

102a – Status of Implementation Actions Taken Pursuant to S4.F.3.D

On July 1, 2019, Ecology re-issued the Phase I Permit, including Appendix 13 – Adaptive Management Requirements. Appendix 13 requires adaptive management response plans for discharges from the City of Seattle’s (City) municipal separate stormwater system (MS4) to the Lower Duwamish Waterway (LDW). In accordance with S4.F.3, the City must comply with the specific requirements identified in Appendix 13. Per the requirement of S4.F.3.d, Seattle is providing the status of implementation and the results of any monitoring, assessment or evaluation efforts conducted during 2020 related to Appendix 13 Adaptive Management requirements.

This is the fifth Annual Report that combines the City’s required source control activities for the LDW and related information related to these Adaptive Management Response Plans into one report. In March of 2015, SPU provided Ecology with the first Source Control Implementation Plan (SCIP), and SPU implemented the actions contained in the first SCIP through December 2020.

The following sections describe the actions that the City has taken to implement the adaptive management plan as described in Appendix 13 of the August 19, 2016 and July 1, 2019, Phase I Municipal Stormwater Permits.

Background

An S4.F notification was submitted in 2007 to notify Ecology of potential water quality problems that may be related to discharges from the City’s MS4 for the LDW. Ecology determined that a report under S4.F.2.a was not necessary, with that determination conditioned on certain City actions. Ecology required the City, beginning with its Phase I Permit Annual Report for 2008, to include a summary of its stormwater management efforts in basins that discharge to the LDW. The City was required to notify Ecology if Seattle’s involvement in the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and associated Source Control Strategy processes changed, or if new information became available regarding phthalate recontamination in the LDW.

An S4F notification was submitted on December 5, 2013 to notify Ecology of potential sediment quality problems that may be related to discharges from the City’s MS4 to the LDW. Ecology accepted the notification (June 4, 2014) as a general notification for all MS4 discharges to the LDW for all LDW sediment chemicals of concern (COC). The City’s draft SCIP (November 2013) fulfilled the City’s requirement for submittal under S4.F.3.a of an expanded adaptive management response. The City revised the SCIP, and a final draft of the SCIP was submitted to Ecology on March 31, 2015.

Though not required for the LDW or adaptive management, an S4F notification was submitted on September 5, 2014 to notify Ecology of potential sediment quality problems that may be related to discharges from the City's MS4 to the East Waterway (EW) of the Duwamish Waterway. To satisfy the permit requirements, the City continues to engage in business inspections, source tracing, line cleaning, and other programs regarding the EW, as well as ongoing source control efforts to support the EW CERCLA cleanup.

Source Control Implementation Plan Update

SPU prepared and submitted an updated SCIP to Ecology on March 31, 2020. The updated SCIP expanded upon the 2015-2020 SCIP with an updated assessment of source tracing and program effectiveness data along with updated operation and maintenance and capital projects. In addition, the 2021-2026 SCIP was reformatted to be more user friendly to Ecology for their Sufficiency Evaluation for the Lower Duwamish Waterway Superfund Cleanup.

The 2021-2026 SCIP and Appendices can be viewed at the following web site:

<https://www.seattle.gov/utilities/neighborhood-projects/lower-duwamish-waterway>.

Appendix 13 - Adaptive Management Requirements Reporting

Source Tracing and Sampling Activities

SPU collects samples of storm drain solids from with the City MS4 to characterize the quality of material discharged to and from the City's drainage system. Samples include 1) grabs from private onsite catch basins and catch basins located in the public right-of-way, 2) grabs from inline maintenance holes in the conveyance system, and 3) inline sediment trap samples. Data generated from these samples are used to identify potential contaminant sources and to prioritize source tracing/control activities. Between January and December 2020, SPU collected 71 samples of storm drain solids from the City's MS4.

Effectiveness Monitoring Program

SPU is on track to install or collect one sample per calendar year from each outfall and near-end-of-pipe location in Tables 1 and 2 of Appendix 13. Source tracing data collected from January through December 2020 are provided in Attachment A of this report and will be loaded into EIM¹.

Operations & Maintenance

In 2020, SPU cleaned approximately 15,520 linear feet of pipe in the 16th Ave S. SD, S Nevada St. SD, Denver Ave S. Sub Basin, S Snoqualmie St. Sub Basin, S Myrtle St. SD, S Idaho St. Sub

¹ Results for samples collected and validated since the 2018 annual report.

Basins and finished the S Dakota St. Sub Basin started last year. These basins were identified as priority basins in the City's 2015 SCIP. This work is conducted to remove solids that have accumulated in the MS4 to prevent them from discharging into the LDW and to facilitate source tracing efforts. Water generated during line cleaning operations was treated and discharged to the sanitary sewer under a discharge authorization with King County. Solids were dewatered and transported to Waste Management's reload facility in Seattle for eventual disposal.

Report on weekly sweeping of S. Myrtle St.

S. Myrtle St. was swept by SDOT 47 times (full route swept 30 times; only a portion of the full route swept 17 times) in 2020 as part the Street Sweeping for Water Quality Program (SS4WQ). In August of 2020, the City became aware of noncompliance with the requirement to weekly sweep S. Myrtle Street from 8th westward to the street end. In February, and April through August, the City did not achieve the weekly sweeping requirement due to staffing impacts from the ongoing COVID-19 pandemic. To address the situation, SDOT expanded other existing sweeping routes to include the S. Myrtle St segment. The City has maintained compliance since mid-September of 2020.

Report on quarterly inspection of catch basins and maintenance holes on S. Myrtle St.

SPU conducted quarterly inspections of catch basins and mainline maintenance holes from 2011 – 2020. The data for catch basin and mainline maintenance hole measurements from 2011 to 2020 are provided in Table 1. Measurement locations are shown in Figure 1. The data from 2011 to 2017 were evaluated as part of the evaluation of existing operation and maintenance work for catch basin and flow control/water quality facilities in the MS4 basins that discharge to the LDW, to determine if programmatic strategies could be implemented to assist with Source Control. The evaluation determined that the catch basins on S. Myrtle Street accumulate solids or require maintenance similar to those in the rest of the LDW MS4 basins. However, Per Ecology's direction, SPU will continue quarterly inspections of catch basins and mainline maintenance holes.

Table 1: S Myrtle St maintenance hole measurements.

EQNUM	576148	576126	576140	576158	576162	576145	576165	943593	599350	599353	599354
Location	S Myrtle St cul-de-sac, west CBL	S Myrtle St cul-de-sac, north CBL	north side S Myrtle St, west of SIM CBL	south side S Myrtle St, west of SIM CBL	south side S Myrtle St, east of SIM CBL	S Myrtle St and Fox Ave S CBL	south side S Myrtle St at 7th Ave S CBL	north side S Myrtle St, east of SIM CBL	S Myrtle St cul-de-sac MH	S Myrtle St at SIM MH	S Myrtle St at 7th Ave S MH
Type											
Outlet pipe size	8	8	8	8	8	8	8	8	8		
Casting Width	1'-4"	1'-4"	NA	1'-4"	1'-4"	1'-4"	1'-4"	1'-8"	NA	NA	NA
Casting Length	2'-7"	2'-7"	NA	2'-7"	2'-7"	2'-7"	2'-7"	2'-0"	NA	NA	NA
Structure Depth (ft)	6.45	7.90	NA	7.22	6.4	6.61	5.76	6.2	7.45	7.35	5.76
Sump Depth (ft)	3	2.4	2.6	2.4	2.9	2.9	2.5	2.3	NA	NA	NA
2011 percent full											
04/21/11	0%	0%	4%	0%	13%	3%	46%	11%	0%	0%	0%
07/14/11	0%	0%	3%	8%	29%	13%	1%	21%	0%	0%	0%
2012 percent full											
01/05/12	0%	1%	10%	11%	50%	13%	19%	27%	0%	0%	0%
06/22/12	1%	19%	11%	16%	57%	11%	41%	20%	0%	0%	0%
10/11/12	1%	9%	16%	27%	62%	14%	45%	27%	0%	0%	0%
2013 percent full											
02/11/13	9%	22%	22%	38%	69%	14%	53%	28%	0%	0%	0%
05/01/13	12%	24%	23%	48%	3%	23%	52%	33%	0%	0%	0%
10/28/13	2%	2%	29%	50%	8%	28%	49%	34%	0%	0%	0%
12/23/13	4%	5%	31%	58%	9%	17%	51%	29%	0%	0%	0%
2014 percent full											
03/14/14	4%	13%	30%	68%	19%	38%	49%	26%	0%	0%	0%
06/23/14	5%	15%	38%	73%	21%	27%	55%	37%	0%	0%	0%
09/29/14	6%	13%	42%	72%	22%	29%	55%	36%	0%	0%	0%
12/29/14	6%	15%	43%	81%	30%	28%	50%	36%	0%	0%	0%
2015 percent full											
03/27/15	7%	16%	43%	80%	33%	32%	53%	44%	0%	0%	0%
06/29/15	8%	17%	40%	2%	36%	32%	55%	41%	0%	0%	0%
09/22/15	10%	28%	50%	2%	37%	31%	0%	45%	0%	0%	0%
12/29/15	9%	15%	43%	12%	40%	39%	8%	37%	0%	0%	0%
2017 percent full											
02/22/17	14%	30%	56%	49%	63%	48%	34%	55%	0%	0%	0%
05/25/17	16%	30%	0%	5%	5%	45%	41%	0%	0%	0%	0%
08/17/17	20%	36%	0%	5%	0%	43%	38%	0%	0%	0%	0%
11/22/17	24%	38%	0%	14%	8%	48%	42%	0%	0%	0%	0%
2018 percent full											
03/12/18	20%	36%	1%	15%	4%	48%	38%	0%	0%	0%	0%
05/23/18	23%	37%	3%	21%	5%	28%	41%	-6%	0%	0%	0%
08/29/18	22%	40%	1%	24%	-1%	46%	33%	-5%	0%	0%	0%
12/07/18	23%	0%	13%	21%	8%	2%	20%	1%	0%	0%	0%
2019 percent full											
03/01/19	21%	0%	3%	22%	13%	-3%	39%	-7%	0%	0%	0%
05/22/19	22%	0%	5%	29%	6%	-1%	33%	-6%	0%	0%	0%
08/29/19	1%	-6%	5%	29%	11%	-1%	38%	-8%	0%	0%	0%
12/04/19	23%	2%	0%	29%	3%	7%	42%	-7%	0%	0%	0%
2020 Percent full											
02/26/20	23%	2%	0%	29%	3%	7%	42%	0%	0%	0%	0%
05/27/20	0%	0%	3%	33%	14%	0%	0%	0%	0%	0%	0%
08/26/20	0%	0%	8%	36%	18%	7%	0%	0%	0%	0%	0%
11/25/20	0%	0%	6%	38%	14%	14%	0%	0%	0%	0%	0%
Times Exceeded Maintenance Threshold (60% full)	0 in 8 years	0 in 8 years ¹	1 in 8 years	1 in 8 years	2 in 8 years	0 in 8 years ²	0 in 8 years ³	1 in 8 years	0 in 8 years	0 in 8 years	0 in 8 years
		1. Cleaned multiple times due to spills and illicit discharges				2. Impacted by private construction fillet sock	3. Impacted by private construction fillet sock				

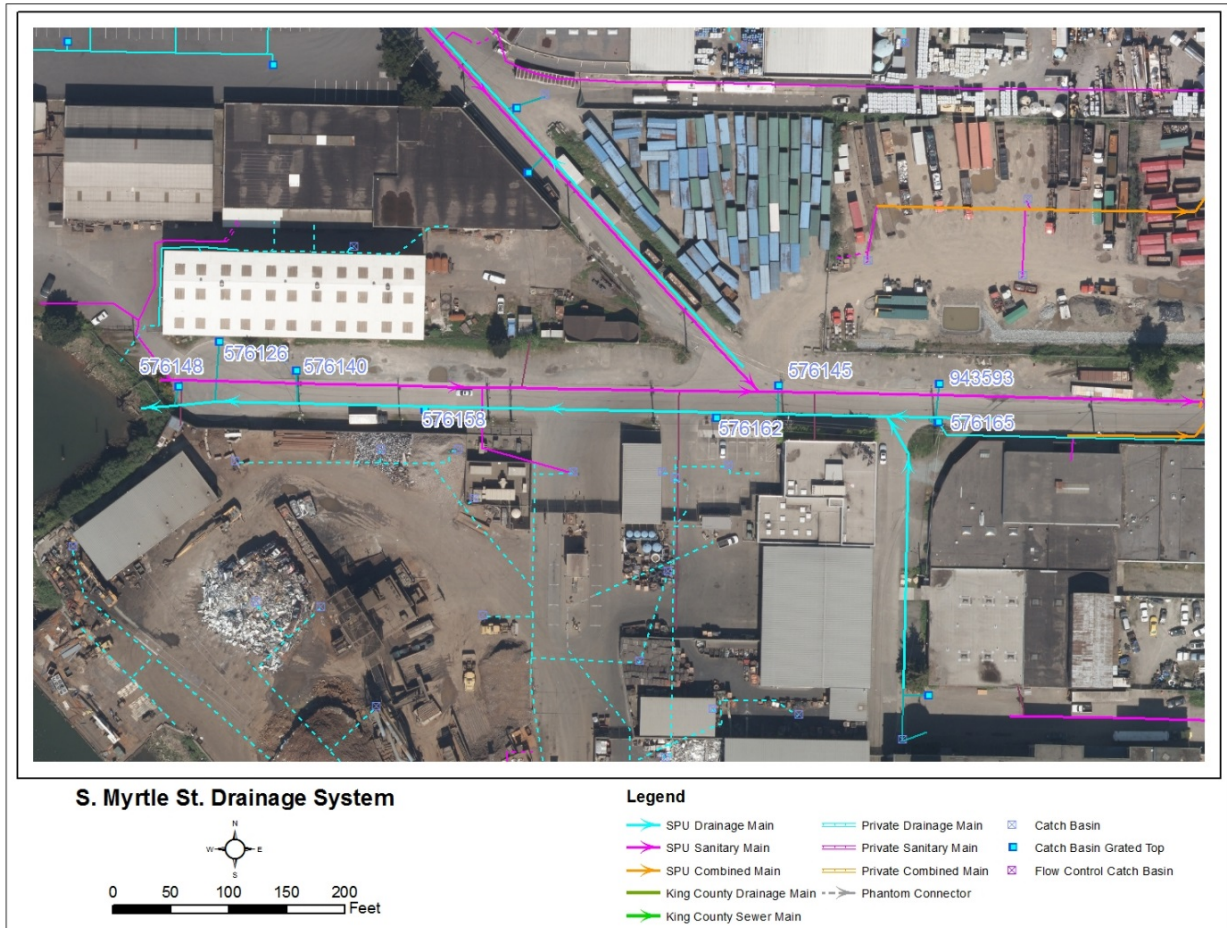


Figure 1: Catch basin and maintenance holes measuring locations on S. Myrtle St.

Structural Controls

South Park Water Quality Stormwater Treatment Facility

The South Park Water Quality Facility is one of the projects included in SPU’s Integrated Plan approved by Ecology and EPA in 2015 as part of the City’s Long-Term CSO Control Plan. It will treat runoff from the 230-acre 7th Ave S drainage system. SPU originally intended to build the water quality facility in conjunction with the South Park Pump Station on the 636/640 S Riverside Dr site. Unfortunately, SPU was unable to acquire the needed adjacent street end vacation to allow both the pump station and the water quality facility to be constructed at this location. SPU decided to construct the pump station on the two properties on S Riverside Dr and in 2019 began searching for alternate locations for the water quality facility. The search for property continued into 2020 and the team continued to refine the project design based upon potential sites. The intent is that the project will consider additional treatment options,

including bioretention, understanding that bioretention would require more space for construction than the mechanical treatment systems that had previously been considered.

Street Sweeping Expansion – Arterials

This program has expanded the City’s arterial street sweeping program, per commitments in the Plan to Protect Seattle’s Waterways (aka Integrated Plan). The team began implementing the plan in 2016.

During 2020, the team continued to implement the plan and adapted as needed to meet the regulatory targets, which resulted in sweeping 23 routes an average of 29 times, covering 802 road miles in MS4 basins discharging to the Lower Duwamish Waterway.

In 2021, the program will focus on the following key tasks:

- Continue sweeping new arterial routes.
- Use SDOT’s day shift staff as available to alleviate the current difficulty maintaining a night crew of six.

Annual Prioritization

Seattle prepared the next SCIP (2021-2026) for the Lower Duwamish Waterway (LDW) which was submitted to Ecology on March 31, 2020. After several suggested revisions from Ecology, the SCIP was considered final by Ecology on December 17, 2020. The SCIP describes the City’s planned source control activities in the LDW for the period 2021-2026 and has been reformatted to better align with the sufficiency analysis that Ecology will be conducting as part of the LDW Superfund Cleanup. In developing the 2021-2026 SCIP, SPU compiled data collected over the past six years (July 1, 2014 through June 30, 2020) to evaluate conditions in the City MS4.

Data Review

Comparisons for the major risk drivers in LDW sediment that are monitored in storm drain solids (arsenic, PCBs, and cPAH), are provided in the form of box plots in Figures 2-4². These box plots compare data from the pre-SCIP period (2003 through June 30, 2014) to the data collected during the SCIP reporting period (July 1, 2014 through June 30, 2020).

² Dioxins/furans have been identified as a risk driver in LDW sediment, but these chemicals are not routinely analyzed in storm drain solids samples.

Arsenic (As) Box Plots

Concentrations (mg/kg dw) over time for all samples in Seattle's MS4 collected between August 13, 2003 and November 12, 2020

* Blue line = SCO (57 mg/kg dw), and Red line= CSL (93 mg/kg dw)

* Median concentrations by outfall are shown in bolded text.

* SCIP 1 = August 18, 2003 - June 30, 2014.

* SCIP 2 = July 1, 2014 - November 12, 2020. If the storm drain has been cleaned during SCIP 2, only the most recent post-cleaning samples are included.

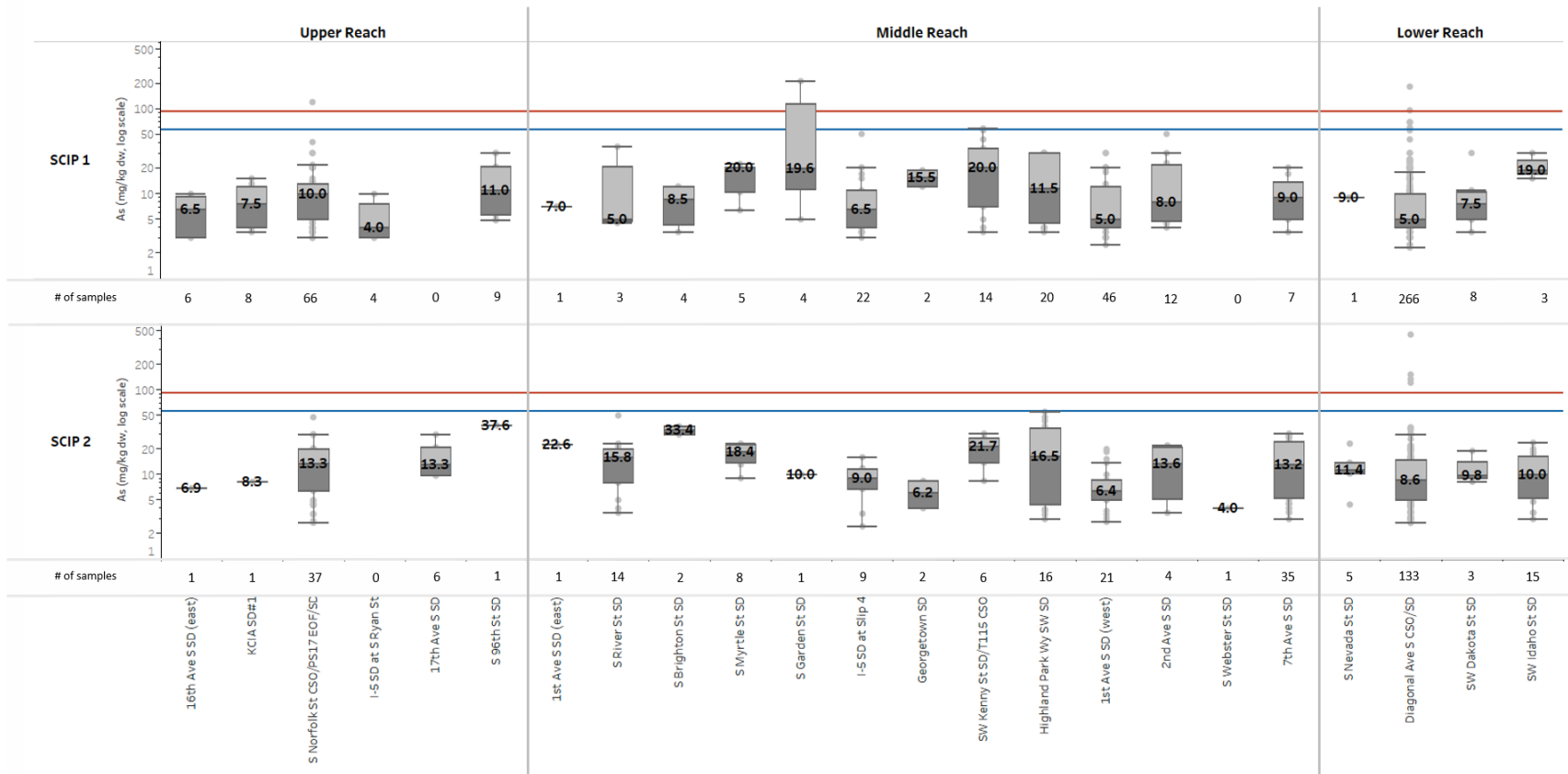


Figure 2: Arsenic s boxplots from the SCIP

cPAH Box Plots

Concentrations (ug/kg dw) over time for all samples in Seattle's MS4 collected between August 13, 2003 and November 12, 2020

* Red line= LAET/2LAET (1,000 ug/kg dw)

* Median concentrations by outfall are shown in bolded text.

* SCIP 1 = August 18, 2003 - June 30, 2014.

* SCIP 2 = July 1, 2014 - November 12, 2020. If the storm drain has been cleaned during SCIP 2, only the most recent post-cleaning samples are included.

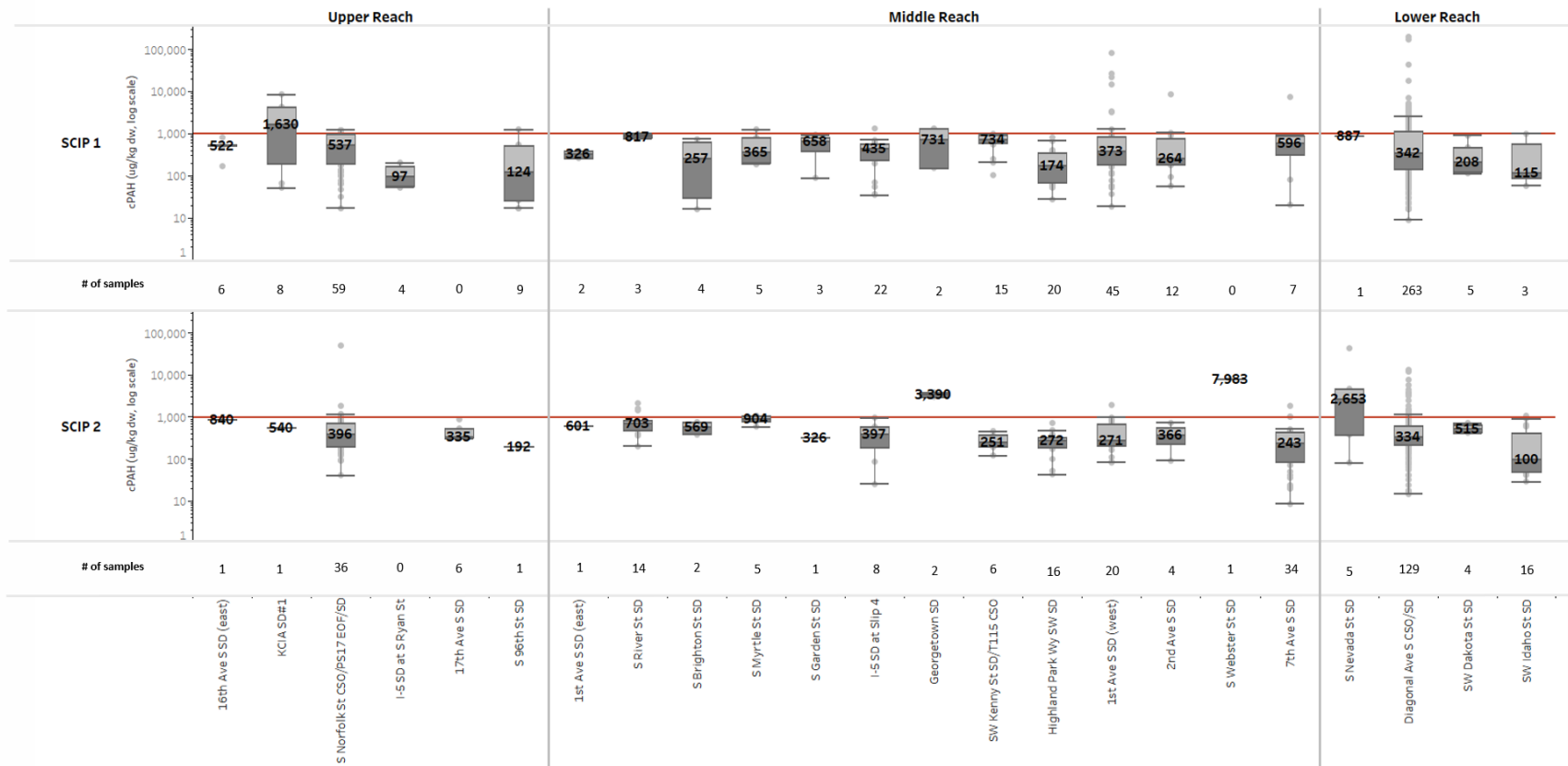


Figure 3: cPAH boxplots from the SCIP

Polychlorinated Biphenyls (PCBs) Box Plots

Concentrations (ug/kg dw) over time for all samples in Seattle's MS4 collected between August 18, 2003 and November 12, 2020

* Blue line = LAET (130 ug/kg dw), and Red line= 2LAET (1,000 ug/kg dw)

* Median concentrations by outfall are shown in bolded text.

* SCIP 1 = August 18, 2003 - June 30, 2014.

* SCIP 2 = July 1, 2014 - November 12, 2020. If the storm drain has been cleaned during SCIP 2, only the most recent post-cleaning samples are included.

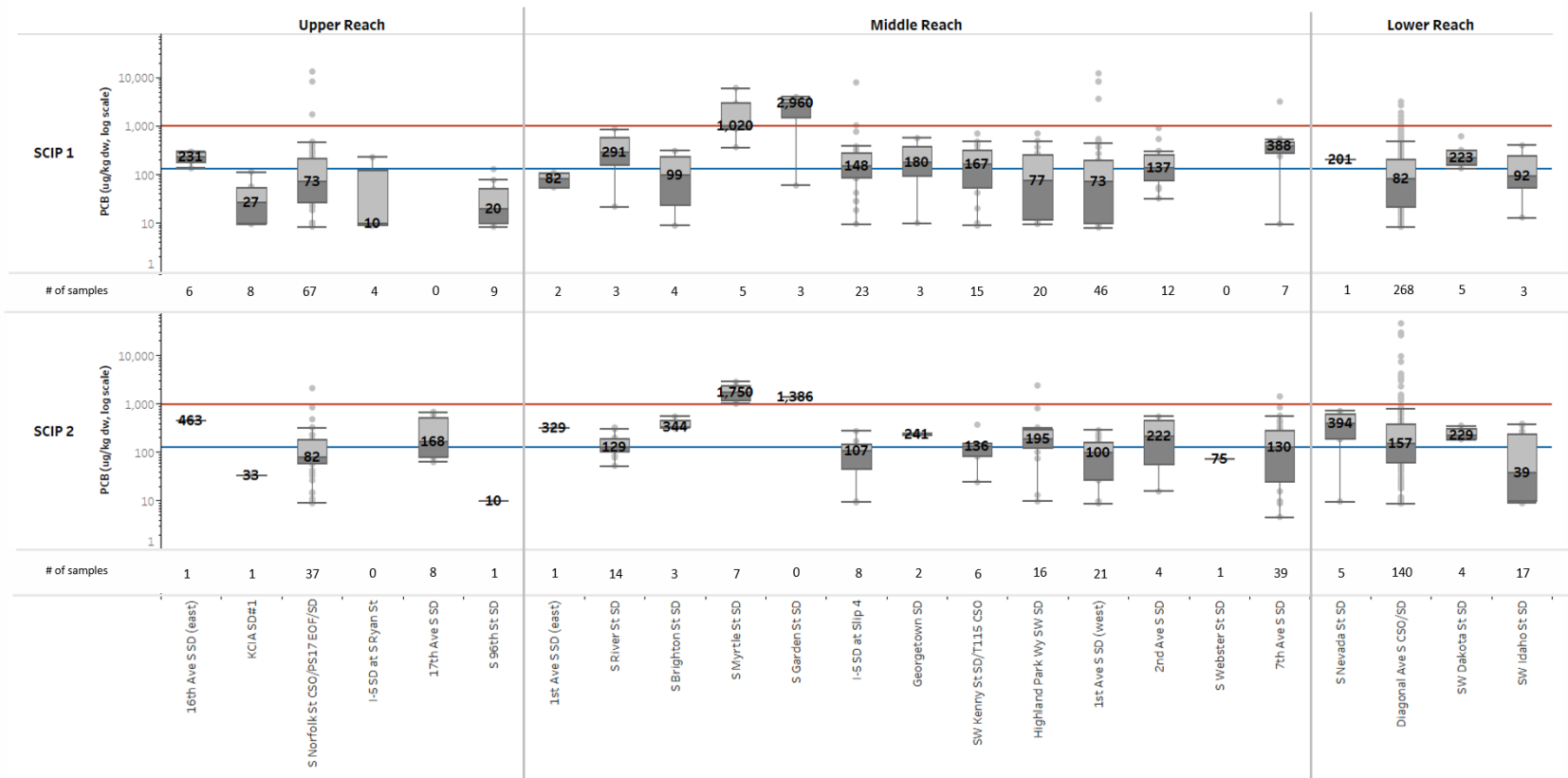


Figure 4: PCB boxplot from SCIP

Outfalls that have not been sampled since the SCIP include:

- S Garden St SD
- I-5 SD at S Ryan St
- S 96th St SD
- 16th Ave S SD (east).

The S Garden St, I-5 SD at S Ryan St, and the S 96th St storm drains were not identified as priorities in the SCIP. SPU cleaned the city-owned portions of the 16th Ave S SD (east) system in 2013 and 2020 and Boeing has disconnected its drainage system from this outfall. The downstream end of this system was also modified in 2014 when King County reconstructed the South Park bridge. Runoff from the approach to the bridge is now treated in a wet vault and discharges to the waterway via a new 24-inch outfall. However, runoff from portions of 16th Ave S and E Marginal Way S is not conveyed to the treatment vault and continues to discharge to the waterway via the old 8-inch outfall.

The median concentrations of arsenic measured in each outfall between July 2014 and December 2020 were either slightly lower or similar to the concentrations reported in the 2015 SCIP for the pre-SCIP period. Exceedances of the sediment cleanup objective (SCO) for arsenic (57 mg/kg) were low in the older samples (2 percent exceeded the SCO). Only two of the 339 samples collected between July 2014 and December 2020 exceeded the SCO. One sample was collected in October 2017 from MH29, which is located just downstream of an old flush tank on the sanitary sewer which has since been converted to a storm drain³. The flush tank is old and no longer used. SPU cleaned this section of pipe in 2018 and 2020. The other was collected in February 2018 at a private catch basin in an area where scrap wood is stored. SPU required the company to cover treated lumber.

Median PCB concentrations in the July 2014 – December 2020 samples also remained fairly similar to the concentrations reported in the 2015 SCIP for the pre-SCIP period. The main exceptions are the 7th Ave S SD, S River St SD, and SW Idaho St SD, where median PCB concentrations were lower in the more recent samples and the Diagonal Ave S CSO/SD and S Brighton St SD, where the median concentrations in July 2014 – December 2020 samples were higher than the values reported in the 2015 SCIP (Table 2). The median PCB concentration in samples in the S Myrtle St SD were lower in the July 2014 – December 2020 period than in the pre-SCIP period but increased between the 2018 and 2020 sampling events. Sections of the Diagonal Ave S CSO/SD and S Myrtle St SD were cleaned in 2020, targeting locations with elevated PCB concentrations. Sampling activity in the July 2014 – December 2020 period targeted known and suspected sources of PCBs more than the initial data set, likely skewing the median concentration results of this data set upward.

³ The 12-inch sanitary sewer was converted to a storm drain as part of the Diagonal Avenue S CSO Control Project constructed in the early 1990s.

Table 2: Outfalls where PCBs changed between 2015 SCIP and recent samples.

Outfall	Results from 2015 SCIP		Results from 2014-2020 samples	
	Median concentration (ug/kg dw PCBs)	n	Median concentration (ug/kg dw PCBs)	n
7 th Ave S SD	379	6	96.35	34
S River St SD	291	3	116.8	10
SW Idaho St SD	103	6	39.5	16
S Brighton St SD	28.5	4	332.3	4
S Myrtle St SD	3,760	4	1,793.5	10
Diagonal Ave S CSO/SD	73	223	157.35	60

The 7th Ave S, S River St, and SW Idaho St drainage systems were cleaned in 2013, 2012, and 2010, respectively. Data presented in the SCIP included only the post-cleaning samples, but the new data indicate that PCB concentrations may be declining in these three systems. The S Myrtle St drainage system was also cleaned in 2010, but as reported in the SCIP, there is an ongoing source in the S Myrtle St system. Ten samples were collected from the S Myrtle St between July 2014 – December 2020; elevated levels of PCBs and mercury continue to be present in this system. This basin was recleaned in 2020 to address any PCB concentrations in the pipe to help prevent impacts to the river while source control efforts continue to eliminate the PCB contribution to the S Myrtle St SD. Pre-cleaning sample data is typically removed from data calculations and summaries, but a summary of data from prior to the November 2020 line cleaning is provided above, due to a lack of post cleaning data available. Additional sampling will be conducted after additional source control actions required of Seattle Iron and Metal, Inc. as part of the recent settlement with Puget Soundkeeper Alliance are completed.

The median concentration of PCBs in the Diagonal Ave S CSO/SD has increased by a factor of two over the past five years. This change may be due to the emphasis on following up in areas where the detection dog detected PCBs or where SPU inspectors suspected potential PCB sources. SPU installed three additional traps in the S Snoqualmie sub-basin in 2018 to assist in tracing elevated levels of PCBs found in the maintenance hole located on S Snoqualmie St at 6th Ave S. At this point, these traps have not indicated the source of the PCBs in the area. Areas of known elevated PCB concentration were targeted in line cleaning during the 2020 season, specifically the S Snoqualmie Sub-Basin and Denver Ave S PCB spill location.

With the exception of a few outfalls, median cPAH concentrations in the July 2014 – December 2020 samples were fairly similar to the concentrations reported in the SCIP (see Table 3).

Table 3: Outfalls where cPAHs changed between 2015 SCIP and recent samples.

Outfall	Results from SCIP		Results from 2014—2020 samples	
	Median cPAH (ug/TEQ/kg)	n	Median cPAH (ug/TEQ/kg)	n
7 th Ave S SD	693	6	209.01	29
Norfolk CSO/EOF/SD	623.25	72	432.3	21
SW Kenny St SD	733.7	15	251.33	6
2 nd Ave S SD	216.3	13	353.78	1
S Myrtle St SD	798.5	3	692.82	10

n = number of samples

Median concentrations of cPAH have declined in the 7th Ave S, S Norfolk, and SW Kenny St storm drains. As mentioned above, the data presented in the SCIP for the 7th Ave S, Norfolk CSO, and SW Idaho St storm drains included only post-cleaning samples, so the recent data may indicate that cPAH concentrations in these three systems are continuing to decline. During the July 2014 – December 2020 dataset, SPU conducted a focused investigation in the S Norfolk basin to identify source(s) of PAHs, which involved intensive inspections and sampling. Over the past five years, a number of PAH sources have been identified and controlled in this system; however, the data indicates that the specific source of cPAH in source control samples has not been found. SPU cleaned most of the MLK Wy Jr. sub basin of the S Norfolk drainage system in 2018 to remove any residual concentrations in the mainline pipes. SPU will conduct targeted sampling in the S Norfolk basin to confirm that cPAH levels continue to decrease.

Although the recent data indicate that cPAH concentrations may be increasing in the 2nd Ave S SD and have slightly declined in the S Myrtle St storm drains, there are not enough samples to confirm whether this is the case. SPU intends to continue sampling in these two basins to better understand their status.

Citywide Programs that Support Source Control Efforts in the LDW

In addition to the specific adaptive management elements, SPU conducts other citywide programs that support these efforts. While not required by Appendix 13, the following is a summary of the 2020 accomplishments in these citywide programs:

- **Stormwater Facility Inspections:** While inspecting a business for source control BMPs, the flow control and/or treatment facility is also inspected. Within the LDW, 34 facilities were inspected for Code compliance with regard to flow control and treatment system code requirements during 2020.
- **Water Quality Complaints:** Inspectors respond to complaints as they are received through the water quality hotline, webpage, or agency referrals. In 2020, 112 water quality complaints were reported in the LDW and EW basins that resulted in 1 business inspection. When a complaint is reported at a business, a full business inspection is completed.
- **Spill Response:** Spills are dispatched through the SPU Operations Response Center to on-call Spill Coordinators as they are received. In 2020, SPU responded to 66 spills within the LDW and EW basins.

Denver Ave S PCB Spill

In June 2019, an SPU inspector discovered a PCB spill from an unknown source in the right-of-way along Denver Ave S between 1st Ave S and 2nd Ave S. Sampling confirmed that surface soil along the north/west shoulder of Denver Ave S contained up to 40,300 mg/kg dw PCBs and solids in storm drain inlet on Denver Ave S contained 6,970 mg/kg dw PCBs. The affected soil was determined to encompass an area of about 38 feet by 530 feet with PCB concentrations ranging from 0.1 to 14 mg/kg in the top 0 to 6 inches of soil. PCBs in the storm drain downstream of the inlet where soil initially entered the drainage system ranged from about 4 to 69.4 mg/kg dw PCBs. Both Ecology and EPA were notified. In July and August 2019, SPU and SDOT conducted a cleanup under the Toxics Substance Control Act that was approved by EPA Region 10. Approximately 981 tons of non-regulated PCB-contaminated soil and 40 tons of regulated PCB-contaminated soil/storm drain solids were removed from the site and approximately 1,500 feet of pipe and associated structures (e.g., inlets, catch basins, maintenance holes, and vaults) on Denver Ave S were jetted and cleaned. Non-regulated waste was disposed at the Columbia Ridge Landfill and regulated waste was disposed at the Chemical Waste Management Landfill, both located in Arlington, Oregon. SDOT backfilled and paved the road shoulder after contaminated soil was removed. Soil samples collected at the bottom of the excavation prior to backfill contained <0.05 to 0.086 mg/kg dw PCBs.

SPU received approval from the EPA TSCA program that the upland cleanup and line cleaning of the Denver Av. S SD were complete. During 2020, SPU conducted in-water sampling of sediments in the vicinity of the Diagonal CSO/SD to determine if PCBs from the Denver Ave. S. spill impacted the sediments in the LDW. Sampling results from this effort indicated that there was no measurable impact to the sediments in the LDW off shore of the Diagonal CSO/SD. EPA TSCA reviewed the report on the in-water sampling and approved and considered this task complete. The remaining task for this effort is to conduct an evaluation of the upland and in-water data to determine if additional actions are needed in the Diagonal CSO/SD. SPU anticipates submitting this report in 1st Quarter 2021.

- Education and Outreach: SPU funds the Green Your Business Program, a conservation service for Seattle businesses. Resource Venture implements the City's Spill Kit Incentive Program, which provides free spill kits, assistance in developing a spill plan, and site-specific technical assistance to Seattle businesses. Approximately five businesses in the LDW MS4 basins received spill kits, either stemming from a business inspection or through targeted outreach. Surveys conducted of spill kit recipients statistically show that businesses which participate in this program show an improved understanding of stormwater pollution prevention.

Priorities for 2021

Source Tracing/Sampling

Source tracing priorities for 2021 will largely remain the same as described in the 2021-2026 SCIP. Changes identified based on recent sampling and business inspections are summarized below:

- Sample to fill data gaps. Remaining data gaps are largely in smaller areas (1-5 acres) within the MS4 that discharge to other larger drainage systems (e.g., 16th Ave S SD-west, W Marginal PI SD) or areas that have been difficult to sample due to lack of solids in the system (e.g., 15 SD at S Ryan St).
- Install new low-profile sediment traps in basins with persistent concentrations of target pollutants, such as PCBs to aid in source tracing efforts.
- Conduct post line cleaning sampling in S Myrtle St SD, S Norfolk St SD, and Denver Ave S Sub Basin to fill data gaps created by line cleaning activity, and to verify that cleaning has removed concentrations of pollutants of concern.

Line Cleaning

For several years, SPU utilized the 636/640 S Riverside Dr site for the temporary decant facility for line cleaning. This site is no longer available as construction of the South Park pump station has begun. SPU utilized a temporary decant facility established at 4700 Myers Way S. This temporary site will continue to be used until a permanent decant facility can be established for this work.

MTCA grant funding for line cleaning ran out in 2017. SPU continued to fund line cleaning efforts using funds provided through standard budgetary allocation. Line cleaning scope will vary as dictated by available funds.

Line cleaning in 2021 will focus on:

- Diagonal Ave S Storm Drain, Denver Ave S sub basin.
- Diagonal Ave S Storm Drain, Bush PI S sub basin
- 7th Ave S SD

SPU intends to clean at least 4,000 linear feet of storm drain lines in 2021 to comply with Appendix 13 requirements.

Attachment A: Source tracing data collected from January 2020 through December 2020

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		17TH-ST1 16 Oct 2020 17TH-ST1-101620 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway 17th Ave S SD	ODS80 29 Apr 2020 NCH-042920-2 SD Grab-Manual ODS Lower Duwamish Waterway 17th Ave S SD	RCB317 29 Apr 2020 NCH-042920-3 SD Grab-Manual RCB Lower Duwamish Waterway 17th Ave S SD	RCB75 29 Apr 2020 NCH-042920-1 SD Grab-Manual RCB Lower Duwamish Waterway 17th Ave S SD
Analyte	Unit	Result	Result	Result	Result
1,2,4-Trichlorobenzene	ug/kg		20 U N	99.6 U N	99.6 U N
1,2-Dichlorobenzene	ug/kg		20 U N	99.6 U N	99.6 U N
1,3-Dichlorobenzene	ug/kg		20 U N	99.6 U N	99.6 U N
1,4-Dichlorobenzene	ug/kg		20 U N	99.6 U N	99.6 U N
1-Methylnaphthalene	ug/kg		20 U N	99.6 U N	99.6 U N
2,2'-Oxybis(1-chloropropane)	ug/kg		20 U N	99.6 U N	99.6 U N
2,4,5-Trichlorophenol	ug/kg		99.9 U N	498 U N	498 U N
2,4,6-Trichlorophenol	ug/kg		99.9 U N	498 U N	498 U N
2,4-Dichlorophenol	ug/kg		99.9 U N	498 U N	498 U N
2,4-Dimethylphenol	ug/kg		99.9 U N	498 U N	498 U N
2,4-Dinitrophenol	ug/kg		200 U N	996 U N	996 U N
2,4-Dinitrotoluene	ug/kg		99.9 U N	498 U N	498 U N
2,6-Dinitrotoluene	ug/kg		99.9 U N	498 U N	498 U N
2-Chloronaphthalene	ug/kg		20 U N	99.6 U N	99.6 U N
2-Chlorophenol	ug/kg		20 U N	99.6 U N	99.6 U N
2-Methylnaphthalene	ug/kg		20 U N	41.3 J Y	53.6 J Y
2-Methylphenol	ug/kg		20 U N	99.6 U N	99.6 U N
2-Nitroaniline	ug/kg		99.9 U N	498 U N	498 U N
2-Nitrophenol	ug/kg		20 U N	99.6 U N	99.6 U N
3,3` -Dichlorobenzidine	ug/kg		99.9 U N	498 U N	498 U N
3-Nitroaniline	ug/kg		99.9 U N	498 U N	498 U N
4,6-Dinitro-2-Methylphenol	ug/kg		200 U N	996 U N	996 U N
4-Bromophenyl phenyl ether	ug/kg		20 U N	99.6 U N	99.6 U N
4-Chloro-3-Methylphenol	ug/kg		99.9 U N	498 U N	498 U N
4-Chloroaniline	ug/kg		99.9 U N	498 U N	498 U N
4-Chlorophenyl Phenylether	ug/kg		20 U N	99.6 U N	99.6 U N
4-Methylphenol	ug/kg		20 U N	99.6 U N	111 Y
4-Nitroaniline	ug/kg		99.9 U N	498 U N	498 U N
4-Nitrophenol	ug/kg		99.9 U N	498 U N	498 U N
Acenaphthene	ug/kg		20 U N	99.6 U N	99.6 U N
Acenaphthylene	ug/kg		5.5 J Y	28.1 J Y	99.6 U N
Anthracene	ug/kg		11 J Y	35.7 J Y	51.2 J Y
Aroclor 1016	ug/kg	202 U N	20 U N	20 U N	20 U N
Aroclor 1221	ug/kg	202 U N	20 U N	20 U N	20 U N
Aroclor 1232	ug/kg	202 U N	20 U N	20 U N	20 U N
Aroclor 1242	ug/kg	202 U N	20 U N	20 U N	20 U N
Aroclor 1248	ug/kg	202 U N	20 U N	52.7 Y	29.3 Y
Aroclor 1254	ug/kg	202 U N	20 U N	53.7 Y	46.2 Y
Aroclor 1260	ug/kg	603 Y	42.4 Y	86.6 Y	67.6 Y
Arsenic	mg/kg		8.64 Y	14.3 Y	9.74 Y
Benzo(A)anthracene	ug/kg		52.4 Y	148 Y	161 Y
Benzo(A)pyrene	ug/kg		52.3 Y	214 Y	198 Y
Benzo(G,H,I)perylene	ug/kg		40.5 Y	273 Y	316 Y
Benzofluoranthenes, Total	ug/kg		95.5 Y	555 Y	638 Y
Benzoic acid	ug/kg		200 U N	996 U N	3370 Y
Benzyl alcohol	ug/kg		20 U N	451 Y	2260 Y
bis(2-Chloroethoxy) methane	ug/kg		20 U N	99.6 U N	99.6 U N
Bis-(2-chloroethyl) ether	ug/kg		20 U N	99.6 U N	99.6 U N
Bis(2-ethylhexyl)phthalate	ug/kg		130 Y	5110 Y	5420 Y
Butylbenzylphthalate	ug/kg		20 U N	643 Y	444 Y
Carbazole	ug/kg		20 U N	52.8 J Y	77.1 J Y
Chrysene	ug/kg		80 Y	497 Y	479 Y
Copper	mg/kg		34.3 Y	247 Y	107 Y
cPAH	ug/kg		74.84 J Y	320.71 J Y	314.31 J Y
Dibenzo(A,H)anthracene	ug/kg		9.7 J Y	45.1 J Y	43.8 J Y
Dibenzofuran	ug/kg		20 U N	25.8 J Y	30.4 J Y
Diesel Range (Silica and Acid Cleaned)	mg/kg			470 Y	535 Y
Diethylphthalate	ug/kg		20 U N	99.6 U N	99.6 U N
Dimethylphthalate	ug/kg		7.2 J Y	328 Y	152 Y
Di-N-Butylphthalate	ug/kg		6.6 J Y	471 Y	259 Y
Di-N-Octylphthalate	ug/kg		20 U N	210 Y	264 Y
Fluoranthene	ug/kg		96.5 Y	510 Y	735 Y
Fluorene	ug/kg		20 U N	99.6 U N	28.5 J Y
Hexachlorobenzene	ug/kg		20 U N	99.6 U N	99.6 U N
Hexachlorobutadiene	ug/kg		20 U N	99.6 U N	99.6 U N
Hexachlorocyclopentadiene	ug/kg		99.9 U N	498 U N	498 U N

Location		17TH-ST1	ODS80	RCB317	RCB75
Sample Date		16 Oct 2020	29 Apr 2020	29 Apr 2020	29 Apr 2020
Sample Name		17TH-ST1-101620	NCH-042920-2	NCH-042920-3	NCH-042920-1
Drainage Type		SD	SD	SD	SD
Sample Method		SedTrap	Grab-Manual	Grab-Manual	Grab-Manual
Location Type		Inline w/Active SPU Sed Trap	ODS	RCB	RCB
Project		Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		17th Ave S SD	17th Ave S SD	17th Ave S SD	17th Ave S SD
Analyte	Unit	Result	Result	Result	Result
Hexachloroethane	ug/kg		20 U N	99.6 U N	99.6 U N
HPAH	ug/kg		574.6 J Y	2954.1 J Y	3387.8 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg		30.7 Y	134 Y	141 Y
Isophorone	ug/kg		20 U N	99.6 U N	99.6 U N
Lead	mg/kg		12.9 Y	72.6 Y	40.8 Y
LPAH	ug/kg		72 J Y	420.4 J Y	604.8 J Y
Mercury	mg/kg		0.0227 J Y	0.11 Y	0.0447 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg			2500 Y	2330 Y
Naphthalene	ug/kg		8.4 J Y	86.6 J Y	97.1 J Y
Nitrobenzene	ug/kg		20 U N	99.6 U N	99.6 U N
N-Nitroso-Di-N-Propylamine	ug/kg		20 U N	99.6 U N	99.6 U N
N-Nitrosodiphenylamine	ug/kg		20 U N	99.6 U N	99.6 U N
Pentachlorophenol	ug/kg		99.9 U N	242 J Y	371 J Y
Phenanthrene	ug/kg		47.1 Y	270 Y	428 Y
Phenol	ug/kg		14.2 J Y	203 Y	288 Y
Polychlorinated Biphenyls	ug/kg	603 Y	42.4 Y	193 Y	143.1 Y
Pyrene	ug/kg		117 Y	578 Y	676 Y
Solids, Total	%	9.87 Y		87.08 Y	68.8 Y
Total Organic Carbon	%	13.1 Y		16.2 Y	17 Y
Zinc	mg/kg		83.3 Y	679 Y	669 Y

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		1ST-ST1 16 Oct 2020 1ST-ST1-101620 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway 1st Ave S SD (west)	1ST-ST2 02 Sep 2020 1ST-ST2-090220 SD Grab-Manual Inline w/Active SPU Sed Trap Lower Duwamish Waterway 1st Ave S SD (west)	MH216 18 Jun 2020 AGP-061820-8 SD Grab-Manual Inline Lower Duwamish Waterway 1st Ave S SD (west)
Analyte	Unit	Result	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
1,2-Dichlorobenzene	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
1,3-Dichlorobenzene	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
1,4-Dichlorobenzene	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
1-Methylnaphthalene	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
2,4,5-Trichlorophenol	ug/kg	499 UJ N	500 UJ N	498 U N
2,4,6-Trichlorophenol	ug/kg	499 UJ N	500 UJ N	498 U N
2,4-Dichlorophenol	ug/kg	499 UJ N	500 UJ N	498 U N
2,4-Dimethylphenol	ug/kg	499 UJ N	500 UJ N	498 U N
2,4-Dinitrophenol	ug/kg	998 UJ N	1000 UJ N	997 U N
2,4-Dinitrotoluene	ug/kg	499 UJ N	500 UJ N	498 U N
2,6-Dinitrotoluene	ug/kg	499 UJ N	500 UJ N	498 U N
2-Chloronaphthalene	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
2-Chlorophenol	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
2-Methylnaphthalene	ug/kg	44.1 J Y	100 UJ N	99.7 U N
2-Methylphenol	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
2-Nitroaniline	ug/kg	499 UJ N	500 UJ N	498 U N
2-Nitrophenol	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
3,3`-Dichlorobenzidine	ug/kg	499 UJ N	500 UJ N	498 U N
3-Nitroaniline	ug/kg	499 UJ N	500 UJ N	498 U N
4,6-Dinitro-2-Methylphenol	ug/kg	998 UJ N	1000 UJ N	997 U N
4-Bromophenyl phenyl ether	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
4-Chloro-3-Methylphenol	ug/kg	499 UJ N	500 UJ N	498 U N
4-Chloroaniline	ug/kg	499 UJ N	500 UJ N	498 U N
4-Chlorophenyl Phenylether	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
4-Methylphenol	ug/kg	219 J Y	154 J Y	99.7 U N
4-Nitroaniline	ug/kg	499 UJ N	500 UJ N	498 U N
4-Nitrophenol	ug/kg	499 UJ N	500 UJ N	498 U N
Acenaphthene	ug/kg	99.8 UJ N	100 UJ N	66.7 J Y
Acenaphthylene	ug/kg	34.7 J Y	100 UJ N	99.7 U N
Anthracene	ug/kg	78.5 J Y	100 UJ N	71.3 J Y
Aroclor 1016	ug/kg	20 UJ N	19.8 U N	20 U N
Aroclor 1221	ug/kg	20 UJ N	19.8 U N	20 U N
Aroclor 1232	ug/kg	20 UJ N	19.8 U N	20 U N
Aroclor 1242	ug/kg	20 UJ N	19.8 U N	20 U N
Aroclor 1248	ug/kg	40.2 J Y	20.4 Y	20 U N
Aroclor 1254	ug/kg	46 J Y	48.2 Y	20 U N
Aroclor 1260	ug/kg	78 J Y	44.5 Y	27 Y
Arsenic	mg/kg	18.5 Y	15.2 U N	7.58 Y
Benzo(A)anthracene	ug/kg	270 J Y	117 J Y	32.1 J Y
Benzo(A)pyrene	ug/kg	307 J Y	153 J Y	99.7 U N
Benzo(G,H,I)perylene	ug/kg	500 J Y	226 J Y	99.7 U N
Benzo(a)fluoranthenes, Total	ug/kg	834 J Y	297 J Y	199 U N
Benzoic acid	ug/kg	385 J Y	1000 UJ N	997 U N
Benzyl alcohol	ug/kg	102 J Y	202 J Y	99.7 U N
bis(2-Chloroethoxy) methane	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
Bis-(2-chloroethyl) ether	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
Bis(2-ethylhexyl)phthalate	ug/kg	13500 J Y	2720 J Y	270 Y
Butylbenzylphthalate	ug/kg	337 J Y	135 J Y	99.7 U N
Carbazole	ug/kg	46.8 J Y	100 UJ N	99.7 U N
Chrysene	ug/kg	824 J Y	230 J Y	54.4 J Y
Coarse Sand	%	2.1 Y		14.5 Y

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		1ST-ST1 16 Oct 2020 1ST-ST1-101620 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway 1st Ave S SD (west)	1ST-ST2 02 Sep 2020 1ST-ST2-090220 SD Grab-Manual Inline w/Active SPU Sed Trap Lower Duwamish Waterway 1st Ave S SD (west)	MH216 18 Jun 2020 AGP-061820-8 SD Grab-Manual Inline Lower Duwamish Waterway 1st Ave S SD (west)
Analyte	Unit	Result	Result	Result
Copper	mg/kg	284 Y	105 Y	74.7 Y
cPAH	ug/kg	487.2 J Y	237.12 J Y	88.479 J Y
Dibenzo(A,H)anthracene	ug/kg	99.4 J Y	65.8 J Y	99.7 U N
Dibenzofuran	ug/kg	48.6 J Y	100 UJ N	49.2 J Y
Diesel Range (Silica and Acid Cleaned)	mg/kg	1300 J Y	295 J Y	69.1 Y
Diethylphthalate	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
Dimethylphthalate	ug/kg	59.7 J Y	100 UJ N	99.7 U N
Di-N-Butylphthalate	ug/kg	76.8 J Y	85.8 J Y	92.3 J Y
Di-N-Octylphthalate	ug/kg	482 J Y	216 J Y	99.7 U N
Fine Gravel	%	0.1 Y		4.4 Y
Fine Sand	%	2.4 Y		2.7 Y
Fluoranthene	ug/kg	847 J Y	294 J Y	214 Y
Fluorene	ug/kg	42.8 J Y	100 UJ N	97.4 J Y
Hexachlorobenzene	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
Hexachlorobutadiene	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
Hexachlorocyclopentadiene	ug/kg	499 UJ N	500 UJ N	498 U N
Hexachloroethane	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
HPAH	ug/kg	5179.4 J Y	1837.8 J Y	439.5 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	218 J Y	141 J Y	99.7 U N
Isophorone	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
Lead	mg/kg	108 Y	90.3 Y	68.4 Y
LPAH	ug/kg	711.1 J Y	158 J Y	778.4 J Y
Medium Sand	%	2.1 Y		8.7 Y
Mercury	mg/kg	0.211 Y	0.134 Y	0.0367 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	8000 J Y	2290 J Y	626 Y
Naphthalene	ug/kg	90.1 J Y	100 UJ N	99.7 U N
Nitrobenzene	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.8 UJ N	100 UJ N	99.7 U N
N-Nitrosodiphenylamine	ug/kg	156 J Y	100 UJ N	99.7 U N
Pentachlorophenol	ug/kg	499 UJ N	500 UJ N	498 U N
Phenanthrene	ug/kg	465 J Y	158 J Y	543 Y
Phenol	ug/kg	116 J Y	65.4 J Y	99.7 U N
Polychlorinated Biphenyls	ug/kg	164.2 J Y	113.1 Y	27 Y
Pyrene	ug/kg	1280 J Y	314 J Y	139 Y
Solids, Total	%	39.83 Y	30.13 Y	79.11 Y
Total Organic Carbon	%	19.9 Y	10.7 J Y	0.85 Y
Very Coarse Sand	%	2.7 Y		30.4 Y
Very Fine Sand	%	4 Y		0.9 Y
Zinc	mg/kg	1460 Y	510 Y	341 Y

Analyte	Unit	Result
1,2,4-Trichlorobenzene	ug/kg	99.9 U N
1,2-Dichlorobenzene	ug/kg	99.9 U N
1,3-Dichlorobenzene	ug/kg	99.9 U N
1,4-Dichlorobenzene	ug/kg	99.9 U N
1-Methylnaphthalene	ug/kg	99.9 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.9 U N
2,4,5-Trichlorophenol	ug/kg	500 U N
2,4,6-Trichlorophenol	ug/kg	500 U N
2,4-Dichlorophenol	ug/kg	500 U N
2,4-Dimethylphenol	ug/kg	500 U N
2,4-Dinitrophenol	ug/kg	999 U N
2,4-Dinitrotoluene	ug/kg	500 U N
2,6-Dinitrotoluene	ug/kg	500 U N
2-Chloronaphthalene	ug/kg	99.9 U N
2-Chlorophenol	ug/kg	99.9 U N
2-Methylnaphthalene	ug/kg	35.2 J Y
2-Methylphenol	ug/kg	99.9 U N
2-Nitroaniline	ug/kg	500 U N
2-Nitrophenol	ug/kg	99.9 U N
3,3`-Dichlorobenzidine	ug/kg	500 U N
3-Nitroaniline	ug/kg	500 U N
4,6-Dinitro-2-Methylphenol	ug/kg	999 U N
4-Bromophenyl phenyl ether	ug/kg	99.9 U N
4-Chloro-3-Methylphenol	ug/kg	500 U N
4-Chloroaniline	ug/kg	500 U N
4-Chlorophenyl Phenylether	ug/kg	99.9 U N
4-Methylphenol	ug/kg	99.9 U N
4-Nitroaniline	ug/kg	500 U N
4-Nitrophenol	ug/kg	500 U N
Acenaphthene	ug/kg	99.9 U N
Acenaphthylene	ug/kg	99.9 U N
Anthracene	ug/kg	72.1 J Y
Aroclor 1016	ug/kg	19.9 U N
Aroclor 1221	ug/kg	19.9 U N
Aroclor 1232	ug/kg	19.9 U N
Aroclor 1242	ug/kg	19.9 U N
Aroclor 1248	ug/kg	132 Y
Aroclor 1254	ug/kg	95.8 Y
Aroclor 1260	ug/kg	119 Y
Arsenic	mg/kg	20.5 Y
Benzo(A)anthracene	ug/kg	166 Y
Benzo(A)pyrene	ug/kg	239 Y
Benzo(G,H,I)perylene	ug/kg	314 Y
Benzofluoranthenes, Total	ug/kg	512 Y
Benzoic acid	ug/kg	1060 Y
Benzyl alcohol	ug/kg	99.9 U N
bis(2-Chloroethoxy) methane	ug/kg	99.9 U N
Bis-(2-chloroethyl) ether	ug/kg	99.9 U N
Bis(2-ethylhexyl)phthalate	ug/kg	7070 Y
Butylbenzylphthalate	ug/kg	220 Y
Carbazole	ug/kg	39.3 J Y

Analyte	Unit	Result
Chrysene	ug/kg	368 Y
Coarse Sand	%	3.7 Y
Copper	mg/kg	182 Y
cPAH	ug/kg	353.78 J Y
Dibenzo(A,H)anthracene	ug/kg	65 J Y
Dibenzofuran	ug/kg	24.5 J Y
Diesel Range (Silica and Acid Cleaned)	mg/kg	852 Y
Diethylphthalate	ug/kg	99.9 U N
Dimethylphthalate	ug/kg	99.9 U N
Di-N-Butylphthalate	ug/kg	127 Y
Di-N-Octylphthalate	ug/kg	821 Y
Fine Gravel	%	1.1 Y
Fine Sand	%	9 Y
Fluoranthene	ug/kg	431 Y
Fluorene	ug/kg	99.9 U N
Hexachlorobenzene	ug/kg	99.9 U N
Hexachlorobutadiene	ug/kg	99.9 U N
Hexachlorocyclopentadiene	ug/kg	500 U N
Hexachloroethane	ug/kg	99.9 U N
HPAH	ug/kg	2837 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	173 J Y
Isophorone	ug/kg	99.9 U N
Lead	mg/kg	114 Y
LPAH	ug/kg	313.5 J Y
Medium Sand	%	7 Y
Mercury	mg/kg	0.152 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	4670 Y
Naphthalene	ug/kg	63.4 J Y
Nitrobenzene	ug/kg	99.9 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.9 U N
N-Nitrosodiphenylamine	ug/kg	137 J Y
Pentachlorophenol	ug/kg	500 U N
Phenanthrene	ug/kg	178 Y
Phenol	ug/kg	128 Y
Polychlorinated Biphenyls	ug/kg	346.8 Y
Pyrene	ug/kg	569 Y
Solids, Total	%	44.37 Y
Total Organic Carbon	%	7.05 Y
Very Coarse Sand	%	3.7 Y
Very Fine Sand	%	9.8 Y
Zinc	mg/kg	749 Y

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		7TH-ST1 15 Oct 2020 7TH-ST1-101520-G SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway 7th Ave S SD	RCB195 17 Jul 2020 MKJ-071720-2 SD Grab-Manual RCB Lower Duwamish Waterway 7th Ave S SD	RCB323 17 Jul 2020 MKJ-071720-3 SD Grab-Manual RCB Lower Duwamish Waterway 7th Ave S SD
Analyte	Unit	Result	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99.8 U N	99.4 U N	99.9 U N
1,2-Dichlorobenzene	ug/kg	99.8 U N	99.4 U N	99.9 U N
1,3-Dichlorobenzene	ug/kg	99.8 U N	99.4 U N	99.9 U N
1,4-Dichlorobenzene	ug/kg	99.8 U N	99.4 U N	99.9 U N
1-Methylnaphthalene	ug/kg	99.8 U N	99.4 U N	99.9 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.8 U N	99.4 U N	99.9 U N
2,4,5-Trichlorophenol	ug/kg	499 U N	497 U N	500 U N
2,4,6-Trichlorophenol	ug/kg	499 U N	497 U N	500 U N
2,4-Dichlorophenol	ug/kg	499 U N	497 U N	500 U N
2,4-Dimethylphenol	ug/kg	499 U N	497 U N	500 U N
2,4-Dinitrophenol	ug/kg	998 U N	994 U N	999 U N
2,4-Dinitrotoluene	ug/kg	499 U N	497 U N	500 U N
2,6-Dinitrotoluene	ug/kg	499 U N	497 U N	500 U N
2-Chloronaphthalene	ug/kg	99.8 U N	99.4 U N	99.9 U N
2-Chlorophenol	ug/kg	99.8 U N	99.4 U N	99.9 U N
2-Methylnaphthalene	ug/kg	99.8 U N	99.4 U N	99.9 U N
2-Methylphenol	ug/kg	99.8 U N	99.4 U N	99.9 U N
2-Nitroaniline	ug/kg	499 U N	497 U N	500 U N
2-Nitrophenol	ug/kg	99.8 U N	99.4 U N	99.9 U N
3,3`-Dichlorobenzidine	ug/kg	499 U N	497 U N	500 U N
3-Nitroaniline	ug/kg	499 U N	497 U N	500 U N
4,6-Dinitro-2-Methylphenol	ug/kg	998 U N	994 U N	999 U N
4-Bromophenyl phenyl ether	ug/kg	99.8 U N	99.4 U N	99.9 U N
4-Chloro-3-Methylphenol	ug/kg	499 U N	497 U N	500 U N
4-Chloroaniline	ug/kg	499 U N	497 U N	500 U N
4-Chlorophenyl Phenylether	ug/kg	99.8 U N	99.4 U N	99.9 U N
4-Methylphenol	ug/kg	87.3 J Y	154 Y	99.9 U N
4-Nitroaniline	ug/kg	499 U N	497 U N	500 U N
4-Nitrophenol	ug/kg	499 U N	497 U N	500 U N
Acenaphthene	ug/kg	99.8 U N	27.9 J Y	99.9 U N
Acenaphthylene	ug/kg	99.8 U N	99.4 U N	99.9 U N
Anthracene	ug/kg	32.7 J Y	83.6 J Y	99.9 U N
Aroclor 1016	ug/kg	19.9 U N	19.7 U N	19.7 U N
Aroclor 1221	ug/kg	19.9 U N	19.7 U N	19.7 U N
Aroclor 1232	ug/kg	19.9 U N	19.7 U N	19.7 U N
Aroclor 1242	ug/kg	19.9 U N	19.7 U N	19.7 U N
Aroclor 1248	ug/kg	28.6 Y	74.6 Y	19.7 U N
Aroclor 1254	ug/kg	29.4 Y	94.9 Y	19.7 U N
Aroclor 1260	ug/kg	79.4 Y	82.1 Y	19.7 U N
Arsenic	mg/kg	12.7 Y	22.1 Y	14.6 U N
Benzo(A)anthracene	ug/kg	114 Y	262 Y	99.9 U N
Benzo(A)pyrene	ug/kg	112 Y	293 Y	99.9 U N
Benzo(G,H,I)perylene	ug/kg	170 Y	253 Y	36.5 J Y
Benzo(a)fluoranthene, Total	ug/kg	300 Y	505 Y	52.4 J Y
Benzoic acid	ug/kg	998 U N	994 U N	999 U N
Benzyl alcohol	ug/kg	261 Y	171 Y	99.9 U N
bis(2-Chloroethoxy) methane	ug/kg	99.8 U N	99.4 U N	99.9 U N
Bis-(2-chloroethyl) ether	ug/kg	99.8 U N	99.4 U N	99.9 U N
Bis(2-ethylhexyl)phthalate	ug/kg	2840 Y	1360 Y	11500 J Y
Butylbenzylphthalate	ug/kg	102 Y	430 Y	99.9 U N
Carbazole	ug/kg	99.8 U N	47.9 J Y	99.9 U N
Chrysene	ug/kg	248 Y	372 Y	38.6 J Y
Coarse Sand	%		3.3 Y	15.1 Y

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		7TH-ST1 15 Oct 2020 7TH-ST1-101520-G SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway 7th Ave S SD	RCB195 17 Jul 2020 MKJ-071720-2 SD Grab-Manual RCB Lower Duwamish Waterway 7th Ave S SD	RCB323 17 Jul 2020 MKJ-071720-3 SD Grab-Manual RCB Lower Duwamish Waterway 7th Ave S SD
Analyte	Unit	Result	Result	Result
Copper	mg/kg	756 Y	96.3 Y	89.1 Y
cPAH	ug/kg	177.54 J Y	421.3 J Y	85.546 J Y
Dibenzo(A,H)anthracene	ug/kg	31.8 J Y	71.2 J Y	99.9 U N
Dibenzofuran	ug/kg	99.8 U N	99.4 U N	99.9 U N
Diesel Range (Silica and Acid Cleaned)	mg/kg	311 Y	113 Y	711 Y
Diethylphthalate	ug/kg	99.8 U N	99.4 U N	99.9 U N
Dimethylphthalate	ug/kg	34.4 J Y	99.4 U N	99.9 U N
Di-N-Butylphthalate	ug/kg	83.1 J Y	192 Y	215 Y
Di-N-Octylphthalate	ug/kg	166 Y	52.7 J Y	99.9 U N
Fine Gravel	%		0.3 Y	1.6 Y
Fine Sand	%		13.8 Y	11.8 Y
Fluoranthene	ug/kg	276 Y	597 Y	32.6 J Y
Fluorene	ug/kg	99.8 U N	99.4 U N	99.9 U N
Hexachlorobenzene	ug/kg	99.8 U N	99.4 U N	80.4 J Y
Hexachlorobutadiene	ug/kg	99.8 U N	99.4 U N	99.9 U N
Hexachlorocyclopentadiene	ug/kg	499 U N	497 U N	500 U N
Hexachloroethane	ug/kg	99.8 U N	99.4 U N	99.9 U N
HPAH	ug/kg	1665.2 J Y	3136.2 J Y	198.2 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	89.4 J Y	194 J Y	99.9 U N
Isophorone	ug/kg	99.8 U N	99.4 U N	99.9 U N
Lead	mg/kg	62.1 Y	54.8 Y	29.6 Y
LPAH	ug/kg	192.2 J Y	480 J Y	99.9 U N
Medium Sand	%		8.6 Y	18.6 Y
Mercury	mg/kg	0.0883 Y	0.111 Y	0.0246 J Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	1650 Y	977 Y	1740 Y
Naphthalene	ug/kg	31.5 J Y	32.5 J Y	99.9 U N
Nitrobenzene	ug/kg	99.8 U N	99.4 U N	99.9 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.8 U N	99.4 U N	99.9 U N
N-Nitrosodiphenylamine	ug/kg	99.8 U N	99.4 U N	99.9 U N
Pentachlorophenol	ug/kg	499 U N	497 U N	500 U N
Phenanthrene	ug/kg	128 Y	336 Y	99.9 U N
Phenol	ug/kg	92.2 J Y	69.3 J Y	99.9 U N
Polychlorinated Biphenyls	ug/kg	137.4 Y	251.6 Y	19.7 U N
Pyrene	ug/kg	324 Y	589 Y	38.1 J Y
Solids, Total	%	48 Y	66.41 Y	80.54 Y
Total Organic Carbon	%	4.7 Y	1.54 Y	1.45 Y
Very Coarse Sand	%		1.6 Y	15.8 Y
Very Fine Sand	%		17.3 Y	8.3 Y
Zinc	mg/kg	359 J Y	207 Y	152 Y

Location	MH18	MH52	MH58	MH59
Sample Date	16 Jun 2020	26 Feb 2020	23 Jun 2020	23 Jun 2020
Sample Name	NCH-061620-1	NCH-022620-1	NCH-062320-3	NCH-062320-1
Drainage Type	SD	SD	SD	SD
Sample Method	Grab-Manual	Grab-Manual	Grab-Manual	Grab-Manual
Location Type	Inline	Inline	Inline	Inline
Project	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD
Analyte	Unit	Result	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99.8 U N	300 UJ N	19.9 U N
1,2-Dichlorobenzene	ug/kg	99.8 U N	300 UJ N	19.9 U N
1,3-Dichlorobenzene	ug/kg	99.8 U N	300 UJ N	19.9 U N
1,4-Dichlorobenzene	ug/kg	99.8 U N	300 UJ N	19.9 U N
1-Methylnaphthalene	ug/kg	46.7 J Y	179 J Y	7 J Y
2,2'-Oxybis(1-chloropropane)	ug/kg	99.8 U N	300 UJ N	19.9 U N
2,4,5-Trichlorophenol	ug/kg	499 U N	1500 UJ N	99.7 U N
2,4,6-Trichlorophenol	ug/kg	499 U N	1500 UJ N	99.7 U N
2,4-Dichlorophenol	ug/kg	499 U N	1500 UJ N	99.7 U N
2,4-Dimethylphenol	ug/kg	499 U N	1500 UJ N	99.7 U N
2,4-Dinitrophenol	ug/kg	998 U N	3000 UJ N	199 U N
2,4-Dinitrotoluene	ug/kg	499 U N	1500 UJ N	99.7 U N
2,6-Dinitrotoluene	ug/kg	499 U N	1500 UJ N	99.7 U N
2-Chloronaphthalene	ug/kg	99.8 U N	300 UJ N	19.9 U N
2-Chlorophenol	ug/kg	99.8 U N	300 UJ N	19.9 U N
2-Methylnaphthalene	ug/kg	63.6 J Y	237 J Y	8.1 J Y
2-Methylphenol	ug/kg	99.8 U N	300 UJ N	19.9 U N
2-Nitroaniline	ug/kg	499 U N	1500 UJ N	99.7 U N
2-Nitrophenol	ug/kg	99.8 U N	300 UJ N	19.9 U N
3,3`-Dichlorobenzidine	ug/kg	499 U N	1500 UJ N	99.7 U N
3-Nitroaniline	ug/kg	499 U N	1500 UJ N	99.7 U N
4,6-Dinitro-2-Methylphenol	ug/kg	998 U N	3000 UJ N	199 U N
4-Bromophenyl phenyl ether	ug/kg	99.8 U N	300 UJ N	19.9 U N
4-Chloro-3-Methylphenol	ug/kg	499 U N	1500 UJ N	99.7 U N
4-Chloroaniline	ug/kg	499 U N	1500 UJ N	99.7 U N
4-Chlorophenyl Phenylether	ug/kg	99.8 U N	300 UJ N	19.9 U N
4-Methylphenol	ug/kg	99.8 U N	2740 J Y	19.9 U N
4-Nitroaniline	ug/kg	499 U N	1500 UJ N	99.7 U N
4-Nitrophenol	ug/kg	499 U N	1500 UJ N	99.7 U N
Acenaphthene	ug/kg	105 Y	373 J Y	59.4 Y
Acenaphthylene	ug/kg	26.1 J Y	101 J Y	19.9 U N
Anthracene	ug/kg	341 Y	472 J Y	190 Y
Aroclor 1016	ug/kg	19.9 U N	19.9 UJ N	19.9 U N
Aroclor 1221	ug/kg	19.9 U N	19.9 UJ N	19.9 U N
Aroclor 1232	ug/kg	19.9 U N	19.9 UJ N	19.9 U N
Aroclor 1242	ug/kg	19.9 U N	19.9 UJ N	23.2 Y
Aroclor 1248	ug/kg	129 Y	4810 R Y	19.9 U N
Aroclor 1254	ug/kg	92.3 Y	1310 R Y	19.9 U N
Aroclor 1260	ug/kg	76 Y	284 J Y	19.9 U N
Arsenic	mg/kg	6.86 U N	15.6 Y	6.26 U N
Benzo(A)anthracene	ug/kg	1280 Y	974 J Y	26.4 Y
Benzo(A)pyrene	ug/kg	1300 Y	891 J Y	27.6 Y
Benzo(G,H,I)perylene	ug/kg	648 Y	703 J Y	22.1 Y
Benzo(a)fluoranthene, Total	ug/kg	2830 Y	1970 J Y	52.9 Y
Benzoic acid	ug/kg	998 U N	2070 J Y	199 U N
Benzyl alcohol	ug/kg	99.8 U N	300 UJ N	19.9 U N
bis(2-Chloroethoxy) methane	ug/kg	99.8 U N	300 UJ N	19.9 U N
Bis-(2-chloroethyl) ether	ug/kg	99.8 U N	300 UJ N	19.9 U N
Bis(2-ethylhexyl)phthalate	ug/kg	3760 Y	20700 J Y	460 Y
Butylbenzylphthalate	ug/kg	309 Y	1310 J Y	12.9 J Y
Carbazole	ug/kg	350 Y	210 J Y	19.9 U N
Chrysene	ug/kg	1650 Y	1790 J Y	45.4 Y
Coarse Sand	%	23.5 Y		9.8 Y
Copper	mg/kg	79 Y	110 Y	36.8 Y
cPAH	ug/kg	1864.5 Y	1307.6 J Y	41.814 J Y
Dibenzo(A,H)anthracene	ug/kg	192 Y	154 J Y	19.9 U N
Dibenzofuran	ug/kg	79.4 J Y	196 J Y	19.9 U N
Diesel Range (Silica and Acid Cleaned)	mg/kg	342 Y	1630 J Y	35.3 Y
Diethylphthalate	ug/kg	99.8 U N	300 UJ N	19.9 U N
Dimethylphthalate	ug/kg	99.8 U N	300 UJ N	19.9 U N
Di-N-Butylphthalate	ug/kg	110 Y	300 UJ N	19.9 U N
Di-N-Octylphthalate	ug/kg	94 J Y	3130 J Y	32.3 Y
Fine Gravel	%	0.1 Y		0.1 N
Fine Sand	%	18 Y		4.3 Y
Fluoranthene	ug/kg	3270 Y	3300 J Y	66.1 Y
Fluorene	ug/kg	92.6 J Y	225 J Y	19.9 U N
Hexachlorobenzene	ug/kg	99.8 U N	300 UJ N	19.9 U N
Hexachlorobutadiene	ug/kg	99.8 U N	300 UJ N	19.9 U N

Location		MH18	MH52	MH58	MH59
Sample Date		16 Jun 2020	26 Feb 2020	23 Jun 2020	23 Jun 2020
Sample Name		NCH-061620-1	NCH-022620-1	NCH-062320-3	NCH-062320-1
Drainage Type		SD	SD	SD	SD
Sample Method		Grab-Manual	Grab-Manual	Grab-Manual	Grab-Manual
Location Type		Inline	Inline	Inline	Inline
Project		Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD
Analyte	Unit	Result	Result	Result	Result
Hexachlorocyclopentadiene	ug/kg	499 U N	1500 UJ N	99.7 U N	98.6 U N
Hexachloroethane	ug/kg	99.8 U N	300 UJ N	19.9 U N	19.7 U N
HPAH	ug/kg	14332 Y	13269 J Y	327.8 J Y	2744.2 Y
Indeno(1,2,3-Cd)pyrene	ug/kg	602 Y	427 J Y	18.5 J Y	130 Y
Isophorone	ug/kg	99.8 U N	300 UJ N	19.9 U N	19.7 U N
Lead	mg/kg	45.8 Y	156 Y	81.1 Y	15.8 Y
LPAH	ug/kg	2449.6 J Y	3786 J Y	43.6 J Y	1151.2 Y
Medium Sand	%	29.1 Y		82.1 Y	23.6 Y
Mercury	mg/kg	0.14 Y	0.14 Y	0.0363 Y	0.0275 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	2540 Y	8080 J Y	223 Y	351 Y
Naphthalene	ug/kg	54.9 J Y	375 J Y	19.9 U N	94.3 Y
Nitrobenzene	ug/kg	99.8 U N	300 UJ N	19.9 U N	19.7 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.8 U N	300 UJ N	19.9 U N	19.7 U N
N-Nitrosodiphenylamine	ug/kg	99.8 U N	277 J Y	19.9 U N	19.7 U N
Pentachlorophenol	ug/kg	499 U N	1500 UJ N	99.7 U N	98.6 U N
Phenanthrene	ug/kg	1830 Y	2240 J Y	36.7 Y	729 Y
Phenol	ug/kg	70.5 J Y	300 UJ N	19.9 U N	11.9 J Y
Polychlorinated Biphenyls	ug/kg	297.3 Y	6404 R Y	23.2 Y	62.9 Y
Pyrene	ug/kg	2560 Y	3060 J Y	68.8 Y	584 Y
Solids, Total	%	71.21 Y	54.48 Y	74.42 Y	82.08 Y
Total Organic Carbon	%	1.79 Y	7.25 Y	0.42 Y	0.72 Y
Very Coarse Sand	%	13.9 Y		0.9 Y	18.3 Y
Very Fine Sand	%	7.6 Y		0.2 Y	0.7 Y
Zinc	mg/kg	211 Y	1080 Y	154 Y	193 Y

Location	MH67	RCB306	RCB326	RCB327
Sample Date	15 Jun 2020	16 Jun 2020	03 Sep 2020	19 Mar 2020
Sample Name	MKJ-061520-1	NCH-061620-2	MKJ-090320-1	AGP-031920-7
Drainage Type	SD	SD	SD	SD
Sample Method	Grab-Manual	Grab-Manual	Grab-Manual	Grab-Manual
Location Type	Inline	RCB	RCB	RCB
Project	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD
Analyte	Unit	Result	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99 U N	99.4 U N	100 U N
1,2-Dichlorobenzene	ug/kg	99 U N	99.4 U N	100 U N
1,3-Dichlorobenzene	ug/kg	99 U N	99.4 U N	100 U N
1,4-Dichlorobenzene	ug/kg	99 U N	99.4 U N	100 U N
1-Methylnaphthalene	ug/kg	99 U N	99.4 U N	100 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99 U N	99.4 U N	100 U N
2,4,5-Trichlorophenol	ug/kg	495 U N	497 U N	500 U N
2,4,6-Trichlorophenol	ug/kg	495 U N	497 U N	500 U N
2,4-Dichlorophenol	ug/kg	495 U N	497 U N	500 U N
2,4-Dimethylphenol	ug/kg	495 U N	497 U N	500 U N
2,4-Dinitrophenol	ug/kg	990 U N	994 U N	1000 U N
2,4-Dinitrotoluene	ug/kg	495 U N	497 U N	500 U N
2,6-Dinitrotoluene	ug/kg	495 U N	497 U N	500 U N
2-Chloronaphthalene	ug/kg	99 U N	99.4 U N	100 U N
2-Chlorophenol	ug/kg	99 U N	99.4 U N	100 U N
2-Methylnaphthalene	ug/kg	99 U N	99.4 U N	28.9 J Y
2-Methylphenol	ug/kg	99 U N	99.4 U N	100 U N
2-Nitroaniline	ug/kg	495 U N	497 U N	500 U N
2-Nitrophenol	ug/kg	99 U N	99.4 U N	100 U N
3,3`-Dichlorobenzidine	ug/kg	495 U N	497 U N	500 U N
3-Nitroaniline	ug/kg	495 U N	497 U N	500 U N
4,6-Dinitro-2-Methylphenol	ug/kg	990 U N	994 U N	1000 U N
4-Bromophenyl phenyl ether	ug/kg	99 U N	99.4 U N	100 U N
4-Chloro-3-Methylphenol	ug/kg	495 U N	497 U N	500 U N
4-Chloroaniline	ug/kg	495 U N	497 U N	500 U N
4-Chlorophenyl Phenylether	ug/kg	99 U N	99.4 U N	100 U N
4-Methylphenol	ug/kg	99 U N	1120 Y	229 J Y
4-Nitroaniline	ug/kg	495 U N	497 U N	500 U N
4-Nitrophenol	ug/kg	495 U N	497 U N	500 U N
Acenaphthene	ug/kg	99 U N	99.4 U N	100 U N
Acenaphthylene	ug/kg	99 U N	99.4 U N	100 U N
Anthracene	ug/kg	99 U N	99.4 U N	68.2 J Y
Aroclor 1016	ug/kg	19.9 U N	19.5 U N	19.9 U N
Aroclor 1221	ug/kg	19.9 U N	19.5 U N	19.9 U N
Aroclor 1232	ug/kg	19.9 U N	19.5 U N	19.9 U N
Aroclor 1242	ug/kg	19.9 U N	19.5 U N	19.9 U N
Aroclor 1248	ug/kg	19.9 U N	19.5 U N	19.9 U N
Aroclor 1254	ug/kg	19.9 U N	20.2 Y	19.9 U N
Aroclor 1260	ug/kg	19.9 U N	30.6 Y	56.7 Y
Arsenic	mg/kg	6.22 U N	11.8 U N	7.72 U N
Benzo(A)anthracene	ug/kg	30.2 J Y	78.6 J Y	257 Y
Benzo(A)pyrene	ug/kg	42.1 J Y	93.3 J Y	262 Y
Benzo(G,H,I)perylene	ug/kg	55 J Y	151 Y	310 Y
Benzo(a)fluoranthene, Total	ug/kg	109 J Y	317 Y	624 Y
Benzoic acid	ug/kg	990 U N	994 U N	2550 J Y
Benzyl alcohol	ug/kg	250 Y	99.4 U N	100 U N
bis(2-Chloroethoxy) methane	ug/kg	99 U N	99.4 U N	100 U N
Bis-(2-chloroethyl) ether	ug/kg	99 U N	99.4 U N	100 U N
Bis(2-ethylhexyl)phthalate	ug/kg	248 U N	3900 Y	10600 Y
Butylbenzylphthalate	ug/kg	99 U N	104 Y	349 Y
Carbazole	ug/kg	99 U N	99.4 U N	76.9 J Y
Chrysene	ug/kg	50.4 J Y	159 Y	530 Y
Coarse Sand	%	11.5 Y	13 Y	21.9 Y
Copper	mg/kg	20.1 Y	55.9 Y	66.5 Y
cPAH	ug/kg	80.174 J Y	161.42 J Y	402.42 J Y
Dibenzo(A,H)anthracene	ug/kg	99 U N	99.4 U N	66.3 J Y
Dibenzofuran	ug/kg	99 U N	99.4 U N	28.3 J Y
Diesel Range (Silica and Acid Cleaned)	mg/kg	10.9 Y	203 Y	327 Y
Diethylphthalate	ug/kg	99 U N	99.4 U N	100 U N
Dimethylphthalate	ug/kg	99 U N	99.4 U N	39.5 J Y
Di-N-Butylphthalate	ug/kg	83.8 J Y	107 Y	64.3 J Y
Di-N-Octylphthalate	ug/kg	99 U N	99.4 U N	100 U N
Fine Gravel	%	0.4 Y	0.9 Y	0.6 Y
Fine Sand	%	23.7 Y	11.1 Y	8.1 Y
Fluoranthene	ug/kg	61.1 J Y	281 Y	967 Y
Fluorene	ug/kg	99 U N	99.4 U N	52.6 J Y
Hexachlorobenzene	ug/kg	99 U N	99.4 U N	100 U N
Hexachlorobutadiene	ug/kg	99 U N	99.4 U N	100 U N

Location		MH67	RCB306	RCB326	RCB327
Sample Date		15 Jun 2020	16 Jun 2020	03 Sep 2020	19 Mar 2020
Sample Name		MKJ-061520-1	NCH-061620-2	MKJ-090320-1	AGP-031920-7
Drainage Type		SD	SD	SD	SD
Sample Method		Grab-Manual	Grab-Manual	Grab-Manual	Grab-Manual
Location Type		Inline	RCB	RCB	RCB
Project		Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD
Analyte	Unit	Result	Result	Result	Result
Hexachlorocyclopentadiene	ug/kg	495 U N	497 U N	500 U N	498 U N
Hexachloroethane	ug/kg	99 U N	99.4 U N	100 U N	99.7 U N
HPAH	ug/kg	445 J Y	1517.8 J Y	4118.3 J Y	623.5 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	38.5 J Y	70.9 J Y	205 Y	35.7 J Y
Isophorone	ug/kg	99 U N	99.4 U N	100 U N	99.7 U N
Lead	mg/kg	14.1 Y	21.2 Y	25.4 Y	19.3 Y
LPAH	ug/kg	24.8 J Y	169 Y	674.1 J Y	154 Y
Medium Sand	%	37.6 Y	15.9 Y	36.1 Y	
Mercury	mg/kg	0.0308 Y	0.0299 J Y	0.0232 J Y	0.0236 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	111 Y	1290 Y	2670 Y	403 Y
Naphthalene	ug/kg	99 U N	99.4 U N	56.3 J Y	99.7 U N
Nitrobenzene	ug/kg	99 U N	99.4 U N	100 U N	99.7 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99 U N	99.4 U N	100 U N	99.7 U N
N-Nitrosodiphenylamine	ug/kg	99 U N	60.9 J Y	100 U N	99.7 U N
Pentachlorophenol	ug/kg	495 U N	497 U N	500 U N	498 U N
Phenanthrene	ug/kg	24.8 J Y	169 Y	497 Y	154 Y
Phenol	ug/kg	99 U N	99.4 U N	103 J Y	99.7 U N
Polychlorinated Biphenyls	ug/kg	19.9 U N	50.8 Y	56.7 Y	20 U N
Pyrene	ug/kg	58.7 J Y	367 Y	897 Y	132 Y
Solids, Total	%	76.35 Y	25.46 Y	62.44 Y	80.96 Y
Total Organic Carbon	%	2.84 Y	16.2 Y	9.64 Y	1.3 Y
Very Coarse Sand	%	4.8 Y	13.5 Y	1.1 Y	
Very Fine Sand	%	8.4 Y	8.6 Y	3.9 Y	
Zinc	mg/kg	98.2 Y	666 Y	319 Y	109 Y

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall	RCB96 19 Mar 2020 AGP-031920-4 SD Grab-Manual RCB Lower Duwamish Waterway Diagonal Ave S CSO/SD	RCB97 19 Mar 2020 AGP-031920-5 SD Grab-Manual RCB Lower Duwamish Waterway Diagonal Ave S CSO/SD	RCB98 19 Mar 2020 AGP-031920-6 SD Grab-Manual RCB Lower Duwamish Waterway Diagonal Ave S CSO/SD	RCBSTEV2 19 Jun 2020 AGP-061920-1 SD Grab-Manual RCB Lower Duwamish Waterway Diagonal Ave S CSO/SD	
Analyte	Unit	Result	Result	Result	Result
1,2,4-Trichlorobenzene	ug/kg	150 U N	99.9 U N	99.9 U N	
1,2-Dichlorobenzene	ug/kg	150 U N	99.9 U N	99.9 U N	
1,3-Dichlorobenzene	ug/kg	150 U N	99.9 U N	99.9 U N	
1,4-Dichlorobenzene	ug/kg	150 U N	99.9 U N	99.9 U N	
1-Methylnaphthalene	ug/kg	150 U N	99.9 U N	99.9 U N	
2,2'-Oxybis(1-chloropropane)	ug/kg	150 U N	99.9 U N	99.9 U N	
2,4,5-Trichlorophenol	ug/kg	748 U N	500 U N	500 U N	
2,4,6-Trichlorophenol	ug/kg	748 U N	500 U N	500 U N	
2,4-Dichlorophenol	ug/kg	748 U N	500 U N	500 U N	
2,4-Dimethylphenol	ug/kg	748 U N	500 U N	500 U N	
2,4-Dinitrophenol	ug/kg	1500 U N	999 U N	999 U N	
2,4-Dinitrotoluene	ug/kg	748 U N	500 U N	500 U N	
2,6-Dinitrotoluene	ug/kg	748 U N	500 U N	500 U N	
2-Chloronaphthalene	ug/kg	150 U N	99.9 U N	99.9 U N	
2-Chlorophenol	ug/kg	150 U N	99.9 U N	99.9 U N	
2-Methylnaphthalene	ug/kg	150 U N	99.9 U N	99.9 U N	
2-Methylphenol	ug/kg	150 U N	99.9 U N	99.9 U N	
2-Nitroaniline	ug/kg	748 U N	500 U N	500 U N	
2-Nitrophenol	ug/kg	150 U N	99.9 U N	99.9 U N	
3,3'-Dichlorobenzidine	ug/kg	748 U N	500 U N	500 U N	
3-Nitroaniline	ug/kg	748 U N	500 U N	500 U N	
4,6-Dinitro-2-Methylphenol	ug/kg	1500 U N	999 U N	999 U N	
4-Bromophenyl phenyl ether	ug/kg	150 U N	99.9 U N	99.9 U N	
4-Chloro-3-Methylphenol	ug/kg	748 U N	500 U N	500 U N	
4-Chloroaniline	ug/kg	748 U N	500 U N	500 U N	
4-Chlorophenyl Phenylether	ug/kg	150 U N	99.9 U N	99.9 U N	
4-Methylphenol	ug/kg	721 Y	320 Y	99.9 U N	
4-Nitroaniline	ug/kg	748 U N	500 U N	500 U N	
4-Nitrophenol	ug/kg	748 U N	500 U N	500 U N	
Acenaphthene	ug/kg	44.6 J Y	36.7 J Y	99.9 U N	
Acenaphthylene	ug/kg	150 U N	99.9 U N	99.9 U N	
Anthracene	ug/kg	70.2 J Y	63.4 J Y	99.9 U N	
Aroclor 1016	ug/kg	20 U N	20 U N	20 U N	200 U N
Aroclor 1221	ug/kg	20 U N	20 U N	20 U N	200 U N
Aroclor 1232	ug/kg	20 U N	20 U N	20 U N	200 U N
Aroclor 1242	ug/kg	20 U N	20 U N	20 U N	200 U N
Aroclor 1248	ug/kg	24 Y	20 U N	20 U N	200 U N
Aroclor 1254	ug/kg	50.9 Y	50.7 Y	20 U N	3390 Y
Aroclor 1260	ug/kg	32.9 Y	26.4 Y	20 U N	3690 Y
Arsenic	mg/kg	12.1 U N	9.17 U N	6.44 Y	31.6 U N
Benzo(A)anthracene	ug/kg	249 Y	262 Y	99.9 U N	
Benzo(A)pyrene	ug/kg	335 Y	320 Y	99.9 U N	
Benzo(G,H,I)perylene	ug/kg	360 Y	260 Y	40.3 J Y	
Benzo(a)fluoranthene, Total	ug/kg	958 Y	868 Y	54.9 J Y	
Benzoic acid	ug/kg	777 J Y	835 J Y	999 U N	
Benzyl alcohol	ug/kg	119 J Y	279 Y	99.9 U N	
bis(2-Chloroethoxy) methane	ug/kg	150 U N	99.9 U N	99.9 U N	
Bis-(2-chloroethyl) ether	ug/kg	150 U N	99.9 U N	99.9 U N	
Bis(2-ethylhexyl)phthalate	ug/kg	9780 Y	3970 Y	447 Y	
Butylbenzylphthalate	ug/kg	475 Y	501 Y	117 Y	
Carbazole	ug/kg	108 J Y	99.9 U N	99.9 U N	
Chrysene	ug/kg	592 Y	526 Y	54.2 J Y	
Coarse Sand	%				
Copper	mg/kg	62.4 Y	56.1 Y	65.4 Y	129 Y
cPAH	ug/kg	520.52 J Y	484.22 J Y	85.952 J Y	
Dibenzo(A,H)anthracene	ug/kg	79.5 J Y	68.9 J Y	99.9 U N	
Dibenzofuran	ug/kg	50.5 J Y	30.5 J Y	99.9 U N	
Diesel Range (Silica and Acid Cleaned)	mg/kg	594 Y	381 Y	112 Y	
Diethylphthalate	ug/kg	150 U N	99.9 U N	99.9 U N	
Dimethylphthalate	ug/kg	233 Y	99.9 U N	99.9 U N	
Di-N-Butylphthalate	ug/kg	119 J Y	94 J Y	60.9 J Y	
Di-N-Octylphthalate	ug/kg	330 Y	167 Y	87.2 J Y	
Fine Gravel	%				
Fine Sand	%				
Fluoranthene	ug/kg	755 Y	735 Y	37.9 J Y	
Fluorene	ug/kg	57.3 J Y	31 J Y	99.9 U N	
Hexachlorobenzene	ug/kg	150 U N	99.9 U N	99.9 U N	
Hexachlorobutadiene	ug/kg	150 U N	99.9 U N	99.9 U N	

Location		RCB96	RCB97	RCB98	RCBSTEV2
Sample Date		19 Mar 2020	19 Mar 2020	19 Mar 2020	19 Jun 2020
Sample Name		AGP-031920-4	AGP-031920-5	AGP-031920-6	AGP-061920-1
Drainage Type		SD	SD	SD	SD
Sample Method		Grab-Manual	Grab-Manual	Grab-Manual	Grab-Manual
Location Type		RCB	RCB	RCB	RCB
Project		Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD
Analyte	Unit	Result	Result	Result	Result
Hexachlorocyclopentadiene	ug/kg	748 U N	500 U N	500 U N	
Hexachloroethane	ug/kg	150 U N	99.9 U N	99.9 U N	
HPAH	ug/kg	4345.5 J Y	3895.9 J Y	235.2 J Y	
Indeno(1,2,3-Cd)pyrene	ug/kg	271 Y	184 Y	99.9 U N	
Isophorone	ug/kg	150 U N	99.9 U N	99.9 U N	
Lead	mg/kg	22.7 Y	116 Y	11.8 Y	58.5 Y
LPAH	ug/kg	706.6 J Y	562.7 J Y	26.8 J Y	
Medium Sand	%				
Mercury	mg/kg	0.0418 J Y	0.0264 J Y	0.0235 Y	0.164 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	3100 Y	2200 Y	600 Y	
Naphthalene	ug/kg	51.5 J Y	41.6 J Y	99.9 U N	
Nitrobenzene	ug/kg	150 U N	99.9 U N	99.9 U N	
N-Nitroso-Di-N-Propylamine	ug/kg	150 U N	99.9 U N	99.9 U N	
N-Nitrosodiphenylamine	ug/kg	150 U N	99.9 U N	99.9 U N	
Pentachlorophenol	ug/kg	748 U N	500 U N	500 U N	
Phenanthrene	ug/kg	483 Y	390 Y	26.8 J Y	
Phenol	ug/kg	367 Y	164 Y	99.9 U N	
Polychlorinated Biphenyls	ug/kg	107.8 Y	77.1 Y	20 U N	7080 Y
Pyrene	ug/kg	746 Y	672 Y	47.9 J Y	
Solids, Total	%	49.24 Y	66.07 Y	81.3 Y	37.56 Y
Total Organic Carbon	%	8.44 Y	4.99 Y	1.61 Y	5.77 Y
Very Coarse Sand	%				
Very Fine Sand	%				
Zinc	mg/kg	325 Y	184 Y	83.6 Y	507 Y

Location	Sample Date	Sample Name	Drainage Type	Sample Method	Location Type	Project	Outfall	ST09 12 Nov 2020 NCH-111220-1 SD SedTrap	ST1 23 Jun 2020 NCH-062320-2 SD Grab-Manual	ST1 23 Jun 2020 ST1-062320 SD SedTrap	ST10 12 Nov 2020 NCH-111220-2 SD SedTrap		
					Inline w/Active SPU Sed Trap	Lower Duwamish Waterway	Diagonal Ave S CSO/SD	Inline w/Active SPU Sed Trap	Lower Duwamish Waterway	Diagonal Ave S CSO/SD	Inline w/Active SPU Sed Trap	Lower Duwamish Waterway	Diagonal Ave S CSO/SD
Analyte	Unit	Result	Result	Result	Result								
1,2,4-Trichlorobenzene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
1,2-Dichlorobenzene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
1,3-Dichlorobenzene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
1,4-Dichlorobenzene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
1-Methylnaphthalene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
2,2'-Oxybis(1-chloropropane)	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
2,4,5-Trichlorophenol	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
2,4,6-Trichlorophenol	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
2,4-Dichlorophenol	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
2,4-Dimethylphenol	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
2,4-Dinitrophenol	ug/kg	9150 U N	398 U N	979 U N	6380 U N								
2,4-Dinitrotoluene	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
2,6-Dinitrotoluene	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
2-Chloronaphthalene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
2-Chlorophenol	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
2-Methylnaphthalene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
2-Methylphenol	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
2-Nitroaniline	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
2-Nitrophenol	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
3,3'-Dichlorobenzidine	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
3-Nitroaniline	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
4,6-Dinitro-2-Methylphenol	ug/kg	9150 U N	398 U N	979 U N	6380 U N								
4-Bromophenyl phenyl ether	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
4-Chloro-3-Methylphenol	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
4-Chloroaniline	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
4-Chlorophenyl Phenylether	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
4-Methylphenol	ug/kg	915 U N	39.8 U N	438 Y	638 U N								
4-Nitroaniline	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
4-Nitrophenol	ug/kg	4580 U N	199 U N	489 U N	3190 U N								
Acenaphthene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
Acenaphthylene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
Anthracene	ug/kg	915 U N	39.8 U N	47.2 J Y	638 U N								
Aroclor 1016	ug/kg	46 U N	19.7 U N	19.2 U N	31.9 U N								
Aroclor 1221	ug/kg	46 U N	19.7 U N	19.2 U N	31.9 U N								
Aroclor 1232	ug/kg	46 U N	19.7 U N	19.2 U N	31.9 U N								
Aroclor 1242	ug/kg	46 U N	47.4 Y	355 Y	31.9 U N								
Aroclor 1248	ug/kg	87.8 Y	19.7 U N	19.2 U N	52.7 Y								
Aroclor 1254	ug/kg	132 Y	19.7 U N	87.7 Y	63.4 Y								
Aroclor 1260	ug/kg	60.7 Y	19.7 U N	49.8 Y	74.4 Y								
Arsenic	mg/kg		7.87 Y	19.4 Y									
Benzo(A)anthracene	ug/kg	1040 Y	21.3 J Y	160 Y	238 J Y								
Benzo(A)pyrene	ug/kg	1030 Y	22 J Y	193 Y	243 J Y								
Benzo(G,H,I)perylene	ug/kg	1390 Y	35.4 J Y	278 Y	667 Y								
Benzo(a)fluoranthene, Total	ug/kg	2290 Y	61.5 J Y	373 Y	603 J Y								
Benzoic acid	ug/kg	9150 U N	398 U N	357 J Y	6380 U N								
Benzyl alcohol	ug/kg	915 U N	47.2 Y	118 Y	638 U N								
bis(2-Chloroethoxy) methane	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
Bis-(2-chloroethyl) ether	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
Bis(2-ethylhexyl)phthalate	ug/kg	9310 Y	2510 Y	3020 Y	5300 Y								
Butylbenzylphthalate	ug/kg	578 J Y	109 Y	96.2 J Y	315 J Y								
Carbazole	ug/kg	915 U N	39.8 U N	46.5 J Y	638 U N								
Chrysene	ug/kg	1810 Y	50.4 Y	299 Y	774 Y								
Coarse Sand	%		23.8 Y	4.2 Y									
Copper	mg/kg		41.5 Y	183 Y									
cPAH	ug/kg		40.654 J Y	284.61 J Y									
Dibenzo(A,H)anthracene	ug/kg	915 U N	39.8 U N	54.8 J Y	638 U N								
Dibenzofuran	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
Diesel Range (Silica and Acid Cleaned)	mg/kg	1510 Y	82.9 Y	686 Y	649 Y								
Diethylphthalate	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
Dimethylphthalate	ug/kg	915 U N	14 J Y	97.9 U N	638 U N								
Di-N-Butylphthalate	ug/kg	1480 Y	39.8 U N	52.2 J Y	829 Y								
Di-N-Octylphthalate	ug/kg	915 U N	1470 Y	209 Y	638 U N								
Fine Gravel	%		0.8 Y	0.3 Y									
Fine Sand	%		7.9 Y	11.9 Y									
Fluoranthene	ug/kg	2220 Y	60.8 Y	405 Y	659 Y								
Fluorene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
Hexachlorobenzene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								
Hexachlorobutadiene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N								

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		ST09 12 Nov 2020 NCH-111220-1 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway Diagonal Ave S CSO/SD	ST1 23 Jun 2020 NCH-062320-2 SD Grab-Manual Inline w/Active SPU Sed Trap Lower Duwamish Waterway Diagonal Ave S CSO/SD	ST1 23 Jun 2020 ST1-062320 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway Diagonal Ave S CSO/SD	ST10 12 Nov 2020 NCH-111220-2 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway Diagonal Ave S CSO/SD
Analyte	Unit	Result	Result	Result	Result
Hexachlorocyclopentadiene	ug/kg	4580 U N	199 U N	489 U N	3190 U N
Hexachloroethane	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N
HPAH	ug/kg	13186 J Y	341.7 J Y	2361.8 J Y	4304 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	736 J Y	19.1 J Y	134 Y	242 J Y
Isophorone	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N
Lead	mg/kg		24.7 Y	96.5 Y	
LPAH	ug/kg	712 J Y	35.8 J Y	323.9 J Y	424 J Y
Medium Sand	%		37.1 Y	16.7 Y	
Mercury	mg/kg		0.0591 Y	0.177 Y	
Motor Oil (Silica and Acid Cleaned)	mg/kg	6010 Y	465 Y	4980 Y	4360 Y
Naphthalene	ug/kg	915 U N	39.8 U N	47.7 J Y	638 U N
Nitrobenzene	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N
N-Nitroso-Di-N-Propylamine	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N
N-Nitrosodiphenylamine	ug/kg	915 U N	39.8 U N	97.9 U N	638 U N
Pentachlorophenol	ug/kg	4580 U N	199 U N	489 U N	3190 U N
Phenanthrene	ug/kg	712 J Y	35.8 J Y	229 Y	424 J Y
Phenol	ug/kg	915 U N	19.8 J Y	130 Y	638 U N
Polychlorinated Biphenyls	ug/kg	280.5 Y	47.4 Y	492.5 Y	190.5 Y
Pyrene	ug/kg	2670 Y	71.2 Y	465 Y	878 Y
Solids, Total	%		77.98 Y	33.84 Y	
Total Organic Carbon	%		0.83 Y	12.7 Y	
Very Coarse Sand	%		8.3 Y	1.9 Y	
Very Fine Sand	%		1.6 Y	14.7 Y	
Zinc	mg/kg		191 Y	753 Y	

Location	Sample Date	Sample Name	Drainage Type	Sample Method	Location Type	Project	Outfall	ST2 28 Oct 2020 HAMLIN-D-102820 SD SedTrap	ST2 28 Oct 2020 SIFT-D-102820 SD SedTrap	ST2 28 Oct 2020 TRENT-D-102820 SD SedTrap	ST7 15 Oct 2020 ST7-101520-G SD SedTrap		
					Inline w/Active SPU Sed Trap	Lower Duwamish Waterway	Diagonal Ave S CSO/SD	Inline w/Active SPU Sed Trap	Lower Duwamish Waterway	Diagonal Ave S CSO/SD	Inline w/Active SPU Sed Trap	Lower Duwamish Waterway	Diagonal Ave S CSO/SD
Analyte	Unit	Result	Result	Result	Result								
1,2,4-Trichlorobenzene	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
1,2-Dichlorobenzene	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
1,3-Dichlorobenzene	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
1,4-Dichlorobenzene	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
1-Methylnaphthalene	ug/kg	99.9 U N	100 U N	56.9 J Y	99.5 U N								
2,2'-Oxybis(1-chloropropane)	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
2,4,5-Trichlorophenol	ug/kg	500 U N	500 U N	499 U N	497 U N								
2,4,6-Trichlorophenol	ug/kg	500 U N	500 U N	499 U N	497 U N								
2,4-Dichlorophenol	ug/kg	500 U N	500 U N	499 U N	497 U N								
2,4-Dimethylphenol	ug/kg	500 U N	500 U N	499 U N	497 U N								
2,4-Dinitrophenol	ug/kg	999 U N	1000 U N	999 U N	995 U N								
2,4-Dinitrotoluene	ug/kg	500 U N	500 U N	499 U N	497 U N								
2,6-Dinitrotoluene	ug/kg	500 U N	500 U N	499 U N	497 U N								
2-Chloronaphthalene	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
2-Chlorophenol	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
2-Methylnaphthalene	ug/kg	99.9 U N	39.7 J Y	85.5 J Y	99.5 U N								
2-Methylphenol	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
2-Nitroaniline	ug/kg	500 U N	500 U N	499 U N	497 U N								
2-Nitrophenol	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
3,3'-Dichlorobenzidine	ug/kg	500 U N	500 U N	499 U N	497 U N								
3-Nitroaniline	ug/kg	500 U N	500 U N	499 U N	497 U N								
4,6-Dinitro-2-Methylphenol	ug/kg	999 U N	1000 U N	999 U N	995 U N								
4-Bromophenyl phenyl ether	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
4-Chloro-3-Methylphenol	ug/kg	500 U N	500 U N	499 U N	497 U N								
4-Chloroaniline	ug/kg	500 U N	500 U N	499 U N	497 U N								
4-Chlorophenyl Phenylether	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
4-Methylphenol	ug/kg	99.9 U N	152 Y	165 Y	99.5 U N								
4-Nitroaniline	ug/kg	500 U N	500 U N	499 U N	497 U N								
4-Nitrophenol	ug/kg	500 U N	500 U N	499 U N	497 U N								
Acenaphthene	ug/kg	99.9 U N	100 U N	28.7 J Y	99.5 U N								
Acenaphthylene	ug/kg	99.9 U N	31 J Y	26.7 J Y	99.5 U N								
Anthracene	ug/kg	99.9 U N	66.5 J Y	56.5 J Y	115 Y								
Aroclor 1016	ug/kg	20 U N	20 U N	19.9 U N	19.7 U N								
Aroclor 1221	ug/kg	20 U N	20 U N	19.9 U N	19.7 U N								
Aroclor 1232	ug/kg	20 U N	20 U N	19.9 U N	19.7 U N								
Aroclor 1242	ug/kg	20 U N	20 U N	19.9 U N	19.7 U N								
Aroclor 1248	ug/kg	41.1 Y	56.7 Y	73.3 Y	26.3 Y								
Aroclor 1254	ug/kg	25.4 Y	37.2 Y	48.6 Y	26 Y								
Aroclor 1260	ug/kg	20 U N	20 U N	19.9 U N	19.7 U N								
Arsenic	mg/kg	7.02 Y	8.43 U N	42.4 U N	6.02 U N								
Benzo(A)anthracene	ug/kg	33.4 J Y	215 Y	194 Y	173 Y								
Benzo(A)pyrene	ug/kg	42.9 J Y	227 Y	226 Y	118 Y								
Benzo(G,H,I)perylene	ug/kg	81.4 J Y	275 Y	267 Y	87.7 J Y								
Benzo(a)fluoranthene, Total	ug/kg	96.9 J Y	524 Y	540 Y	250 Y								
Benzoic acid	ug/kg	999 U N	1000 U N	999 U N	995 U N								
Benzyl alcohol	ug/kg	99.9 U N	148 Y	86.6 J Y	99.5 U N								
bis(2-Chloroethoxy) methane	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
Bis-(2-chloroethyl) ether	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
Bis(2-ethylhexyl)phthalate	ug/kg	1390 Y	8170 Y	9650 Y	941 Y								
Butylbenzylphthalate	ug/kg	87.9 J Y	333 Y	431 Y	125 Y								
Carbazole	ug/kg	99.9 U N	54.1 J Y	55.6 J Y	99.5 U N								
Chrysene	ug/kg	84.3 J Y	437 Y	438 Y	255 Y								
Coarse Sand	%	35.5 Y											
Copper	mg/kg	157 Y	127 Y	538 Y	61 Y								
cPAH	ug/kg	80.333 J Y	351.77 J Y	338.26 J Y	188.7 J Y								
Dibenzo(A,H)anthracene	ug/kg	99.9 U N	78 J Y	52.7 J Y	99.5 U N								
Dibenzofuran	ug/kg	99.9 U N	100 U N	32.6 J Y	99.5 U N								
Diesel Range (Silica and Acid Cleaned)	mg/kg	110 Y	622 Y	881 Y	68.2 Y								
Diethylphthalate	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
Dimethylphthalate	ug/kg	47.2 J Y	126 Y	42.8 J Y	99.5 U N								
Di-N-Butylphthalate	ug/kg	50.6 J Y	99.7 J Y	119 Y	40.7 J Y								
Di-N-Octylphthalate	ug/kg	99.9 U N	476 Y	802 Y	62.1 J Y								
Fine Gravel	%	1.8 Y											
Fine Sand	%	13.5 Y											
Fluoranthene	ug/kg	83.8 J Y	668 Y	612 Y	338 Y								
Fluorene	ug/kg	99.9 U N	31.6 J Y	43.4 J Y	99.5 U N								
Hexachlorobenzene	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								
Hexachlorobutadiene	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N								

Location		ST2	ST2	ST2	ST7
Sample Date		28 Oct 2020	28 Oct 2020	28 Oct 2020	15 Oct 2020
Sample Name		HAMLIN-D-102820	SIFT-D-102820	TRENT-D-102820	ST7-101520-G
Drainage Type		SD	SD	SD	SD
Sample Method		SedTrap	SedTrap	SedTrap	SedTrap
Location Type		Inline w/Active SPU Sed Trap	Inline w/Active SPU Sed Trap	Inline w/Active SPU Sed Trap	Inline w/Active SPU Sed Trap
Project		Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD	Diagonal Ave S CSO/SD
Analyte	Unit	Result	Result	Result	Result
Hexachlorocyclopentadiene	ug/kg	500 U N	500 U N	499 U N	497 U N
Hexachloroethane	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N
HPAH	ug/kg	581.5 J Y	3378 J Y	3289.7 J Y	1588.2 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	35.8 J Y	153 Y	134 Y	59.5 J Y
Isophorone	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N
Lead	mg/kg	36.6 Y	62 Y	293 Y	18.5 Y
LPAH	ug/kg	42.1 J Y	605 J Y	654.9 J Y	208.9 J Y
Medium Sand	%	18.2 Y			
Mercury	mg/kg	0.0298 Y	0.0335 J Y	0.189 Y	0.0228 J Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	737 Y	3630 Y	4580 Y	566 Y
Naphthalene	ug/kg	99.9 U N	77.9 J Y	90.6 J Y	99.5 U N
Nitrobenzene	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.9 U N	100 U N	99.9 U N	99.5 U N
N-Nitrosodiphenylamine	ug/kg	99.9 U N	77.5 J Y	168 Y	99.5 U N
Pentachlorophenol	ug/kg	500 U N	500 U N	499 U N	497 U N
Phenanthrene	ug/kg	42.1 J Y	398 Y	409 Y	93.9 J Y
Phenol	ug/kg	99.9 U N	106 Y	113 Y	99.5 U N
Polychlorinated Biphenyls	ug/kg	66.5 Y	93.9 Y	121.9 Y	52.3 Y
Pyrene	ug/kg	123 Y	801 Y	826 Y	307 Y
Solids, Total	%	76.89 Y	54.07 Y	11.45 Y	77.67 Y
Total Organic Carbon	%	1.98 Y	8.52 Y	11.3 Y	0.94 Y
Very Coarse Sand	%	9 Y			
Very Fine Sand	%	4.1 Y			
Zinc	mg/kg	292 Y	658 Y	2130 Y	178 J Y

Analyte	Unit	Result
1,2,4-Trichlorobenzene	ug/kg	100 U N
1,2-Dichlorobenzene	ug/kg	100 U N
1,3-Dichlorobenzene	ug/kg	100 U N
1,4-Dichlorobenzene	ug/kg	100 U N
1-Methylnaphthalene	ug/kg	100 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	100 U N
2,4,5-Trichlorophenol	ug/kg	500 U N
2,4,6-Trichlorophenol	ug/kg	500 U N
2,4-Dichlorophenol	ug/kg	500 U N
2,4-Dimethylphenol	ug/kg	500 U N
2,4-Dinitrophenol	ug/kg	1000 U N
2,4-Dinitrotoluene	ug/kg	500 U N
2,6-Dinitrotoluene	ug/kg	500 U N
2-Chloronaphthalene	ug/kg	100 U N
2-Chlorophenol	ug/kg	100 U N
2-Methylnaphthalene	ug/kg	100 U N
2-Methylphenol	ug/kg	100 U N
2-Nitroaniline	ug/kg	500 U N
2-Nitrophenol	ug/kg	100 U N
3,3`-Dichlorobenzidine	ug/kg	500 U N
3-Nitroaniline	ug/kg	500 U N
4,6-Dinitro-2-Methylphenol	ug/kg	1000 U N
4-Bromophenyl phenyl ether	ug/kg	100 U N
4-Chloro-3-Methylphenol	ug/kg	500 U N
4-Chloroaniline	ug/kg	500 U N
4-Chlorophenyl Phenylether	ug/kg	100 U N
4-Methylphenol	ug/kg	100 U N
4-Nitroaniline	ug/kg	500 U N
4-Nitrophenol	ug/kg	500 U N
Acenaphthene	ug/kg	128 Y
Acenaphthylene	ug/kg	24.2 J Y
Anthracene	ug/kg	182 Y
Aroclor 1016	ug/kg	19.9 U N
Aroclor 1221	ug/kg	19.9 U N
Aroclor 1232	ug/kg	19.9 U N
Aroclor 1242	ug/kg	19.9 U N
Aroclor 1248	ug/kg	55.3 Y
Aroclor 1254	ug/kg	37.3 Y
Aroclor 1260	ug/kg	54.7 Y
Arsenic	mg/kg	27 Y
Benzo(A)anthracene	ug/kg	181 Y
Benzo(A)pyrene	ug/kg	190 Y
Benzo(G,H,I)perylene	ug/kg	283 Y
Benzofluoranthenes, Total	ug/kg	453 Y
Benzoic acid	ug/kg	384 J Y
Benzyl alcohol	ug/kg	166 Y
bis(2-Chloroethoxy) methane	ug/kg	100 U N
Bis-(2-chloroethyl) ether	ug/kg	100 U N

Analyte	Unit	Result
Bis(2-ethylhexyl)phthalate	ug/kg	3430 Y
Butylbenzylphthalate	ug/kg	186 Y
Carbazole	ug/kg	52.2 J Y
Chrysene	ug/kg	410 Y
Copper	mg/kg	99.2 Y
cPAH	ug/kg	290.92 J Y
Dibenzo(A,H)anthracene	ug/kg	45.3 J Y
Dibenzofuran	ug/kg	68.3 J Y
Diesel Range (Silica and Acid Cleaned)	mg/kg	312 Y
Diethylphthalate	ug/kg	100 U N
Dimethylphthalate	ug/kg	206 Y
Di-N-Butylphthalate	ug/kg	69.6 J Y
Di-N-Octylphthalate	ug/kg	49.4 J Y
Fluoranthene	ug/kg	483 Y
Fluorene	ug/kg	70.8 J Y
Hexachlorobenzene	ug/kg	100 U N
Hexachlorobutadiene	ug/kg	100 U N
Hexachlorocyclopentadiene	ug/kg	500 U N
Hexachloroethane	ug/kg	100 U N
HPAH	ug/kg	2783.3 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	153 Y
Isophorone	ug/kg	100 U N
Lead	mg/kg	132 Y
LPAH	ug/kg	620 J Y
Mercury	mg/kg	0.227 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	2050 Y
Naphthalene	ug/kg	61 J Y
Nitrobenzene	ug/kg	100 U N
N-Nitroso-Di-N-Propylamine	ug/kg	100 U N
N-Nitrosodiphenylamine	ug/kg	71 J Y
Pentachlorophenol	ug/kg	500 U N
Phenanthrene	ug/kg	154 Y
Phenol	ug/kg	96.8 J Y
Polychlorinated Biphenyls	ug/kg	147.3 Y
Pyrene	ug/kg	585 Y
Solids, Total	%	34.53 Y
Total Organic Carbon	%	7.11 Y
Zinc	mg/kg	1020 J Y

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		SL4-T6 16 Oct 2020 SL4-T6-101620 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway I-5 SD at Slip 4	SL4-T6 16 Oct 2020 SL4-T6-101620-G SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway I-5 SD at Slip 4
Analyte	Unit	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99.8 UJ N	99.5 U N
1,2-Dichlorobenzene	ug/kg	99.8 UJ N	99.5 U N
1,3-Dichlorobenzene	ug/kg	99.8 UJ N	99.5 U N
1,4-Dichlorobenzene	ug/kg	99.8 UJ N	99.5 U N
1-Methylnaphthalene	ug/kg	99.8 UJ N	99.5 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.8 UJ N	99.5 U N
2,4,5-Trichlorophenol	ug/kg	499 UJ N	497 U N
2,4,6-Trichlorophenol	ug/kg	499 UJ N	497 U N
2,4-Dichlorophenol	ug/kg	499 UJ N	497 U N
2,4-Dimethylphenol	ug/kg	499 UJ N	497 U N
2,4-Dinitrophenol	ug/kg	998 UJ N	995 U N
2,4-Dinitrotoluene	ug/kg	499 UJ N	497 U N
2,6-Dinitrotoluene	ug/kg	499 UJ N	497 U N
2-Chloronaphthalene	ug/kg	99.8 UJ N	99.5 U N
2-Chlorophenol	ug/kg	99.8 UJ N	99.5 U N
2-Methylnaphthalene	ug/kg	29.4 J Y	99.5 U N
2-Methylphenol	ug/kg	99.8 UJ N	99.5 U N
2-Nitroaniline	ug/kg	499 UJ N	497 U N
2-Nitrophenol	ug/kg	99.8 UJ N	99.5 U N
3,3`-Dichlorobenzidine	ug/kg	499 UJ N	497 U N
3-Nitroaniline	ug/kg	499 UJ N	497 U N
4,6-Dinitro-2-Methylphenol	ug/kg	998 UJ N	995 U N
4-Bromophenyl phenyl ether	ug/kg	99.8 UJ N	99.5 U N
4-Chloro-3-Methylphenol	ug/kg	499 UJ N	497 U N
4-Chloroaniline	ug/kg	499 UJ N	497 U N
4-Chlorophenyl Phenylether	ug/kg	99.8 UJ N	99.5 U N
4-Methylphenol	ug/kg	189 J Y	99.5 U N
4-Nitroaniline	ug/kg	499 UJ N	497 U N
4-Nitrophenol	ug/kg	499 UJ N	497 U N
Acenaphthene	ug/kg	56.1 J Y	99.5 U N
Acenaphthylene	ug/kg	99.8 UJ N	99.5 U N
Anthracene	ug/kg	75.9 J Y	40.5 J Y
Aroclor 1016	ug/kg	20 U N	19.8 U N
Aroclor 1221	ug/kg	20 U N	19.8 U N
Aroclor 1232	ug/kg	20 U N	19.8 U N
Aroclor 1242	ug/kg	20 U N	19.8 U N
Aroclor 1248	ug/kg	35.6 Y	19.8 U N
Aroclor 1254	ug/kg	30.1 Y	19.8 U N
Aroclor 1260	ug/kg	48.3 Y	19.8 U N
Arsenic	mg/kg	11.7 Y	2.43 Y
Benzo(A)anthracene	ug/kg	192 J Y	99.5 U N
Benzo(A)pyrene	ug/kg	183 J Y	99.5 U N
Benzo(G,H,I)perylene	ug/kg	258 J Y	35.1 J Y
Benzofluoranthenes, Total	ug/kg	406 J Y	56.8 J Y
Benzoic acid	ug/kg	998 UJ N	995 U N
Benzyl alcohol	ug/kg	99.8 UJ N	99.5 U N
bis(2-Chloroethoxy) methane	ug/kg	99.8 UJ N	99.5 U N
Bis-(2-chloroethyl) ether	ug/kg	99.8 UJ N	99.5 U N
Bis(2-ethylhexyl)phthalate	ug/kg	7690 J Y	412 Y
Butylbenzylphthalate	ug/kg	387 J Y	99.5 U N
Carbazole	ug/kg	80.4 J Y	99.5 U N

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		SL4-T6 16 Oct 2020 SL4-T6-101620 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway I-5 SD at Slip 4	SL4-T6 16 Oct 2020 SL4-T6-101620-G SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway I-5 SD at Slip 4
Analyte	Unit	Result	Result
Chrysene	ug/kg	344 J Y	33.9 J Y
Coarse Sand	%	5 Y	18.3 Y
Copper	mg/kg	122 Y	99.6 Y
cPAH	ug/kg	283.88 J Y	85.619 J Y
Dibenzo(A,H)anthracene	ug/kg	55.6 J Y	99.5 U N
Dibenzofuran	ug/kg	32.7 J Y	99.5 U N
Diesel Range (Silica and Acid Cleaned)	mg/kg	214 J Y	34.8 Y
Diethylphthalate	ug/kg	99.8 UJ N	99.5 U N
Dimethylphthalate	ug/kg	114 J Y	99.5 U N
Di-N-Butylphthalate	ug/kg	74.4 J Y	62.7 J Y
Di-N-Octylphthalate	ug/kg	352 J Y	99.5 U N
Fine Gravel	%	0.1 Y	4.3 Y
Fine Sand	%	40.8 Y	4 Y
Fluoranthene	ug/kg	642 J Y	37.3 J Y
Fluorene	ug/kg	83.3 J Y	99.5 U N
Hexachlorobenzene	ug/kg	99.8 UJ N	99.5 U N
Hexachlorobutadiene	ug/kg	99.8 UJ N	99.5 U N
Hexachlorocyclopentadiene	ug/kg	499 UJ N	497 U N
Hexachloroethane	ug/kg	99.8 UJ N	99.5 U N
HPAH	ug/kg	2887.6 J Y	215.9 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	154 J Y	99.5 U N
Isophorone	ug/kg	99.8 UJ N	99.5 U N
Lead	mg/kg	56.5 Y	317 Y
LPAH	ug/kg	696 J Y	72.3 J Y
Medium Sand	%	23 Y	18.9 Y
Mercury	mg/kg	0.0432 Y	0.0114 J Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	1540 J Y	297 Y
Naphthalene	ug/kg	43.7 J Y	99.5 U N
Nitrobenzene	ug/kg	99.8 UJ N	99.5 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.8 UJ N	99.5 U N
N-Nitrosodiphenylamine	ug/kg	99.8 UJ N	99.5 U N
Pentachlorophenol	ug/kg	499 UJ N	497 U N
Phenanthrene	ug/kg	437 J Y	31.8 J Y
Phenol	ug/kg	57.5 J Y	99.5 U N
Polychlorinated Biphenyls	ug/kg	114 Y	19.8 U N
Pyrene	ug/kg	653 J Y	52.8 J Y
Solids, Total	%	64.59 Y	84.04 Y
Total Organic Carbon	%	5.08 Y	0.94 J Y
Very Coarse Sand	%	2 Y	9.9 Y
Very Fine Sand	%	15.8 Y	0.9 Y
Zinc	mg/kg	466 Y	337 Y

Analyte	Unit	Result
1,2,4-Trichlorobenzene	ug/kg	99.8 U N
1,2-Dichlorobenzene	ug/kg	99.8 U N
1,3-Dichlorobenzene	ug/kg	99.8 U N
1,4-Dichlorobenzene	ug/kg	99.8 U N
1-Methylnaphthalene	ug/kg	99.8 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.8 U N
2,4,5-Trichlorophenol	ug/kg	499 U N
2,4,6-Trichlorophenol	ug/kg	499 U N
2,4-Dichlorophenol	ug/kg	499 U N
2,4-Dimethylphenol	ug/kg	499 U N
2,4-Dinitrophenol	ug/kg	998 U N
2,4-Dinitrotoluene	ug/kg	499 U N
2,6-Dinitrotoluene	ug/kg	499 U N
2-Chloronaphthalene	ug/kg	99.8 U N
2-Chlorophenol	ug/kg	99.8 U N
2-Methylnaphthalene	ug/kg	35.3 J Y
2-Methylphenol	ug/kg	99.8 U N
2-Nitroaniline	ug/kg	499 U N
2-Nitrophenol	ug/kg	99.8 U N
3,3'-Dichlorobenzidine	ug/kg	499 U N
3-Nitroaniline	ug/kg	499 U N
4,6-Dinitro-2-Methylphenol	ug/kg	998 U N
4-Bromophenyl phenyl ether	ug/kg	99.8 U N
4-Chloro-3-Methylphenol	ug/kg	499 U N
4-Chloroaniline	ug/kg	499 U N
4-Chlorophenyl Phenylether	ug/kg	99.8 U N
4-Methylphenol	ug/kg	135 Y
4-Nitroaniline	ug/kg	499 U N
4-Nitrophenol	ug/kg	499 U N
Acenaphthene	ug/kg	99.8 U N
Acenaphthylene	ug/kg	43 J Y
Anthracene	ug/kg	83.1 J Y
Aroclor 1016	ug/kg	20 U N
Aroclor 1221	ug/kg	20 U N
Aroclor 1232	ug/kg	20 U N
Aroclor 1242	ug/kg	20 U N
Aroclor 1248	ug/kg	41.9 Y
Aroclor 1254	ug/kg	103 Y
Aroclor 1260	ug/kg	80.7 Y
Arsenic	mg/kg	23.2 U N
Benzo(A)anthracene	ug/kg	325 Y
Benzo(A)pyrene	ug/kg	423 Y
Benzo(G,H,I)perylene	ug/kg	234 Y
Benzofluoranthenes, Total	ug/kg	1050 Y
Benzoic acid	ug/kg	1560 Y
Benzyl alcohol	ug/kg	449 Y
bis(2-Chloroethoxy) methane	ug/kg	99.8 U N
Bis-(2-chloroethyl) ether	ug/kg	99.8 U N
Bis(2-ethylhexyl)phthalate	ug/kg	6020 Y
Butylbenzylphthalate	ug/kg	163 Y
Carbazole	ug/kg	65.2 J Y

Analyte	Unit	Result
Chrysene	ug/kg	905 Y
Coarse Sand	%	2.5 Y
Copper	mg/kg	132 Y
cPAH	ug/kg	625.43 J Y
Dibenzo(A,H)anthracene	ug/kg	94.7 J Y
Dibenzofuran	ug/kg	33 J Y
Diesel Range (Silica and Acid Cleaned)	mg/kg	249 Y
Diethylphthalate	ug/kg	99.8 U N
Dimethylphthalate	ug/kg	99.8 U N
Di-N-Butylphthalate	ug/kg	78 J Y
Di-N-Octylphthalate	ug/kg	59.2 J Y
Fine Gravel	%	0.4 Y
Fine Sand	%	5.2 Y
Fluoranthene	ug/kg	832 Y
Fluorene	ug/kg	30.9 J Y
Hexachlorobenzene	ug/kg	99.8 U N
Hexachlorobutadiene	ug/kg	99.8 U N
Hexachlorocyclopentadiene	ug/kg	499 U N
Hexachloroethane	ug/kg	99.8 U N
HPAH	ug/kg	4849.7 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	180 Y
Isophorone	ug/kg	99.8 U N
Lead	mg/kg	236 Y
LPAH	ug/kg	559.6 J Y
Medium Sand	%	4.4 Y
Mercury	mg/kg	0.187 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	2110 Y
Naphthalene	ug/kg	49.6 J Y
Nitrobenzene	ug/kg	99.8 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.8 U N
N-Nitrosodiphenylamine	ug/kg	99.8 U N
Pentachlorophenol	ug/kg	499 U N
Phenanthrene	ug/kg	353 Y
Phenol	ug/kg	96.2 J Y
Polychlorinated Biphenyls	ug/kg	225.6 Y
Pyrene	ug/kg	806 Y
Solids, Total	%	20.82 Y
Total Organic Carbon	%	16.1 Y
Very Coarse Sand	%	2 Y
Very Fine Sand	%	9.3 Y
Zinc	mg/kg	721 Y

Analyte	Unit	Result
1,2,4-Trichlorobenzene	ug/kg	99.9 U N
1,2-Dichlorobenzene	ug/kg	99.9 U N
1,3-Dichlorobenzene	ug/kg	99.9 U N
1,4-Dichlorobenzene	ug/kg	99.9 U N
1-Methylnaphthalene	ug/kg	99.9 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.9 U N
2,4,5-Trichlorophenol	ug/kg	500 U N
2,4,6-Trichlorophenol	ug/kg	500 U N
2,4-Dichlorophenol	ug/kg	500 U N
2,4-Dimethylphenol	ug/kg	500 U N
2,4-Dinitrophenol	ug/kg	999 U N
2,4-Dinitrotoluene	ug/kg	500 U N
2,6-Dinitrotoluene	ug/kg	500 U N
2-Chloronaphthalene	ug/kg	99.9 U N
2-Chlorophenol	ug/kg	99.9 U N
2-Methylnaphthalene	ug/kg	38.6 J Y
2-Methylphenol	ug/kg	99.9 U N
2-Nitroaniline	ug/kg	500 U N
2-Nitrophenol	ug/kg	99.9 U N
3,3`-Dichlorobenzidine	ug/kg	500 U N
3-Nitroaniline	ug/kg	500 U N
4,6-Dinitro-2-Methylphenol	ug/kg	999 U N
4-Bromophenyl phenyl ether	ug/kg	99.9 U N
4-Chloro-3-Methylphenol	ug/kg	500 U N
4-Chloroaniline	ug/kg	500 U N
4-Chlorophenyl Phenylether	ug/kg	99.9 U N
4-Methylphenol	ug/kg	99.9 U N
4-Nitroaniline	ug/kg	500 U N
4-Nitrophenol	ug/kg	500 U N
Acenaphthene	ug/kg	275 Y
Acenaphthylene	ug/kg	48.1 J Y
Anthracene	ug/kg	191 Y
Aroclor 1016	ug/kg	19.6 U N
Aroclor 1221	ug/kg	19.6 U N
Aroclor 1232	ug/kg	19.6 U N
Aroclor 1242	ug/kg	19.6 U N
Aroclor 1248	ug/kg	67.1 Y
Aroclor 1254	ug/kg	87.9 Y
Aroclor 1260	ug/kg	166 Y
Arsenic	mg/kg	37.2 Y
Benzo(A)anthracene	ug/kg	466 Y
Benzo(A)pyrene	ug/kg	486 Y
Benzo(G,H,I)perylene	ug/kg	791 J Y
Benzofluoranthenes, Total	ug/kg	1150 Y
Benzoic acid	ug/kg	401 J Y
Benzyl alcohol	ug/kg	99.9 U N
bis(2-Chloroethoxy) methane	ug/kg	99.9 U N
Bis-(2-chloroethyl) ether	ug/kg	99.9 U N
Bis(2-ethylhexyl)phthalate	ug/kg	4260 Y
Butylbenzylphthalate	ug/kg	521 Y
Carbazole	ug/kg	86.7 J Y

Analyte	Unit	Result
Chrysene	ug/kg	919 Y
Coarse Sand	%	2.8 Y
Copper	mg/kg	200 Y
cPAH	ug/kg	749.39 J Y
Dibenzo(A,H)anthracene	ug/kg	125 J Y
Dibenzofuran	ug/kg	54.5 J Y
Diesel Range (Silica and Acid Cleaned)	mg/kg	984 Y
Diethylphthalate	ug/kg	99.9 U N
Dimethylphthalate	ug/kg	126 Y
Di-N-Butylphthalate	ug/kg	975 Y
Di-N-Octylphthalate	ug/kg	353 Y
Fine Gravel	%	0.3 Y
Fine Sand	%	3.1 Y
Fluoranthene	ug/kg	1680 Y
Fluorene	ug/kg	50.2 J Y
Hexachlorobenzene	ug/kg	99.9 U N
Hexachlorobutadiene	ug/kg	99.9 U N
Hexachlorocyclopentadiene	ug/kg	500 U N
Hexachloroethane	ug/kg	99.9 U N
HPAH	ug/kg	7443 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	426 J Y
Isophorone	ug/kg	99.9 U N
Lead	mg/kg	185 Y
LPAH	ug/kg	913.3 J Y
Medium Sand	%	3.7 Y
Mercury	mg/kg	0.289 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	5610 Y
Naphthalene	ug/kg	99.9 U N
Nitrobenzene	ug/kg	99.9 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.9 U N
N-Nitrosodiphenylamine	ug/kg	70.4 J Y
Pentachlorophenol	ug/kg	500 U N
Phenanthrene	ug/kg	349 Y
Phenol	ug/kg	117 Y
Polychlorinated Biphenyls	ug/kg	321 Y
Pyrene	ug/kg	1400 Y
Solids, Total	%	35.63 Y
Total Organic Carbon	%	16.1 Y
Very Coarse Sand	%	2.1 Y
Very Fine Sand	%	6 Y
Zinc	mg/kg	1090 Y

Location		MH68
Sample Date		17 Jun 2020
Sample Name		MKJ-061720-1
Drainage Type		SD
Sample Method		Grab-Manual
Location Type		Inline
Project		Lower Duwamish Waterway
Outfall		S Garden St SD
Analyte	Unit	Result
1,2,4-Trichlorobenzene	ug/kg	99.9 U N
1,2-Dichlorobenzene	ug/kg	99.9 U N
1,3-Dichlorobenzene	ug/kg	99.9 U N
1,4-Dichlorobenzene	ug/kg	99.9 U N
1-Methylnaphthalene	ug/kg	99.9 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.9 U N
2,4,5-Trichlorophenol	ug/kg	499 U N
2,4,6-Trichlorophenol	ug/kg	499 U N
2,4-Dichlorophenol	ug/kg	499 U N
2,4-Dimethylphenol	ug/kg	499 U N
2,4-Dinitrophenol	ug/kg	999 U N
2,4-Dinitrotoluene	ug/kg	499 U N
2,6-Dinitrotoluene	ug/kg	499 U N
2-Chloronaphthalene	ug/kg	99.9 U N
2-Chlorophenol	ug/kg	99.9 U N
2-Methylnaphthalene	ug/kg	53.7 J Y
2-Methylphenol	ug/kg	99.9 U N
2-Nitroaniline	ug/kg	499 U N
2-Nitrophenol	ug/kg	99.9 U N
3,3`-Dichlorobenzidine	ug/kg	499 U N
3-Nitroaniline	ug/kg	499 U N
4,6-Dinitro-2-Methylphenol	ug/kg	999 U N
4-Bromophenyl phenyl ether	ug/kg	99.9 U N
4-Chloro-3-Methylphenol	ug/kg	499 U N
4-Chloroaniline	ug/kg	499 U N
4-Chlorophenyl Phenylether	ug/kg	99.9 U N
4-Methylphenol	ug/kg	99.9 U N
4-Nitroaniline	ug/kg	499 U N
4-Nitrophenol	ug/kg	499 U N
Acenaphthene	ug/kg	99.9 U N
Acenaphthylene	ug/kg	99.9 U N
Anthracene	ug/kg	46.6 J Y
Aroclor 1016	ug/kg	19.7 U N
Aroclor 1221	ug/kg	19.7 U N
Aroclor 1232	ug/kg	19.7 U N
Aroclor 1242	ug/kg	19.7 U N
Aroclor 1248	ug/kg	191 Y
Aroclor 1254	ug/kg	251 Y
Aroclor 1260	ug/kg	944 Y
Arsenic	mg/kg	20 U N
Benzo(A)anthracene	ug/kg	105 Y
Benzo(A)pyrene	ug/kg	235 Y
Benzo(G,H,I)perylene	ug/kg	210 Y
Benzofluoranthenes, Total	ug/kg	471 Y
Benzoic acid	ug/kg	999 U N
Benzyl alcohol	ug/kg	99.9 U N
bis(2-Chloroethoxy) methane	ug/kg	99.9 U N
Bis-(2-chloroethyl) ether	ug/kg	99.9 U N
Bis(2-ethylhexyl)phthalate	ug/kg	4340 Y
Butylbenzylphthalate	ug/kg	425 Y
Carbazole	ug/kg	99.9 U N

Analyte	Unit	Result
Chrysene	ug/kg	292 Y
Coarse Sand	%	9.5 Y
Copper	mg/kg	225 Y
cPAH	ug/kg	326.36 J Y
Dibenzo(A,H)anthracene	ug/kg	48.1 J Y
Dibenzofuran	ug/kg	29.3 J Y
Diesel Range (Silica and Acid Cleaned)	mg/kg	141 Y
Diethylphthalate	ug/kg	99.9 U N
Dimethylphthalate	ug/kg	110 Y
Di-N-Butylphthalate	ug/kg	312 Y
Di-N-Octylphthalate	ug/kg	139 Y
Fine Gravel	%	0.7 Y
Fine Sand	%	6.4 Y
Fluoranthene	ug/kg	246 Y
Fluorene	ug/kg	99.9 U N
Hexachlorobenzene	ug/kg	99.9 U N
Hexachlorobutadiene	ug/kg	99.9 U N
Hexachlorocyclopentadiene	ug/kg	499 U N
Hexachloroethane	ug/kg	99.9 U N
HPAH	ug/kg	2084.1 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	116 Y
Isophorone	ug/kg	99.9 U N
Lead	mg/kg	228 Y
LPAH	ug/kg	295.4 J Y
Medium Sand	%	10.2 Y
Mercury	mg/kg	0.399 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	1430 Y
Naphthalene	ug/kg	68.8 J Y
Nitrobenzene	ug/kg	99.9 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.9 U N
N-Nitrosodiphenylamine	ug/kg	99.9 U N
Pentachlorophenol	ug/kg	499 U N
Phenanthrene	ug/kg	180 Y
Phenol	ug/kg	129 Y
Polychlorinated Biphenyls	ug/kg	1386 Y
Pyrene	ug/kg	361 Y
Solids, Total	%	61.69 Y
Total Organic Carbon	%	7.61 Y
Very Coarse Sand	%	7.9 Y
Very Fine Sand	%	8.5 Y
Zinc	mg/kg	1120 Y

Analyte	Unit	Result
1,2,4-Trichlorobenzene	ug/kg	300 U N
1,2-Dichlorobenzene	ug/kg	300 U N
1,3-Dichlorobenzene	ug/kg	300 U N
1,4-Dichlorobenzene	ug/kg	300 U N
1-Methylnaphthalene	ug/kg	300 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	300 U N
2,4,5-Trichlorophenol	ug/kg	1500 U N
2,4,6-Trichlorophenol	ug/kg	1500 U N
2,4-Dichlorophenol	ug/kg	1500 U N
2,4-Dimethylphenol	ug/kg	1500 U N
2,4-Dinitrophenol	ug/kg	3000 U N
2,4-Dinitrotoluene	ug/kg	1500 U N
2,6-Dinitrotoluene	ug/kg	1500 U N
2-Chloronaphthalene	ug/kg	300 U N
2-Chlorophenol	ug/kg	300 U N
2-Methylnaphthalene	ug/kg	300 U N
2-Methylphenol	ug/kg	300 U N
2-Nitroaniline	ug/kg	1500 U N
2-Nitrophenol	ug/kg	300 U N
3,3`-Dichlorobenzidine	ug/kg	1500 U N
3-Nitroaniline	ug/kg	1500 U N
4,6-Dinitro-2-Methylphenol	ug/kg	3000 U N
4-Bromophenyl phenyl ether	ug/kg	300 U N
4-Chloro-3-Methylphenol	ug/kg	1500 U N
4-Chloroaniline	ug/kg	1500 U N
4-Chlorophenyl Phenylether	ug/kg	300 U N
4-Methylphenol	ug/kg	300 U N
4-Nitroaniline	ug/kg	1500 U N
4-Nitrophenol	ug/kg	1500 U N
Acenaphthene	ug/kg	300 U N
Acenaphthylene	ug/kg	300 U N
Anthracene	ug/kg	300 U N
Aroclor 1016	ug/kg	19.5 U N
Aroclor 1221	ug/kg	19.5 U N
Aroclor 1232	ug/kg	19.5 U N
Aroclor 1242	ug/kg	19.5 U N
Aroclor 1248	ug/kg	19.5 U N
Aroclor 1254	ug/kg	19.5 U N
Aroclor 1260	ug/kg	15.2 J Y
Arsenic	mg/kg	9.5 Y
Benzo(A)anthracene	ug/kg	120 J Y
Benzo(A)pyrene	ug/kg	135 J Y
Benzo(G,H,I)perylene	ug/kg	207 J Y
Benzo(a)fluoranthene, Total	ug/kg	330 J Y
Benzoic acid	ug/kg	3000 U N
Benzyl alcohol	ug/kg	300 U N
bis(2-Chloroethoxy) methane	ug/kg	300 U N
Bis-(2-chloroethyl) ether	ug/kg	300 U N

	Location	EWWST5
	Sample Date	20 Oct 2020
	Sample Name	EWWST5-102020
	Drainage Type	SD
	Sample Method	SedTrap
	Location Type	Inline w/Active SPU Sed Trap
	Project	East Waterway
	Outfall	S Lander St CSO/SD
Analyte	Unit	Result
Bis(2-ethylhexyl)phthalate	ug/kg	3280 Y
Butylbenzylphthalate	ug/kg	300 U N
Carbazole	ug/kg	300 U N
Chrysene	ug/kg	275 J Y
Copper	mg/kg	113 Y
cPAH	ug/kg	254.65 J Y
Dibenzo(A,H)anthracene	ug/kg	300 U N
Dibenzofuran	ug/kg	300 U N
Diesel Range (Silica and Acid Cleaned)	mg/kg	383 Y
Diethylphthalate	ug/kg	300 U N
Dimethylphthalate	ug/kg	300 U N
Di-N-Butylphthalate	ug/kg	94.2 J Y
Di-N-Octylphthalate	ug/kg	143 J Y
Fluoranthene	ug/kg	369 Y
Fluorene	ug/kg	300 U N
Hexachlorobenzene	ug/kg	300 U N
Hexachlorobutadiene	ug/kg	300 U N
Hexachlorocyclopentadiene	ug/kg	1500 U N
Hexachloroethane	ug/kg	300 U N
HPAH	ug/kg	1952 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	119 J Y
Isophorone	ug/kg	300 U N
Lead	mg/kg	63.8 Y
LPAH	ug/kg	227 J Y
Mercury	mg/kg	0.0665 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	2370 Y
Naphthalene	ug/kg	300 U N
Nitrobenzene	ug/kg	300 U N
N-Nitroso-Di-N-Propylamine	ug/kg	300 U N
N-Nitrosodiphenylamine	ug/kg	300 U N
Pentachlorophenol	ug/kg	1500 U N
Phenanthrene	ug/kg	227 J Y
Phenol	ug/kg	300 U N
Polychlorinated Biphenyls	ug/kg	15.2 J Y
Pyrene	ug/kg	397 Y
Solids, Total	%	54.69 Y
Total Organic Carbon	%	7.71 Y
Zinc	mg/kg	365 Y

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		MH100 28 Oct 2020 HAMLIN-M-102820 SD SedTrap Inline Lower Duwamish Waterway S Myrtle St SD	MH100 28 Oct 2020 RORY-M-102820 SD SedTrap Inline Lower Duwamish Waterway S Myrtle St SD	MH100 28 Oct 2020 SIFT-M-102820 SD SedTrap Inline Lower Duwamish Waterway S Myrtle St SD
Analyte	Unit	Result	Result	Result
1,2,4-Trichlorobenzene	ug/kg	100 U N	99.9 U N	99.9 U N
1,2-Dichlorobenzene	ug/kg	100 U N	99.9 U N	99.9 U N
1,3-Dichlorobenzene	ug/kg	100 U N	99.9 U N	99.9 U N
1,4-Dichlorobenzene	ug/kg	100 U N	99.9 U N	26.1 J Y
1-Methylnaphthalene	ug/kg	76.7 J Y	76.7 J Y	115 Y
2,2'-Oxybis(1-chloropropane)	ug/kg	100 U N	99.9 U N	99.9 U N
2,4,5-Trichlorophenol	ug/kg	500 U N	500 U N	500 U N
2,4,6-Trichlorophenol	ug/kg	500 U N	500 U N	500 U N
2,4-Dichlorophenol	ug/kg	500 U N	500 U N	500 U N
2,4-Dimethylphenol	ug/kg	500 U N	500 U N	500 U N
2,4-Dinitrophenol	ug/kg	1000 U N	999 U N	999 U N
2,4-Dinitrotoluene	ug/kg	500 U N	500 U N	500 U N
2,6-Dinitrotoluene	ug/kg	500 U N	500 U N	500 U N
2-Chloronaphthalene	ug/kg	100 U N	99.9 U N	99.9 U N
2-Chlorophenol	ug/kg	100 U N	99.9 U N	99.9 U N
2-Methylnaphthalene	ug/kg	153 Y	194 Y	225 Y
2-Methylphenol	ug/kg	100 U N	99.9 U N	99.9 U N
2-Nitroaniline	ug/kg	500 U N	500 U N	500 U N
2-Nitrophenol	ug/kg	100 U N	99.9 U N	99.9 U N
3,3`-Dichlorobenzidine	ug/kg	500 U N	500 U N	500 U N
3-Nitroaniline	ug/kg	500 U N	500 U N	500 U N
4,6-Dinitro-2-Methylphenol	ug/kg	1000 U N	999 U N	999 U N
4-Bromophenyl phenyl ether	ug/kg	100 U N	99.9 U N	99.9 U N
4-Chloro-3-Methylphenol	ug/kg	500 U N	500 U N	500 U N
4-Chloroaniline	ug/kg	500 U N	500 U N	500 U N
4-Chlorophenyl Phenylether	ug/kg	100 U N	99.9 U N	99.9 U N
4-Methylphenol	ug/kg	100 U N	99.9 U N	154 Y
4-Nitroaniline	ug/kg	500 U N	500 U N	500 U N
4-Nitrophenol	ug/kg	500 U N	500 U N	500 U N
Acenaphthene	ug/kg	32.9 J Y	99.9 U N	38.5 J Y
Acenaphthylene	ug/kg	46.8 J Y	99.9 U N	28.4 J Y
Anthracene	ug/kg	185 Y	73.7 J Y	86.5 J Y
Aroclor 1016	ug/kg	19.9 U N	20 UJ N	20 UJ N
Aroclor 1221	ug/kg	19.9 U N	20 UJ N	20 UJ N
Aroclor 1232	ug/kg	19.9 U N	20 UJ N	20 UJ N
Aroclor 1242	ug/kg	19.9 U N	20 UJ N	20 UJ N
Aroclor 1248	ug/kg	313 Y	280 J Y	467 J Y
Aroclor 1254	ug/kg	228 Y	201 J Y	246 J Y
Aroclor 1260	ug/kg	133 Y	102 J Y	112 J Y
Arsenic	mg/kg	16.1 Y	18.8 Y	14.9 Y
Benzo(A)anthracene	ug/kg	1260 Y	218 Y	286 Y
Benzo(A)pyrene	ug/kg	1630 Y	265 Y	338 Y
Benzo(G,H,I)perylene	ug/kg	706 Y	327 Y	349 Y
Benzofluoranthenes, Total	ug/kg	2800 Y	643 Y	798 Y
Benzoic acid	ug/kg	329 J Y	999 U N	580 J Y
Benzyl alcohol	ug/kg	100 U N	99.9 U N	86.3 J Y
bis(2-Chloroethoxy) methane	ug/kg	100 U N	99.9 U N	99.9 U N
Bis-(2-chloroethyl) ether	ug/kg	100 U N	99.9 U N	99.9 U N
Bis(2-ethylhexyl)phthalate	ug/kg	9260 Y	9500 Y	19000 Y
Butylbenzylphthalate	ug/kg	1760 Y	1170 Y	2210 Y
Carbazole	ug/kg	53.1 J Y	42 J Y	99.9 U N
Chrysene	ug/kg	2280 Y	457 Y	678 Y

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		MH100 28 Oct 2020 HAMLIN-M-102820 SD SedTrap Inline Lower Duwamish Waterway S Myrtle St SD	MH100 28 Oct 2020 RORY-M-102820 SD SedTrap Inline Lower Duwamish Waterway S Myrtle St SD	MH100 28 Oct 2020 SIFT-M-102820 SD SedTrap Inline Lower Duwamish Waterway S Myrtle St SD
Analyte	Unit	Result	Result	Result
Coarse Sand	%	4.7 Y		4.3 Y
Copper	mg/kg	787 Y	739 Y	788 Y
cPAH	ug/kg	2217.1 Y	404.93 J Y	503.04 J Y
Dibenzo(A,H)anthracene	ug/kg	254 Y	77.9 J Y	76.9 J Y
Dibenzofuran	ug/kg	33 J Y	25 J Y	41.8 J Y
Diesel Range (Silica and Acid Cleaned)	mg/kg	1280 Y	2160 Y	2150 Y
Diethylphthalate	ug/kg	100 U N	99.9 U N	99.9 U N
Dimethylphthalate	ug/kg	989 Y	465 Y	1140 Y
Di-N-Butylphthalate	ug/kg	507 Y	479 Y	653 Y
Di-N-Octylphthalate	ug/kg	618 Y	741 Y	896 Y
Fine Gravel	%	0.4 Y		0.2 Y
Fine Sand	%	5.8 Y		8.2 Y
Fluoranthene	ug/kg	2290 Y	406 Y	608 Y
Fluorene	ug/kg	26.5 J Y	32.8 J Y	37.5 J Y
Hexachlorobenzene	ug/kg	100 U N	99.9 U N	99.9 U N
Hexachlorobutadiene	ug/kg	100 U N	99.9 U N	99.9 U N
Hexachlorocyclopentadiene	ug/kg	500 U N	500 U N	500 U N
Hexachloroethane	ug/kg	100 U N	99.9 U N	99.9 U N
HPAH	ug/kg	14767 Y	3111.9 J Y	4219.9 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	567 Y	181 Y	191 Y
Isophorone	ug/kg	100 U N	99.9 U N	99.9 U N
Lead	mg/kg	643 Y	528 Y	565 Y
LPAH	ug/kg	917.2 J Y	581.5 J Y	876.9 J Y
Medium Sand	%	5.6 Y		8 Y
Mercury	mg/kg	1.18 Y	1.22 Y	1.21 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	5820 Y	8650 Y	9040 Y
Naphthalene	ug/kg	182 Y	170 Y	226 Y
Nitrobenzene	ug/kg	100 U N	99.9 U N	99.9 U N
N-Nitroso-Di-N-Propylamine	ug/kg	100 U N	99.9 U N	99.9 U N
N-Nitrosodiphenylamine	ug/kg	100 U N	138 Y	208 Y
Pentachlorophenol	ug/kg	500 U N	500 U N	500 U N
Phenanthrene	ug/kg	444 Y	305 Y	460 Y
Phenol	ug/kg	485 Y	186 Y	421 Y
Polychlorinated Biphenyls	ug/kg	674 Y	583 J Y	825 J Y
Pyrene	ug/kg	2980 Y	537 Y	895 Y
Solids, Total	%	46.45 Y	44.37 Y	47.79 Y
Total Organic Carbon	%	11.1 Y	10.7 Y	13.1 Y
Very Coarse Sand	%	2.8 Y		1.5 Y
Very Fine Sand	%	7.4 Y		6.4 Y
Zinc	mg/kg	4790 Y	2620 Y	3580 Y

Location	Sample Date	Sample Name	Drainage Type	Sample Method	Location Type	Project	Outfall	ODS83 18 Jun 2020 AGP-061820-1 SD Grab-Manual ODS	ODS84 18 Jun 2020 AGP-061820-2 SD Grab-Manual ODS	RCB324 18 Jun 2020 AGP-061820-3 SD Grab-Manual RCB	RCB325 18 Jun 2020 AGP-061820-4 SD Grab-Manual RCB
						Lower Duwamish Waterway	S Nevada St SD	Lower Duwamish Waterway	S Nevada St SD	Lower Duwamish Waterway	S Nevada St SD
Analyte	Unit	Result	Result	Result	Result						
1,2,4-Trichlorobenzene	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
1,2-Dichlorobenzene	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
1,3-Dichlorobenzene	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
1,4-Dichlorobenzene	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
1-Methylnaphthalene	ug/kg	100 U N	99.7 U N	48.7 J Y	50.8 J Y						
2,2'-Oxybis(1-chloropropane)	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
2,4,5-Trichlorophenol	ug/kg	500 U N	498 U N	457 U N	512 U N						
2,4,6-Trichlorophenol	ug/kg	500 U N	498 U N	457 U N	512 U N						
2,4-Dichlorophenol	ug/kg	500 U N	498 U N	457 U N	512 U N						
2,4-Dimethylphenol	ug/kg	500 U N	498 U N	457 U N	512 U N						
2,4-Dinitrophenol	ug/kg	1000 U N	997 U N	913 U N	1020 U N						
2,4-Dinitrotoluene	ug/kg	500 U N	498 U N	457 U N	512 U N						
2,6-Dinitrotoluene	ug/kg	500 U N	498 U N	457 U N	512 U N						
2-Chloronaphthalene	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
2-Chlorophenol	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
2-Methylnaphthalene	ug/kg	36.1 J Y	30.3 J Y	87.5 J Y	111 Y						
2-Methylphenol	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
2-Nitroaniline	ug/kg	500 U N	498 U N	457 U N	512 U N						
2-Nitrophenol	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
3,3'-Dichlorobenzidine	ug/kg	500 U N	498 U N	457 U N	512 U N						
3-Nitroaniline	ug/kg	500 U N	498 U N	457 U N	512 U N						
4,6-Dinitro-2-Methylphenol	ug/kg	1000 U N	997 U N	913 U N	1020 U N						
4-Bromophenyl phenyl ether	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
4-Chloro-3-Methylphenol	ug/kg	500 U N	498 U N	457 U N	512 U N						
4-Chloroaniline	ug/kg	500 U N	498 U N	457 U N	512 U N						
4-Chlorophenyl Phenylether	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
4-Methylphenol	ug/kg	100 U N	99.7 U N	249 Y	277 Y						
4-Nitroaniline	ug/kg	500 U N	498 U N	457 U N	512 U N						
4-Nitrophenol	ug/kg	500 U N	498 U N	457 U N	512 U N						
Acenaphthene	ug/kg	100 U N	99.7 U N	34 J Y	88.5 J Y						
Acenaphthylene	ug/kg	100 U N	99.7 U N	48.8 J Y	33.1 J Y						
Anthracene	ug/kg	34.5 J Y	40.4 J Y	102 Y	132 Y						
Aroclor 1016	ug/kg	20 U N	19.9 U N	20 U N	19.9 U N						
Aroclor 1221	ug/kg	20 U N	19.9 U N	20 U N	19.9 U N						
Aroclor 1232	ug/kg	20 U N	19.9 U N	20 U N	19.9 U N						
Aroclor 1242	ug/kg	20 U N	19.9 U N	20 U N	19.9 U N						
Aroclor 1248	ug/kg	29.6 Y	38 Y	119 Y	124 Y						
Aroclor 1254	ug/kg	64.8 Y	55.3 Y	163 Y	298 Y						
Aroclor 1260	ug/kg	80.8 Y	65.4 Y	188 Y	1180 R Y						
Arsenic	mg/kg	16.5 U N	21.9 U N	20.9 Y	12.2 Y						
Benzo(A)anthracene	ug/kg	177 Y	185 Y	337 Y	474 Y						
Benzo(A)pyrene	ug/kg	258 Y	270 Y	429 Y	622 Y						
Benzo(G,H,I)perylene	ug/kg	365 Y	400 Y	408 Y	451 Y						
Benzo(a)fluoranthene, Total	ug/kg	487 Y	539 Y	745 Y	1210 Y						
Benzoic acid	ug/kg	640 J Y	997 U N	913 U N	1020 U N						
Benzyl alcohol	ug/kg	100 U N	99.7 U N	227 Y	149 Y						
bis(2-Chloroethoxy) methane	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
Bis-(2-chloroethyl) ether	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
Bis(2-ethylhexyl)phthalate	ug/kg	1510 Y	609 Y	8280 Y	23500 Y						
Butylbenzylphthalate	ug/kg	84.4 J Y	143 Y	308 Y	981 Y						
Carbazole	ug/kg	54.1 J Y	55.2 J Y	91.3 U N	170 Y						
Chrysene	ug/kg	386 Y	369 Y	838 Y	998 Y						
Coarse Sand	%	12 Y	14.2 Y	3.7 Y	5.7 Y						
Copper	mg/kg	112 Y	113 Y	287 Y	306 Y						
cPAH	ug/kg	375.82 J Y	387.13 J Y	586.9 J Y	858.78 J Y						
Dibenzo(A,H)anthracene	ug/kg	70.4 J Y	49.1 J Y	62.8 J Y	74 J Y						
Dibenzofuran	ug/kg	26.9 J Y	24.6 J Y	51.5 J Y	75.1 J Y						
Diesel Range (Silica and Acid Cleaned)	mg/kg	42.1 Y	63.8 Y	1870 Y	4030 Y						
Diethylphthalate	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
Dimethylphthalate	ug/kg	100 U N	99.7 U N	91.3 U N	105 Y						
Di-N-Butylphthalate	ug/kg	254 Y	803 Y	191 Y	855 Y						
Di-N-Octylphthalate	ug/kg	100 U N	99.7 U N	221 Y	1550 Y						
Fine Gravel	%	0.6 Y	0.7 Y	0.6 Y	0.4 Y						
Fine Sand	%	20.4 Y	18.4 Y	4.8 Y	9.5 Y						
Fluoranthene	ug/kg	596 Y	629 Y	835 Y	1550 Y						
Fluorene	ug/kg	100 U N	99.7 U N	91.1 J Y	128 Y						
Hexachlorobenzene	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
Hexachlorobutadiene	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
Hexachlorocyclopentadiene	ug/kg	500 U N	498 U N	457 U N	512 U N						
Hexachloroethane	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
HPAH	ug/kg	3035.4 J Y	3172.1 J Y	4986.8 J Y	7217 J Y						
Indeno(1,2,3-Cd)pyrene	ug/kg	194 Y	214 Y	162 Y	288 Y						
Isophorone	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N						
Lead	mg/kg	94.9 Y	85.1 Y	169 Y	167 Y						

Location		ODS83	ODS84	RCB324	RCB325
Sample Date		18 Jun 2020	18 Jun 2020	18 Jun 2020	18 Jun 2020
Sample Name		AGP-061820-1	AGP-061820-2	AGP-061820-3	AGP-061820-4
Drainage Type		SD	SD	SD	SD
Sample Method		Grab-Manual	Grab-Manual	Grab-Manual	Grab-Manual
Location Type		ODS	ODS	RCB	RCB
Project		Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		S Nevada St SD	S Nevada St SD	S Nevada St SD	S Nevada St SD
Analyte	Unit	Result	Result	Result	Result
LPAH	ug/kg	470.2 J Y	477.6 J Y	1193.9 J Y	1793.6 J Y
Medium Sand	%	25.2 Y	24 Y	4.7 Y	8.1 Y
Mercury	mg/kg	0.104 Y	0.0975 Y	0.106 Y	0.104 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	475 Y	597 Y	11300 Y	12200 Y
Naphthalene	ug/kg	39.7 J Y	38.2 J Y	135 Y	122 Y
Nitrobenzene	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N
N-Nitroso-Di-N-Propylamine	ug/kg	100 U N	99.7 U N	91.3 U N	102 U N
N-Nitrosodiphenylamine	ug/kg	100 U N	99.7 U N	187 J Y	143 J Y
Pentachlorophenol	ug/kg	500 U N	498 U N	457 U N	512 U N
Phenanthrene	ug/kg	396 Y	399 Y	783 Y	1290 Y
Phenol	ug/kg	100 U N	105 Y	122 Y	205 Y
Polychlorinated Biphenyls	ug/kg	175.2 Y	158.7 Y	470 Y	1602 R Y
Pyrene	ug/kg	502 Y	517 Y	1170 Y	1550 Y
Solids, Total	%	72.53 Y	52.27 Y	40.44 Y	50.52 Y
Total Organic Carbon	%	9.14 Y	9.91 Y	17.4 Y	11 Y
Very Coarse Sand	%	5 Y	13.7 Y	3.7 Y	5.4 Y
Very Fine Sand	%	15.3 Y	11.1 Y	6.6 Y	11.9 Y
Zinc	mg/kg	1170 Y	1220 Y	2160 Y	2010 Y

Location	RCB325	RCB86	RCB88	
Sample Date	18 Jun 2020	18 Jun 2020	18 Jun 2020	
Sample Name	AGP-061820-5	AGP-061820-6	AGP-061820-7	
Drainage Type	SD	SD	SD	
Sample Method	Grab-Manual	Grab-Manual	Grab-Manual	
Location Type	RCB	RCB	RCB	
Project	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway	
Outfall	S Nevada St SD	S Nevada St SD	S Nevada St SD	
Analyte	Unit	Result	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99.4 U N	100 U N	99.4 U N
1,2-Dichlorobenzene	ug/kg	99.4 U N	100 U N	99.4 U N
1,3-Dichlorobenzene	ug/kg	99.4 U N	100 U N	99.4 U N
1,4-Dichlorobenzene	ug/kg	99.4 U N	100 U N	99.4 U N
1-Methylnaphthalene	ug/kg	57.8 J Y	350 Y	86.5 J Y
2,2'-Oxybis(1-chloropropane)	ug/kg	99.4 U N	100 U N	99.4 U N
2,4,5-Trichlorophenol	ug/kg	497 U N	500 U N	497 U N
2,4,6-Trichlorophenol	ug/kg	497 U N	500 U N	497 U N
2,4-Dichlorophenol	ug/kg	497 U N	500 U N	497 U N
2,4-Dimethylphenol	ug/kg	497 U N	500 U N	497 U N
2,4-Dinitrophenol	ug/kg	994 U N	1000 U N	994 U N
2,4-Dinitrotoluene	ug/kg	497 U N	500 U N	497 U N
2,6-Dinitrotoluene	ug/kg	497 U N	500 U N	497 U N
2-Chloronaphthalene	ug/kg	99.4 U N	100 U N	99.4 U N
2-Chlorophenol	ug/kg	99.4 U N	100 U N	99.4 U N
2-Methylnaphthalene	ug/kg	141 Y	302 Y	132 Y
2-Methylphenol	ug/kg	99.4 U N	100 U N	99.4 U N
2-Nitroaniline	ug/kg	497 U N	500 U N	497 U N
2-Nitrophenol	ug/kg	99.4 U N	100 U N	99.4 U N
3,3'-Dichlorobenzidine	ug/kg	497 U N	500 U N	497 U N
3-Nitroaniline	ug/kg	497 U N	500 U N	497 U N
4,6-Dinitro-2-Methylphenol	ug/kg	994 U N	1000 U N	994 U N
4-Bromophenyl phenyl ether	ug/kg	99.4 U N	100 U N	99.4 U N
4-Chloro-3-Methylphenol	ug/kg	497 U N	500 U N	497 U N
4-Chloroaniline	ug/kg	497 U N	500 U N	497 U N
4-Chlorophenyl Phenylether	ug/kg	99.4 U N	100 U N	99.4 U N
4-Methylphenol	ug/kg	326 Y	317 Y	5700 Y
4-Nitroaniline	ug/kg	497 U N	500 U N	497 U N
4-Nitrophenol	ug/kg	497 U N	500 U N	497 U N
Acenaphthene	ug/kg	97.2 J Y	3710 Y	209 Y
Acenaphthylene	ug/kg	34.8 J Y	283 Y	66.9 J Y
Anthracene	ug/kg	141 Y	6250 Y	346 Y
Aroclor 1016	ug/kg	20 U N	20 U N	19.9 U N
Aroclor 1221	ug/kg	20 U N	20 U N	19.9 U N
Aroclor 1232	ug/kg	20 U N	20 U N	19.9 U N
Aroclor 1242	ug/kg	20 U N	20 U N	19.9 U N
Aroclor 1248	ug/kg	121 Y	90 Y	76 Y
Aroclor 1254	ug/kg	270 Y	136 Y	50.3 Y
Aroclor 1260	ug/kg	909 Y	707 Y	120 Y
Arsenic	mg/kg	14 Y	10.8 Y	9.89 U N
Benzo(A)anthracene	ug/kg	557 Y	18400 R Y	1010 Y
Benzo(A)pyrene	ug/kg	759 Y	21500 R Y	1320 Y
Benzo(G,H,I)perylene	ug/kg	528 Y	8610 Y	751 Y
Benzo(a)fluoranthene, Total	ug/kg	1450 Y	36200 R Y	2280 Y
Benzoic acid	ug/kg	994 U N	1000 U N	994 U N
Benzyl alcohol	ug/kg	151 Y	216 Y	438 Y
bis(2-Chloroethoxy) methane	ug/kg	99.4 U N	100 U N	99.4 U N
Bis-(2-chloroethyl) ether	ug/kg	99.4 U N	100 U N	99.4 U N
Bis(2-ethylhexyl)phthalate	ug/kg	25200 Y	7360 Y	25800 Y
Butylbenzylphthalate	ug/kg	1160 Y	301 Y	477 Y
Carbazole	ug/kg	200 Y	9770 Y	396 Y
Chrysene	ug/kg	1170 Y	22800 R Y	1660 Y
Coarse Sand	%	5.6 Y	14.5 Y	11.3 Y
Copper	mg/kg	288 Y	111 Y	91.3 Y
cPAH	ug/kg	1060 Y	29345 R Y	1771.9 Y
Dibenzo(A,H)anthracene	ug/kg	139 Y	3200 Y	124 Y
Dibenzofuran	ug/kg	95.5 J Y	2200 Y	160 Y
Diesel Range (Silica and Acid Cleaned)	mg/kg	4150 Y	584 Y	1770 Y
Diethylphthalate	ug/kg	99.4 U N	100 U N	99.4 U N
Dimethylphthalate	ug/kg	271 Y	100 U N	99.4 U N
Di-N-Butylphthalate	ug/kg	840 Y	450 Y	441 Y
Di-N-Octylphthalate	ug/kg	903 Y	582 Y	694 Y
Fine Gravel	%	0.1 Y	1.1 Y	1 Y
Fine Sand	%	6.8 Y	9.5 Y	17.9 Y
Fluoranthene	ug/kg	1880 Y	64400 R Y	3840 Y
Fluorene	ug/kg	165 Y	3570 Y	230 Y
Hexachlorobenzene	ug/kg	99.4 U N	100 U N	99.4 U N
Hexachlorobutadiene	ug/kg	99.4 U N	100 U N	99.4 U N
Hexachlorocyclopentadiene	ug/kg	497 U N	500 U N	497 U N
Hexachloroethane	ug/kg	99.4 U N	100 U N	99.4 U N
HPAH	ug/kg	8703 Y	232280 R Y	15172 Y
Indeno(1,2,3-Cd)pyrene	ug/kg	330 Y	8770 Y	567 Y
Isophorone	ug/kg	99.4 U N	100 U N	99.4 U N
Lead	mg/kg	130 Y	289 Y	33.4 Y

Location		RCB325	RCB86	RCB88
Sample Date		18 Jun 2020	18 Jun 2020	18 Jun 2020
Sample Name		AGP-061820-5	AGP-061820-6	AGP-061820-7
Drainage Type		SD	SD	SD
Sample Method		Grab-Manual	Grab-Manual	Grab-Manual
Location Type		RCB	RCB	RCB
Project		Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		S Nevada St SD	S Nevada St SD	S Nevada St SD
Analyte	Unit	Result	Result	Result
LPAH	ug/kg	2132 J Y	66523 R Y	4234.9 J Y
Medium Sand	%	5 Y	12.6 Y	16.9 Y
Mercury	mg/kg	0.0977 Y	0.0558 Y	0.0571 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	12300 Y	2490 Y	13100 Y
Naphthalene	ug/kg	124 Y	810 Y	163 Y
Nitrobenzene	ug/kg	99.4 U N	100 U N	99.4 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.4 U N	100 U N	99.4 U N
N-Nitrosodiphenylamine	ug/kg	161 J Y	100 U N	110 J Y
Pentachlorophenol	ug/kg	497 U N	500 U N	497 U N
Phenanthrene	ug/kg	1570 Y	51900 R Y	3220 Y
Phenol	ug/kg	206 Y	198 Y	695 Y
Polychlorinated Biphenyls	ug/kg	1300 Y	933 Y	246.3 Y
Pyrene	ug/kg	1890 Y	48400 R Y	3620 Y
Solids, Total	%	46.86 Y	51.27 Y	48.27 Y
Total Organic Carbon	%	5.95 Y	5.52 Y	9.01 Y
Very Coarse Sand	%	3.9 Y	14.9 Y	8.5 Y
Very Fine Sand	%	9.2 Y	8 Y	11.4 Y
Zinc	mg/kg	1440 Y	625 Y	593 Y

Location	MH1	NST1	NST1
Sample Date	26 Feb 2020	20 Oct 2020	20 Oct 2020
Sample Name	NCH-022620-2	NST1-102020	NST1-102020-G
Drainage Type	SD	SD	SD
Sample Method	Grab-Manual	SedTrap	SedTrap
Location Type	Inline	Inline w/Active SPU Sed Trap	Inline w/Active SPU Sed Trap
Project	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall	S Norfolk St CSO/PS17 EOF/SD	S Norfolk St CSO/PS17 EOF/SD	S Norfolk St CSO/PS17 EOF/SD
Analyte	Unit	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99.8 UJ N	298 U N
1,2-Dichlorobenzene	ug/kg	99.8 UJ N	298 U N
1,3-Dichlorobenzene	ug/kg	99.8 UJ N	298 U N
1,4-Dichlorobenzene	ug/kg	99.8 UJ N	298 U N
1-Methylnaphthalene	ug/kg	40.3 J Y	298 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.8 UJ N	298 U N
2,4,5-Trichlorophenol	ug/kg	499 UJ N	1490 U N
2,4,6-Trichlorophenol	ug/kg	499 UJ N	1490 U N
2,4-Dichlorophenol	ug/kg	499 UJ N	1490 U N
2,4-Dimethylphenol	ug/kg	499 UJ N	1490 U N
2,4-Dinitrophenol	ug/kg	998 UJ N	2980 U N
2,4-Dinitrotoluene	ug/kg	499 UJ N	1490 U N
2,6-Dinitrotoluene	ug/kg	499 UJ N	1490 U N
2-Chloronaphthalene	ug/kg	99.8 UJ N	298 U N
2-Chlorophenol	ug/kg	99.8 UJ N	298 U N
2-Methylnaphthalene	ug/kg	76.9 J Y	298 U N
2-Methylphenol	ug/kg	99.8 UJ N	298 U N
2-Nitroaniline	ug/kg	499 UJ N	1490 U N
2-Nitrophenol	ug/kg	99.8 UJ N	298 U N
3,3'-Dichlorobenzidine	ug/kg	499 UJ N	1490 U N
3-Nitroaniline	ug/kg	499 UJ N	1490 U N
4,6-Dinitro-2-Methylphenol	ug/kg	998 UJ N	2980 U N
4-Bromophenyl phenyl ether	ug/kg	99.8 UJ N	298 U N
4-Chloro-3-Methylphenol	ug/kg	499 UJ N	1490 U N
4-Chloroaniline	ug/kg	499 UJ N	1490 U N
4-Chlorophenyl Phenylether	ug/kg	99.8 UJ N	298 U N
4-Methylphenol	ug/kg	99.8 UJ N	298 U N
4-Nitroaniline	ug/kg	499 UJ N	1490 U N
4-Nitrophenol	ug/kg	499 UJ N	1490 U N
Acenaphthene	ug/kg	60.2 J Y	298 U N
Acenaphthylene	ug/kg	41.3 J Y	298 U N
Anthracene	ug/kg	378 J Y	105 J Y
Aroclor 1016	ug/kg	19.9 U N	19.2 U N
Aroclor 1221	ug/kg	19.9 U N	19.2 U N
Aroclor 1232	ug/kg	19.9 U N	19.2 U N
Aroclor 1242	ug/kg	19.9 U N	19.2 U N
Aroclor 1248	ug/kg	89.6 Y	64.8 Y
Aroclor 1254	ug/kg	171 Y	119 Y
Aroclor 1260	ug/kg	64.8 Y	49.2 Y
Arsenic	mg/kg	20.6 Y	9.82 U N
Benzo(A)anthracene	ug/kg	498 J Y	385 Y
Benzo(A)pyrene	ug/kg	709 J Y	480 Y
Benzo(G,H,I)perylene	ug/kg	466 J Y	637 Y
Benzofluoranthenes, Total	ug/kg	1660 J Y	1060 Y
Benzoic acid	ug/kg	576 J Y	2980 U N
Benzyl alcohol	ug/kg	301 J Y	346 Y
bis(2-Chloroethoxy) methane	ug/kg	99.8 UJ N	298 U N
Bis-(2-chloroethyl) ether	ug/kg	99.8 UJ N	298 U N
Bis(2-ethylhexyl)phthalate	ug/kg	10600 J Y	8130 Y
Butylbenzylphthalate	ug/kg	202 J Y	277 J Y
Carbazole	ug/kg	96.5 J Y	298 U N
Chrysene	ug/kg	1080 J Y	811 Y
Coarse Sand	%		11.6 Y
Copper	mg/kg	158 Y	190 Y
cPAH	ug/kg	1023.8 J Y	739.91 J Y
Dibenzo(A,H)anthracene	ug/kg	126 J Y	156 J Y
Dibenzofuran	ug/kg	60.1 J Y	298 U N
Diesel Range (Silica and Acid Cleaned)	mg/kg	1360 J Y	995 Y
Diethylphthalate	ug/kg	99.8 UJ N	298 U N
Dimethylphthalate	ug/kg	99.8 UJ N	298 U N
Di-N-Butylphthalate	ug/kg	138 J Y	147 J Y
Di-N-Octylphthalate	ug/kg	99.8 UJ N	4320 Y
Fine Gravel	%		0.5 Y
Fine Sand	%		7.6 Y
Fluoranthene	ug/kg	1610 J Y	1110 Y
Fluorene	ug/kg	105 J Y	109 J Y

Location		MH1	NST1	NST1
Sample Date		26 Feb 2020	20 Oct 2020	20 Oct 2020
Sample Name		NCH-022620-2	NST1-102020	NST1-102020-G
Drainage Type		SD	SD	SD
Sample Method		Grab-Manual	SedTrap	SedTrap
Location Type		Inline	Inline w/Active SPU Sed Trap	Inline w/Active SPU Sed Trap
Project		Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		S Norfolk St CSO/PS17 EOF/SD	S Norfolk St CSO/PS17 EOF/SD	S Norfolk St CSO/PS17 EOF/SD
Analyte	Unit	Result	Result	Result
Hexachlorobenzene	ug/kg	99.8 UJ N	298 U N	99.3 U N
Hexachlorobutadiene	ug/kg	99.8 UJ N	298 U N	99.3 U N
Hexachlorocyclopentadiene	ug/kg	499 UJ N	1490 U N	497 U N
Hexachloroethane	ug/kg	99.8 UJ N	298 U N	99.3 U N
HPAH	ug/kg	8167 J Y	6278 J Y	4444.9 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	378 J Y	449 Y	315 Y
Isophorone	ug/kg	99.8 UJ N	298 U N	99.3 U N
Lead	mg/kg	100 Y	93.4 Y	52.1 Y
LPAH	ug/kg	1398.2 J Y	793 J Y	606.5 J Y
Medium Sand	%			12.4 Y
Mercury	mg/Kg	0.183 Y	0.125 Y	0.0655 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	5200 J Y	4870 Y	3090 Y
Naphthalene	ug/kg	95.7 J Y	298 U N	43.5 J Y
Nitrobenzene	ug/kg	99.8 UJ N	298 U N	99.3 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.8 UJ N	298 U N	99.3 U N
N-Nitrosodiphenylamine	ug/kg	176 J Y	235 J Y	107 Y
Pentachlorophenol	ug/kg	499 UJ N	1490 U N	497 U N
Phenanthrene	ug/kg	718 J Y	579 Y	387 Y
Phenol	ug/kg	99.8 UJ N	298 U N	102 Y
Polychlorinated Biphenyls	ug/kg	325.4 Y	233 Y	77.9 Y
Pyrene	ug/kg	1640 J Y	1190 Y	912 Y
Solids, Total	%	39.04 Y	48.63 Y	53.89 Y
Total Organic Carbon	%	10.2 Y	8.62 Y	4.01 Y
Very Coarse Sand	%			8.5 Y
Very Fine Sand	%			9.1 Y
Zinc	mg/kg	941 Y	792 Y	430 Y

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		NST3 16 Oct 2020 NST3-101620 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway S Norfolk St CSO/PS17 EOF/SD	NST4 20 Oct 2020 NST4-102020 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway S Norfolk St CSO/PS17 EOF/SD	NST5 16 Oct 2020 NST5-101620 SD SedTrap Inline w/Active SPU Sed Trap Lower Duwamish Waterway S Norfolk St CSO/PS17 EOF/SD
Analyte	Unit	Result	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99.9 UJ N		
1,2-Dichlorobenzene	ug/kg	99.9 UJ N		
1,3-Dichlorobenzene	ug/kg	99.9 UJ N		
1,4-Dichlorobenzene	ug/kg	99.9 UJ N		
1-Methylnaphthalene	ug/kg	99.9 UJ N		
2,2'-Oxybis(1-chloropropane)	ug/kg	99.9 UJ N		
2,4,5-Trichlorophenol	ug/kg	500 UJ N		
2,4,6-Trichlorophenol	ug/kg	500 UJ N		
2,4-Dichlorophenol	ug/kg	500 UJ N		
2,4-Dimethylphenol	ug/kg	500 UJ N		
2,4-Dinitrophenol	ug/kg	999 UJ N		
2,4-Dinitrotoluene	ug/kg	500 UJ N		
2,6-Dinitrotoluene	ug/kg	500 UJ N		
2-Chloronaphthalene	ug/kg	99.9 UJ N		
2-Chlorophenol	ug/kg	99.9 UJ N		
2-Methylnaphthalene	ug/kg	99.9 UJ N		
2-Methylphenol	ug/kg	99.9 UJ N		
2-Nitroaniline	ug/kg	500 UJ N		
2-Nitrophenol	ug/kg	99.9 UJ N		
3,3'-Dichlorobenzidine	ug/kg	500 UJ N		
3-Nitroaniline	ug/kg	500 UJ N		
4,6-Dinitro-2-Methylphenol	ug/kg	999 UJ N		
4-Bromophenyl phenyl ether	ug/kg	99.9 UJ N		
4-Chloro-3-Methylphenol	ug/kg	500 UJ N		
4-Chloroaniline	ug/kg	500 UJ N		
4-Chlorophenyl Phenylether	ug/kg	99.9 UJ N		
4-Methylphenol	ug/kg	99.9 UJ N		
4-Nitroaniline	ug/kg	500 UJ N		
4-Nitrophenol	ug/kg	500 UJ N		
Acenaphthene	ug/kg	99.9 UJ N		
Acenaphthylene	ug/kg	99.9 UJ N		
Anthracene	ug/kg	99.9 UJ N		
Aroclor 1016	ug/kg	20 U N	85.4 U N	38 U N
Aroclor 1221	ug/kg	20 U N	85.4 U N	38 U N
Aroclor 1232	ug/kg	20 U N	85.4 U N	38 U N
Aroclor 1242	ug/kg	20 U N	85.4 U N	38 U N
Aroclor 1248	ug/kg	20 U N	85.4 U N	38 U N
Aroclor 1254	ug/kg	20 U N	85.4 U N	38 U N
Aroclor 1260	ug/kg	20 U N	85.4 U N	73.7 Y
Arsenic	mg/kg	6.44 Y		
Benzo(A)anthracene	ug/kg	64.2 J Y		
Benzo(A)pyrene	ug/kg	125 J Y		
Benzo(G,H,I)perylene	ug/kg	216 J Y		
Benzo(a)fluoranthene, Total	ug/kg	303 J Y		
Benzoic acid	ug/kg	999 UJ N		
Benzyl alcohol	ug/kg	99.9 UJ N		
bis(2-Chloroethoxy) methane	ug/kg	99.9 UJ N		
Bis-(2-chloroethyl) ether	ug/kg	99.9 UJ N		
Bis(2-ethylhexyl)phthalate	ug/kg	1000 J Y		
Butylbenzylphthalate	ug/kg	99.9 UJ N		
Carbazole	ug/kg	99.9 UJ N		
Chrysene	ug/kg	184 J Y		
Coarse Sand	%	18 Y		
Copper	mg/kg	50.1 Y		
cPAH	ug/kg	195.84 J Y		
Dibenzo(A,H)anthracene	ug/kg	99.9 UJ N		
Dibenzofuran	ug/kg	99.9 UJ N		
Diesel Range (Silica and Acid Cleaned)	mg/kg	60.9 J Y		
Diethylphthalate	ug/kg	99.9 UJ N		
Dimethylphthalate	ug/kg	99.9 UJ N		
Di-N-Butylphthalate	ug/kg	67.3 J Y		
Di-N-Octylphthalate	ug/kg	99.9 UJ N		
Fine Gravel	%	1.3 Y		
Fine Sand	%	8.8 Y		
Fluoranthene	ug/kg	199 J Y		
Fluorene	ug/kg	99.9 UJ N		

Location		NST3	NST4	NST5
Sample Date		16 Oct 2020	20 Oct 2020	16 Oct 2020
Sample Name		NST3-101620	NST4-102020	NST5-101620
Drainage Type		SD	SD	SD
Sample Method		SedTrap	SedTrap	SedTrap
Location Type		Inline w/Active SPU Sed Trap	Inline w/Active SPU Sed Trap	Inline w/Active SPU Sed Trap
Project		Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		S Norfolk St CSO/PS17 EOF/SD	S Norfolk St CSO/PS17 EOF/SD	S Norfolk St CSO/PS17 EOF/SD
Analyte	Unit	Result	Result	Result
Hexachlorobenzene	ug/kg	99.9 UJ N		
Hexachlorobutadiene	ug/kg	99.9 UJ N		
Hexachlorocyclopentadiene	ug/kg	500 UJ N		
Hexachloroethane	ug/kg	99.9 UJ N		
HPAH	ug/kg	1419.2 J Y		
Indeno(1,2,3-Cd)pyrene	ug/kg	123 J Y		
Isophorone	ug/kg	99.9 UJ N		
Lead	mg/kg	25.6 Y		
LPAH	ug/kg	82.3 J Y		
Medium Sand	%	15.8 Y		
Mercury	mg/Kg	0.0312 Y		
Motor Oil (Silica and Acid Cleaned)	mg/kg	670 J Y		
Naphthalene	ug/kg	99.9 UJ N		
Nitrobenzene	ug/kg	99.9 UJ N		
N-Nitroso-Di-N-Propylamine	ug/kg	99.9 UJ N		
N-Nitrosodiphenylamine	ug/kg	99.9 UJ N		
Pentachlorophenol	ug/kg	500 UJ N		
Phenanthrene	ug/kg	82.3 J Y		
Phenol	ug/kg	99.9 UJ N		
Polychlorinated Biphenyls	ug/kg	20 U N	85.4 U N	73.7 Y
Pyrene	ug/kg	205 J Y		
Solids, Total	%	82.64 Y	23.38 Y	52.57 Y
Total Organic Carbon	%	3.89 Y	3.56 Y	3.23 Y
Very Coarse Sand	%	13.8 Y		
Very Fine Sand	%	3.5 Y		
Zinc	mg/kg	248 Y		

Location		ODS81	RCB318
Sample Date		15 Jun 2020	15 Jun 2020
Sample Name		MKJ-061520-2	MKJ-061520-3
Drainage Type		SD	SD
Sample Method		Grab-Manual	Grab-Manual
Location Type		ODS	RCB
Project		Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		S Norfolk St CSO/PS17 EOF/SD	S Norfolk St CSO/PS17 EOF/SD
Analyte	Unit	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99.5 U N	98.5 U N
1,2-Dichlorobenzene	ug/kg	99.5 U N	98.5 U N
1,3-Dichlorobenzene	ug/kg	99.5 U N	98.5 U N
1,4-Dichlorobenzene	ug/kg	99.5 U N	98.5 U N
1-Methylnaphthalene	ug/kg	99.5 U N	98.5 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.5 U N	98.5 U N
2,4,5-Trichlorophenol	ug/kg	498 U N	493 U N
2,4,6-Trichlorophenol	ug/kg	498 U N	493 U N
2,4-Dichlorophenol	ug/kg	498 U N	493 U N
2,4-Dimethylphenol	ug/kg	498 U N	493 U N
2,4-Dinitrophenol	ug/kg	995 U N	985 U N
2,4-Dinitrotoluene	ug/kg	498 U N	493 U N
2,6-Dinitrotoluene	ug/kg	498 U N	493 U N
2-Chloronaphthalene	ug/kg	99.5 U N	98.5 U N
2-Chlorophenol	ug/kg	99.5 U N	98.5 U N
2-Methylnaphthalene	ug/kg	99.5 U N	98.5 U N
2-Methylphenol	ug/kg	99.5 U N	98.5 U N
2-Nitroaniline	ug/kg	498 U N	493 U N
2-Nitrophenol	ug/kg	99.5 U N	98.5 U N
3,3'-Dichlorobenzidine	ug/kg	498 U N	493 U N
3-Nitroaniline	ug/kg	498 U N	493 U N
4,6-Dinitro-2-Methylphenol	ug/kg	995 U N	985 U N
4-Bromophenyl phenyl ether	ug/kg	99.5 U N	98.5 U N
4-Chloro-3-Methylphenol	ug/kg	498 U N	493 U N
4-Chloroaniline	ug/kg	498 U N	493 U N
4-Chlorophenyl Phenylether	ug/kg	99.5 U N	98.5 U N
4-Methylphenol	ug/kg	99.5 U N	988 Y
4-Nitroaniline	ug/kg	498 U N	493 U N
4-Nitrophenol	ug/kg	498 U N	493 U N
Acenaphthene	ug/kg	99.5 U N	98.5 U N
Acenaphthylene	ug/kg	99.5 U N	98.5 U N
Anthracene	ug/kg	99.5 U N	98.5 U N
Aroclor 1016	ug/kg	19.9 U N	19.9 U N
Aroclor 1221	ug/kg	19.9 U N	19.9 U N
Aroclor 1232	ug/kg	19.9 U N	19.9 U N
Aroclor 1242	ug/kg	19.9 U N	19.9 U N
Aroclor 1248	ug/kg	19.9 U N	19.9 U N
Aroclor 1254	ug/kg	19.9 U N	19.9 U N
Aroclor 1260	ug/kg	19.9 U N	19.9 U N
Arsenic	mg/kg	7.26 Y	6.96 U N
Benzo(A)anthracene	ug/kg	123 Y	52.6 J Y
Benzo(A)pyrene	ug/kg	200 Y	47.8 J Y
Benzo(G,H,I)perylene	ug/kg	199 Y	65.8 J Y
Benzo(a)fluoranthene, Total	ug/kg	376 Y	128 J Y
Benzoic acid	ug/kg	995 U N	985 U N
Benzyl alcohol	ug/kg	99.5 U N	98.5 U N
bis(2-Chloroethoxy) methane	ug/kg	99.5 U N	98.5 U N
Bis-(2-chloroethyl) ether	ug/kg	99.5 U N	98.5 U N
Bis(2-ethylhexyl)phthalate	ug/kg	1330 Y	1270 Y
Butylbenzylphthalate	ug/kg	144 Y	41.9 J Y
Carbazole	ug/kg	99.5 U N	98.5 U N
Chrysene	ug/kg	363 Y	90.6 J Y
Coarse Sand	%	15.2 Y	13.5 Y
Copper	mg/kg	79.6 Y	37.1 Y
cPAH	ug/kg	283.15 J Y	90.036 J Y
Dibenzo(A,H)anthracene	ug/kg	46.3 J Y	98.5 U N
Dibenzofuran	ug/kg	99.5 U N	98.5 U N
Diesel Range (Silica and Acid Cleaned)	mg/kg	90.7 Y	81 Y
Diethylphthalate	ug/kg	99.5 U N	98.5 U N
Dimethylphthalate	ug/kg	99.5 U N	98.5 U N
Di-N-Butylphthalate	ug/kg	124 Y	88.6 J Y
Di-N-Octylphthalate	ug/kg	99.5 U N	56.7 J Y
Fine Gravel	%	0.3 Y	4.3 Y
Fine Sand	%	18 Y	5.4 Y
Fluoranthene	ug/kg	273 Y	137 Y
Fluorene	ug/kg	99.5 U N	98.5 U N

Location		ODS81	RCB318
Sample Date		15 Jun 2020	15 Jun 2020
Sample Name		MKJ-061520-2	MKJ-061520-3
Drainage Type		SD	SD
Sample Method		Grab-Manual	Grab-Manual
Location Type		ODS	RCB
Project		Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		S Norfolk St CSO/PS17 EOF/SD	S Norfolk St CSO/PS17 EOF/SD
Analyte	Unit	Result	Result
Hexachlorobenzene	ug/kg	99.5 U N	98.5 U N
Hexachlorobutadiene	ug/kg	99.5 U N	98.5 U N
Hexachlorocyclopentadiene	ug/kg	498 U N	493 U N
Hexachloroethane	ug/kg	99.5 U N	98.5 U N
HPAH	ug/kg	1977.3 J Y	703.5 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	111 Y	35.7 J Y
Isophorone	ug/kg	99.5 U N	98.5 U N
Lead	mg/kg	25.4 Y	18.3 Y
LPAH	ug/kg	133 Y	78.4 J Y
Medium Sand	%	24 Y	10.2 Y
Mercury	mg/Kg	0.0446 Y	0.0135 J Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	1100 Y	544 Y
Naphthalene	ug/kg	99.5 U N	98.5 U N
Nitrobenzene	ug/kg	99.5 U N	98.5 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.5 U N	98.5 U N
N-Nitrosodiphenylamine	ug/kg	99.5 U N	98.5 U N
Pentachlorophenol	ug/kg	498 U N	493 U N
Phenanthrene	ug/kg	133 Y	78.4 J Y
Phenol	ug/kg	47 J Y	98.5 U N
Polychlorinated Biphenyls	ug/kg	19.9 U N	19.9 U N
Pyrene	ug/kg	286 Y	146 Y
Solids, Total	%	70.42 Y	72.67 Y
Total Organic Carbon	%	9.25 Y	1.33 Y
Very Coarse Sand	%	8 Y	15.8 Y
Very Fine Sand	%	13 Y	3.7 Y
Zinc	mg/kg	326 Y	118 Y

Analyte	Unit	Result
1,2,4-Trichlorobenzene	ug/kg	99.8 U N
1,2-Dichlorobenzene	ug/kg	99.8 U N
1,3-Dichlorobenzene	ug/kg	99.8 U N
1,4-Dichlorobenzene	ug/kg	99.8 U N
1-Methylnaphthalene	ug/kg	99.8 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.8 U N
2,4,5-Trichlorophenol	ug/kg	499 U N
2,4,6-Trichlorophenol	ug/kg	499 U N
2,4-Dichlorophenol	ug/kg	499 U N
2,4-Dimethylphenol	ug/kg	499 U N
2,4-Dinitrophenol	ug/kg	998 U N
2,4-Dinitrotoluene	ug/kg	499 U N
2,6-Dinitrotoluene	ug/kg	499 U N
2-Chloronaphthalene	ug/kg	99.8 U N
2-Chlorophenol	ug/kg	99.8 U N
2-Methylnaphthalene	ug/kg	34.7 J Y
2-Methylphenol	ug/kg	99.8 U N
2-Nitroaniline	ug/kg	499 U N
2-Nitrophenol	ug/kg	99.8 U N
3,3'-Dichlorobenzidine	ug/kg	499 U N
3-Nitroaniline	ug/kg	499 U N
4,6-Dinitro-2-Methylphenol	ug/kg	998 U N
4-Bromophenyl phenyl ether	ug/kg	99.8 U N
4-Chloro-3-Methylphenol	ug/kg	499 U N
4-Chloroaniline	ug/kg	499 U N
4-Chlorophenyl Phenylether	ug/kg	99.8 U N
4-Methylphenol	ug/kg	99.8 U N
4-Nitroaniline	ug/kg	499 U N
4-Nitrophenol	ug/kg	499 U N
Acenaphthene	ug/kg	99.8 U N
Acenaphthylene	ug/kg	33.8 J Y
Anthracene	ug/kg	119 Y
Aroclor 1016	ug/kg	19.9 UJ N
Aroclor 1221	ug/kg	19.9 UJ N
Aroclor 1232	ug/kg	19.9 UJ N
Aroclor 1242	ug/kg	19.9 UJ N
Aroclor 1248	ug/kg	36.1 J Y
Aroclor 1254	ug/kg	33.5 J Y
Aroclor 1260	ug/kg	50 J Y
Arsenic	mg/kg	19.9 Y
Benzo(A)anthracene	ug/kg	430 Y
Benzo(A)pyrene	ug/kg	530 Y
Benzo(G,H,I)perylene	ug/kg	365 Y
Benzofluoranthenes, Total	ug/kg	1390 Y
Benzoic acid	ug/kg	998 U N
Benzyl alcohol	ug/kg	99.8 U N
bis(2-Chloroethoxy) methane	ug/kg	99.8 U N
Bis-(2-chloroethyl) ether	ug/kg	99.8 U N
Bis(2-ethylhexyl)phthalate	ug/kg	2570 Y
Butylbenzylphthalate	ug/kg	90.5 J Y
Carbazole	ug/kg	86.1 J Y

Analyte	Unit	Result
Chrysene	ug/kg	762 Y
Coarse Sand	%	7.9 Y
Copper	mg/kg	114 Y
cPAH	ug/kg	787.22 Y
Dibenzo(A,H)anthracene	ug/kg	106 Y
Dibenzofuran	ug/kg	27.5 J Y
Diesel Range (Silica and Acid Cleaned)	mg/kg	309 Y
Diethylphthalate	ug/kg	99.8 U N
Dimethylphthalate	ug/kg	92.1 J Y
Di-N-Butylphthalate	ug/kg	106 Y
Di-N-Octylphthalate	ug/kg	69 J Y
Fine Gravel	%	1.9 Y
Fine Sand	%	7.1 Y
Fluoranthene	ug/kg	1100 Y
Fluorene	ug/kg	99.8 U N
Hexachlorobenzene	ug/kg	99.8 U N
Hexachlorobutadiene	ug/kg	99.8 U N
Hexachlorocyclopentadiene	ug/kg	499 U N
Hexachloroethane	ug/kg	99.8 U N
HPAH	ug/kg	6035 Y
Indeno(1,2,3-Cd)pyrene	ug/kg	252 Y
Isophorone	ug/kg	99.8 U N
Lead	mg/kg	78.5 Y
LPAH	ug/kg	461.9 J Y
Medium Sand	%	13.2 Y
Mercury	mg/kg	0.13 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	1750 Y
Naphthalene	ug/kg	57.1 J Y
Nitrobenzene	ug/kg	99.8 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.8 U N
N-Nitrosodiphenylamine	ug/kg	99.8 U N
Pentachlorophenol	ug/kg	499 U N
Phenanthrene	ug/kg	252 Y
Phenol	ug/kg	83.9 J Y
Polychlorinated Biphenyls	ug/kg	119.6 J Y
Pyrene	ug/kg	1100 Y
Solids, Total	%	54.34 Y
Total Organic Carbon	%	6.32 Y
Very Coarse Sand	%	3.7 Y
Very Fine Sand	%	8.6 Y
Zinc	mg/kg	513 Y

Location		MH69	RCB200A
Sample Date		16 Jul 2020	24 Jul 2020
Sample Name		MKJ-071620-2	MKJ-071620-1
Drainage Type		SD	SD
Sample Method		Grab-Manual	Grab-Manual
Location Type		Inline	Inline
Project		Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		SW Dakota St SD/Ditch	SW Dakota St SD/Ditch
Analyte	Unit	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99.9 U N	499 U N
1,2-Dichlorobenzene	ug/kg	99.9 U N	499 U N
1,3-Dichlorobenzene	ug/kg	99.9 U N	499 U N
1,4-Dichlorobenzene	ug/kg	99.9 U N	499 U N
1-Methylnaphthalene	ug/kg	99.9 U N	499 U N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.9 U N	499 U N
2,4,5-Trichlorophenol	ug/kg	499 U N	2500 U N
2,4,6-Trichlorophenol	ug/kg	499 U N	2500 U N
2,4-Dichlorophenol	ug/kg	499 U N	2500 U N
2,4-Dimethylphenol	ug/kg	499 U N	2500 U N
2,4-Dinitrophenol	ug/kg	999 U N	4990 U N
2,4-Dinitrotoluene	ug/kg	499 U N	2500 U N
2,6-Dinitrotoluene	ug/kg	499 U N	2500 U N
2-Chloronaphthalene	ug/kg	99.9 U N	499 U N
2-Chlorophenol	ug/kg	99.9 U N	499 U N
2-Methylnaphthalene	ug/kg	44.4 J Y	499 U N
2-Methylphenol	ug/kg	99.9 U N	499 U N
2-Nitroaniline	ug/kg	499 U N	2500 U N
2-Nitrophenol	ug/kg	99.9 U N	499 U N
3,3`-Dichlorobenzidine	ug/kg	499 U N	2500 U N
3-Nitroaniline	ug/kg	499 U N	2500 U N
4,6-Dinitro-2-Methylphenol	ug/kg	999 U N	4990 U N
4-Bromophenyl phenyl ether	ug/kg	99.9 U N	499 U N
4-Chloro-3-Methylphenol	ug/kg	499 U N	2500 U N
4-Chloroaniline	ug/kg	499 U N	2500 U N
4-Chlorophenyl Phenylether	ug/kg	99.9 U N	499 U N
4-Methylphenol	ug/kg	179 Y	499 U N
4-Nitroaniline	ug/kg	499 U N	2500 U N
4-Nitrophenol	ug/kg	499 U N	2500 U N
Acenaphthene	ug/kg	99.9 U N	499 U N
Acenaphthylene	ug/kg	42.5 J Y	499 U N
Anthracene	ug/kg	75.3 J Y	499 U N
Aroclor 1016	ug/kg	20 U N	20 UJ N
Aroclor 1221	ug/kg	20 U N	20 UJ N
Aroclor 1232	ug/kg	20 U N	20 UJ N
Aroclor 1242	ug/kg	20 U N	20 UJ N
Aroclor 1248	ug/kg	110 Y	79.5 J Y
Aroclor 1254	ug/kg	132 Y	50.5 J Y
Aroclor 1260	ug/kg	117 Y	53.9 J Y
Arsenic	mg/kg	19.5 U N	18.8 Y
Benzo(A)anthracene	ug/kg	197 Y	283 J Y
Benzo(A)pyrene	ug/kg	269 Y	342 J Y
Benzo(G,H,I)perylene	ug/kg	348 Y	512 Y
Benzofluoranthenes, Total	ug/kg	666 Y	699 J Y
Benzoic acid	ug/kg	528 J Y	4990 U N
Benzyl alcohol	ug/kg	81.5 J Y	499 U N
bis(2-Chloroethoxy) methane	ug/kg	99.9 U N	499 U N
Bis-(2-chloroethyl) ether	ug/kg	99.9 U N	499 U N

Location		MH69	RCB200A
Sample Date		16 Jul 2020	24 Jul 2020
Sample Name		MKJ-071620-2	MKJ-071620-1
Drainage Type		SD	SD
Sample Method		Grab-Manual	Grab-Manual
Location Type		Inline	Inline
Project		Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		SW Dakota St SD/Ditch	SW Dakota St SD/Ditch
Analyte	Unit	Result	Result
Bis(2-ethylhexyl)phthalate	ug/kg	17800 Y	7390 Y
Butylbenzylphthalate	ug/kg	321 Y	406 J Y
Carbazole	ug/kg	66 J Y	499 U N
Chrysene	ug/kg	680 Y	662 Y
Copper	mg/kg	235 Y	184 Y
cPAH	ug/kg	412.44 J Y	572.32 J Y
Dibenzo(A,H)anthracene	ug/kg	79.6 J Y	499 U N
Dibenzofuran	ug/kg	52.9 J Y	499 U N
Diesel Range (Silica and Acid Cleaned)	mg/kg	304 Y	345 Y
Diethylphthalate	ug/kg	99.9 U N	499 U N
Dimethylphthalate	ug/kg	90.3 J Y	499 U N
Di-N-Butylphthalate	ug/kg	220 Y	147 J Y
Di-N-Octylphthalate	ug/kg	5850 Y	664 Y
Fluoranthene	ug/kg	1150 Y	825 Y
Fluorene	ug/kg	78.5 J Y	499 U N
Hexachlorobenzene	ug/kg	99.9 U N	499 U N
Hexachlorobutadiene	ug/kg	99.9 U N	499 U N
Hexachlorocyclopentadiene	ug/kg	499 U N	2500 U N
Hexachloroethane	ug/kg	99.9 U N	499 U N
HPAH	ug/kg	4573.6 J Y	4468 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	185 Y	257 J Y
Isophorone	ug/kg	99.9 U N	499 U N
Lead	mg/kg	123 Y	136 Y
LPAH	ug/kg	901.6 J Y	386 J Y
Mercury	mg/kg	0.224 Y	0.248 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	2700 Y	2380 Y
Naphthalene	ug/kg	79.3 J Y	499 U N
Nitrobenzene	ug/kg	99.9 U N	499 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.9 U N	499 U N
N-Nitrosodiphenylamine	ug/kg	48.1 J Y	499 U N
Pentachlorophenol	ug/kg	499 U N	2500 U N
Phenanthrene	ug/kg	626 Y	386 J Y
Phenol	ug/kg	343 Y	499 U N
Polychlorinated Biphenyls	ug/kg	359 Y	183.9 Y
Pyrene	ug/kg	999 Y	888 Y
Solids, Total	%	24.55 Y	26.26 Y
Total Organic Carbon	%	13.5 Y	10.4 Y
Zinc	mg/kg	1890 Y	1240 Y

Analyte	Unit	Result
1,2,4-Trichlorobenzene	ug/kg	99.8 UJ N
1,2-Dichlorobenzene	ug/kg	99.8 UJ N
1,3-Dichlorobenzene	ug/kg	99.8 UJ N
1,4-Dichlorobenzene	ug/kg	99.8 UJ N
1-Methylnaphthalene	ug/kg	99.8 UJ N
2,2'-Oxybis(1-chloropropane)	ug/kg	99.8 UJ N
2,4,5-Trichlorophenol	ug/kg	499 UJ N
2,4,6-Trichlorophenol	ug/kg	499 UJ N
2,4-Dichlorophenol	ug/kg	499 UJ N
2,4-Dimethylphenol	ug/kg	499 UJ N
2,4-Dinitrophenol	ug/kg	998 UJ N
2,4-Dinitrotoluene	ug/kg	499 UJ N
2,6-Dinitrotoluene	ug/kg	499 UJ N
2-Chloronaphthalene	ug/kg	99.8 UJ N
2-Chlorophenol	ug/kg	99.8 UJ N
2-Methylnaphthalene	ug/kg	99.8 UJ N
2-Methylphenol	ug/kg	99.8 UJ N
2-Nitroaniline	ug/kg	499 UJ N
2-Nitrophenol	ug/kg	99.8 UJ N
3,3`-Dichlorobenzidine	ug/kg	499 UJ N
3-Nitroaniline	ug/kg	499 UJ N
4,6-Dinitro-2-Methylphenol	ug/kg	998 UJ N
4-Bromophenyl phenyl ether	ug/kg	99.8 UJ N
4-Chloro-3-Methylphenol	ug/kg	499 UJ N
4-Chloroaniline	ug/kg	499 UJ N
4-Chlorophenyl Phenylether	ug/kg	99.8 UJ N
4-Methylphenol	ug/kg	80.1 J Y
4-Nitroaniline	ug/kg	499 UJ N
4-Nitrophenol	ug/kg	499 UJ N
Acenaphthene	ug/kg	99.8 UJ N
Acenaphthylene	ug/kg	99.8 UJ N
Anthracene	ug/kg	99.8 UJ N
Aroclor 1016	ug/kg	19.7 U N
Aroclor 1221	ug/kg	19.7 U N
Aroclor 1232	ug/kg	19.7 U N
Aroclor 1242	ug/kg	19.7 U N
Aroclor 1248	ug/kg	19.7 U N
Aroclor 1254	ug/kg	38.8 Y
Aroclor 1260	ug/kg	19.7 U N
Arsenic	mg/kg	11.3 U N
Benzo(A)anthracene	ug/kg	99.8 UJ N
Benzo(A)pyrene	ug/kg	34.6 J Y
Benzo(G,H,I)perylene	ug/kg	97.7 J Y
Benzo(a)fluoranthene, Total	ug/kg	103 J Y
Benzoic acid	ug/kg	998 UJ N
Benzyl alcohol	ug/kg	225 J Y
bis(2-Chloroethoxy) methane	ug/kg	99.8 UJ N
Bis-(2-chloroethyl) ether	ug/kg	99.8 UJ N

Location	ID-ST3	
Sample Date	02 Sep 2020	
Sample Name	ID-ST3-090220	
Drainage Type	SD	
Sample Method	SedTrap	
Location Type	Inline w/Active SPU Sed Trap	
Project	Lower Duwamish Waterway	
Outfall	SW Idaho St SD	
Analyte	Unit	Result
Bis(2-ethylhexyl)phthalate	ug/kg	559 J Y
Butylbenzylphthalate	ug/kg	72 J Y
Carbazole	ug/kg	99.8 UJ N
Chrysene	ug/kg	63.5 J Y
Copper	mg/kg	22.3 Y
cPAH	ug/kg	74.535 J Y
Dibenzo(A,H)anthracene	ug/kg	99.8 UJ N
Dibenzofuran	ug/kg	99.8 UJ N
Diesel Range (Silica and Acid Cleaned)	mg/kg	59.7 J Y
Diethylphthalate	ug/kg	99.8 UJ N
Dimethylphthalate	ug/kg	99.8 UJ N
Di-N-Butylphthalate	ug/kg	73.6 J Y
Di-N-Octylphthalate	ug/kg	99.8 UJ N
Fluoranthene	ug/kg	55 J Y
Fluorene	ug/kg	99.8 UJ N
Hexachlorobenzene	ug/kg	99.8 UJ N
Hexachlorobutadiene	ug/kg	99.8 UJ N
Hexachlorocyclopentadiene	ug/kg	499 UJ N
Hexachloroethane	ug/kg	99.8 UJ N
HPAH	ug/kg	450.6 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	40.5 J Y
Isophorone	ug/kg	99.8 UJ N
Lead	mg/kg	32.7 Y
LPAH	ug/kg	32.2 J Y
Mercury	mg/kg	0.0958 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	480 J Y
Naphthalene	ug/kg	99.8 UJ N
Nitrobenzene	ug/kg	99.8 UJ N
N-Nitroso-Di-N-Propylamine	ug/kg	99.8 UJ N
N-Nitrosodiphenylamine	ug/kg	99.8 UJ N
Pentachlorophenol	ug/kg	499 UJ N
Phenanthrene	ug/kg	32.2 J Y
Phenol	ug/kg	75.4 J Y
Polychlorinated Biphenyls	ug/kg	38.8 Y
Pyrene	ug/kg	56.3 J Y
Solids, Total	%	43.19 Y
Total Organic Carbon	%	5.84 J Y
Zinc	mg/kg	170 Y

Location Sample Date Sample Name Drainage Type Sample Method Location Type Project Outfall		RCB319 16 Jul 2020 MKJ-071620-3 SD Grab-Manual RCB Lower Duwamish Waterway SW Kenny St SD/T115 CSO	RCB320 16 Jul 2020 MKJ-071620-5 SD Grab-Manual RCB Lower Duwamish Waterway SW Kenny St SD/T115 CSO	RCB321 16 Jul 2020 MKJ-071620-6 SD Grab-Manual RCB Lower Duwamish Waterway SW Kenny St SD/T115 CSO	RCB322 16 Jul 2020 MKJ-071620-7 SD Grab-Manual RCB Lower Duwamish Waterway SW Kenny St SD/T115 CSO
Analyte	Unit	Result	Result	Result	Result
1,2,4-Trichlorobenzene	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
1,2-Dichlorobenzene	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
1,3-Dichlorobenzene	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
1,4-Dichlorobenzene	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
1-Methylnaphthalene	ug/kg	99.7 U N	100 U N	99.7 U N	51.1 J Y
2,2'-Oxybis(1-chloropropane)	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
2,4,5-Trichlorophenol	ug/kg	499 U N	500 U N	498 U N	498 U N
2,4,6-Trichlorophenol	ug/kg	499 U N	500 U N	498 U N	498 U N
2,4-Dichlorophenol	ug/kg	499 U N	500 U N	498 U N	498 U N
2,4-Dimethylphenol	ug/kg	499 U N	500 U N	498 U N	498 U N
2,4-Dinitrophenol	ug/kg	997 U N	1000 U N	997 U N	997 U N
2,4-Dinitrotoluene	ug/kg	499 U N	500 U N	498 U N	498 U N
2,6-Dinitrotoluene	ug/kg	499 U N	500 U N	498 U N	498 U N
2-Chloronaphthalene	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
2-Chlorophenol	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
2-Methylnaphthalene	ug/kg	99.7 U N	100 U N	99.7 U N	79.3 J Y
2-Methylphenol	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
2-Nitroaniline	ug/kg	499 U N	500 U N	498 U N	498 U N
2-Nitrophenol	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
3,3'-Dichlorobenzidine	ug/kg	499 U N	500 U N	498 U N	498 U N
3-Nitroaniline	ug/kg	499 U N	500 U N	498 U N	498 U N
4,6-Dinitro-2-Methylphenol	ug/kg	997 U N	1000 U N	997 U N	997 U N
4-Bromophenyl phenyl ether	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
4-Chloro-3-Methylphenol	ug/kg	499 U N	500 U N	498 U N	498 U N
4-Chloroaniline	ug/kg	499 U N	500 U N	498 U N	498 U N
4-Chlorophenyl Phenylether	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
4-Methylphenol	ug/kg	99.7 U N	3670 Y	154 Y	3780 Y
4-Nitroaniline	ug/kg	499 U N	500 U N	498 U N	498 U N
4-Nitrophenol	ug/kg	499 U N	500 U N	498 U N	498 U N
Acenaphthene	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
Acenaphthylene	ug/kg	24.6 J Y	100 U N	99.7 U N	99.7 U N
Anthracene	ug/kg	97.9 J Y	100 U N	33.5 J Y	66.4 J Y
Aroclor 1016	ug/kg	20 U N	20 U N	19.7 U N	19.8 U N
Aroclor 1221	ug/kg	20 U N	20 U N	19.7 U N	19.8 U N
Aroclor 1232	ug/kg	20 U N	20 U N	19.7 U N	19.8 U N
Aroclor 1242	ug/kg	237 Y	20 U N	19.7 U N	19.8 U N
Aroclor 1248	ug/kg	20 U N	31.8 Y	19.7 U N	52.7 Y
Aroclor 1254	ug/kg	72.7 Y	23.4 Y	19.7 U N	40.1 Y
Aroclor 1260	ug/kg	61.2 Y	28.2 Y	24.6 Y	40.1 Y
Arsenic	mg/kg	30.7 Y	16.9 U N	22.1 Y	21.3 Y
Benzo(A)anthracene	ug/kg	122 Y	53.9 J Y	74.1 J Y	157 Y
Benzo(A)pyrene	ug/kg	162 Y	68.9 J Y	124 Y	158 Y
Benzo(G,H,I)perylene	ug/kg	171 Y	112 Y	137 Y	279 Y
Benzofluoranthenes, Total	ug/kg	489 Y	200 Y	342 Y	439 Y
Benzoic acid	ug/kg	4620 Y	1630 Y	406 J Y	762 J Y
Benzyl alcohol	ug/kg	218 Y	100 U N	531 Y	502 Y
bis(2-Chloroethoxy) methane	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
Bis-(2-chloroethyl) ether	ug/kg	99.7 U N	1910 Y	99.7 U N	99.7 U N
Bis(2-ethylhexyl)phthalate	ug/kg	6220 Y	1440 Y	1900 Y	6280 Y
Butylbenzylphthalate	ug/kg	571 Y	100 U N	113 Y	331 Y
Carbazole	ug/kg	99.7 U N	74.8 J Y	99.7 U N	46 J Y
Chrysene	ug/kg	441 Y	214 Y	319 Y	506 Y
Copper	mg/kg	172 Y	83.9 Y	121 Y	143 Y
cPAH	ug/kg	250.86 J Y	122.1 J Y	194.5 J Y	251.8 J Y
Dibenzo(A,H)anthracene	ug/kg	35.1 J Y	100 U N	99.7 U N	99.7 U N
Dibenzofuran	ug/kg	27.2 J Y	100 U N	25.1 J Y	99.7 U N
Diesel Range (Silica and Acid Cleaned)	mg/kg	337 Y	257 Y	694 Y	827 Y
Diethylphthalate	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
Dimethylphthalate	ug/kg	66.3 J Y	100 U N	99.7 U N	52.6 J Y
Di-N-Butylphthalate	ug/kg	107 Y	55.8 J Y	77.9 J Y	334 Y
Di-N-Octylphthalate	ug/kg	52.5 J Y	100 U N	122 Y	99.7 U N
Fluoranthene	ug/kg	388 Y	174 Y	339 Y	530 Y
Fluorene	ug/kg	25.8 J Y	100 U N	99.7 U N	43.2 J Y
Hexachlorobenzene	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
Hexachlorobutadiene	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
Hexachlorocyclopentadiene	ug/kg	499 U N	500 U N	498 U N	498 U N

Location		RCB319	RCB320	RCB321	RCB322
Sample Date		16 Jul 2020	16 Jul 2020	16 Jul 2020	16 Jul 2020
Sample Name		MKJ-071620-3	MKJ-071620-5	MKJ-071620-6	MKJ-071620-7
Drainage Type		SD	SD	SD	SD
Sample Method		Grab-Manual	Grab-Manual	Grab-Manual	Grab-Manual
Location Type		RCB	RCB	RCB	RCB
Project		Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway	Lower Duwamish Waterway
Outfall		SW Kenny St SD/T115 CSO	SW Kenny St SD/T115 CSO	SW Kenny St SD/T115 CSO	SW Kenny St SD/T115 CSO
Analyte	Unit	Result	Result	Result	Result
Hexachloroethane	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
HPAH	ug/kg	2322.2 J Y	1093.5 J Y	1798.7 J Y	2938 J Y
Indeno(1,2,3-Cd)pyrene	ug/kg	93.1 J Y	56.7 J Y	57.6 J Y	92 J Y
Isophorone	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
Lead	mg/kg	87.2 Y	694 Y	53.3 Y	684 Y
LPAH	ug/kg	354.7 J Y	110 Y	247.3 J Y	556.7 J Y
Mercury	mg/kg	0.154 Y	0.447 Y	0.093 Y	0.391 Y
Motor Oil (Silica and Acid Cleaned)	mg/kg	3190 Y	2090 Y	7350 Y	6330 Y
Naphthalene	ug/kg	40.4 J Y	100 U N	35.8 J Y	90.1 J Y
Nitrobenzene	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
N-Nitroso-Di-N-Propylamine	ug/kg	99.7 U N	100 U N	99.7 U N	99.7 U N
N-Nitrosodiphenylamine	ug/kg	99.7 U N	100 U N	99.7 U N	108 Y
Pentachlorophenol	ug/kg	499 U N	500 U N	498 U N	498 U N
Phenanthrene	ug/kg	166 Y	110 Y	178 Y	357 Y
Phenol	ug/kg	140 Y	293 Y	115 Y	132 Y
Polychlorinated Biphenyls	ug/kg	370.9 Y	83.4 Y	24.6 Y	132.9 Y
Pyrene	ug/kg	421 Y	214 Y	406 Y	777 Y
Solids, Total	%	51.25 Y	28.38 Y	50.69 Y	37.2 Y
Total Organic Carbon	%	5.56 Y	16.2 Y	13.2 Y	13.4 Y
Zinc	mg/kg	737 Y	1850 Y	681 Y	3220 Y