

Completion Summary for City of Portland Outfall Basin 13

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 Completion Summary summarizes the results of this collaborative effort in Outfall Basin 13 and includes a weight-of-evidence evaluation to demonstrate that source evaluation is complete and that there are no current (or anticipated future) major sources of contaminants to the Willamette River.

Basin 13 is located on the west side of the river in the Pearl District near downtown Portland. Historically a manufacturing and transportation hub, facilities in this district came into increasing disuse as industrial activities largely shifted to other parts of the City starting in the 1950s. In the early 1980s, the Pearl District became the focus of planning efforts to convert industrial properties into the district's current mixed-use, high-density urban neighborhood. Basin 13 is small and now consists primarily of City streets and new residential development; the remainder of the basin includes a restaurant, two warehouses, and a truck trailer parking area.

No known or suspected contaminant sources to the Basin 13 stormwater conveyance system have been identified, and river sediment in the vicinity of the outfall does not contain elevated concentrations of any contaminants (i.e., the U.S. Environmental Protection Agency [EPA] has not identified the potential need for sediment remediation). For these reasons, the City concludes that no source investigation is warranted in this basin and that the existing programmatic source control measures (SCM) in the basin are sufficient for ensuring discharges from Outfall 13 are protective of the river. Therefore, the City has met the remedial investigation (RI)/SCM objectives for Basin 13.

2 Introduction

This Completion Summary presents a weight-of-evidence evaluation of whether further source investigation is needed in Basin 13, 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 13, the City has met the joint RI/SCM objectives of the August 13, 2003, intergovernmental agreement (IGA) between the City and DEQ.

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 13 discharges to the west side of the Willamette River near River Mile 11, approximately 275 feet downstream of the Fremont Bridge. It was historically a combined sewer outfall (CSO). The combined sewer portion of the system was diverted to the municipal water treatment system in 2006, and Basin 13 is now a stormwater-only basin. The current Basin 13 stormwater conveyance system drains a 4.9-acre area, located within Portland's Pearl District. Figure 1 shows the location of the outfall and drainage basin boundary and provides an overview of the associated stormwater conveyance system. As shown in Figure 1, the basin includes two drainage swales in the right-of-way along the west side of NW Front Avenue. The City's Bureau of Environmental Services (BES) worked with the City's Bureau of Transportation on a pedestrian improvement project to install these swales, which are designed to reduce total suspended solids loading to Outfall 13. City programs that result in these types of stormwater improvements are described in the Municipal Report.

3.2 Land Use and Potential Upland Sources

Basin 13 includes areas zoned for residential (multi-unit), general employment¹ and industrial use (see Figure 1). The majority of the basin consists of NW Front Avenue and NW 15th Street and residential land (occupied by the RiverScape condominiums). The remainder consists of the property at 2047 NW Front Avenue (currently occupied by a restaurant) and a portion of the property at 2030 NW 17th Street, which is occupied by two warehouses and used for parking and storage of truck trailers. The majority of this property is unpaved and covered by gravel.

No current pollutant sources have been identified in Basin 13. Historical land use within and adjacent to the current basin boundary was industrial and included operations associated with the Port of Portland's former Terminal 1 South, which is a DEQ Cleanup Program site (Environmental Cleanup Site Information [ECSI] #2642). The former terminal site was remediated in 2002 and received a No Further Action determination from DEQ (DEQ, 2003). Terminal 1 South did not historically discharge through Outfall 13, but discharged directly to site outfalls. During redevelopment for residential use in 2006 under the City's Stormwater Management Manual (SWMM), a portion of the remediated site was connected to Outfall 13.

Operations at properties in the portion of the basin that is currently zoned for industrial use do not have extensive outdoor activities where industrial stormwater exposures may occur. Accordingly, none of the sites in the basin currently holds, or historically had, National Pollutant Discharge Elimination System (NPDES) permits to discharge to the Basin 13 conveyance system. Note that the City has an NPDES Municipal Separate Stormwater Sewer System (MS4) stormwater permit that covers basin drainage areas.

¹ General employment is a Portland zoning category that allows a range of employment opportunities but emphasizes industrial and industrial-support uses. The zones can allow for the transition to a less industrial overall nature.

3.3 Outfall Setting

Outfall 13 discharges immediately downstream of a river reach identified by EPA as an area of potential concern (AOPC 26) for several contaminants, based on results of river sediment sampling (EPA, 2010). However, Outfall 13 does not discharge to that or any other AOPC.

4 Basin Screening and Source Investigations

Basin screening consisted of an evaluation of current and past land use, as described in Section 3. Based on this evaluation, the City concluded that Basin 13 was unlikely to contain major sources of contaminants to the City conveyance system and no source investigations were needed in Basin 13.

5 Completion of Source Identification

The lines of evidence evaluated to confirm that source evaluation objectives have been met with regard to Basin 13 include (1) inriver sediment concentrations near the outfall, (2) information on potential sources of contaminants, and (3) drainage basin characteristics and land use. Findings from this evaluation are summarized below:

- *Inriver Sediment Concentrations.* River sediment in the vicinity of Outfall 13 does not contain elevated concentrations of any contaminants (i.e., the outfall does not discharge to an AOPC).
- *No Upland Sources:* Basin 13 contains no known or suspected upland sources of contaminants to the City stormwater conveyance system (e.g., no active DEQ Cleanup Program sites or NPDES-permitted facilities). The only DEQ Cleanup Program site in the basin was not connected to the City's conveyance system until after site investigation and remediation were completed under DEQ oversight and the site had been redeveloped for residential use.
- *Drainage Basin Characteristics and Land Use.* Basin 13 is small (4.9 acres) and mostly consists of paved City streets and relatively new residential development. Current uses of the industrial-zoned property in the basin include a restaurant, warehouse, parking, and truck trailer storage. Current and future industrial activities exposed to stormwater at these sites will be addressed by the DEQ Water Quality NPDES program, and non-industrial activities are not a known or suspected major source of contaminants to the City stormwater conveyance system. Water quality swales constructed by the City provide treatment for surface drainage on the west side of NW Front Avenue (see Figure 1).

The weight-of-evidence evaluation summarized above indicates that the Basin 13 source evaluation is complete and no additional source tracing is warranted.

6 Basin Source Controls

Because no known or suspected major sources were identified in Basin 13, additional coordination between DEQ and the City to identify control mechanisms was not needed in this

basin. Terminal 1 South, the only DEQ Cleanup Program site in Basin 13, was investigated and remediated under DEQ oversight. Redevelopment of the portion of this site within Basin 13 changed the land use from heavy industrial to residential, and all of the redevelopment included stormwater controls under the SWMM. Figures 1 and 2 displays the spatial extent of the upland site investigation and other programmatic site source controls in and around the basin (see key to figures provided at beginning of this Appendix). Future anticipated redevelopment in the basin also will be subject to stormwater controls as required under the SWMM.

Conveyance system source controls in Basin 13 consist of treatment swales installed in 2007 along NW Front Ave (see Figure 1) as part of the City's Green Streets program. The swales treat most of the stormwater from the west half of NW Front Avenue. The City conservatively lined the swales based on soil data collected just outside the basin and adjacent to a historical rail line. The data were collected before the Upshur Shaft of the West Side CSO Tunnel was constructed; data showed low concentrations of diesel, polychlorinated biphenyls (PCB) and metals in subsurface soil samples (CH2M HILL and Bridgewater, 2002).

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

Based on the information summarized above, there are no major pollutant sources in Basin 13. Therefore, future discharges from Outfall 13 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 13.

8 References

CH2M HILL and Bridgewater. 2002. Contaminated Media Management Plan (CMMP) West Side CSO Tunnel, Shafts, & Pipelines, Part I of II. Prepared of the City of Portland Bureau of Environmental Services. September 2002.

DEQ. 2003. DEQ Site Summary Full Report - Details for ECSI Site ID 2642, Port of Portland - Terminal 1 South. DEQ Environmental Cleanup Site Information Database (ECSI), updated June 9, 2003; accessed September 29, 2011.
<http://www.deq.state.or.us/lq/ECSI/ecsidetailfull.asp?seqnbr=2642>

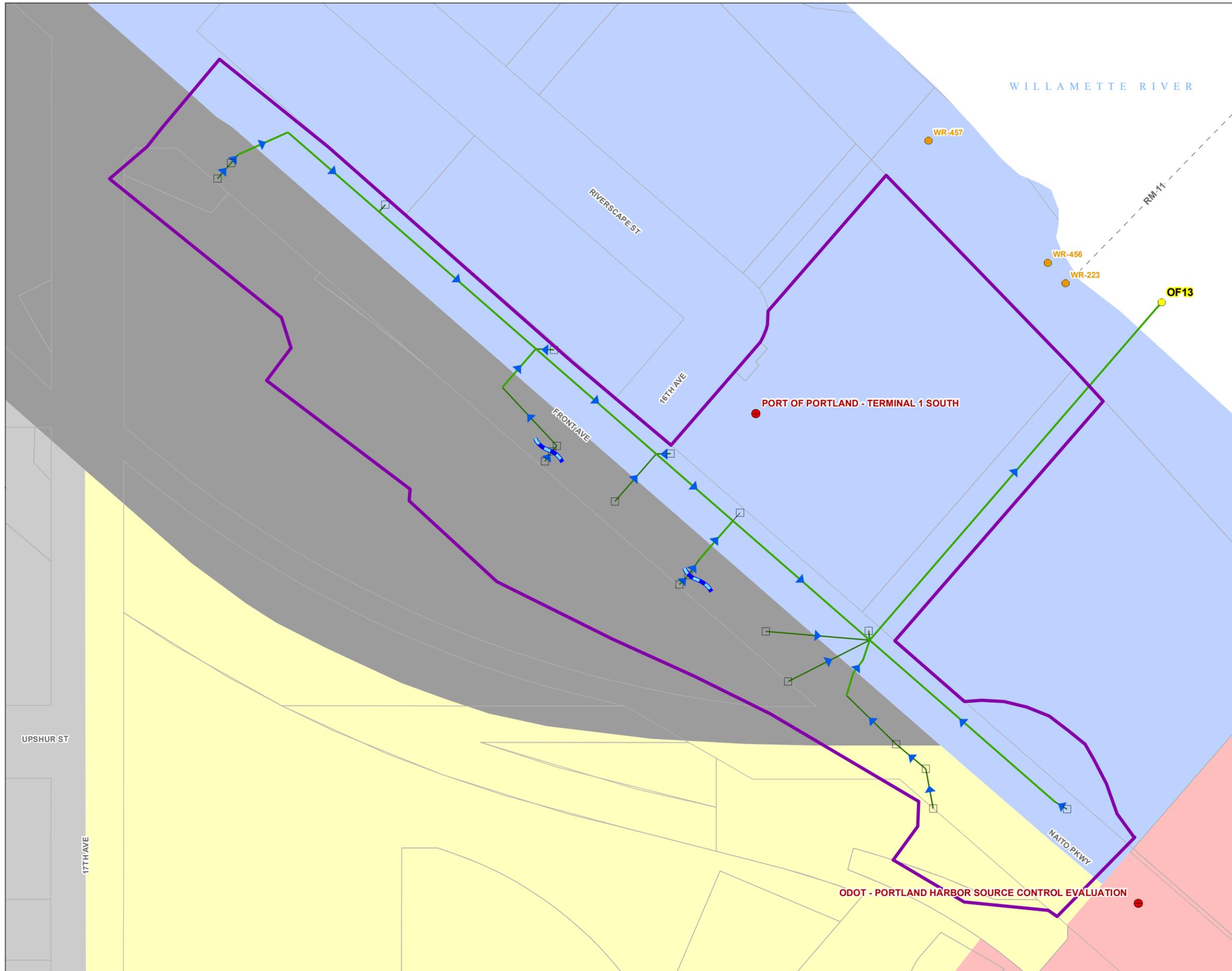
EPA. 2010. Re: Portland Harbor Superfund Site; Administrative Order on Consent for Remedial Investigation and Feasibility Study; Docket No. CERCLA-10-2001-0240. Portland Harbor Feasibility Study Source Tables. Letter from EPA to Mr. Bob Wyatt, Chairman, Lower Willamette Group. November 23, 2010.

List of Figures

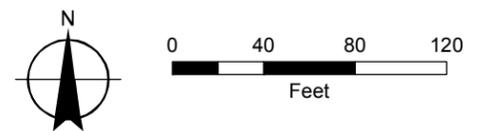
Figure 1: Basin 13 Overview and Conveyance System Source Controls

Figure 2: Basin 13 Upland Site Source Controls

FIGURE 1
Basin 13
Overview and Conveyance
System Source Controls



- Basin 13
- DEQ ECSI Site
- Conveyance System**
- ▶ Storm Line
- ~ Water Quality Swale
- Catch Basin
- City Outfall
- Non-City Outfall
- Land Use/Zoning**
- Heavy Industrial
- Light Industrial
- General Employment
- Residential
- Major Transportation
- All Other Data**
- River Mile (RM)
- Tax Lot
- ▶ Discharges to City Outfall
- Portland Harbor Hydroboundary



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

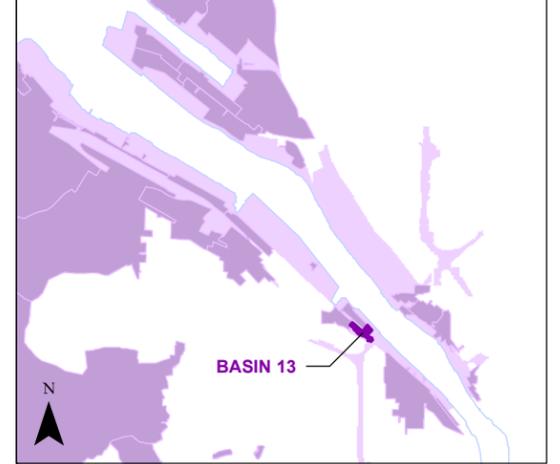
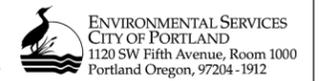
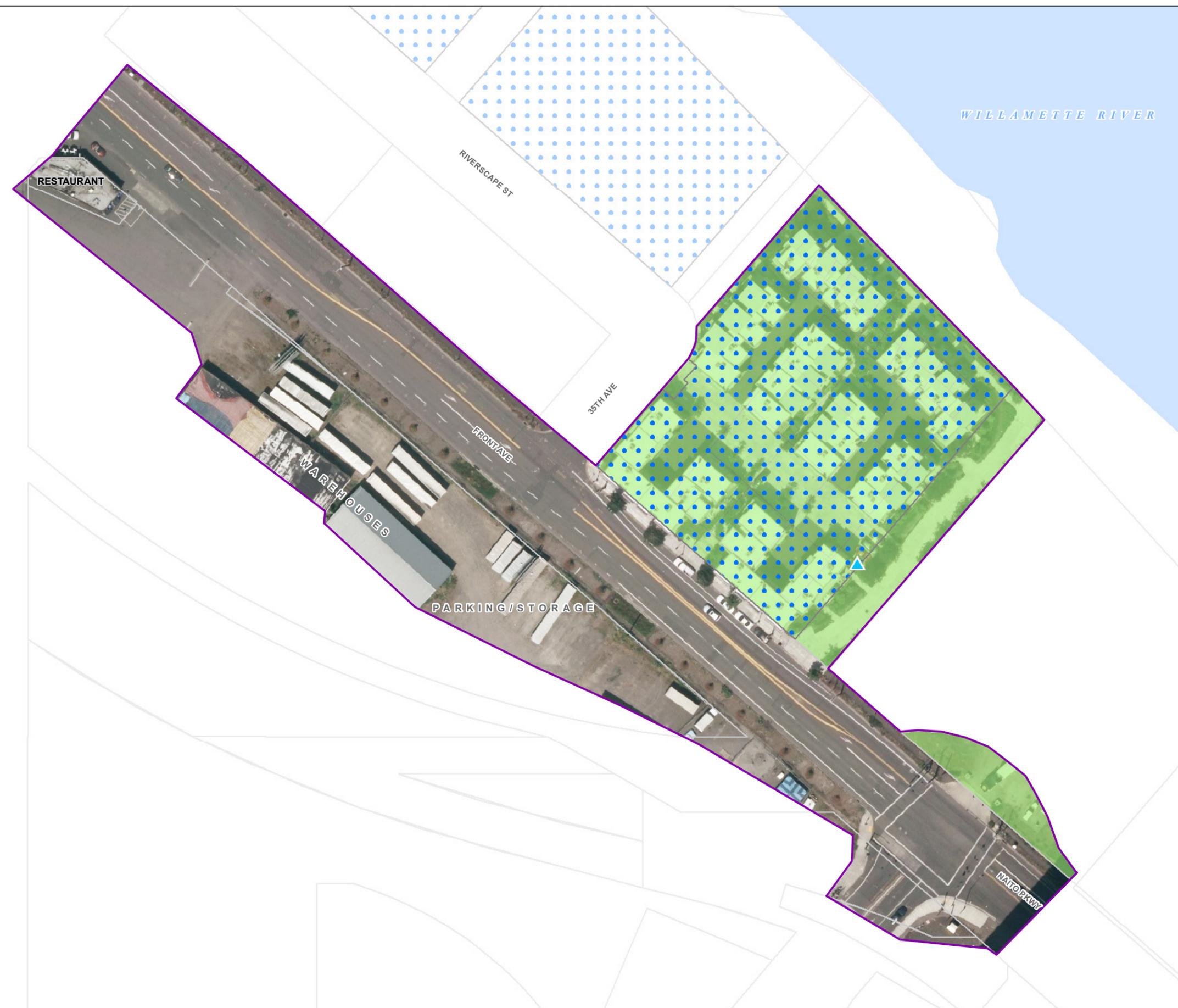
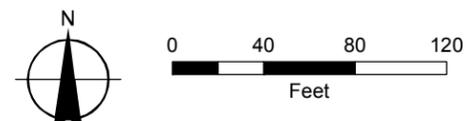


FIGURE 2
Basin 13
Upland Site Source Controls



- Basin 13
- Tax Lot
- DEQ Stormwater SCEs**
- SCE implemented or pending
- All Other Features**
- >50% of Site Area Redeveloped Under City SWMM
- Stormwater Treatment Facility
- Discharges to City Outfall
- Portland Harbor Hydroboundary



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

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