastern branch were low, indicating that current major sources of PCBs are not present.⁴ Because the eastern

³ Site operations covered by the NPDES permit have not changed, but have been conducted under multiple company names, including: TEMCO, LLC Irving Elevator, CLD Pacific Grain, and Cargill.

⁴ Phase 2 stormwater samples were not analyzed for cadmium because cadmium concentrations in Phase 1 results were an order-of-magnitude below City wastewater discharge limits.

branch was slated for diversion and contaminant concentrations in eastern branch stormwater fall within City wastewater discharge limits, no additional source tracing was warranted in this branch (BES, 2011).

In the western branch, Phase 2 results indicated that no major sources of PCBs currently discharge to the Basin 43 stormwater conveyance system and that additional source tracing was not needed (BES, 2011). As a best management practice following construction of the East Side Big Pipe tunnel through this area, the City cleaned lines and inlets in the western branch in 2012. Post-construction, the City was able to access a manhole near the downstream end of the western branch and collected post-cleanout stormwater samples to verify that further source control measures were not necessary in this area. Results of this investigation confirm that there are no current major PCB sources to Basin 43 (BES, 2012).

Table 2 lists investigations and evaluations completed by the City in the Basin 43 conveyance system.

Table 2. City Investigations in the Basin 43 Stormwater Conveyance System

Data Collection Period	Purpose	Documentation
NA	Describe existing inriver sediment data collected adjacent to the Albina Riverlots shoreline (RM11E), describe adjacent City basins and potential sources, and identify next steps to prioritize outfall basins for future source tracing activities.	Albina Riverlots: City Basin Information and Source Investigation Approach, Technical Memorandum (BES, 2008)
2006	Collect stormwater solids samples from the City conveyance system adjacent to the former Westinghouse property before site remediation and interim redevelopment to assess potential historical offsite migration.	Former Westinghouse Property Storm System Investigation and Source Control Activities Report (BES, 2010b)
2008 - 2011	Collect stormwater and solids data in both branches to determine major sources that may need to be controlled to protect the river (western branch) or the wastewater treatment plant (eastern branch).	Outfall Basin 43 Source Investigation Report, City of Portland Outfall Project, ECSI No. 2425 (BES, 2011)
2012	Final stormwater sampling to confirm that there were no major sources in the current basin.	Outfall Basins 43 and 44 Stormwater Investigations. Technical Memorandum No. OF43/44-1 (BES, 2012)

5 Completion of Source Identification

Most of the industrial area formerly within Basin 43 was diverted to the City's WWTP in 2011. The lines of evidence evaluated to verify that source tracing within the current basin boundary is complete include (1) source tracing results from the basin and (2) land use at remaining upland areas not undergoing DEQ Cleanup Program investigation or redevelopment. Findings from this evaluation are summarized below.

- *Source Tracing Results:* Results of the screening investigation (Phase 1) indicated that major current contaminant sources are not present (BES, 2011). Subsequent results of

the 2012 Phase 2 stormwater investigations in Basin 43 verified that there are no current major sources of PCBs to the conveyance system (BES, 2012).

- *Upland Investigation Coverage and Land Use:* Figure 3 displays the spatial extent of DEQ Cleanup Program site investigation and other programmatic controls (see key to figures provided at beginning of this Appendix) in the current basin. As shown in Figure 3, sites in the current basin:
 - Have received a source control decision/No Further Action determination, or are investigating the stormwater pathway and developing SCMs for implementation under DEQ Cleanup Program authority;
 - Are covered under NPDES stormwater regulations; and/or
 - Are monitored for stormwater exposures through periodic inspections under the City's Industrial Stormwater Program.

Land use in the remaining area is primarily artist studios, office buildings, parking areas, rail lines, and paved roadways. Industrial activities exposed to stormwater are being addressed by the DEQ Water Quality NPDES Program and non-industrial activities are not a known or suspected source of contaminants to the City stormwater conveyance system.

Based on these lines of evidence, the City concludes that the Basin 43 source investigation is complete and no major sources are present.

6 Basin Source Controls

The City and DEQ collaborated under their respective authorities to identify control mechanisms for major sources identified in the basin. Source control in Basin 43 includes SCMs completed under a DEQ Cleanup Program agreement with one upland site, ongoing City and DEQ programs that are described in the Municipal Report, and targeted conveyance system source control activities completed by the City in this basin. Upland site source controls implemented in Basin 43 are displayed in Figure 3 and summarized in this section.

One type of programmatic source control is the elimination of stormwater exposures to industrial activities. Table 3 lists the one site in the basin that currently holds an NPDES No Exposure Certification.

Table 3. Site with No Exposure Certification (NEC) in Basin 43

Address	Company	Time Period
808 N River	Van Raden Industries	2004 - Present

Table 4 summarizes additional site-specific, programmatic, and conveyance system source controls for Basin 43.

Table 4. Basin 43 Source Controls

Site / Area	Source Controls	Implementation Timeframe
Source Control Measures (SCM) at DEQ Cleanup Sites		
Cargill Incorporated (ECSI #5561)	To be determined	To be determined
Tucker Building (ECSI #3036) ⁽¹⁾	<p>City remediation and redevelopment of the former Tucker Building site addressed legacy contamination associated with historical operations and the current site stormwater pathway (BES, 2010a). The site received an NFA from DEQ in 2004. Stormwater source control activities included:</p> <ul style="list-style-type: none"> • Removal of the historical onsite stormwater conveyance system, including piping, catch basins, and residual legacy materials in the system. • Demolition of all site structures, removal of contaminated soil, and capping the site with new pavement or landscaping, thereby removing exposure of any historical site contaminants to stormwater. • Implementation of erosion controls during site remediation and redevelopment, including protection of catch basins potentially affected by soil tracking. • Recording of deed restriction to ensure long-term cap maintenance and integrity. 	2000 – 2002 Ongoing
City Conveyance System		
N. Albina Avenue and N. River Street	The City cleaned catch basins and storm lines potentially affected by the former Tucker Building site redevelopment after completion of the new N. Tillamook Avenue on-ramp to N. Interstate Avenue.	2002
	The City cleaned line segments in the vicinity of the former Tucker Building site as part of the East Side CSO tunnel construction project.	2007
	The City cleaned the N. Albina and N. River Street lines and associated catch basins to remove any residual solids in the conveyance system following completion of the East Side CSO tunnel construction project.	2012
Other (Programmatic Source Controls)⁽²⁾		
Van Raden Industries	NPDES No Exposure Certification	Ongoing

Notes

NFA = No Further Action determination; CSO = combined sewer overflow; DEQ = Oregon Department of Environmental Quality; NPDES = National Pollutant Discharge Elimination System

(1) Source: *Former Tucker Building Storm System Investigation and Source Control Activities Report*. (BES, 2010a).

(2) Programmatic source controls are described in the Municipal Report.

Other municipal programs (e.g., periodic inspection of and technical assistance to non-NPDES sites, illicit discharge monitoring, street sweeping, etc.) likely provide additional source control benefits in the basin and will help to address minor sources for which specific control measures have not been required. City programs that control current and future contaminant discharges to the conveyance system are described in the Municipal Report.

7 Conclusion

The City completed source tracing in Basin 43 and determined that major contaminant sources are not present in the basin. Therefore, future discharges from Outfall 43 are unlikely to represent a significant source of contaminants to the river. The City concludes that it has met the RI/SCM objectives of the IGA and requests a source control decision from DEQ for Basin 43.

8 References

- Anchor et al. 2012. 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. February 2012.
- BES. 2008. Albina Riverlots: City Basin Information and Source Investigation Approach. Technical Memorandum, to K. Tarnow (DEQ) from D. Sanders and L. Scheffler (BES). [Attachment A: City Source Investigations for Basins 43, 44, and 44A, Fall 2008/Winter 2009 Sampling and Analysis Plan.] December 18, 2008.
- BES. 2010a. Former Tucker Building Storm System Investigation and Source Control Activities Report. City of Portland, Bureau of Environmental Services. April 2010.
- BES. 2010b. Former Westinghouse Property Storm System Investigation and Source Control Activities Report. City of Portland, Bureau of Environmental Services. April 2010.
- BES. 2011. Outfall Basin 43 Source Investigation Report, City of Portland Outfall Project, ECSI No. 2425. City of Portland, Bureau of Environmental Services. December 2011.
- BES. 2012. Outfall Basins 43 and 44 Stormwater Investigations. Technical Memorandum No. OF43/44-1. City of Portland, Bureau of Environmental Services. October 25, 2012.
- DEQ. 1995. DEQ Site Summary Full Report – Details for ECSI Site ID 1302, Master Chemical Inc. DEQ Environmental Cleanup Site Information (ECSI) Database, updated August 1995; accessed February 5, 2013.
<http://www.deq.state.or.us/lq/ECSI/ecsidetail.asp?seqnbr=1302>
- DEQ. 2011. DEQ Site Summary Full Report – Details for ECSI Site ID 5561, Cargill Incorporated. DEQ Environmental Cleanup Site Information (ECSI) Database, updated April 2011; accessed September 29, 2013.
<http://www.deq.state.or.us/lq/ECSI/ecsidetail.asp?seqnbr=5561>

- DEQ. 2012a. DEQ Site Summary Full Report – Details for ECSI Site ID 4497, Westinghouse Property (Former). DEQ Environmental Cleanup Site Information (ECSI) Database, updated December 2012; accessed March 7, 2013.
<http://www.deq.state.or.us/lq/ECSI/ecsidetail.asp?seqnbr=4497>
- DEQ. 2012b. DEQ Site Summary Full Report – Details for ECSI Site ID 5758, Kenton Foundry (Former). DEQ Environmental Cleanup Site Information (ECSI) Database, updated October 2012; accessed February 13, 2013.
<http://www.deq.state.or.us/lq/ECSI/ecsidetail.asp?seqnbr=5758>
- DEQ. 2012c. DEQ Site Summary Full Report – Details for ECSI Site ID 3036, Tucker Building. DEQ Environmental Cleanup Site Information (ECSI) Database, updated December 2012; accessed February 5, 2013.
<http://www.deq.state.or.us/lq/ECSI/ecsidetail.asp?seqnbr=3036>
- DEQ. 2013. Milestone Report, Upland Source Control at the Portland Harbor Superfund Site. Prepared by the Oregon Department of Environmental Quality. January 2013.
- EPA. 2010. Re: Portland Harbor Superfund Site; Administrative Order on Consent for Remedial Investigation and Feasibility Study; Docket No. CERCLA-10-2001-0240. Portland Harbor Feasibility Study Source Tables. Letter from EPA to Mr. Bob Wyatt, Chairman, Lower Willamette Group. November 23, 2010.
- Integral et al. 2011. Portland Harbor RI/FS, Draft Final Remedial Investigation Report. Prepared for the LWG. Prepared by Integral Consulting Inc., Windward Environmental LLC, Kennedy/Jenks Consultants, and Anchor QEA, LLC. August 29, 2011.

List of Figures

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Figure 2: Basin 43 Overview

Figure 3: Basin 43 Upland Site Source Controls

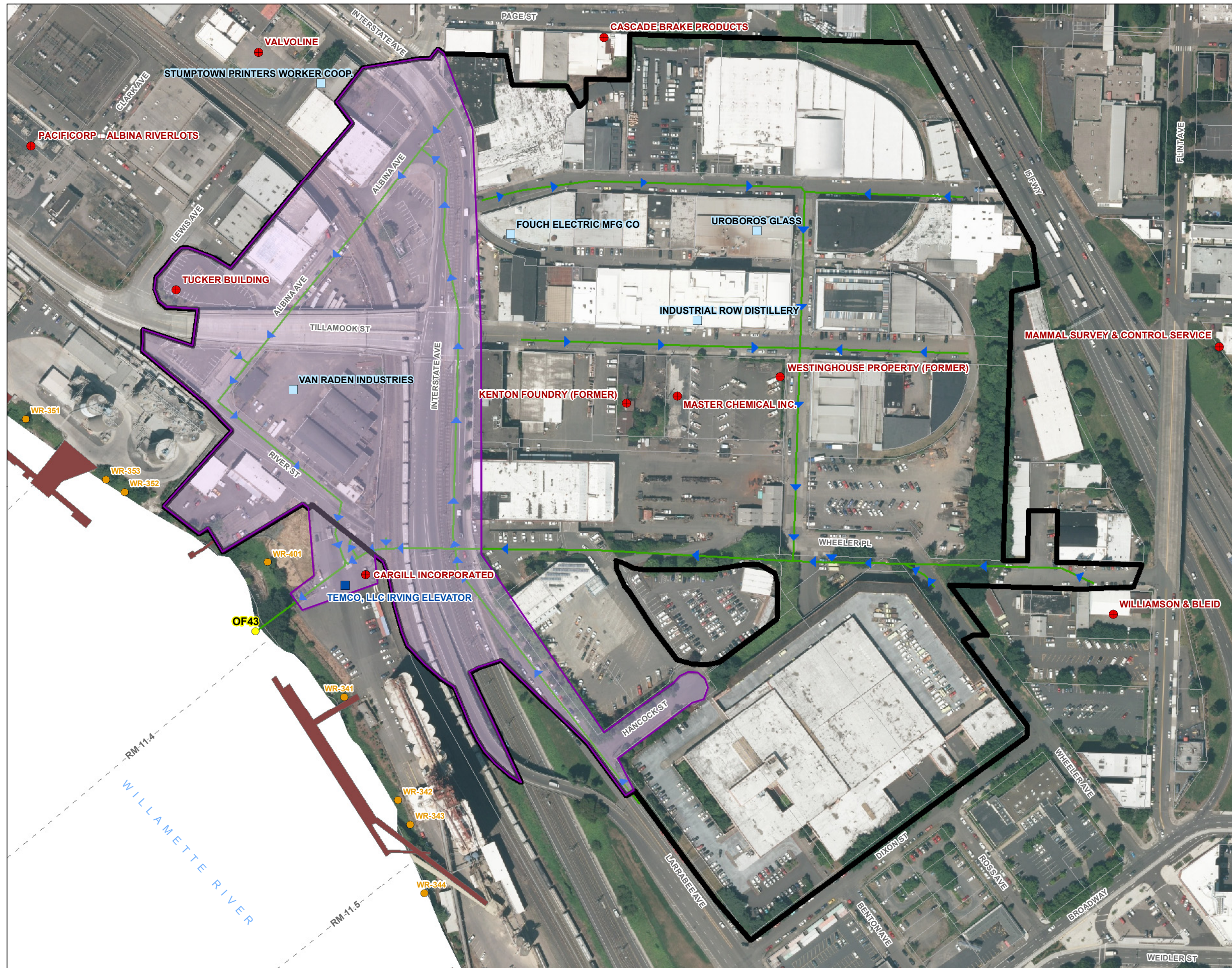
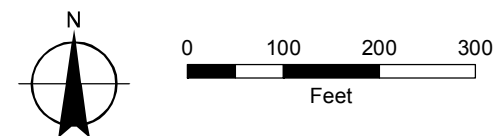


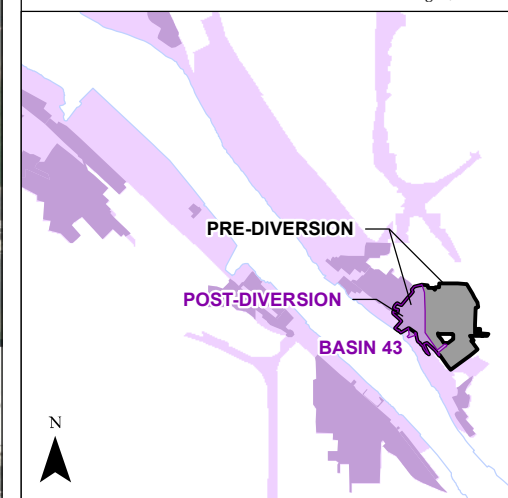
FIGURE 1
Basin 43
Pre- and Post- Diversion Overview

- Basin 43, Pre-Diversion
 - Basin 43, Post-Diversion
 - DEQ ECSI Site
 - NPDES Stormwater Permit
 - NPDES No Exposure Certification
- Conveyance System**
- Storm Line
 - City Outfall
 - Non-City Outfall
- All Other Data**
- River Mile (RM)
 - Dock
 - Tax Lot
 - Discharges to City Outfall
 - Portland Harbor Hydroboundary



MAP NOTES:
Date: December 31, 2013
Data Sources: BES, METRO
Air Photo Taken 2012

 ENVIRONMENTAL SERVICES
CITY OF PORTLAND
1120 SW Fifth Avenue, Room 1000
Portland Oregon, 97204-1912



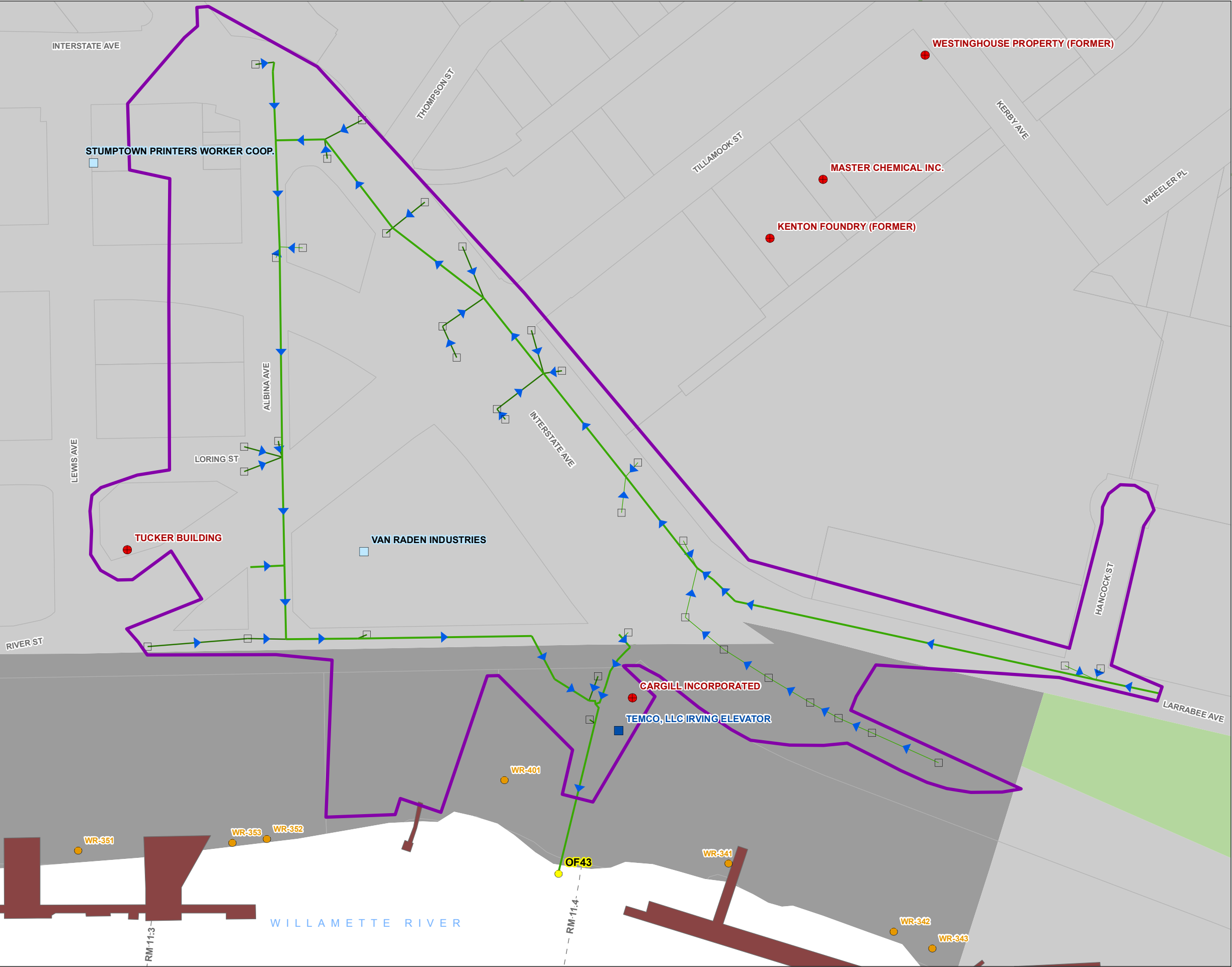
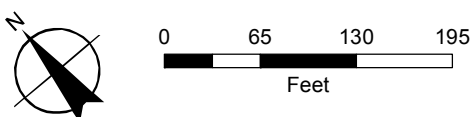


FIGURE 2
Basin 43
Overview

- Basin 43
- DEQ ECSI Site
- NPDES Stormwater Permit
- NPDES No Exposure Certification
- Conveyance System**
 - Storm Line
 - Catch Basin
 - City Outfall
 - Non-City Outfall
- Land Use/Zoning**
 - Heavy Industrial
 - Light Industrial
 - Parks and Open Space
- All Other Data**
 - River Mile (RM)
 - Dock
 - Tax Lot
 - Discharges to City Outfall
 - Portland Harbor Hydroboundary



MAP NOTES:
Date: December 31, 2013
Data Sources: BES, METRO

ENVIRONMENTAL SERVICES
CITY OF PORTLAND
1120 SW Fifth Avenue, Room 1000
Portland Oregon, 97204 -1912

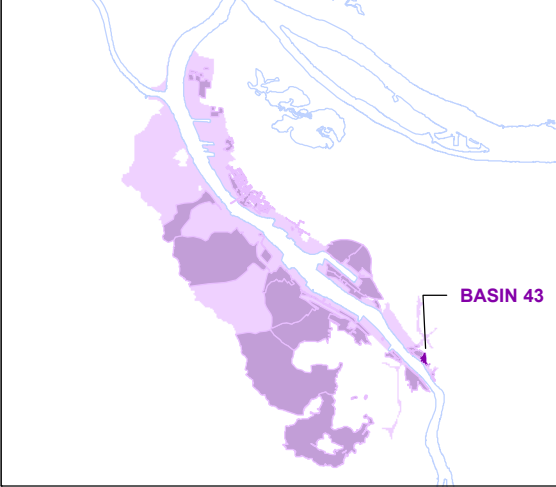
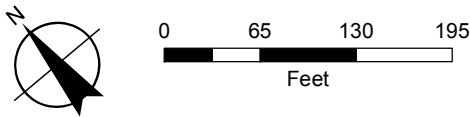




FIGURE 3
Basin 43
Upland Site Source Controls

- Basin 43
- Tax Lot
- DEQ Stormwater SCE**
 - SCE implemented or pending
- All Other Features**
 - NPDES Stormwater Discharge Permit
 - NPDES No Exposure Certification
 - Stormwater Treatment Facility
 - Site Inspection - BES Industrial Stormwater Program
 - Discharges to City Outfall
 - Portland Harbor Hydroboundary



MAP NOTES:
Date: January 9, 2014
Data Sources: BES, METRO, Air Photo Taken 2012

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