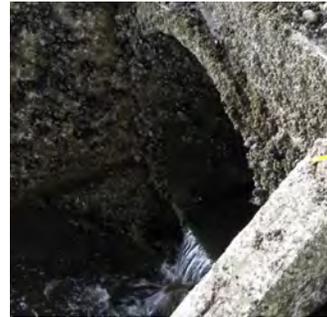


APPENDIX A

This page is intentionally left blank

Thea Foss and Wheeler-Osgood Waterways 2022 Source Control and WY2022 Stormwater Monitoring Report

Appendix A – Drain-by-Drain Analysis of Source Control Activities



March 2023

Prepared for

Washington State Department of Ecology and
U.S. Environmental Protection Agency

Prepared by

City of Tacoma



This page is intentionally left blank

TABLE OF CONTENTS

A.1	SOURCE CONTROL SUMMARY.....	1-1
A.2	OUTFALL 230	2-1
A.2.1	Outfall 230 Drainage Basin.....	2-1
A.2.2	WY2002-2022 Source Control Activities.....	2-2
A.3	OUTFALL 235	3-1
A.3.1	Outfall 235 Drainage Basin.....	3-1
A.3.2	2002-2022 Source Control Activities.....	3-2
A.4	OUTFALL 237A.....	4-1
A.4.1	Outfall 237A Drainage Basin	4-1
A.4.2	2002-2022 Source Control Activities.....	4-2
A.5	OUTFALL 237B.....	5-1
A.5.1	Outfall 237B Drainage Basin	5-1
A.5.2	2002-2022 Source Control Activities.....	5-1
A.6	OUTFALL 243	6-1
A.6.1	Outfall 243 Drainage Basin.....	6-1
A.6.2	2002-2022 Source Control Activities.....	6-1
A.7	OUTFALL 245	7-1
A.7.1	Outfall 245 Drainage Basin.....	7-1
A.7.2	2002-2022 Source Control Activities.....	7-1
A.8	OUTFALL 254	8-1
A.8.1	Outfall 254 Drainage Basin.....	8-1
A.8.2	2002-2022 Source Control Activities.....	8-1

ATTACHMENTS

Attachment A.1 – Citywide

- Table A.1-1 Thea Foss Waterway New Treatment Device Information by Outfall
- Figure A-1a Private Stormwater Treatment Facilities - 2022
- Figure A-1b Public Stormwater Treatment Facilities - 2022
- 2022 Foss Business Inspections and Spills/Complaints
- 2022 Year End Complaints/Spills and Inspections Data for Thea Foss Watershed
- 2022 Enforcement Report
- 2022 UST List from TPCHD

Attachment A.2 – OF230

- Table A.2-1 2022 Pipe Maintenance Activities for OF230
- OF230 (FD3A) 2022 Source Tracing Investigations
- OF230 (FD18) 2022 Source Tracing Investigations
- OF230 (FD3A) South 14th and Ct. A
- James W Fowler Co Warning Letter

Attachment A.3 – OF235

- Table A.3-1 2022 Pipe Maintenance Activities for OF235
- OF235 Copper Source Tracing Investigation

Attachment A.4 – OF237A

- Table A.4-1 2022 Pipe Maintenance Activities for OF237A
- OF237A Source Tracing Status Update – Polycyclic Aromatic Hydrocarbons (PAH) Investigation in FD13B-New
- OF237A Source Tracing Status Update –Polyaromatic Hydrocarbons Investigation in FD10C

Attachment A.5 – OF237B

- Table A.5-1 2022 Pipe Maintenance Activities for OF237B
- 4306 Pacific Avenue Warning Letter

Attachment A.6 – OF243

- Table A.6-1 2022 Pipe Maintenance Activities for OF243
- OF243 Source Tracing Status Update – Mercury Investigation in FD23

Attachment A.7 – OF245

- Table A.7-1 2022 Pipe Maintenance Activities for OF245/OF248

Attachment A.8 – OF254

- Table A.8-1 2022 Pipe Maintenance Activities for OF254
- Portland at St. Paul LLC Notice of Violation Letter

A.1 SOURCE CONTROL SUMMARY

This appendix presents the source control summary for the seven major outfalls discharging to the Thea Foss and Wheeler-Osgood Waterways. For each of the seven outfalls, the following Sections A.2 through A.8 provide a review of current and completed source control investigations, major actions conducted, and other studies performed under the program. Information presented in this appendix includes a description of the action, the end results of the action, the status of actions that are still underway, and identification of any follow up needed.

Based on the review of the source control investigations performed to date and evaluation of whole-water and Stormwater Suspended Particulate Matter (SSPM) data, ongoing source control activities and the work plan for 2023 have been developed and are presented in Section 6.0 of the WY2022 Report.

In the 2015-2019 Commencement Bay Five Year Review Report, the Environmental Protection Agency (EPA) found that the remedial action goals for the Thea Foss Waterway have been achieved. While waterway source monitoring requirements are ongoing to ensure continued protection of the waterway sediments, it is clear that the efforts of the City of Tacoma and others have been effective in reducing sediment concentrations to levels which meet regulatory compliance. On December 11, 2021, the EPA approved the City's Remedial Action Report, initiating the process of partial delisting of the Thea Foss and Wheeler-Osgood Waterways from the National Priorities List as part of the Commencement Bay Superfund Site. It is unknown at this time when the delisting will be completed.

With the success of the City's source control efforts to date, there are fewer sites in the watershed that require ongoing active source control work. These ongoing investigations and activities are described in detail below. The City has removed upline sediment traps in areas that no longer exhibit ongoing issues with pollutants of concern. Traps will remain in areas with ongoing investigations until work is complete. In addition, the National Pollutant Discharge Elimination System (NPDES) required sediment trap locations at the end of outfall pipes will remain throughout the monitoring period.

This page is intentionally left blank

A.2 OUTFALL 230

A.2.1 OUTFALL 230 DRAINAGE BASIN

The OF230 drainage basin is located on the mid-portion of the west side of the Thea Foss Waterway. The basin boundaries are shown on Figure 1-3 of the WY2022 Report. The area is approximately 557 acres and discharges to the waterway through a 60-inch outfall pipe (see Appendix B, Table B2-1) located at South 15th Street and Dock Street in the right-of-way (ROW) just south of the Fish Peddler Restaurant and Market (formerly Johnny’s Seafood retail market). The general basin boundaries are South 8th Street to the north, South 17th Street to the south, South Ainsworth Avenue to the west, and Dock Street to the east. Most of the storm drainage is channeled to South 15th Street via a main trunk line along Market Street. Because of the steep downhill grade, overflow pipes exist in manholes along Market Street directing excess water to downstream trunk lines. Trunk lines along Dock Street are susceptible to saltwater intrusion from high tides.

To help relieve the burden on the existing storm system, the City began construction of a new 60-inch stormwater outfall discharging to the Thea Foss Waterway in October of 2021. The existing stormwater system did not have sufficient capacity to convey runoff generated during significant storm events occurring in the downtown area. The new outfall (OF230A) does not change the nature, strength, or amount of stormwater entering the waterway and receives stormwater from approximately 98 percent (544 acres) of the historic discharge area of OF230 plus 26 percent (42 acres) of the area historically discharging to OF235. Stormwater from the remaining 2 percent of the tributary area for OF230 will continue to discharge to the existing OF230 and stormwater from the remaining 74 percent of the tributary area for OF235 will continue to discharge to the existing OF235. The contributing area (Asset Management Areas) to each outfall will be updated in early 2023¹. The City began rerouting the stormwater drainage system to the new OF230A on October 20, 2022, and completed the re-routing transition in mid-December 2022. Since the contributing area change did not occur until later in the year, the majority of the discussion herein will be based on the historic OF230 and OF235 drainage areas. If source control actions occurred during the transition period these actions will be discussed on a case-by-case basis reflecting the new drainage conditions

The historic OF230 drainage basin is heavily developed throughout with primarily commercial land use and some residential use on the west side of the basin. The northern portion of the University of Washington Tacoma discharges to OF230. Also included in the basin are Tacoma Link Light Rail, the Greater Tacoma Convention and Trade Center, downtown revitalization projects (condos and retail), Dock Street redevelopment, and the Thea Foss Waterway Public Esplanade from South 17th Street to South 11th Street. In addition, the Pacific Avenue Streetscape Project is within the OF230 drainage area.

Baseflow at the OF230 monitoring location is continuous at approximately 0.12 cubic feet per second (cfs) (see Appendix B, Table B2-2). Sources of baseflow are discussed in Appendix B.

¹ While construction of the new OF230A system began in October 2021, the incremental rerouting of the stormwater drainage did not begin until mid-October 2023. The City is in the process of monitoring the new flow regime in OF230A along with flow from the existing OF230 and OF235 and will be submitting an updated Quality Assurance Project Plan (QAPP) to regulators in September 2023. This plan will include the updated drainage area boundaries and associated land use information, flow/chemistry metrics at the new outfall, new rainfall runoff calculations, and any data analytic changes.

A.2.2 WY2002-2022 SOURCE CONTROL ACTIVITIES

Since 2002, significant work has been accomplished in the OF230 drainage basin, including intense business inspections, complete line cleaning, significant pipe relining projects and identification, and removal of point sources. A discussion of specific major source control activities is provided in the following paragraphs.

As part of the City-wide inspection program, 20 business inspections were completed in the OF230 basin in 2022. Business inspections provide source control through education and through implementation of non-structural Best Management Practices (BMPs). These actions help prevent materials from coming into contact with stormwater and help promote activities that reduce pollutants in stormwater.

Stormwater treatment devices currently in place also remove solids and the associated particulate-bound chemicals from stormwater. The locations of private and public stormwater treatment devices in the OF230 drainage basin are shown on Figure A-1a and A-1b, respectively. In 2022, two new treatment BMPs were installed on private property in this drainage basin (see Table A.1-1 and Figure A-1a). Two Media Filter treatment devices were installed at a trade school campus on the 1100 and 1200 blocks of Yakima Avenue. With future redevelopment in the OF230 drainage basin, more of these onsite treatment systems will be installed and over time they will help to decrease the solids load and the associated particulate chemical load to the waterway.

Mercury, PCBs, and Phthalates Source Tracing Investigation

There has been an ongoing investigation in a portion of the OF230 drainage basin since 2012 to identify possible sources of intermittent mercury and Polychlorinated biphenyls (PCBs) discovered during annual sediment monitoring. Prior to this investigation, the FD3A branch was video inspected and cleaned in June 2006. The FD3A branch is one of the oldest stormwater lines in the City of Tacoma and it was not believed to have been cleaned prior to 2006. Since the stormwater lines had never been cleaned, one of the possible sources of Contaminants of Concern (COCs) found in past sampling was residual accumulated storm sediments from historical sources. The video inspection also revealed that the pipe along Court "A" from South 15th to South 13th Streets was in disrepair. This pipe section was abandoned and filled with controlled density fill. The stormwater was redirected to a new pipe on "A" Street in the summer of 2007.

In response to high concentrations of mercury found in upline sediment traps in 2006, mercury samples were collected from all branches in FD3A, FD18 and FD18B. A point source of mercury was found in a private catch basin (associated with a private parking area by Bates Technical College) near South 11th Street and Yakima Avenue in July 2006. The catch basin and private system were subsequently cleaned. Post-cleaning samples confirmed that the mercury source in that area appeared to have been removed.

In 2010, concentrations of mercury in the upline sediment traps increased in FD3A and FD18B, indicating the potential of a recurring or new source. In addition, PCB concentrations increased from low to high range in FD3A in 2010. On June 24, 2011, upline from FD3A, a source control inspector collected dry weather water samples for mercury and PCB analysis. These water samples were grab samples that were collected after a 5-day dry period. Mercury and PCBs were not detected in any of the samples. Therefore, it was determined that the source of mercury and PCBs was unlikely to be from dry weather water discharges.

Mercury concentrations in the OF230 drainage basin have fluctuated between medium and low levels since WY2004, apart from a relatively higher concentration measured in the FD18B and FD3A-New sediment traps in 2012. Mercury concentrations have remained fairly low since that time with occasional medium concentrations seen in the FD3A sediment trap just over the 0.20 mg/kg level set to describe relative medium concentrations on Figure 2-1.1. There were no mercury results for the FD3A drainage area during 2022. Due to construction of the new outfall (OF230A) this sediment trap was removed in December 2021 and was not re-installed until January 2023 after construction was complete. The results that will be reported next year in the WY2023 report will reflect deployment for a partial year. There were no active mercury investigations in this drainage basin during 2022. Future sediment trap results will be evaluated to determine whether a source of mercury remains in this area.

PCB concentrations at FD3A were at relatively high levels in WY2010 and WY2011, decreased to low levels in WY2012, and increased back to the high range in WY2013 where they remained through WY2021. At FD3-New, PCB concentrations were at high levels between WY2004 and WY2007, decreased to low levels between WY2008 and WY2013 following cleaning of the drainage system, and increased back to high levels in WSSY2014. Concentrations fluctuated between low and high levels through WY2021. PCB concentrations in FD18 increased from low to medium levels in WY2011 and from medium to high levels in WY2012 and WY2013. From WY2014 to WY2017, PCB concentrations decreased back to the medium range before returning to the high range in WY2018, where they remained in WY2021. The WY2021 concentration was 780 µg/kg, which is a significant decrease in concentration from the highest concentration of 5300 µg/kg detected at this location in WY2020. During WY2020 SSPM results showed consistently higher levels of PCBs wherever they were detected. Because these higher concentrations were dispersed across several locations and drainage basins, it did not appear to be caused by a specific event or source. While a cause for these elevated concentrations was not identified during data evaluation, based on the lower-than-expected results exhibited during WY2021 it was determined that WY2020 results were not accurate and will not be used to determine steps forward in source tracing investigations. There were no PCB results for the FD3A drainage area during WY2022. Due to construction of the new outfall (OF230A) this sediment trap was removed in December 2021 and was not re-installed until January 2023 after construction was complete. The results that will be reported next year in the WY2023 report will reflect deployment for a partial year. Future sediment trap results will be evaluated to determine whether a source of mercury remains in this area.

Due to the likely presence of a remaining source or sources of both mercury and PCBs in this drainage basin, specifically the FD18 and FD3A areas, a source tracing investigation was launched in 2012 and continued through 2022 to further investigate potential sources of COC in this area. The investigation generally began with analysis of composite samples representing different segments of the drainage area for each of the sediment trap locations. The intent of this work initially was to attempt to isolate specific problem spots within the drainage area. As branches with higher concentrations of contaminants in composite samples were identified, subsequent phases of the investigation were performed to further isolate potential source areas. Individual catch basin and product samples were taken in the branches with higher concentrations. Subsequently, building inspections were completed in the areas with the highest catch basin and product sample results. Each component of this investigation is described in more detail below.

Mercury: Results from the mercury portion of the investigation and business inspections of the surrounding area indicated that the mercury sources were likely attributable to the presence of contaminated sediments in two areas: a catch basin located at South 11th and Broadway, and

two sidewalk roof drains draining to a catch basin at the corner of South 12th and Court “A” in downtown Tacoma. Both areas drain to FD3A.

11th and Broadway: The initial investigation and subsequent catch basin sampling identified a catch basin on the sidewalk near the corner of South 11th and Broadway Avenue with relatively higher concentrations of mercury. The basin was resampled in 2016, however staff could not verify that the catch basin had been cleaned prior to sampling. The basin was cleaned on August 16, 2016, and resampled on October 31, 2017. The 2017 sample results showed a decrease from past sampling results; however, the mercury concentration was still higher than typical concentrations found in catch basins. The basins were cleaned in November 2018 and when inspected in August 2019, insufficient sediment was present for sampling. The City resampled the targeted basin in WY2020, and results showed a significant decrease from the 2016 sampling results and the City has determined that there is no longer a mercury source issue at this location.

South 12th and Court “A”: Following inspection of the surrounding buildings and inability to locate a source, the initial response action was to clean the system and then resample to determine if it was a historic or ongoing source. The drain was resampled in January 2015. With results showing continued higher levels of mercury, the system was again cleaned, and at that time it was discovered that the drain bottoms were rotted out. Resampling showed that, while mercury levels had decreased somewhat, they were still present. Once it was confirmed that no building drains entered this system, the historic drains were capped over to prevent further contaminated sediment from entering the stormwater conveyance system. The capping work was completed in January 2016, and the system cleaned once again in 2016. The catch basin was resampled in 2017, and the result was lower than previous samples, but still higher than typical concentrations. The basin was cleaned in November 2018 and when inspected in August 2019, insufficient sediment was present for sampling. The City resampled the targeted basin in WY2020, and results showed a significant decrease from the 2016 sampling results and the City has determined that there is no longer a mercury source issue at this location.

There are no current investigations for mercury in OF230.

PCBs: Results from the initial PCB portion of the investigation indicated that elevated levels of PCBs were present in the caulking materials from two properties (the Wells Fargo and Sound Physicians (now known as 1123 Pacific Partners) properties located in the vicinity of South 1st and South 13th Streets, between Pacific Avenue and Court “A” in downtown Tacoma). While this area was identified as the highest priority area, several other areas with lower levels of PCB contamination were also identified through the initial investigation. These areas were initially assigned lower priority ratings since contaminant levels were lower. Storm drains throughout this area were cleaned in February 2015, and the area was resampled in March/April 2016. Results indicated ongoing lower-level sources of PCBs in several areas, leading to additional investigation beginning in 2016 and continuing in 2022. Updates on each of these PCB investigations are provided below.

South 12th and Pacific:

Previous reports have indicated that the caulking materials present on the both the Wells Fargo Complex and the 1123 Pacific Partners property are the source of PCB contamination found in the nearby catch basins in the targeted drainage areas. The business owners and the regulatory agencies were notified of the PCB discovery and were provided a copy of the sampling results. To ensure that the contamination did not reach the waterway, the system was cleaned in early 2015.

Significant work was performed at the Wells Fargo building, and it is expected that this work will reduce the PCB contributions from this site. Phase 1 was completed at the end of December 2016, and the schedule for Phase 2 is being determined at this time. During 2017, the City requested an update of the status of work at the Wells Fargo site. The response from Unico Properties LLC (Unico) provided an update regarding the remediation of the plaza using proper removal and disposal techniques. Additionally, Unico indicated that they would like to see additional monitoring of the catch basins post-abatement to determine if this work removed the main source of contamination. Environmental Compliance (EC) staff resampled the catch basins surrounding this property during 2017 and the results exhibited continued elevated concentrations of PCBs. However, the catch basins were not cleaned after the remediation project was complete and the catch basin socks were still present. The catch basins were cleaned in October 2017 and it was anticipated that they would be resampled during 2019 when sufficient sediment had accumulated. The system was inspected for the availability of sediment for sampling in August 2019, and sediment levels ranged from zero to one inch of sediment in some basins while other catch basins had yet to be cleaned. Sampling was attempted at the targeted catch basins receiving drainage from Wells Fargo in June 2020 to determine if a source of PCB contamination remains at this site. Results from this sampling were inconclusive due to the inability to collect from the majority of the targeted catch basin due to lack of access and sediment.

During 2022, the City resampled the catch basins adjacent to this location and found that there is a continuing source of contamination at the southeast corner of this location (Figure 1). The catch basin in the southeast corner of the site showed a concentration of 0.9 ppm in 2016 and 1.8 ppm in 2017, and as a result the system was cleaned in 2017. Following this cleaning, this same catch basin had a concentration of 12 ppm in 2022. During discussions with the property owners/managers of this site, it was agreed that EC would clean and then sample again in 2023 to ensure that the concentration detected in 2022 was not an anomaly. Once the results are received the City will meet with the property owners to discuss any required remediation moving forward. All of the catch basins surrounding this complex were cleaned in October 2022. During 2023, the City plans on retargeting these catch basins for resampling to determine if historic contamination is still an issue at this location.

During 2017, the City requested an update of the status of work at the 1123 Pacific Partners site. A written plan of action and timeline were requested. No report was received, and the City initiated the enforcement process. A warning letter was mailed in October 2017. Subsequently, staff worked with the property owner for the 1123 Pacific Partners building to obtain a written plan of action for addressing the PCB contamination on this site. On October 12, 2018, the City received the final correspondence from the property managers stating the remediation had been completed. Sampling of the targeted catch basins was completed in June 2020 to determine if a source of PCB contamination remained at this site. The City successfully sampled two catch basins receiving drainage from this site. The results from this sampling event indicate either a continued source of PCBs at this location or insufficient catch basin cleaning after the remediation of this property. During 2021, the City requested that these catch basins be cleaned, however they were not resampled during WY2021 due to insufficient sediment.

During 2022, the City attempted to resample three catch basins adjacent to this location. One of the locations did not have enough sediment to sample and the two other catch basin samples exhibited concentrations that were reduced from 2020 levels but were still considered elevated concentrations. It was discovered that the property was purchased by new owners in 2022 and they were unaware of the PCB remediation at this location. The City met with the new owners to provide the history and status of the work. Based on the lack of sediment at one of the three catch basins targeted for sampling in 2022 and the reduction in concentration at the others, it

was agreed that the City would clean all of the targeted catch basins (completed during 2022) and resample in 2023.

During the spring of 2023, the City plans on retargeting these catch basins for resampling to determine if historic contamination is still an issue at this location.

As indicated above, while there are no WY2022 sediment trap results for FD3A, source control actions are continuing in this area and additional catch basin sampling will be performed when sufficient sediment is present. Sediment trap results for WY2023 will be assessed to monitor the ongoing conditions in this basin.

South 13th and Commerce: During the 2013 investigation, catch basins in this drainage area exhibited detectable levels of PCBs. These catch basins receive drainage from two parking garages and retail businesses on Commerce Street. Two of the catch basins were resampled during the 2016 investigation. Both catch basins sampled exhibited higher concentrations than were found during the 2013 investigation. During 2017, City staff resampled the catch basins in this drainage area and collected samples from the ROW caulking to determine if this was the source of ongoing PCB contamination. Results indicate that the caulking is unlikely to be the source of the PCB contamination found in the catch basin sediment.

In August 2019, catch basins were inspected for sediment loading to determine whether sampling could occur. Some were found to have insufficient sediment and others were found to have not been cleaned due to coordination needed to de-energize the adjacent light rail. Due to staffing issues during COVID-19, the system cleaning scheduled for 2020 was not completed and was instead completed in May of 2021. Staff attempted to resample the catch basins during 2022 but were unable to collect samples due to insufficient sediment. It is anticipated that these catch basins will be resampled in summer of 2023.

South 10th and Pacific: The presence of PCBs and ongoing investigation at the Park Plaza parking garage at South 10th and Pacific Avenue were discussed in the WY2016 Source Control Report. In 2016, staff collected samples of roof top material including caulking, sealant, and sediment for PCB analysis. All the samples collected from the roof of the parking garage exhibited detectable concentrations of PCBs. Additional sampling was performed in 2017 in an attempt to determine the specific building materials that were the source of the PCBs. The property owner (the City of Tacoma) and regulatory agencies were notified in writing of the PCB discovery and were provided a copy of the sampling results. The City worked with the EPA to finalize a sampling plan in July 2020 to assess the extent of contamination at the site to assist in the development of a remediation plan. Sampling was subsequently performed, and the City submitted the Phase 1 and 2 PCB Sampling Results Report to the EPA in January 2022 and is awaiting comment. In that document, the City proposed an iterative remediation plan and is currently working to get a consultant under contract. Once direction from the EPA is received, the City will proceed with work on this site.

South 9th and Fawcett: This location is in the FD18 drainage area. During the 2013 investigation, the catch basin on South 9th and Fawcett Avenue exhibited an elevated PCB concentration. A business inspection was conducted during 2014, and no obvious sources of PCBs were identified. The storm drainage system was cleaned in 2015 and resampled in 2016. Concentrations of PCBs detected during this sampling event were higher than those previously detected, indicating an ongoing source.

The investigation in this area continued in 2017. EC staff contacted the property management company for the 757 Fawcett Avenue building and received permission to collect caulking

samples from the outside of the building. In addition to the caulking samples, staff collected samples from three catch basins located around the building and three samples of dirt from the sidewalk planting areas receiving drainage from the building. All these samples exhibited detectable concentrations of PCBs, with the caulking material from the building showing very high concentrations. This is likely the source of PCB contamination found in the nearby catch basins. The business and regulatory agencies were notified in writing of the PCB discovery and were provided a copy of the sampling results.

During 2018, City staff continued efforts to obtain a written plan of action for addressing the PCB contamination from the CenturyLink building. In December 2018 a warning letter was sent, with a forty-five day deadline for submitting a written plan of action and schedule. CenturyLink representatives responded to the letter and indicated that they are working with a consultant to develop a plan.

During 2019, staff continued to work with the business and regulatory agencies to stop the source of PCBs discharging from this site. It is the City's understanding that the property owner intends to encapsulate the building in metal panels. At the end of 2019 they were working on getting permits to complete this work. During 2020, the City continued to work with this property owner and monitored the project to completion (December 2020).

During 2021, the City required the catch basins receiving discharge from this site be cleaned after the project was completed. The City confirmed that the catch basins were cleaned on April 9, 2021. The catch basins were resampled on September 24, 2021, to determine if there continues to be a source of PCBs entering the catch basins. The catch basin sediment exhibited concentrations of 200 µg/kg , 1100 µg/kg , and 3500 µg/kg respectively. Results were received on October 14, 2021. On October 20, 2021, EC staff emailed Lumen Technologies, Inc. (formerly CenturyLink, Inc.) to inform them of the sampling results and requesting them to clean the sidewalks to potentially remove any residual PCB contamination from the building, and this work was completed on November 18, 2021.

In July 2022, EC staff resampled the catch basins that received discharge from this location. The results exhibited concentrations of PCBs in the catch basin sediment ranging from 170-2000 µg/kg . It appeared that the sediment socks in place during the pressure washing in November 2021 may have failed. Transmission was asked to clean the catch basins on July 26, 2022. Before the cleaning took place, a construction project began at this location, which involved the removal and replacement of all of the curb/gutter and sidewalk at this intersection. The project also removed one of the catch basins sampled during this investigation. Due to the duration of this project, no further investigation or cleaning of the system was completed in this drainage area during 2022.

After completion of the sidewalk replacement project, EC will request that these catch basins be cleaned. Once adequate sediment has accumulated, the catch basins will be resampled to ensure the sources of PCBs have been removed from this site.

Sediment trap PCB concentrations in FD18 have continued to decrease since remediation work was completed in 2020, with concentrations dropping to medium levels (230 ppb) for the first time since 2017 in this basin.

Phthalates: The catch basin at South 9th and Commerce has had ongoing issues since 2013 with relatively elevated phthalate concentrations. Catch basins were cleaned in November 2018. At this time, the City is conducting ongoing monitoring and an annual inspection at the farmers market at this site and will resample this location when sufficient sediment is available to determine if a continuing source of phthalates is present at this location. In August 2019, catch basins were inspected and it was noted that insufficient sediment was present for sampling. A

sample was collected on June 17, 2020, at the South 9th and Commerce location. There was a significant decrease in sediment concentrations from 2018 and no further sampling is planned at this location.

The City will continue to work with the regulatory agencies and businesses throughout the area to eliminate the sources of these contaminants in the stormwater drainage system through normal source control efforts.

A copy of the OF230 2022 Source Tracing Investigation Report, and the OF230 (FD18) South 9th and Fawcett 2022 Report are included in Attachment A.2.

South 14th and Court “A” PAH Source Tracing Investigation

Based on sediment monitoring in OF230, the FD3A drainage area was identified as having ongoing issues with PAH sediment contamination. In response to recurring detections of other contaminants in the FD3A and FD18 drainage areas, the City conducted source tracing investigations in 2012 and 2013 (see Mercury and PCBs Source Tracing Investigation section above). During these investigations, elevated levels of PAHs were found in a specific segment of the FD3A drainage area. Additional investigation was then performed to identify potential sources of this contamination.

In 2014, individual catch basins in the targeted segment were sampled to identify specific catch basins with elevated levels of PAHs. The catch basins with the highest PAH concentrations were those located at the corner of Court “A” and South 14th Street. Based on these results, staff conducted another site investigation to determine whether the adjacent parking lot was draining to these catch basins and found that it was not. With no specific source of this contamination identified, the system was cleaned in early 2015 and subsequently resampled in 2016 to determine whether the elevated PAH levels were the result of a historic release or an ongoing source of PAH contamination. Results showed continued presence of PAHs in this area. As a result, a business inspection of the adjacent parking lots was conducted, including the collection of several samples from their onsite storm drainage system. While no significant processes were noted during the inspection that would attribute to the elevated PAHs, the sediment samples contained elevated concentrations. The City’s evaluation ultimately pointed to coal tar asphalt sealant as a source of the contamination.

The City followed up with the property owner in 2017 to discuss next steps in eliminating this source of PAHs. A letter was sent by the City in April 2017 to the property owner, Arletta Development Corporation, requesting a written plan of action and timeline to eliminate the discharge of PAHs from its facilities to the City’s stormwater system. The City met with representatives of the site owner to develop a plan of action. The property management company performed initial sampling of the catch basins in June 2017, then swept the parking lots and cleaned the private catch basins later that month. Follow up catch basin sampling was initially required on a quarterly basis.

During 2018, City staff reviewed the quarterly catch basin sampling performed to date, and the results exhibited non-detectable concentrations for PAHs. As a result, the City agreed to reduce required maintenance and sampling to an annual frequency. In addition, City staff resampled the ROW catch basins exhibiting elevated concentrations of PAHs in previous investigations. While five catch basins were targeted, samples were only collected from three due to lack of collectable sediment in the other two. Two of the three samples exhibited a significant decrease in PAH concentrations, however one sample exhibited similar concentrations found in the 2016

sample. It was subsequently determined that, while the City requested cleaning of the catch basins in this area during 2017, the catch basin containing higher concentrations was not cleaned at that time. Staff re-requested the cleaning for this basin and confirmed cleaning occurred during December 2018.

During 2020, the City resampled several ROW catch basins. One basin receiving drainage from the “A” Street parking lot had significant sediment in the sump and elevated concentrations of PAHs. After additional investigation, a collapsed and heavily impacted stormline was discovered in the private storm sewer system. The property owner agreed to repair and clean the private storm system. The City will continue to work with the property owner to see this issue resolved, and after cleaning, staff will resample this location when sufficient sediment has accumulated to ensure this PAH source has been removed.

While progress was made during 2021 to repair this private system, permitting delays with the state delayed this project. During 2022, the property manager of this location was able to obtain the necessary permits to fix the two broken stormwater laterals located at their properties at 14th Street and Court “A”. Both laterals were repaired in early October 2022 and the municipal catch basins that the private systems connect to were cleaned in November 2022.

In the spring of 2023, EC will check the municipal stormwater catch basins in Court “A” for sediment accumulation. If sufficient sediment is present, EC will sample these catch basins and analyze for PAHs to determine if the source of the contamination has been appropriately removed.

PAH concentrations in FD3A decreased from 111,295 µg/kg in WY2016 to 82,121 µg/kg in WY2017, and 37,370 µg/kg in WY2018 to 10,009 µg/kg in WY2019. Concentrations exhibited a slight increase during 2020 (33,202 µg/kg) but concentrations remained relatively low compared to historic levels. Concentrations exhibited a significant decrease during 2021 (8,666 µg/kg). This decrease in concentrations following actions at this site indicates the success of this source control investigation. There were no PAH results for the FD3A drainage area during 2022. Due to construction of the new outfall (OF230A), this sediment trap was removed in December 2021 and was not re-installed until January 2023 after construction was complete. The results that will be reported next year in the WY2023 report will reflect deployment for a partial year.

A copy of the OF230 (FD3A) South 14th Street and Court “A” 2022 Source Tracing Report is included in Attachment A.2.

FD16 PCB Investigation

During 2017, the City began a source tracing investigation in response to recurring detections of PCBs in the FD16 drainage area. Small drainage areas/segments of FD16 were targeted by combining sub-samples from the ROW catch basins into a larger composite sample. This approach assisted with identifying problem areas in FD16. The City discovered elevated PCBs in catch basin sediments from three segments in the FD16 drainage basin.

The goal of the 2018 investigation was to further pinpoint sources of PCB contamination in the FD16 drainage area. In June 2018, the City collected discrete samples from catch basins in the drainage area which were identified as contributors to the 2017 composite samples with elevated PCB concentrations. Five locations were identified as having relatively elevated concentrations of PCBs. The five discrete catch basin locations were cleaned after receipt of laboratory results.

During 2019, City staff narrowed down the contributing area by collecting discrete samples from the catch basins that were part of the composite samples from the previous sampling effort with elevated PCB concentrations. Based on the results of this event, additional sampling was performed to further isolate the area of concern. Results suggest that the relatively low-level contamination is emanating from building materials located at 1301 and 1331 Tacoma Avenue South. With cleaning in the area complete, the City will continue to monitor the sediment traps to determine if PCBs are continuing to discharge to the storm system and will re-evaluate the need for a continued investigation based on those results. The plan was to remove the sediment trap at this location if PCBs remained undetected in WY2021. However, PCB concentrations at this site increased back up to medium levels in 2021 with a concentration of 170 µg/kg and high levels in 2022 with a concentration of 430 µg/kg. Based on these results, the City will conduct a source tracing investigation in this basin in 2023.

CHB Auto Care PIE Grant

In 2006, Communities for a Healthy Bay (CHB) conducted a public education program in the OF230 drainage basin. The program was completed as part of a PIE Grant and included a survey, working with school children, meeting with neighborhood organizations, and providing residents with material on proper automobile care with coupons for neighborhood services. Curb marking with “drains to stream” labels was also completed by CHB and the City in the basin. Public surveys showed some improvement in public awareness. However, there was no measurable difference in stormwater data between OF230 and the OF235 control basin where no public education was offered.

Storm System Cleaning

At a cost of \$300,000, the entire municipal storm drainages for OF230 and OF235 were cleaned, and video inspected by the City’s Transmission Maintenance crews in 2007. One hundred years of accumulated historical stormwater particulate matter in the trunk lines and laterals (totaling approximately 220 cubic yards) was removed. Eighty thousand feet of 8 to 56-inch lines were cleaned between March 12 and June 25, 2007. Throughout the duration of the project, standardized cleaning practices were used (i.e., plugs downstream of vactor truck) to prevent any mobilized materials from entering the Thea Foss Waterway. The decant water from the vactor trucks was diverted to settling tanks prior to discharge to the sanitary sewer.

Since the time of the complete cleaning of the OF230 drainage basin, additional cleaning has been performed in isolated areas. These cleaning and video inspection activities have been done for a variety of reasons, including areas identified as needing maintenance through the Stormwater Rapid Assessment Program (STRAP), complaints, business inspection follow ups, etc. A summary of pipe cleaning and maintenance activities completed during 2022 in the OF230 drainage basin is provided in Table A.2-1 in Attachment A.2.

Enhanced Street Sweeping

In January 2007, the City’s street sweeping program was transferred from the Streets and Grounds Division to the Sewer Transmission Maintenance Division for continued implementation. The program was enhanced at that time in an attempt to reduce sediment buildup in the storm sewer system. The schedule was set to sweep all areas of the City twice per year, with more frequent sweeping in the business districts and on major arterials. The City also increased communications with residents and business owners, which helped raise awareness of the importance of the street sweeping program.

In 2007, when the work was transferred over, sweeping was done with a combination of mechanical and vacuum sweepers. In 2008, the City started the transition from mechanical sweepers to regenerative air machines. At this point in the program, the City used four regenerative air sweepers. In mid-2018, due to the end of usable life of one of the City's regenerative air sweepers and a staff retirement, Tacoma temporarily reduced its street sweeping program. This resulted in Tacoma reducing the frequency of arterial sweeping to quarterly and residential streets to annually.

The City received a grant from The Washington State Department of Ecology (Ecology) in 2021 to purchase an additional street sweeper which will allow staff to increase back to the higher sweeping frequency. The new schedule increases the frequency of sweeping at arterials from every 12 weeks to every six weeks and increases residential sweeping to twice per year City-wide. The sweeper was purchased during 2021, however there were delivery delays, and the sweeper was not delivered until November 2022. The City is currently finishing with set-up and is expected to begin operations of the new sweeper in February 2023. Global Positioning System (GPS) is used to track the number of miles swept and the amount of material removed is recorded.

2010 Stormwater Pipe Retrofit Project

From June to November 2010, 13,500 linear feet of existing storm sewer main was structurally rehabilitated in the downtown district. The main segments targeted were tributary to OF230. Defects (cracks, holes, etc.) in the aging system could allow groundwater and soil (potentially contaminated from historic "hot spots") to enter the system and ultimately discharge to the Thea Foss Waterway. Rehabilitation of the existing main segments was accomplished by means of Cured-In-Place Pipe (CIPP) construction technologies. Resin impregnated liners were inserted into the main segments through existing manholes and the liner was then pressurized, causing it to expand and form to the inside of the existing main segment. A source of heat was then applied which caused the resins to catalyze. The end result was a new pipe within the existing pipe that has similar strength and durability characteristics to PVC pipe. It is anticipated that these projects will also result in improvements in water and SSPM quality.

When properly installed, the CIPP liner results in continuous stormwater pipe segments with no joints (except for manhole connections), that are free of leaks associated with structural defects. The resulting reduction in inflow and infiltration may reduce the contaminant load to waters of the state if contaminated groundwater is present. Final project costs, including design and management, were \$741,506. This project was funded by a \$1,000,000 Ecology grant.

2013 Stormwater Pipe Retrofit Project

From August 8 through November 15, 2013, 13,807 linear feet of existing storm sewer main, 65 segments, was structurally rehabilitated in asset management area FS05. The segments that were rehabilitated in OF230 ranged in size from eight inches to 21 inches in diameter. Similar to the 2010 Stormwater Pipe Retrofit project, rehabilitation of the existing main segments was accomplished by means of CIPP construction technologies. It is anticipated that these projects will also result in improvements in water and SSPM quality. Final project costs were \$1,048,158, which includes all work completed in asset management areas FS05, FS06, and FS07.

Prior to installation of the CIPP liner, the main line is thoroughly cleaned to remove all debris and to verify if a segment can be retrofitted using the CIPP construction technology. In FS05, 76 segments, 16,274 linear feet of pipe, were cleaned and video inspected between July 24 and October 7, 2013. During cleaning, the main line was plugged, and the cleaning water and

material was removed from the main using a vactor truck. The cleaning water and entrained sediment was pumped into a sediment removal system to separate the solids from the water. After filtration the water was discharged into the sanitary sewer. Approximately ten tons of material was removed from the main segments cleaned in asset management areas FS05, FS06, and FS07.

Sauro's Cleanerama Site Remediation

The Sauro's Cleanerama, which is now closed, released dry cleaning solvents into the environment. The City completed an interim action (IA) cleanup at the Sauro's Cleanerama site during December 2009, under an agreed order with Ecology. During the IA the City removed and disposed of 12,010 tons of soil contaminated by dry cleaning solvents released to the environment during facility operations.

During 2015, the City of Tacoma signed a revised agreed order with Ecology to remediate groundwater contamination by natural attenuation. The final cleanup action to remediate the groundwater will take approximately ten years. The Cleanup Action Plan includes ongoing groundwater monitoring to assess remediation progress during the cleanup action. For the first two years under the order, monitoring was performed semi-annually under the order. During 2018, monitoring was reduced to annually. Data is reported annually to Ecology. January 2022 monitoring results continue to show the capacity for natural attenuation to occur at this site as well as down-gradient (closest to the Thea Foss Waterway).

March 2011 Sanitary Sewer Discharge

A sanitary sewer main in the vicinity of South 15th and Market Streets collapsed on March 15, 2011. The pipe in this area was originally installed in 1906. The City replaced both the sanitary and storm pipes in this intersection as a result of the failure. It was estimated that 18,000 gallons of sewage discharged to the storm sewer and eventually to the Thea Foss Waterway over a two-hour period. The sanitary sewer overflow (SSO) was reported to Ecology.

Pacific Avenue Streetscape Project

The Pacific Avenue Streetscape Project included beautification in addition to innovative stormwater improvements. The project area is a ten-block area on Pacific Avenue between South 7th and South 17th Streets. Key components include innovative stormwater design and pedestrian, bicycle, public transit, and vehicle complete streets concepts. Improvements include new and upgraded sidewalks, new curbs and curb ramps, landscaping, public art, street furnishings, historic streetlights, and roadway repaving. Lastly, a total of 14 rain gardens now treat stormwater prior to it entering the Thea Foss Waterway, as well as new landscaping with over 3,000 new plants. Construction began in late 2012 and was completed in early 2014.

'A' Street Treatment System

Construction of the "A" Street regional treatment system was completed in January 2015. The project is located in the area with historically higher levels of PCBs and mercury, along with lower levels of PAHs and phthalates. The project included replacement of approximately 1,100 feet of pipe and construction of two underground treatment vaults with Baysaver treatment units sized to treat the water quality design storm event for the 34-acre tributary area. The City's work toward removal of sources of PCBs and mercury to this system, along with PAHs and phthalates, is continuing as described above, but the line replacement and treatment

project will help to ensure that these contaminants do not get to the waterway. The treatment system was funded from a \$1,000,000 fiscal year Statewide Stormwater Grant from Ecology.

Underground Storage Tank (UST) and Leaking UST (LUST) Removal

The Tacoma-Pierce County Health Department (TPCHD) is overseeing the removal of USTs at five sites in the drainage basin (see Attachment A.1) including:

- UST at Bates Technical College located at 1101 South Yakima Avenue. There was one tank at the site that was removed on April 6, 2020. There is soil contamination and one monitoring well installed at the site. The permit was closed on March 25, 2022.
- UST at Enterprise Rent-A-Car located at 940 Market Street. There are three tanks on the property and the permit was closed on June 27, 2022.
- UST at Former Key Bank Building located at 1120 South 11th Street. There was one tank and soil contamination at this location and the permit was closed on October 24, 2022.
- UST at the Seven Eleven store located at 4635 South Yakima Avenue. There is soil contamination at this site and this permit remains active.
- UST at the parking garage located at 1114 Pacific Avenue. There is one tank at this site and this permit remains active.

Notice of Violation and Warning Letters

One Notice of Violation letter was issued in the OF230 drainage basin in 2022:

A notice of violation and corrective action was issued on February 23, 2022, to James W. Fowler Co. for the illicit discharge of untreated sanitary sewage to the City's storm system that resulted in a sanitary sewer overflow on January 28, 2022. There was also an unauthorized discharge of seawater into the City's sanitary sewer system. During the SSO, raw sewage left the City's collection system and ultimately discharged to the Thea Foss Waterway through OF230.

This page is intentionally left blank

A.3 OUTFALL 235

A.3.1 OUTFALL 235 DRAINAGE BASIN

The OF235 drainage basin is the fourth largest basin in the Foss Waterway Watershed. The drainage basin encompasses a section of downtown between the OF230 and OF237A drainage basins (see WY2022 Report, Figure 1-3). The OF235 drainage basin is heavily developed and covers an area of approximately 156 acres which drains through a 42-inch outfall pipe located on the west bank of the Thea Foss Waterway at South 21st and Dock Streets under the State Route (SR) 509 bridge. The general basin boundaries are South 18th Street to the north, South 23rd Street to the south, South “L” Street to the west, and Dock Street to the east.

Commercial land use accounts for the majority of the area in this basin, with a small residential area on the western side (see WY2022 Report, Figure 1-3). A small portion of freeway ROWs in the lower part of this basin, including I-705 and the entire I-705 and SR 509 interchange. Most of the stormwater runoff from freeways discharges to an infiltration pond and not to the City-owned storm drains.

The southern portion of the University of Washington Tacoma and a portion of the St. Joseph Medical Complex discharges to OF235. The drainage area for University of Washington Tacoma is bounded by Pacific Avenue, South 21st Street, Tacoma Avenue, and South 17th Street. Also included in the basin is Tacoma Link Light Rail, downtown revitalization, Dock Street redevelopment, and the Thea Foss Waterway Public Esplanade from South 21st Street to South 17th Street.

Baseflow in OF235 is continuous at approximately 0.4 cfs (see Appendix B, Table B2-2). Sources of baseflow are discussed in Appendix B.

As discussed in Section A.2.1, the City began construction of a new 60-inch stormwater outfall discharging to the Thea Foss Waterway in October 2021 due to capacity issues. The new outfall (OF230A) does not change the nature, strength, or amount of stormwater entering the waterway and receives stormwater from approximately 98 percent (544 acres) of the historic discharge area of OF230 plus 26 percent (42 acres) of the area historically discharging to OF235. Stormwater from the remaining 2 percent of the tributary area for OF230 will continue to discharge to the existing OF230 and stormwater from 74 percent of the tributary area for OF235 will continue to discharge to the existing OF235. The contributing area (Asset Management Areas) to each outfall will be updated in early 2023². Since this change occurred between October 20, 2022, through mid-December 2022, the majority of the discussion herein will be based on the historic OF235 drainage areas. If source control actions occurred during this transition period these actions will be discussed on a case-by-case basis reflecting the new drainage conditions.

² While construction of the new OF230A system began in October 2021, the incremental rerouting of the stormwater drainage did not begin until mid-October 2023. The City is in the process of monitoring the flow regime in OF230A along with flow from the existing OF230 and OF235 and will be submitting an updated Quality Assurance Project Plan (QAPP) to regulators in September 2023. This plan will include the updated drainage area boundaries and associated land use information, flow/chemistry metrics at the new outfall, new rainfall runoff calculations, and any data analytic changes.

A.3.2 2002-2022 SOURCE CONTROL ACTIVITIES

Since 2002, significant work has been accomplished in the OF235 drainage basin, including intense business inspections, complete stormline cleaning, and identification and removal of point sources. A discussion of specific major source control activities is provided in the following paragraphs.

As part of the City-wide inspection program, nine business inspections were completed in the OF235 drainage basin in 2022. Business inspections provide source control through education and through implementation of nonstructural BMPs. These actions help prevent materials from coming into contact with stormwater and help promote activities that reduce pollutants in stormwater.

Stormwater treatment devices currently in place also remove solids and the associated particulate-bound chemicals from stormwater. The locations of private and public stormwater treatment devices in the OF235 drainage basin are shown on Figures A-1a and A-1b, respectively. One new treatment BMP was installed on private property in this drainage basin (see Table A.1-1 and Figure A-1a). A stormfilter treatment device was installed at a parking lot at 1950 South “C” Street near the University of Washington Tacoma campus. With future redevelopment in the OF235 drainage basin, onsite treatment systems will be installed and over time they will help to decrease the solids load and the associated particulate-bound chemical load to the waterway.

2006 Turbid Water Discharge

On June 14, 2006, June 27, 2006, and July 31, 2006, turbid water was observed discharging from OF235. This corresponds to the highest chemical concentrations in baseflow at this location which were observed in WY2006 (Year 5), (see Table 3-2, and Figure 5-1.2 and boxplots in Appendix G in the 2012 Report). A follow up inspection on July 31, 2006, found that the discharge was not associated with a sanitary sewer cross-connection. The source of the discharge was not located. These outliers appear to be relatively isolated occurrences.

Storm System Cleaning

At a cost of \$300,000, the entire municipal storm drainages for OF230 and OF235 were cleaned, and video inspected by the City’s Transmission Maintenance crews during 2007. One hundred years of accumulated historical stormwater particulate matter in the trunk lines and laterals, 220 cubic yards, was removed. Eighty thousand feet of 8 to 56-inch lines were cleaned between March 12 and June 25, 2007. Throughout the duration of the project, standardized cleaning practices were used (i.e., plugs downstream of vactor truck) to prevent any mobilized materials from entering the Thea Foss Waterway. The decant water from the vactor trucks was diverted to settling tanks prior to discharge to the sanitary sewer.

The 2007 video inspection revealed eroded pipe segments and other pipes drilled through the storm lines in some areas. The 2007 video inspections and resulting pipe conditions are tracked as part of the City’s STRAP program. A number of relining or replacement projects have been added to the City’s list of Capital Improvement Projects (CIP) from the STRAP. One of the relining projects, which included pipes in portions of the OF230, OF235, and OF237A drainage basins, was constructed in 2013 as further described below.

Since the time of the complete cleaning of the OF235 basin, additional cleaning has been performed in the basin in isolated areas. These cleaning and video inspection activities have

been done for a variety of reasons, including areas identified as needing maintenance through the STRAP program, complaints, business inspection follow ups, etc. A summary of pipe cleaning and maintenance activities completed during 2022 in the OF235 drainage basin is provided in Table A.3-1 in Attachment A.3.

Enhanced Street Sweeping

In January 2007, the City's street sweeping program was transferred from the Streets and Grounds Division to the Sewer Transmission Maintenance Division for continued implementation. The program was enhanced at that time in an attempt to reduce sediment buildup in the storm sewer system. The schedule was set to sweep all areas of the City twice per year, with more frequent sweeping in the business districts and on major arterials. The City also increased communications with residents and business owners, which helped raise awareness of the importance of the street sweeping program.

In 2007, when the work was transferred over, sweeping was done with a combination of mechanical and vacuum sweepers. In 2008, the City started the transition from mechanical sweepers to regenerative air machines. At this point in the program, the City used four regenerative air sweepers. In mid-2018 due to the end of usable life of one of the City's regenerative air sweepers and a staff retirement, Tacoma temporarily reduced its street sweeping program. This resulted in Tacoma reducing the frequency of arterial sweeping to quarterly and residential streets to annually.

The City received a grant from Ecology to purchase an additional street sweeper which will allow staff to increase back to the higher sweeping frequency. The proposed schedule will increase the frequency of sweeping at arterials from every 12 weeks to every six weeks and increase residential sweeping to twice per year. The sweeper was purchased during 2021, however there were supply issues and the sweeper was not delivered until November 2022. The City is expected to begin operations with the new sweeper in February 2023. GPS is used to track the number of miles swept and the amount of material removed is recorded.

2013 Stormwater Pipe Retrofit Project

From July 26 through November 13, 2013, 5,479 linear feet of existing storm sewer main, 32 segments, was structurally rehabilitated in asset management area FS06. The segments that were rehabilitated in OF235 ranged in size from eight inches to 18 inches in diameter. Defects (cracks, holes, etc.) in the aging system could allow groundwater and soil (potentially contaminated from historic "hot spots") to enter the system and ultimately discharge to the Thea Foss Waterway. Rehabilitation of the existing main segments was accomplished by means of CIPP construction technologies. Resin impregnated liners were inserted into the main segments through existing manholes and the liner was then pressurized, causing it to expand and form to the inside of the existing main segment. A source of heat was then applied which caused the resins to catalyze. The result was a new pipe within the existing pipe that has similar strength and durability characteristics of PVC pipe. It is anticipated that these projects will also result in improvements in water and SSPM quality.

When properly installed, the CIPP liner results in continuous stormwater pipe segments with no joints (except for manhole connections), that are free of leaks associated with structural defects. The resulting reduction in inflow and infiltration may reduce the contaminant load to waters of the state if contaminated groundwater is present. Final project costs are approximately \$1,048,158, which includes all work completed in asset management areas FS05, FS06, and FS07.

Prior to installation of the CIPP liner, the main line is thoroughly cleaned to remove all debris and to verify if a segment can be retrofitted using the CIPP construction technology. In FS06, 34 segments, 5,738 linear feet of pipe, were cleaned and video inspected from July 12 through October 7, 2013. During cleaning, the main line was plugged, and the cleaning water and material was removed from the main using a vactor truck. The cleaning water and entrained sediment was pumped into a sediment removal system to separate the solids from the water. After filtration the water was discharged into the sanitary sewer. Approximately ten tons of material was removed from the main segments cleaned in asset management areas FS05, FS06, and FS07.

Hood Street Treatment Retrofit Project

The City was awarded a \$1,000,000 fiscal year 2011 Stormwater Retrofit and Low Impact Development (LID) Competitive Grant from Ecology for a \$2,100,000 regional stormwater treatment facility in the Hood Street Corridor through the Brewery District (South 21st Street to South 19th Street). This modified bioretention facility provides regional treatment for stormwater runoff discharged from 42 acres of the FS06 drainage basin in Tacoma's downtown area. The water quality facility has been operational since fall 2014. The Hood Street Treatment Retrofit project was built in cooperation with the development of the Prairie Line Trail-UWT Station by the University of Washington Tacoma. The project is a rail-to-trail conversion of Tacoma's historic freight corridor through the heart of downtown. The Prairie Line Trail has been planned to develop a landmark urban trail for pedestrians and bicyclists.

Outfall 235 Stormwater and Baseflow Lead, PAHs, and Phthalates Source Investigation

Based on stormwater monitoring in OF235, this basin was identified in the Thea Foss Work Plan as having ongoing issues with lead in stormwater. In August 2014, staff began an investigation to identify possible sources of the elevated lead concentrations in stormwater. Elevated concentrations of phthalates and PAHs were also observed in historic baseflow discharges (Tacoma 2013). Because of this, the focus of the investigation began with an investigation of baseflow in the OF235 basin. The intent of this work was to identify specific problem areas within the drainage basin for further investigation.

Due to lack of baseflow during sample collection, staff was unable to target the entire drainage basin. The preceding summer yielded very little precipitation and it is possible that the baseflow was not fully charged during this sampling event. The results of this investigation initiated in 2014 did not identify a specific segment or drainage area in this basin for additional source tracing.

Staff continued this investigation of the drainage basin in 2015. Nine locations were targeted for baseflow sampling in March 2015, and samples were collected at six of the nine locations. Three of these areas showed relatively higher concentrations of lead, and one of these locations also had relatively higher phthalates. Based on the results of this phase of the investigation, these three locations were targeted for additional source tracing. Due to lack of baseflow during sample collection, staff was unable to complete the investigation in these specific areas in 2015. Again, the preceding winter and summer yielded very little precipitation and it is possible that the baseflow was not fully charged during the Round 2 sampling event.

Staff conducted Round 3 of this investigation in spring 2016 when baseflow was flowing at its peak, with additional investigation of the three drainage areas where higher concentrations were found. While progress was made during 2016, specific sources of lead, PAHs, and phthalates

were still not identified. Investigations continued in 2017 to further trace sources of these COCs as well as copper and zinc, which were identified in WY2016 as potential COCs.

During the 2017 investigation, no specific sources of lead, phthalates, PAHs, copper, or zinc were identified. Instead, it appears that there are three locations where potentially contaminated groundwater is seeping from the hillside and discharging to the City's stormwater system. Construction activities planned in two of these areas in 2018 were expected to provide some level of appropriate control of the groundwater.

Through 2022, the City monitored the sites in this area with active construction to ensure proper BMPs were maintained. Upon project completion, it will be determined whether construction in this area will eliminate runoff from possible contaminated groundwater in this drainage basin. If it is determined that additional groundwater samples will be collected during any continued investigation in this area, the City will research and gain approval of a sampling protocol that will ensure representative samples and limit contamination from surrounding soils/sediment. This project is on hold until the new Thea Foss Waterway outfall is constructed. The construction for the new outfall and the re-routing of the stormwater system was completed in December 2022 and it is anticipated that construction for the Tacoma Town Center Jefferson Street Project will continue in 2023.

OF235 Copper Investigation

Copper was newly identified as a contaminant of concern within OF235 and to a lesser extent OF230 in WY2021 due to intermittent elevated concentrations in stormwater with other potential outliers beginning in WY2016. All of these outliers as well as those detected since that time have been detected in the spring and summer. Due to the seasonal and intermittent nature of the outlier copper concentrations showing up in stormwater samples, it was theorized that it is possible that excess copper is caused by a seasonal commercial cleaning or maintenance operation taking place in the drainage basin. Copper is used as a moss killer on roofs and sidewalks as well as being present in some herbicides.

The Downtown Tacoma Business Improvement Area (BIA) maintains large portions of the downtown area (i.e., pressure washing buildings, sidewalks, etc.). In August of 2022, EC staff contacted the BIA asking what, if any, products they use to assist with their cleaning activities. It was learned that the BIA does not use anything other than water (pressure washers) to perform their cleaning and maintenance activities. In addition, City staff identified buildings with copper exteriors as possible contributors. Tacoma's Union Station was identified as a possible source due to its large copper roof. On April 27, 2022, EC staff sampled five private catch basins around the property of Union Station, multiple of which had roof drain connections. The copper results ranged from 86 ppm to 4,360 ppm and all of the catch basins were heavily impacted with sediment. The stormwater leaving this site splits with approximately half going to OF230 and half going to OF235.

Based on these results, in June 2022, EC staff reached out to the property manager and requested that they clean their catch basins and connecting laterals. In November 2022, the property manager confirmed that they had procured funding for the cleaning and that it should take place in January 2023. The City will follow up with the property management company in February 2023 to ensure the system was cleaned and will follow up further with other concerns at this site, such as the application of moss killers and herbicides and confirmation as to the drainage locations of the facility's cooling towers.

In WY2023, EC staff will also continue to look for other potential sources of copper within this drainage basin if needed.

A copy of the OF235 Copper Investigation 2022 Source Tracing Report is included in Attachment A.3.

Former Heidelberg Brewery USTs

In January 2012, five USTs were located on the Former Heidelberg Brewery site located at 2120 South “C” Street. Four of the five were uncovered and removed in January 2012, and two areas were found to be contaminated with possible diesel and/or heavy oil. TPCHD worked with the property owner to remove the tanks and complete the remediation of the contamination. Final documentation of the site actions was presented to TPCHD. Based on this review it was determined that the soil remediation project appeared to have been successful in removing petroleum contaminated soil at the site, but PAH contaminated soil remained at the eastern property line and the extent of PAH contamination into the ROW was unknown.

The site was entered into Ecology’s Voluntary Cleanup Program (TPCHD maintains oversight during this interaction), and Ecology issued their determination dated January 28, 2013, reiterating that the site didn’t meet minimum cleanup standards, as the PAH and the groundwater condition of the site needed further investigation. In 2017, following additional cleanup work, the site received a ‘property specific’ No Further Action determination, acknowledging that, while contamination within the site’s property boundary was cleaned up, contamination remained outside the property within the “C” Street ROW

TPCHD had previously issued a notice to the site owner requiring further action. In addition, TPCHD attached a Certificate of Non-Compliance onto the property title in 2015, which will remain on the title until amended with a Notice of Compliance once cleanup is complete.

In 2018, the owners hired a new consultant and in 2021 renewed their Site Cleanup permit with TPCHD, which is required along with further work leading to a completed cleanup. The permit is currently in place, and as of the end of 2022, the site remains ‘open’. The site owner complied with one of the TPCHD’s requirements to maintain and annually renew their Site Cleanup permit. However, they failed to comply with the second requirement to continue with the cleanup action. A rather small amount of residual contamination remains towards and within the ROW. While the interior of the property has been cleaned up, the cleanup of the residual contamination will need to be completed before issuing satisfactory Site Closure letter.

UST and LUST Removal

TPCHD is overseeing the removal of USTs at one site in the drainage basin (see Attachment A.1):

- UST at Heidelberg Brewery at 2120 South “C” Street, the permit remains active.

Notice of Violation and Warning Letters

There were no Warning or Notice of Violation letters issued in this drainage basin in 2022.

A.4 OUTFALL 237A

A.4.1 OUTFALL 237A DRAINAGE BASIN

The OF237A drainage basin is approximately 2,823 acres and drains to the Thea Foss Waterway through the west 96-inch outfall located in the 2300 block of East Dock Street at the head of the waterway. As shown in Figure 1-3 of the WY2022 Report, the drainage basin generally extends in the south and west directions from the outfall. The general boundaries are South 19th Street to the north, South 40th Street to the south, Lawrence Street to the west, and Tacoma Avenue to the east.

The OF237A drainage basin contains residential, commercial, and industrial land uses. In addition, freeway ROW for I-5, SR 16, the entire I-5/SR 16 interchange, and a portion of the I-5/I-705 interchange are located within this drainage basin.

Baseflow in OF237A is continuous at approximately 4.4 cfs (see Appendix B, Table B2-2) and consists primarily of former creeks that were piped. Sources of baseflow are discussed in more detail in Appendix B.

During periods of increased precipitation, the Leach Creek Holding Basin located to the west of the drainage basin is pumped to the OF237A storm drainage system. The Leach Creek Holding Basin is located within the city limits of Fircrest (west of Tacoma) and has functioned as a stormwater facility since 1961, when a dike was constructed along the southern edge of the current site. Several storm pipelines feed the holding basin draining approximately 2,450 acres of residential, commercial, highways, and other high use developed properties in Tacoma and Fircrest. The primary outflow from the holding basin is a gated 42-inch outlet pipe which conveys stormwater to Leach Creek.

The pump station was constructed in 1991 and consists of four pumps, each with a capacity of 24 cfs and maximum combined capacity of 96 cfs. During more intense rain events, stormwater from the Leach Creek Holding Basin is pumped through a 42-inch pipe to the Nalley Valley trunk line and discharged into the Thea Foss Waterway through OF237A. The number of pumps operating depends on the intensity of a given storm event, with any number of the four pumps potentially operating at a given time. At low levels of precipitation, no pumps operate and the water discharges to Leach Creek. At increased levels of precipitation³, pumps sequentially engage up to a maximum of four pumps. The range of flow to the Nalley Valley system from the Leach Creek Holding Basin is from zero to 96 cfs. Emergency overflow from the holding basin is provided by a 40-foot-wide emergency spillway which discharges to Leach Creek.

In 2005, 60 feet of the OF237A outfall pipe was replaced by Burlington Northern Railroad as part of their rail track realignment project. Construction included extending the outfall, constructing a new manhole structure, and replacing pipe from the City's sanitary pump station yard (known as Dock Street) to the outfall. The new manhole was constructed downstream of the current stormwater sampling location and FD2 and FD2A. The 23rd Street lateral (FD2A) was rerouted to the new manhole structure in the 237A main trunk line. The new manhole is now used as the end-of-pipe stormwater sampling location and is designated as OF237A New. This sampling location represents discharge from the entire drainage basin.

³ According to the City's best estimation, this occurs when greater than ¾-inch of precipitation falls within a 24-hour period.

A.4.2 2002-2022 SOURCE CONTROL ACTIVITIES

Since 2002, significant work has been accomplished in the OF237A drainage basin, including intense business inspections, complete line cleaning in many sub-basins, and identification and removal of point sources. A discussion of specific major source control activities is provided in the following paragraphs.

As part of the City-wide inspection program, 73 business inspections were completed in the OF237A drainage basin in 2022. Business inspections provide source control through education and through implementation of nonstructural BMPs. These actions help prevent materials from coming into contact with stormwater and help promote activities that reduce pollutants in stormwater.

Stormwater treatment devices currently in place also remove solids and the associated particulate-bound chemicals from stormwater. The locations of private and public stormwater treatment devices in the OF237A drainage basin are shown on Figures A-1a and A-1b, respectively. In 2022, the following six new BMPs were installed on private properties in this drainage basin (see Table A.1-1).

- One Bayfilter was installed at a retail shopping center on South Tacoma Way.
- One bioretention facility was installed at a Gas Station on South 38th Street.
- One stormfilter and three infiltration devices were installed at a multi-family apartment complex on the 4000 block on South Puget Sound Avenue.

With future redevelopment in the OF237A drainage basin, more onsite treatment systems will be installed and over time these will help to decrease the solids load and the associated particulate-bound chemical load to the waterway.

South Tacoma Groundwater Protection District

Because the South Tacoma Groundwater Protection District falls within this basin, TPCHD also conducts construction and industrial/business inspections in this basin. As part of their inspection programs, stormwater treatment devices and other onsite BMPs are inspected for proper installation, maintenance, and operations. Improvements to stormwater quality discharging from these sites may be realized with proper maintenance and implementation of these BMPs. Per TPCHD, there were no significant corrective actions required during this reporting period.

Storm Line Cleaning

Between April 28 and August 8, 2008, targeted areas of the storm sewer system, including trunk lines, laterals, and catch basins, were cleaned and video inspected at a cost of \$374,000. Approximately 320 cubic yards of historical SSPM which had accumulated over 100 years was removed from 157,200 feet of lines and 754 catch basins using Tacoma's standardized cleaning practices (i.e., plugs downstream of vactor truck). The video inspections revealed a large void in the pipe at the intersection of South 26th Street and Jefferson Avenue. The City's Sewer Transmission Maintenance Division and Streets and Grounds Division repaired the storm pipe at this location.

The City's STRAP program is designed to visually inspect and rank the entire City storm conveyance system. The City maintains a map-based asset management database that helps

guide our CIP. Over time, video inspections have revealed eroded pipe segments, root intrusion, and poorly constructed tap-in connections. A number of relining or replacement projects have been added to the City's list of CIPs from the STRAP program.

Since the time of the cleaning project in the OF237A basin, additional cleaning and maintenance has been performed in the basin in isolated areas. These cleaning and video inspection activities have been done for a variety of reasons, including areas identified as needing maintenance through the STRAP program, complaints, business inspection follow ups, etc. A summary of pipe cleaning and maintenance projects completed in the OF237A drainage basin during 2022 is provided in Table A.4-1 of Attachment A.4.

Enhanced Street Sweeping

In January 2007, the City's street sweeping program was transferred from the Streets and Grounds Division to the Sewer Transmission Maintenance Division for continued implementation. The program was enhanced at that time in an attempt to reduce sediment buildup in the storm sewer system. The schedule was set to sweep all areas of the City twice per year, with more frequent sweeping in the business districts and on major arterials. The City also increased communications with residents and business owners, which helped raise awareness of the importance of the street sweeping program.

In 2007, when the work was transferred over, sweeping was done with a combination of mechanical and vacuum sweepers. In 2008, the City started the transition from mechanical sweepers to regenerative air machines. At this point in the program, the City used four regenerative air sweepers. In mid-2018, due to the end of usable life of one of the City's regenerative air sweepers and a staff retirement, Tacoma temporarily reduced its street sweeping program. This resulted in Tacoma reducing the frequency of arterial sweeping to quarterly and residential streets to annually. The City will be purchasing additional equipment and hiring staff to increase back to the higher sweeping frequency. The sweeper was purchased during 2021, however there were supply issues and the sweeper was not delivered until November 2022. The City is expected to begin operations with the new sweeper in February 2023. GPS is used to track the number of miles swept and the amount of material removed is recorded.

DA-1 Line/Coal Gas Site Cleanup

During construction of I-705, Washington State Department of Transportation (WSDOT) installed a French drain to pick up surfacing groundwater that was affecting their construction of a road near South 23rd Street and South "A" Street. In 1992, it was determined that this drain was picking up coal tar contaminated groundwater and conveying it to the storm drain system, and subsequently to the waterway. The DA-1 line was thus believed to be a source of PAHs discharging to OF237A in the FD2A branch. The line was immediately plugged, and the site was partially remediated in May 2003. As part of this remediation in February and March 2003, WSDOT removed and sealed the DA-1 line French drain system that crossed through the standard chemical site and its underlying coal tar deposits. In 2016, Ecology reconvened the group of Potentially Liable Parties to begin negotiation of the new agreed order for Remedial Action needed to complete work on the Coal Gasification Site, including this area. This new agreed order was executed in 2018 and work on the Remedial Investigation and Feasibility Study (RI/FS) is currently underway. PacifiCorp and Puget Sound Energy are working as the performing party in coordination with the City and WSDOT. Work with Ecology to gather additional sufficient information to complete the RI is ongoing. Upon completion, work on evaluation of cleanup alternatives can begin.

FD13 PAH Investigation / Media Filtration System Installation

In 2010, the City installed a media filtration system that treats stormwater from the FD13 sub-basin, which is approximately 50 acres in size. This CIP was funded by an Ecology Grant. When initially installed, this media filtration system appeared to remove almost all the SSPM from the stormwater as evidenced by the fact that a sample was not obtained from FD13 located downstream of the treatment device in WY2011. In WY2012, an SSPM sample from FD13 was obtained, and results for mercury, PCBs, PAHs, and phthalates were in the low range (see WY2021 Report, Figures 2-1.1 through 2-1.4). In WY2013, the sample was accidentally acidified in the laboratory prior to analysis, so no results are available for mercury, PCBs, PAHs, or phthalates. Since WY2014, PAHs and phthalates have been in the low range in FD13, and mercury and PCBs have not been analyzed. Based on these results, FD13 will be removed. The media filtration system is inspected annually to determine the optimum maintenance cycle for the system.

When the treatment system was installed, it caused the upstream sediment trap (FD13B) to become submerged. In August 2012, when the sediment traps were redeployed for WY2013, a new sediment trap was installed upstream of that location. This new location is designated FD13B-New. Results are presented in this report for both upstream traps FD13B and FD13B-New, as well as for downstream trap FD13. Sediment trap FD13B was removed in 2018 and was not redeployed, so only results through WY2018 are provided for that location.

At FD13B, mercury concentrations were in the low range between WY2006 and WY2018 and PCBs were in the low range throughout the monitoring period and are no longer analyzed. Phthalate concentrations at FD13B were in the low range throughout the monitoring period, with the exception of WY2013 when they were in the medium range. They returned to low levels in WY2014 and remained there through WY2018, when sampling at this location was discontinued. At FD13B-New, where samples are available, mercury and phthalate concentrations have been in the low range since monitoring began in WY2013. They are no longer analyzed at this location. PCBs are also not analyzed at this location.

PAH concentrations at FD13B were in the high range between WY2003 and WY2008, and then decreased to the medium range between WY2009 and WY2011. In WY2012, PAH concentrations decreased to the low range where they remained through WY2019. The submerged conditions in this trap need to be considered in analysis of this information since the samples do not represent the same conditions at other traps. PAH concentrations have fluctuated between medium and high-level concentrations at FD13B-New since the trap was installed in WY2013. The WY2018 PAH concentration at FD13B-New was in the medium range at 200,735 µg/kg , a decrease from the high range concentration of 316,529 µg/kg detected in WY2017. In WY2019 and WY2020, the concentrations increased slightly to 233,444 µg/kg and 282,110 µg/kg , respectively. Concentrations exhibited a downward trend in WY2021 and WY2022 to 159,994 µg/kg and 142,919 µg/kg , respectively.

There has been an ongoing investigation in this portion of the OF237A drainage basin since 2005 to identify possible sources of PAHs found during sediment monitoring. Several source control activities have taken place in the area as described further in this section and below. While great strides were made to identify sources of PAHs during previous investigations, sediment trap monitoring results indicated a continued source of PAHs discharging from this sub-basin located upstream of the filtration system. In response, City staff began a new investigation to evaluate potential sources of PAHs in the FD13B-New basin during 2015 and it continued through 2022.

The first phase of the 2015 investigation was to determine whether the ROW drainage area was a potential source of PAHs and to attempt to identify a specific area or private drainage system for additional source tracing efforts. Results from this phase showed an area with significantly higher PAH concentrations and subsequent sampling confirmed the presence of significant concentrations of PAHs throughout a parking lot on the Tacoma News Tribune (TNT) property

As a result of this finding, the City worked with the business owner and Ecology to develop a plan to address this contamination. In July 2016, it was confirmed that the cleanup plan had been implemented, and the City followed up with an outline for a plan for inspecting their private stormwater system quarterly. In October 2016, the municipal stormwater conveyance system from the TNT property to the FD13B–New sediment trap was cleaned. The sediment trap was then reinstalled on October 4, 2016, after the cleaning was completed.

WY2017 sediment trap results were reviewed to assess whether PAHs are continuing to persist in this area. PAH results at FD13B-New remained in the high range, indicating an ongoing source of PAHs in this area. On October 31, 2017, City staff resampled several ROW catch basins in the FD13B-New drainage area that exhibited relatively elevated concentrations for PAHs during the 2015 investigation. While two of the 2017 samples exhibited slightly higher concentrations than measured in 2015, another sample located immediately adjacent to the TNT property exhibited a concentration more than double the concentration of the 2015 sample.

Based on these continuing elevated results, City staff conducted a business inspection at the TNT property and resampled several private catch basins that had exhibited elevated PAH concentrations during the 2015 investigation. Results from this sampling event indicate a continuing source of PAHs discharging from the TNT property. During the investigation, it was noted that several of the catch basins are not sealed properly, and dirt is likely entering the catch basin from this pathway. Property owners sealed the catch basins and conducted cleaning of the targeted stormwater collection system.

On December 14, 2017, City staff installed two short-term sediment traps in the FD13B-New drainage basin to isolate flow discharging from the south/west and flow discharging from the north. Sediment trap A was installed to capture flow discharging from the south and the west while sediment trap B was installed to capture flow discharging from the north. These sediment samples were collected in January 2018. The purpose of the short-term sediment traps was to determine if there were other areas in the drainage basin discharging PAHs.

Results indicated some decreased but continued elevated concentrations on the TNT property. The City met with their representatives in early 2018 to discuss next steps. Additional maintenance of their onsite system was performed, and the property owner has committed to additional efforts as needed to control any ongoing issues. In addition, the City cleaned the stormwater system downstream from the TNT to remove historical pollutants, and the City will continue to monitor PAH concentrations in ROW catch basins downstream from the property when sufficient sediment has accumulated to determine whether source control strategies have been successful.

The City performed business inspections and an additional deployment of three short-term sediment traps in the FD13B-New drainage basins to collect discharges from two discrete rainy seasons, winter and fall 2018, to determine whether other areas of concern were present. Results indicate the probability of additional sources in this area.

Investigations of the private storm systems upstream of two of the short-term traps continued in 2021 in attempt to identify other potential sources. EC staff continued to evaluate the drainage area and discovered that an additional property has stormwater drainage to this system. The CHI Franciscan Education and Support Center complex (2420 South State Street) has several catch basins on their property that have not been included in past investigations. On June 7, 2021, EC staff sampled all the catch basins located on the CHI Franciscan property in addition to resampling the three catch basins at General Mechanical, Inc. (2316 South State Street), that were not accessible during the previous investigation. Elevated concentrations of PAHs were found in the catch basins at the southernmost parking lot on the CHI Franciscan Education and Support Center complex property and the City required the property owner to clean the entire storm system at this site. This cleaning was completed on September 22, 2021. A quick inspection on November 19, 2021, showed that the sediment level in these catch basins was insufficient for resampling.

During 2022, staff were able to resample the catch basins located at the CHI Franciscan properties to ensure that the contamination has been effectively removed. The catch basin sediment concentrations from this sampling event remained in the higher range for PAHs, ranging from 709,230–5,424,490 µg/kg . EC staff sent CHI Franciscan a 30-day letter to submit a written plan of action and timeline to effectively eliminate the discharge of PAHs from its facility to the City's stormwater system. CHI Franciscan hired AEG consulting for the issue. Based on recommendations from the consultant and previous historical parking lot investigations it was determined that the failing asphalt in the parking lot was likely the source of PAH contamination. CHI is working to resurface the parking lot and projecting the work will be completed by spring of 2023. In spring 2023, EC staff will follow up with CHI Franciscan's property manager Tahni Madden. After completion of this work, EC staff will request that the private catch basins be cleaned again to ensure removal of contaminants. Once enough sediment has reaccumulated, EC staff will collect catch basin samples in the CHI Franciscan parking lot to ensure that the contaminants are no longer discharging to the storm system.

The City will continue to monitor the sediment trap results to determine if there are any additional sources of PAHs in this drainage area.

A copy of the OF237A 2022 Source Tracing Status Update – FD13B Polyaromatic Hydrocarbons (PAH) Investigation report is included in Attachment A.4.

FD10C Source Investigation

The FD10C sediment trap drainage area was initially tracked for several years as a potential phthalate concern. The annual sediment trap monitoring results showed moderately elevated phthalate levels since monitoring of this trap began in 2003. In addition, this trap had intermittent moderate to high level PCB concentrations, since 2013 and moderately elevated mercury concentrations in 2015 and 2016. Starting in 2011, phthalate concentrations began decreasing, coinciding with a large business closing in this area.

Due to these historic phthalate concentrations as well as the PCB detections, the stormwater system was cleaned in January 2014 to remove residual contamination. Following cleaning of the system, FD10C continued to show moderately elevated PCBs and mercury concentrations. As a result of these detections, an investigation was initiated in 2016 that included sampling of catch basins in the drainage area as well as performance of business inspections. Through this work, the area for additional investigation was narrowed down to a smaller area.

Two additional business inspections were conducted in 2017 to further explore the potential for ongoing source contributions. In addition, sediment samples were collected from private catch basins discharging to the City's stormwater collection system. This phase of the source tracing investigation was intended to identify possible sources of PCB and mercury contamination as well as PAHs and phthalates, which were included based on the annual sediment trap monitoring results.

Although a specific source of the contamination was not identified through this investigation, some private stormwater systems and City catch basins upstream from the sediment trap were cleaned with a plan to resample in 2018 to determine if there was a historical component to the contamination.

During 2018, one additional business inspection was conducted, and sediment samples were collected and analyzed from one private catch basin and one City catch basin. The analytical results indicated detectable concentrations for PAHs and phthalates and minor concentrations for PCBs and mercury. Sediment was cleaned from all the City's collection pipes in 2018 to remove historical sediment from the lines.

In 2019 the City continued efforts to get permission from the private property owner at 3033 South Lawrence Street to collect sediment from their private stormwater oil water separator. Since these efforts were not successful, short-term sediment traps were redeployed to try to get a sample of material leaving the site. These results showed moderately high levels of PAHs and low levels of phthalates and PCBs. The City wrote a letter on February 28, 2020, to the owner of 3035 South Lawrence Street requesting that they clean their oil water separator, and a follow up inspection on July 6, 2020, confirmed that it had been cleaned.

In 2021, a short-term sediment trap was installed at the connection point of the 3035 South Lawrence Street private system and oil water separator. The purpose was to determine if the source of contaminants entering the municipal system had been removed after the cleaning of the oil water separator at this location. Those results show small concentrations of PAHs, but no PCBs were detected. Additionally, four private catch basins were sampled along Lawrence Street that had previously shown low concentrations of PCBs. These catch basins continue to exhibit relatively low concentrations of PCBs compared to annual sediment trap concentrations, and it is unlikely that this property is the source of the contamination.

Since the sediment trap results in this basin continued to exhibit medium-level PCB concentrations, there was determined to be a possibility of unknown discharges to the storm system. During 2022, staff reviewed the private systems in this basin and confirmed that they are accurately represented on the City's mapping system. Additionally, short-term sediment traps were installed at two new locations along South Lawrence Street upstream from FD-10C in attempt to identify the source of PCBs in the larger drainage area. These locations isolated several private drainage systems that discharge to South Lawrence Street. The short-term trap towards the north end of South Lawrence Street exhibited a concentration of 65 mg/kg while the downstream sediment trap exhibited a concentration of 230 mg/kg, which more closely aligns with our historic data for the FD10C sediment trap. The municipal storm system where the sediment traps were installed was heavily impacted by sediment, making it difficult to determine if the contamination is ongoing or historic. There were several construction projects on South Lawrence Street completed in 2022, so it is possible that the sediment impacting the storm main could be from those activities. The City cleaned the entire storm system in this drainage basin, and the sediment traps were requested to be re-installed in December 2022.

Once the short-term sediment traps have been collected and analyzed (anticipated in early 2023) and if concentrations warrant it, City staff will sample private systems and building materials of businesses whose private system connect to the locations with the highest PCB concentrations. Additionally, we will continue to monitor the sediment trap in the municipal storm system on South Lawrence Street to determine if there is an ongoing issue that needs addressed. Overall, PCB concentrations continue to decrease in the FD10C drainage area.

A copy of the OF237A Source Tracing Status Update – FD10C Source Tracing Investigation Report is included in Attachment A.4.

2013 Stormwater Pipe Retrofit Project

From July 18 through November 15, 2013, 5,126 linear feet of existing storm sewer main, 31 segments, was structurally rehabilitated in asset management area FS07. The segments that were rehabilitated in OF237A ranged in size from eight inches to 18 inches in diameter. Defects (cracks, holes, etc.) in the aging system could allow groundwater and soil (potentially contaminated from historic “hot spots”) to enter the system and ultimately discharge to the Thea Foss Waterway. Rehabilitation of the existing main segments was accomplished by means of CIPP construction technologies. Resin impregnated liners were inserted into the main segments through existing manholes and the liner was then pressurized, causing it to expand and form to the inside of the existing main segment. A source of heat was then applied which caused the resins to catalyze. The result was a new pipe within the existing pipe that has similar strength and durability characteristics of PVC pipe. It is anticipated that these projects will also result in improvements in water and SSPM quality.

When properly installed, the CIPP liner results in continuous stormwater pipe segments with no joints (except for manhole connections), that are free of leaks associated with structural defects. The resulting reduction in inflow and infiltration may reduce the contaminant load to waters of the state if contaminated groundwater is present. Final project costs are approximately \$1,048,158, which includes all work completed in asset management areas FS05, FS06, and FS07.

Prior to installation of the CIPP liner, the main line was thoroughly cleaned to remove all debris and to verify if the segment could be retrofitted using the CIPP construction technology. In FS07, 34 segments, 5,666 linear feet of pipe, were cleaned and video inspected between July 11 and October 28, 2013. During cleaning, the main line was plugged, and the cleaning water and material was removed from the main using a vactor truck. The cleaning water and entrained sediment was pumped into a sediment removal system to separate the solids from the water. After filtration the water was discharged into the sanitary sewer. Approximately ten tons of material was removed from the main segments cleaned in asset management areas FS05, FS06, and FS07.

Key Bank LUST Removal

Following identification of a LUST, the owner of this site completed a voluntary cleanup under Ecology oversight in 2007. A return fuel line from a back-up generator had ruptured and leaked diesel into surrounding soils and eventually seeped into a catch basin that drains to FD13B.

UST and LUST Removal

TPCHD is currently overseeing the removal of USTs at several sites in the drainage basin (see Attachment A.1) including:

- USTs at the Foremost Building site located at 2413 Pacific Avenue South. Permits for a total of ten USTs were renewed in July 2022. These permits are currently active.
- USTs at the Nalley's Fine Foods/Bird's Eye Site located at 3303 South 35th Street. Contaminated soil and groundwater are present at this site and monitoring wells are in place. A removal action was taken in 1990. The permit was renewed in August 2022 and remains active.
- UST at Halladay Auto Repair (Former Chevron Service Station) located at 601 South 38th Street. Contaminated groundwater is present and monitoring wells are in place. The permit was renewed in September 2022 and remains active.
- UST at the Ray F. Snider Company (Tacoma CFN) located at 3224 South Tacoma Way. Contaminated soils and contaminated groundwater are present at the site, and monitoring wells are in place. The permit application was renewed in September 2022 and remains active.
- USTs at Superior Linen Service located at 1012 Center Street. Contaminated soils and contaminated groundwater are present at the site, along with seven tanks, and monitoring wells are in place. The permit was renewed in May 2022 and remains active.
- UST at 56th and Park LLC located at 5602 South Park Avenue. Contaminated soils are present at the site. The permit was renewed in May 2022 and remains active.
- UST permit for Roger Smith located at 2718 Pacific Avenue. Four tanks are present, and the permit was renewed in October 2021. The permit is expired and there is no active cleanup at this site.
- UST at Bradken Inc. at 3000 South Alaska Street. A removal action was taken in 1993. The permit was renewed in March 2022 and remains active.
- USTs at the Tacoma Housing Authority located at 602 South Wright Avenue. The permit was renewed in September 2021. The permit is expired and there is no active cleanup at this site.
- UST at the Shell 405 station located at 2631 South 38th Street. The permit was renewed in May 2022 and remains open and awaiting cleanup. Cleanup actions require remediation of soil and groundwater contamination, and monitoring wells are in place. Groundwater in particular is significantly contaminated. The site is higher risk, given its location within the South Tacoma Groundwater Protection District.
- UST at Brooks and Jessberger located at 1201 South Union Avenue. Contaminated soils and contaminated groundwater are present at the site, and monitoring wells are in place. A removal action was taken in 1991. The permit was renewed in July 2022 and remains active. USTs at a rental commercial property at 2340 South Holgate Street. The permit was issued in January 2022 and two USTs were removed. There was no soil or groundwater contamination, and the permit was closed in February 2022.

Notice of Violation and Warning Letters

No Warning or Notice of Violation letters issued in this drainage basin in 2022.

This page is intentionally left blank

A.5 OUTFALL 237B

A.5.1 OUTFALL 237B DRAINAGE BASIN

The OF237B drainage basin encompasses 1,991 acres of south and east Tacoma. This area drains to the Thea Foss Waterway through a 96-inch outfall pipe located on East Dock Street at the head of the waterway. The general basin boundaries are East 23rd Street and East Dock Street to the north, East 84th Street to the south, South Fawcett Avenue to the west, and McKinley Avenue to the east. Most of the storm drainage is channeled to the main trunk line, which flows south to north along East “D” Street.

Primary land use in this drainage basin is residential with some commercial and a very small industrial area (see WY2022 Report, Figure 1-3). Commercial areas are mostly linear and spread out in strips along Pacific Avenue and McKinley Avenue with some areas around I-5 to the Thea Foss Waterway. Freeway ROW makes up a small percentage of this basin, and includes a portion of the I-5, I-705, SR 7 interchange, and SR 7. This ROW area may increase slightly with the expansions and HOV lanes on I-5. Streets, parks, and open or undeveloped property account for the remaining land use in the basin.

Baseflow from OF237B is continuous at approximately 8.3 cfs (see Appendix B, Table B2-2) and originates primarily from former creeks that were piped. Sources of baseflow are discussed in more detail in Appendix B.

As part of the BNSF Railway (BNSF) railroad realignment project, OF237B was reconstructed between July and September 2005. This work included installation of a new manhole structure downstream of the whole-water and SSPM (FD1) sampling location and included extension of the outfall pipe through installation of 60 feet of new concrete pipe. The SSPM and the whole-water monitoring station remained at the same location since that location captures contributions from the entire basin.

A.5.2 2002-2022 SOURCE CONTROL ACTIVITIES

Since 2002, significant work has been accomplished in the OF237B drainage basin, including intense business inspections, targeted line cleaning, and identification and removal of point sources. A discussion of specific major source control activities is provided in the following paragraphs.

As part of the City-wide inspection program, twenty-six inspections were completed in the OF237B drainage basin in 2022. Business inspections provide source control through education and through implementation of nonstructural BMPs. These actions help prevent materials from coming into contact with stormwater and help promote activities that reduce pollutants in stormwater.

Stormwater treatment devices currently in place also remove solids and the associated particulate-bound chemicals from stormwater. The locations of private and public onsite stormwater treatment devices in the OF237B drainage basin are shown on Figures A-1a and A-1b, respectively. In 2022, there were eleven new infiltration BMPs and one dispersion BMP installed on private properties in this drainage basin (see Table A.1-1). With future redevelopment in the OF237B drainage basin, more of these onsite treatment systems will be installed and over time they will help to decrease the solids load and the associated particulate-bound chemical load to the waterway.

FD31 PAH Investigation

HPAHs were found in baseflow in WY2004 (see WY2012 Report, Figures G-19a and G-39a). As shown in Figure 2-1.2 of the WY2022 Report, FD31 PAH concentrations in SSPM in WY2003 were considered to be in the medium range (yellow). In 2004-2005, source control inspectors performed a source tracing investigation and identified two sources of PAHs in the FD31 branch of the OF237B drainage: an existing 1950s UST for heating fuels at Tacoma Public Schools Willard Early Learning Center; and a neighborhood fueling station which had recently closed. The City cleaned and video inspected the FD31 branch as part of the PAH source tracing investigation. Source control inspectors worked with the school district's maintenance staff to implement proper BMPs for the site.

Because of these efforts, PAH concentrations decreased in FD31 to the low range of concentrations in WY2005 (see WY2022 Report, Figure 2-1.2). However, PAH concentrations at FD31 increased back to medium range starting in WY2008 and to the high range in WY2010. As a result of the known presence of USTs, these sites were referred to TPCHD for follow up.

In December 2011, the UST at Tacoma Public Schools Willard Early Learning Center was removed in accordance with a TPCHD permit. TPCHD considered the work completed and closed on October 22, 2012. In response to the elevated PAH concentrations at the former fueling station at 3402 Pacific Avenue (EZ Food Mart), TPCHD initiated a Phase I/II assessment in 2011. TPCHD determined that the site had improperly abandoned USTs which needed to be removed. They began working with the property owner to remove these USTs, but the work was delayed for two years until cleanup was finally completed in 2014. The Site Closure determination was issued by TPCHD on August 6, 2014.

Because sediment trap concentrations were in the medium range at this location in WY2013, and due to the lack of progress in removing the USTs at the EZ Food Mart site, the City initiated additional source tracing efforts for PAHs in this sub-basin in 2014 to identify any other sources of PAHs present in this area. The approach for this investigation was to sample individual catch basins in the targeted drainage area in an attempt to identify any specific catch basins with elevated levels of PAHs. During the initial investigation, it was discovered that the stormwater collection system in this area was cleaned in February 2014. Because of this, insufficient sediment was present for sampling until September 2014. Five catch basins were sampled at that time, and none showed detectable levels of PAHs.

PAH concentrations in FD31 were in the medium range in WY2014 but decreased to low levels in WY2015, where they have remained through WY2019. With the cleaning of the drainage system and the removal of the USTs at the EZ Food Mart site, it appears that the elevated PAH levels found in the stormwater system were the result of these historic sources at the Willard Early Learning Center and EZ Food Mart, and that control of these sources has eliminated this source. While in the low range, the WY2018 concentration at FD31 of 159,791 µg/kg represented an increase from the WY2017 concentration of 66,262 µg/kg. Concentrations have continued to fluctuate at this sampling location with a decrease in PAH concentration to 50,323 µg/kg in WY2019 and a slight increase in concentration to 91,139 µg/kg in WY2020. Despite the fluctuations, concentrations have remained comparatively low, indicating that source control work was effective. Therefore, the FD31 sediment trap was removed in WY2020.

PCB Source Tracing in FD34 and FD35

Since 2005, PCBs were found intermittently at high range concentrations in the south-central portion of the OF237B drainage basin at FD34 and FD35 (see WY2022 Report, Figure 2-1.4).

Through the years, numerous source control activities were undertaken in attempt to identify the source of this ongoing intermittent issue. In the summer of 2011, source control inspectors initiated an investigation to isolate possible source(s) of PCBs in the area. Sediment and soil samples were also collected from a catch basin and from the ground adjacent to a transformer on the property of the former Globe Ticket Facility. PCBs were not detected in any of these samples.

In an attempt to remove any legacy contamination, the City completed a stormline cleaning project in the summer of 2011 that covered the majority of the OF237B drainage basin, including the FD35 area. In WY2011, concentrations in both sediment traps dropped to below levels of concern. However, in WY2012 and WY2013, the PCB concentrations in FD35 increased back to high levels, while the concentrations in FD34 remained low. In WY2014, concentrations at FD35 decreased to medium levels, but increased back to the high range in WY2015, while remaining in the low range in FD34.

Another source tracing investigation to try to narrow the source of PCBs in this area was initiated in late 2012. Initial results narrowed the source to one leg of the drainage system leading to FD35. The results from the Phase 1 investigation were included in the WY2012 Report. Substantial additional work was performed in 2013 to further isolate the source of the contamination in this leg of the drainage system. Ultimately it was determined that the source of the contamination was a material used during construction of the roadway in the area in 1975, specifically the sealant used to seal the roadway at the curbline that likely contained PCBs. The final report on this investigation was included in the WY2013 report.

On May 22, 2013, the City sent formal letters of notification to Ecology outlining the discovery of the PCBs in the City's stormwater conveyance system. In 2015, the City completed the first phase of roadway repair to eliminate this source of PCBs and completed the second and final phase in fall 2016. FD34 remained in the low range in WY2019, and that sediment trap was removed. FD35 decreased from the medium range in WY2017 to the low range in WY2018, where it remained in WY2019. FD35 was in place in the pipe during the time that the remediation project was being completed. Therefore, the WY2018 sample was the first representing a full year of the area in its remediated condition. WY2019 PCB concentrations in FD35 remained in the low range (94 µg/kg), however WY2020 concentrations increased back to the medium range (250 µg/kg). FD35 remained in place during WY2021 and WY2022, and no PCBs were detected. Since concentrations have remained low and the WY2020 results were considered inaccurate⁴, the source control action is considered successful and the sediment trap at this location will be removed.

Storm System Cleaning

At a cost of \$274,200, the majority of the municipal storm drainage basin for OF237B was cleaned and video inspected by the City's Transmission Maintenance crews between November 7, 2010, and February 24, 2011. Fifty to 100 years of accumulated historical stormwater particulate matter was present in the trunk lines and laterals. During the cleaning

⁴ During WY2020 SSPM results showed consistently higher levels of PCBs wherever they were detected. Because these higher concentrations were dispersed across several locations and drainage basins, it did not appear to be caused by a specific event or source. While a cause for these elevated concentrations was not identified during the investigation, based on the lower expected results exhibited during WY2021 it was determined that WY2020 results were not accurate.

project, 175 cubic yards were removed from 144,199 feet of lines and laterals and 1,072 catch basins. The cleaning was performed using Tacoma's standardized cleaning practices (i.e., plugs downstream of vactor truck).

The 2011 video inspection also revealed eroded pipe segments and other pipes drilled through the storm lines in some areas. These issues will be addressed as part of future CIPs. Since the time of the complete cleaning of the OF237B basin, additional cleaning has been performed in the basin in isolated areas. These cleaning and video inspection activities have been done for a variety of reasons, including areas identified as needing maintenance through the STRAP program, complaints, and business inspection follow ups.

A summary of pipe cleaning and maintenance projects completed in the OF237B drainage basin during 2022 is provided in Table A.5-1 in Attachment A.5.

Enhanced Street Sweeping

In January 2007, the City's street sweeping program was transferred from the Streets and Grounds Division to the Sewer Transmission Maintenance Division for continued implementation. The program was enhanced at that time in an attempt to reduce sediment buildup in the storm sewer system. The schedule was set to sweep all areas of the City twice per year, with more frequent sweeping in the business districts and on major arterials. The City also increased communications with residents and business owners, which helped raise awareness of the importance of the street sweeping program.

In 2007, when the work was transferred over, sweeping was done with a combination of mechanical and vacuum sweepers. In 2008, the City started the transition from mechanical sweepers to regenerative air machines. At this point in the program, the City used four regenerative air sweepers. In mid-2018, due to the end of usable life of one of the City's regenerative air sweepers and a staff retirement, Tacoma temporarily reduced its street sweeping program. This resulted in Tacoma reducing the frequency of arterial sweeping to quarterly and residential streets to annually. The City will be purchasing additional equipment and staff to increase back to the higher sweeping frequency. The sweeper was purchased during 2021, however there were supply issues and the sweeper was not delivered until November 2022. The City is expected to begin operations with the new sweeper in February 2023. GPS is used to track the number of miles swept and the amount of material removed is recorded.

UST and LUST Removal

TPCHD is currently overseeing the removal of USTs at the following property in this drainage basin (see Attachment A.1):

- UST at Erickson Autobody Repair/Hi Tech Erickson LLC located at 4006 Pacific Avenue. The permit was renewed in November 2022 and remains active at this time.

Notice of Violation and Warning Letters

One Warning letter was issued to the following party in this drainage basin in 2022:

- A warning letter was issued on September 29, 2022, to Brent Wood and Clinton Langer at 4306 Pacific Avenue requiring repair of a failed sanitary side sewer at the property. The

business owner was required to complete the required action to immediately cease discharge of the side sewer and to repair the pipe within 18 days of receiving the letter.

A copy of this letter is included in Attachment A.5.

This page is intentionally left blank

A.6 OUTFALL 243

A.6.1 OUTFALL 243 DRAINAGE BASIN

The OF243 drainage basin is 59 acres and discharges to the east side of the waterway at East 21st Street through a 42-inch outfall (see WY2022 Report, Figure 1-3). The storm drainage is carried in two main laterals, one south to north on East “D” Street from East 26th Street to East 21st Street and the second east to west on East 21st Street. The majority of runoff in this basin is from BNSF property and the portion of SR 509 between Portland Avenue and the Thea Foss Waterway. Land uses in the basin are primarily industrial, with some commercial at the west side of the basin and some highway with SR 509.

The outfall has a tide valve which was originally installed in 1999 then reinstalled in 2001 when the outfall pipe was extended. In 2008, “D” Street was raised over the BNSF main line increasing the drainage area by half an acre. The stormwater runoff from the new half acre is treated through a VortFilter unit which then discharges to OF243 through a new 15-inch pipe.

Baseflow from OF243 is continuous at approximately 0.4 cfs(see Appendix B, Table B2-2) and originates primarily from tidal backflushing. Sources of baseflow are discussed in more detail in Appendix B.

A.6.2 2002-2022 SOURCE CONTROL ACTIVITIES

Since 2002, significant work has been accomplished in the OF243 drainage basin, including removal of significant sources. A discussion of specific major source control activities is provided in the following paragraphs.

As part of the City-wide inspection program, three business inspections were completed in the OF243 drainage basin in 2022. Business inspections provide source control through education and through implementation of nonstructural BMPs. These actions help prevent materials from coming into contact with stormwater and help promote activities that reduce pollutants in stormwater.

Stormwater treatment devices currently in place also remove solids and the associated particulate-bound chemicals from stormwater. The locations of private and public stormwater treatment devices in the OF243 drainage basin are shown on Figures A-1a and A-1b, respectively. No new public or private treatment BMPs were installed in this drainage basin in 2022. With future redevelopment in the OF243 drainage basin, more onsite treatment systems will be installed and over time they will help to decrease the solids load and the associated particulate-bound chemical load to the waterway.

A summary of pipe cleaning and maintenance projects completed in the OF243 drainage basin during 2022 is provided in Table A.6-1 of Attachment A.6.

Redevelopment of the Area

In 2002 and 2003, Pick’s Cove Marina (now Foss Landing Marina) and American Plating were remediated. These sites were sources of mercury and Di (2-Ethylhexyl) phthalate (DEHP) (Pick’s Cove) and metals (American Plating). In addition, the “D” Street Grade separation/bridge was completed in 2008 and stormwater from the new impervious surfaces (0.49 acres) were routed through a treatment system.

SR 509 WSDOT Pond Black Oil/Tar Releases

Historically, black oil/tar emanating from the old Northern Pacific Rail yard oil pipeline was found in the SR 509 WSDOT stormwater treatment pond located within this drainage basin. In 2002, the pond was rebuilt to remediate the black oil/tar. In 2009, the pond was again remediated as directed by Ecology when the entire length of the Northern Pacific Rail yard oil pipeline along East “D” Street and East 19th Street was cleaned up.

Outfall 243 Mercury Source Tracing

Mercury has been found in the medium to high range of concentrations in all samples analyzed from FD23 since WY2002 (see WY2021 Report, Figure 2-1.1). Results have been in the medium range since WY2007, and the WY2018 concentration was 0.661 mg/kg, which was the highest concentration detected at this location since WY2006. The WY2019 concentration decreased to 0.2830 mg/kg.

Based on these results, a source control investigation was initiated in 2008. Stormwater sediment samples were collected at several locations in the basin and analyzed for Foss parameters. On May 28, 2009, four sediment samples were collected from portions of the system that represent independent and comingled branches of the storm sewer system. Mercury concentrations found in these samples (0.129-0.54 mg/kg) are comparatively similar to the mid-range of concentrations (yellow in color) as represented in Figure 2-1.1 with no likely point-source of mercury for any one of the branches.

Over the next ten years, the investigation continued, with a focus on the BNSF property and the WSDOT pond. Sources were not identified, but significant work was done on the BNSF and Land Recovery, Inc. (LRI) properties to clean and map their drainage systems. Detectable mercury was found but levels did not suggest a significant source.

In 2018, the City continued investigations in this drainage basin and conducted additional business inspections at BNSF, LRI, and Berg, the three main businesses discharging to the FD23 sediment trap. During the inspections, no signs of mercury contamination were discovered.

In 2019, while reviewing past investigations and the extent of the drainage basin it was discovered that a small portion of this drainage basin was not included in previous investigations. The City sampled various catch basins in May 2019 throughout the previously un-sampled segment. The majority of the sampling results exhibited minimal concentrations of mercury with the exception of one catch basin with an elevated mercury concentration. Based on these results, a follow up investigation took place in June 2019. Samples were collected from the gutter-lines discharging to the contaminated catch basin as well as the curb drains coming from the building. These sample results for mercury ranged from 1 mg/kg to 12.8 mg/kg, the highest of which came from the roof drain coming from 414 Puyallup Avenue. This roof drain was blocked with debris which allowed sediment buildup. The catch basin, curb-line, and roof drain were cleaned in October 2019.

The City resampled the catch basin that contained the elevated mercury concentration to determine whether this source has been successfully removed or if there is an ongoing mercury issue in this area. The catch basin sediment continued to exhibit elevated concentrations of mercury. During 2021, the City worked with the property owner to ensure the roof drains were adequately cleaned, and subsequently re-cleaned the catch basin and the curbline on October 8, 2021.

During 2022 staff resampled the identified catch basin to determine if there is an ongoing mercury issue at that location. The catch basin was sampled on June 21, 2022, and the results were 1.38 mg/kg. Catch basin concentrations continue to trend downward and there are no other probable sources to investigate at this location. During 2023, EC staff will request to have the catch basin re-cleaned and sampled after sediment accumulates to determine if there is a continued source or residual contamination from the previously remediated source.

While the FD23 sediment trap results showed a very slight uptick in mercury concentrations within the basin over the past year, concentrations have shown an overall decrease from 2018 to 2022. The 2018 sediment trap concentrations were 0.6610 mg/kg, which have decreased significantly in 2021 and 2022 with concentrations of 0.206 mg/kg and 0.214 mg/kg, respectively.

A copy of the OF243 Source Tracing Status Update – FD23 Mercury Investigation is included in Attachment A.6.

Enhanced Street Sweeping

In January 2007, the City's street sweeping program was transferred from the Streets and Grounds Division to the Sewer Transmission Maintenance Division for continued implementation. The program was enhanced at that time in an attempt to reduce sediment buildup in the storm sewer system. The schedule was set to sweep all areas of the City twice per year, with more frequent sweeping in the business districts and on major arterials. The City also increased communications with residents and business owners, which helped raise awareness of the importance of the street sweeping program.

In 2007, when the work was transferred over, sweeping was done with a combination of mechanical and vacuum sweepers. In 2008, the City started the transition from mechanical sweepers to regenerative air machines. At this point in the program, the City used four regenerative air sweepers. In mid-2018, due to the end of usable life of one of the City's regenerative air sweepers and a staff retirement, Tacoma temporarily reduced its street sweeping program. This resulted in Tacoma reducing the frequency of arterial sweeping to quarterly and residential streets to annually. The City will be purchasing additional equipment and staff to increase back to the higher sweeping frequency. The sweeper was purchased during 2021, however there were supply issues and the sweeper was not delivered until November 2022. The City is expected to begin operations with the new sweeper in February 2023. GPS is used to track the number of miles swept and the amount of material removed is recorded.

Street Sweeping Pilot Project

OF243 and OF245 have shown somewhat elevated levels of lead and zinc in both stormwater and baseflow relative to other drains. It is theorized that this may be due to the increased amount of trucking in this industrial area. Based on these results, the City initiated a pilot program in WY2014 to determine whether an increased frequency of street sweeping in this area would have an effect on these results. Starting on October 1, 2013, the City began sweeping the ROW within the OF243 and OF245 drainage basins at a frequency of once every two weeks rather than the usual frequency of once per month for industrial areas.

The pilot project continued in WY2022. With several years of data available, statistical analysis of the effectiveness of this enhanced sweeping schedule was done for the first time in WY2017

and is included again in this report. Results will be more statistically robust as additional data becomes available. Results of this analysis are presented in Section 5 of the WY2022 Stormwater Monitoring Report.

UST and LUST Removal

TPCHD is currently overseeing the removal a UST at the following location in this drainage basin (see Attachment A.1):

- UST at Industrial Tire Service located at 423 Puyallup Avenue. There are two active permits at this location due to contaminated soil. Permits were renewed in July 2022.

Notice of Violation and Warning Letters

There were no Warning or Notice of Violation letters issued in this drainage basin in 2022.

A.7 OUTFALL 245

A.7.1 OUTFALL 245 DRAINAGE BASIN

The OF245 drainage basin is located in the Tideflats of Tacoma on the southern portion of the east side of the waterway. Basin boundaries are shown on Figure 1-3 in the WY2022 Report. The outfall is located at East 19th Street, just south of Johnny's Dock Restaurant. The drainage area is approximately 39 acres in size and the main trunkline of the storm drainage system extends east from the Thea Foss Waterway, down East 19th Street to East "I" Street.

Because of the low basin elevation, the entire storm system is influenced by saltwater at high tide. Baseflow from OF245 is continuous at approximately 0.1 cfs (see Appendix B, Table B2-2) and originates primarily from tidal backflushing. Sources of baseflow are discussed in more detail in Appendix B.

Land use in this basin is primarily industrial with the restaurant providing a small commercial area at the west side of the basin. Most facilities in the drainage basin are engaged in storage, transloading and warehousing of materials and products, and manufacturing.

Directly upstream of the outfall is a deep bottom sump manhole known as MH390 (see Appendix B, Figure B2-4). MH390 is 60 inches (inside diameter) and approximately 18 feet in depth, with the inlet pipe and outlet pipe at 55.5 inches above the bottom. A plastic tide gate (swing valve) is located on the inlet pipe. The tide gate does not securely seal, and some tidal water does get into the upper reaches of the system. In fall 2004, the last 24 feet of pipe from MH390 to the waterway was replaced with HPDE. Drainage from MH390 was improved with the new slope of the outfall pipe, which replaced the old line that had a sag in it.

In August 2004, Tacoma replaced a 300-foot segment of the stormwater line and associated laterals in East 19th Street. This action sealed this segment from groundwater, sediment, and product migration from the surrounding contaminated soil that remained in place after an interim action remediation project was completed in this area.

Several of the businesses in the area not only discharge stormwater to OF245, but also discharge stormwater to adjacent outfalls, OF248 and OF249. Source control activities for all these basins are discussed in the following subsections.

A.7.2 2002-2022 SOURCE CONTROL ACTIVITIES

Since 2002, significant work has been accomplished in the OF245 drainage basin, including removal of significant sources. A discussion of major source control activities associated with these areas is provided in the following paragraphs.

As part of the City-wide inspection program, two business inspections were completed in the OF245/OF248 drainage basin in 2022. Business inspections provide source control through education and through implementation of non-structural BMPs. These actions help prevent materials from coming into contact with stormwater and help promote activities that reduce pollutants in stormwater.

Stormwater treatment devices currently in place also remove solids and the associated particulate-bound chemicals from stormwater. The locations of private and public stormwater treatment devices in Basins 245/248/249 are shown on Figures A-1a and A-1b, respectively. No new public or private treatment BMPs were installed in this drainage basin in 2022. With future

redevelopment in the OF245 drainage basin, more of these onsite treatment systems will be installed and over time they will help to decrease the solids load and the associated particulate-bound chemical load to the waterway.

A summary of pipe cleaning and maintenance projects completed in the OF245/248 drainage basins during 2022 is provided in Table A.7-1 of Attachment A.7.

MH390/Outfall 245 Black Oil/Tar Releases

At the beginning of the monitoring program, black oil and tar-blobs were observed seeping into the storm drains through joints and cracks. Before the extent of the contamination was understood, Tacoma completed three maintenance projects (two line replacements and one relining) to alleviate this issue. After these projects were complete, seeps continued to leak into the storm drain system. Further investigations found contamination along the entire length of the old Northern Pacific Rail yard oil pipeline area along East “D” Street and East 19th Street. Ecology ordered remediation of the pipeline in 2008 and 2009. During this period, five UST/LUSTs were also removed or filled.

After completion of all these activities, oil-absorbent snares placed in the storm lines remained clean. Use of the oil snares in this basin was discontinued in 2010.

Former MPS Site Investigation

OF245 (as evidenced by sediments in MH390) exhibited a notably different phthalate composition in the stormwater sediments in comparison to other outfalls and has relatively higher concentrations of butylbenzylphthalate. This difference is much less pronounced when looking at only the last five years of data. Early in the monitoring program, butylbenzylphthalate concentrations in OF245 were among the highest of any reported phthalates (see Tables 3-3.1 and 3-3.2 and boxplots in Appendix F of the WY2022 Report), although levels are much reduced at this time. WY2012 through WY2019 SSPM results for FD21 and WY2012 through WY2022 results for MH390 showed that phthalates were in the low range, while for FD22 they were in the medium range in WY2013 but returned to the low range in WY2014 and have remained there since that time. FD21 was removed after WY2019.

This site has operated under the name of MPS, Quality Transport, Inc., and currently as Truck-Rail Handling, Inc. In 1997 and in 2000, Quality Transport, Inc., the owner at the time, cleaned a majority of their system with no effect on the sediment trap phthalate concentrations downstream of their facility. Average total phthalate concentrations show a peak in WY2003 with a decline in stormwater and baseflow chemistry in WY2004 and WY2005 (see WY2022 Report, Figure 5-1.6). Baseflow concentrations appeared to remain generally stable between WY2005 and WY2011⁵, while stormwater concentrations decreased or remained stable until WY2014, with slight intermittent increases in subsequent years.

Because of the intermittent medium to high SSPM concentrations at FD22 until WY2013, this site was referred to Ecology and TPCHD for follow up while the City continued to monitor the site for wastewater discharges. The site was re-mapped in 2012 as a result of that work. Through that mapping and inspection effort, the presence of a dry well was identified onsite.

⁵ Baseflow monitoring was discontinued in WY2011 since baseflow was well characterized.

Additional follow up from all involved agencies is needed to fully assess the operations and site conditions at this property. Joint inspections at the property have occurred, and follow up actions were required. While some work was completed in 2015, there were delays in fully addressing the environmental concerns due to issues with 'in-lieu of' assessment fees.

In 2016, City EC staff revisited the site, now operating as Truck-Rail Handling, Inc., along with the City's wastewater pretreatment permit manager, to conduct an additional in-depth inspection and collect additional samples. Several issues with both the wastewater and stormwater systems on the site were identified. While many of these issues were successfully resolved during 2016, the City continues to work with the property owner to develop and implement a long-term maintenance plan for the facility, site BMPs, and an accurate map of the private stormwater and wastewater systems to prevent future discharges of contaminants from the site. With decreased phthalate levels in the sediment traps, it appears that efforts to date have been effective in addressing the issues at this site. The City will continue coordination with the property owner, and sediment traps will continue to be monitored for now to ensure that levels remain at the reduced levels.

Petroleum Spills in Basins 245, 248, and 249

One of the trucking warehouses in the basin, SuperValu, was fined for repeated petroleum spills to the waterway in 2007 through OF245, OF248, and OF249. As a result, they are under an order from Ecology to implement BMPs. In 2010, SuperValu installed three oil water separators and have implemented spill response BMPs as required by Ecology. Another oil water separator was installed in 2011. In 2013, SuperValu installed a StormFilter treatment system on their property. These actions should reduce contributions of Total petroleum hydrocarbons (TPH) and other petroleum-related chemicals from this facility.

As a result of several inspections performed at the site in recent years, SuperValu reached a settlement with the EPA under which it was issued a penalty in 2015 of \$120,000 in part for violations at two sites discharging to the Thea Foss Waterway through OF248 and OF249. The enforcement action was based on SuperValu's failure to comply with the conditions of their NPDES Permit.

Anhydrous Ammonia Spill in Basin 245

On June 7, 2017, there was a spill of anhydrous ammonia at the SuperValu site in this drainage basin. The release resulted from a leak from a valve and piping of a system used to keep a food warehouse refrigerated. When the leak was discovered by the business owner, the leak was isolated by closing valves upstream and downstream of the leak site. The leaking ammonia valve was connected, via a hose, outside the facility to allow the charged pipe to purge the leaking ammonia. Purging the ammonia was necessary to allow repair to the leaking valve. The ammonia purge hose was connected to a mixing valve which was also connected to a water source. The ammonia and water were then mixed and allowed to flow over an asphalt parking lot to an onsite storm drain. The storm drain is connected to an oil water separator and then to a sand filter designed to remove oil and zinc. After the water and ammonia mixture flowed through the sand filter, the solution was discharged directly to the City of Tacoma storm sewer which leads to MH390 and OF245. The volume of discharged ammonia and/or ammonia/water solution was estimated at 24 gallons, but the amount entering the waterway is unknown. The system was pumped to remove solids and liquids from the drainage system.

Enhanced Street Sweeping

In January 2007, the City's street sweeping program was transferred from the Streets and Grounds Division to the Sewer Transmission Maintenance Division for continued implementation. The program was enhanced at that time in an attempt to reduce sediment buildup in the storm sewer system. The schedule was set to sweep all areas of the City twice per year, with more frequent sweeping in the business districts and on major arterials. The City also increased communications with residents and business owners, which helped raise awareness of the importance of the street sweeping program.

In 2007, when the work was transferred over, sweeping was done with a combination of mechanical and vacuum sweepers. In 2008, the City started the transition from mechanical sweepers to regenerative air machines. At this point in the program, the City used four regenerative air sweepers. In mid-2018, due to the end of usable life of one of the City's regenerative air sweepers and a staff retirement, Tacoma temporarily reduced its street sweeping program. This resulted in Tacoma reducing the frequency of arterial sweeping to quarterly and residential streets to annually. The City will be purchasing additional equipment and staff to increase back to the higher sweeping frequency. The sweeper was purchased during 2021, however there were supply issues and the sweeper was not delivered until November 2022. The City is expected to begin operations with the new sweeper in February 2023. GPS is used to track the number of miles swept and the amount of material removed is recorded.

Street Sweeping Pilot Project

OF243 and OF245 have shown somewhat elevated levels of lead and zinc in both stormwater and baseflow relative to other drains. It is theorized that this may be due to the increased amount of trucking in this industrial area. Based on these results, the City initiated a pilot program in WY2014 to determine whether an increased frequency of street sweeping in this area would have an effect on these results. Starting on October 1, 2013, the City began sweeping the ROW within the OF243 and OF245 drainage basins at a frequency of once every two weeks rather than the usual frequency of once per month for industrial areas.

The pilot project continued in WY2022. With several years of data available, statistical analysis of the effectiveness of this enhanced sweeping schedule was done for the first time in WY2017 and is included again in this report. Results will be more statistically robust as additional data becomes available. Results of this analysis are presented in Section 5 of the WY2022 Stormwater Monitoring Report.

UST and LUST Removal

There were no active UST or LUST permits in this drainage basin during 2022 (see Attachment A.1):

Notice of Violation and Warning Letters

There were no Warning or Notice of Violation letters issued in this drainage basin in 2022.

A.8 OUTFALL 254

A.8.1 OUTFALL 254 DRAINAGE BASIN

The OF254 drainage basin is located on the Tideflats and is the fifth largest basin in the Foss Waterway Watershed (see WY2022 Report, Figure 1-3). It is approximately 119 acres and drains through a 42-inch outfall pipe located at the head of the Wheeler-Osgood Waterway on East “F” Street just north of East 15th Street. The drainage area includes East 15th Street from East “D” Street to St. Paul Avenue, East “J” Street from East 15th Street to the 1600 block, and St. Paul Avenue from East 11th Street to Portland Avenue.

The majority of the OF254 drainage basin is zoned for industrial use, but small commercial areas are present near the shoreline.

Because of the low basin elevation, the entire storm system is influenced by saltwater at high tide. Baseflow from OF254 is continuous at approximately 0.4 cfs (see Appendix B, Table B2-2) and originates primarily from tidal backflushing. Sources of baseflow are discussed in more detail in Appendix B.

Several of the businesses in the area not only discharge stormwater to OF254 but also discharge stormwater to adjacent northern outfalls, OF207, OF214, and OF218 (See Figure 2-2 in WY2022 Report). Source control activities for all these basins are discussed in the following subsections.

A.8.2 2002-2022 SOURCE CONTROL ACTIVITIES

Since 2002, significant work has been accomplished in the OF254 drainage basin, including intense business inspections, complete line cleaning, and identification and removal of point sources. A discussion of specific major source control activities is provided in the following paragraphs.

As part of the City-wide inspection program, six business inspections were completed in the OF254 drainage basin in 2022. In addition, one business inspection was completed in the OF207 drainage basin, two inspections were completed in the OF214 drainage area, and twelve inspections were completed in the OF218 drainage area. Business inspections provide source control through education and through implementation of nonstructural BMPs. These actions help prevent materials from coming into contact with stormwater and help promote activities that reduce pollutants in stormwater.

Stormwater treatment devices currently in place also remove solids and the associated particulate-bound chemical from stormwater. The locations of private and public stormwater treatment devices in the OF254 drainage basin are shown on Figures A-1a and A-1b, respectively. No new public or private treatment BMPs were installed in this drainage basin in 2022. With future redevelopment in the basin, more onsite treatment systems will be installed and over time they will help to decrease the solids load and the associated particulate chemical load to the waterway.

A summary of pipe cleaning and maintenance projects completed in the OF254 drainage basin during 2022 is provided in Table A.8-1 of Attachment A.8.

Storm System Cleaning

Between January and June 2006, the entire storm sewer system in the OF254 drainage basin was cleaned, including laterals and catch basins. Sweeping and installation of onsite treatment systems are expected to reduce the solids load and associated PAHs load to the waterway.

Since the time of the complete cleaning of the OF254 basin, additional cleaning has been performed in the basin in isolated areas. These cleaning and video inspection activities have been done for a variety of reasons, including areas identified as needing maintenance through the STRAP program, complaints, and business inspection follow ups.

Northern Pacific Rail Yard Oil Pipeline and Standard Oil Site Cleanup

A possible source of PAHs in the OF254 drainage basin may have been associated with the Northern Pacific Rail yard oil pipeline area along East “D” Street to the old Standard Oil site. In 2009, the Northern Pacific Rail yard oil pipeline area along East D Street and East 19th Street was remediated as directed by Ecology. In 2010, the final phase of this cleanup within the OF254 drainage basin was completed. Ecology provided oversight of this remediation project.

Northwest Detention Center DEHP Investigation

The Northwest Detention Center (NWDC, formerly known as INS), a private immigration-related prison, was constructed at the former Hygrade Meat site. Previous sediment results collected from the City’s storm system showed that NWDC was a point source of DEHP. In WY2006 through WY2008, DEHP was found in the inlet pipe to the stormwater pond at concentrations up to 790,000 µg/kg.

In 2009, NWDC was remodeled, and media filtration stormwater treatment devices were installed. In 2010, Tacoma confirmed that the DEHP-laden sediments were retained in the stormwater treatment devices. DEHP was less than 1,500 µg/kg immediately downstream in the City system. However, DEHP-laden sediment remained at levels up to 2.7M µg/kg in one part of the private drainage. Further sampling and source tracing identified one source of the DEHP to be laundry lint that accumulated on the open ground and eventually washed into the private storm drain system. Filters were placed in the catch basins, and EC required the property owner to provide regular maintenance of these devices. In 2012, inspectors returned to the facility for the annual inspection and found the filters to be impacted. The City submitted a corrective action letter and subsequently confirmed compliance during a follow up inspection. During facility inspections in 2013, it was found that the filters continued to be impacted but the stormfilter system appeared to be effective in keeping the material on site. It was also determined that the lint collection system had not been properly installed. This system has now been repaired. Inspections performed at the site in 2015 indicated that the filters were continuing to be properly maintained and no concerns were noted. Annual inspections will continue, however, at this time it appears that NWDC has a good maintenance plan and is following their operation and maintenance (O&M) requirements.

Outfall 254 Source Tracing

In response to the somewhat elevated levels of Total Suspended Solids (TSS) and zinc in stormwater in this area, the City conducted a concentrated source control effort in the OF254 drainage basin. This is a highly industrial area and many of the businesses here do not have paved yards with private collection systems, which leads to high amounts of track out onto the public ROW in the OF254 drainage basin.

In 2019, the City did an initial visual assessment of the drainage basin, noting which businesses had unpaved driveways and storage yards, as well as which businesses appeared to have the possibility of contributing contaminants to the municipal stormwater system. Inspections were completed in 2020 at identified businesses, and all passed with no issues noted. This area will continue to be evaluated over time to determine whether increased street sweeping leads to a reduction in TSS and zinc in the stormwater.

In January 2020, the City increased street sweeping in a portion of this basin to help limit the amount of sediment entering the municipal stormwater system. During 2022, the City continued with enhanced street sweeping in this basin.

Baseflow Quality in WY2007 and WY2008

In two different years for several different chemicals, baseflow quality was above average. In WY2008 (Year 7), TSS and DEHP were detected at higher concentrations in the dry weather events, well above all the other years (see boxplots in Appendix G in the WY2012 Report). In WY2007 (Year 6), lead was detected at higher concentrations in the dry weather events, well above all the other years (see boxplots in Appendix G in the WY2012 Report). The dry weather DEHP and lead concentrations for those years were at the same levels as the average stormwater concentrations for OF254. In contrast, these TSS baseflow concentrations were well below TSS stormwater concentrations. The source of the dry weather concentrations is unknown. These concentrations were not repeated in the following baseflow monitoring years, WY2009 through WY2011.

Enhanced Street Sweeping

In January 2007, the City's street sweeping program was transferred from the Streets and Grounds Division to the Sewer Transmission Maintenance Division for continued implementation. The program was enhanced at that time in an attempt to reduce sediment buildup in the storm sewer system. The schedule was set to sweep all areas of the City twice per year, with more frequent sweeping in the business districts and on major arterials. The City also increased communications with residents and business owners, which helped raise awareness of the importance of the street sweeping program.

In 2007, when the work was transferred over, sweeping was done with a combination of mechanical and vacuum sweepers. In 2008, the City started the transition from mechanical sweepers to regenerative air machines. At this point in the program, the City used four regenerative air sweepers. In mid-2018, due to the end of usable life of one of the City's regenerative air sweepers and a staff retirement, Tacoma temporarily reduced its street sweeping program. This resulted in Tacoma reducing the frequency of arterial sweeping to quarterly and residential streets to annually. The City will be purchasing additional equipment and staff to increase back to the higher sweeping frequency. The sweeper was purchased during 2021, however there were supply issues and the sweeper was not delivered until November 2022. The City is expected to begin operations with the new sweeper in February 2023. GPS is used to track the number of miles swept and the amount of material removed is recorded.

Street Sweeping Pilot Project

OF243 and OF245 have shown somewhat elevated levels of lead and zinc in both stormwater and baseflow relative to other drains. It is theorized that this may be due to the increased amount of trucking in this industrial area. Based on these results, the City initiated a pilot program in WY2014 to determine whether an increased frequency of street sweeping in this area would have

an effect on these results. Starting on October 1, 2013, the City began sweeping the ROW within the OF243 and OF245 drainage basins at a frequency of once every two weeks rather than the usual frequency of once per month for industrial areas. The pilot project continued in WY2021. With several years of data available, statistical analysis of the effectiveness of this enhanced sweeping schedule was done for the first time in WY2017 and is included again in this report. Results will be more statistically robust as additional data becomes available. Results of this analysis are presented in Section 5 of the WY2021 Stormwater Monitoring Report. As discussed above, the pilot project was expanded into a portion of OF254 in January 2019. In 2021, staff began sweeping the entire basin at the increased frequency and this enhanced maintenance schedule was continued through 2022.

UST and LUST Removal

TPCHD is currently overseeing the removal of one UST in the drainage basin (see Attachment A.1):

- UST at Rainier Plywood located at 624 15th Street East. Contaminated soils and contaminated groundwater are present at the site and monitoring wells are in place. The permit was renewed in October 2022 and remains active at this time.

Notice of Violation and Warning Letters

There was a Notice of Violation issued in the OF218 drainage basin in 2022 to Portland at St. Paul, LLC located at 510 East 3rd Street on October 13, 2022. There was a prohibited discharge of silt and sediment-laden stormwater to the municipal stormwater system located at 303 East “D” Street on and between January 11, 2021, and July 6, 2022.

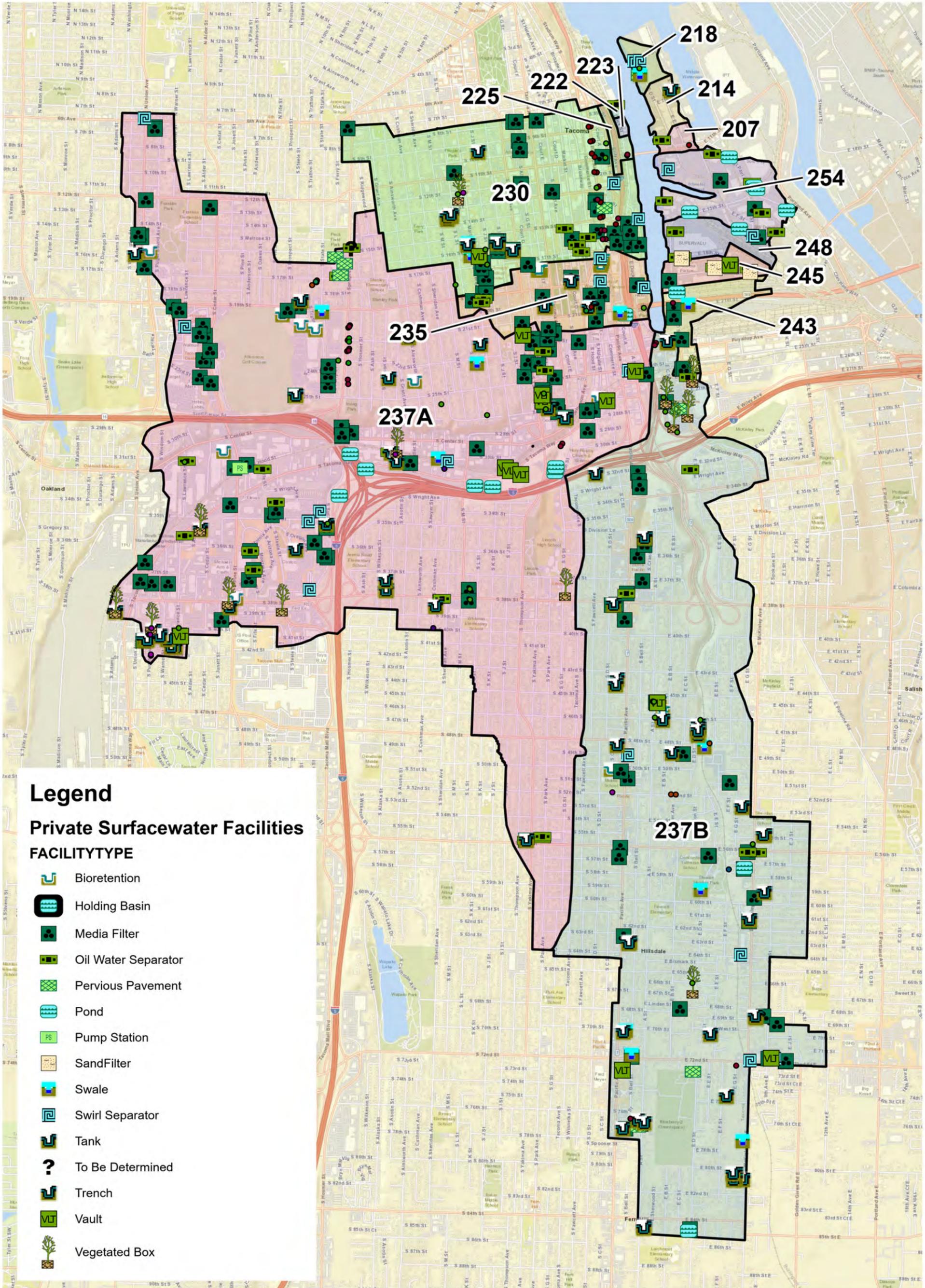
ATTACHMENT A.1 - CITYWIDE

Table A.1-1

Thea Foss Waterway New Treatment Device Information by Outfall

Outfall Location	Subbasin	Date	Approved Permits	Land Use	Address	Treatment Device	Owned By
237A	FS_02	1/1/2022		OTHER RETAIL TRADE	3505 SOUTH TACOMA WY	BayFilter	Private
237A	FS_02	7/1/2022	SDEV19-0169	GAS STATION MINI MART	2631 S 38TH ST	Bioretention	Private
237A	FS_02	9/1/2022	40000233256	MULTI FAM APTS 5 UNITS OR MORE	4020 S PUGET SOUND AVE	StormFilter	Private
237A	FS_02	9/1/2022	40000233256	MULTI FAM APTS 5 UNITS OR MORE	4020 S PUGET SOUND AVE	Infiltration	Private
237A	FS_02	9/1/2022	40000233256	MULTI FAM APTS 5 UNITS OR MORE	4020 S PUGET SOUND AVE	Infiltration	Private
237A	FS_02	9/1/2022	40000233256	MULTI FAM APTS 5 UNITS OR MORE	4020 S PUGET SOUND AVE	Infiltration	Private
230	FS_05	7/1/2022	SDEV19-0212	VOC TRADE SCHOOLS	1101 YAKIMA AVE	Media Filter	Private
230	FS_05	7/1/2022	SDEV19-0212	VOC TRADE SCHOOLS	1201 YAKIMA AVE	Media Filter	Private
235	FS_06	12/1/2022	SDEV21-0114	AUTO PARKING	1950 S C ST	StormFilter	Private
237B	FS_11	3/1/2022	SDEV21-0158	SINGLE FAMILY DWELLING	4628 E D ST	Infiltration	Private
237B	FS_11	4/1/2022	SDEV21-0407	SINGLE FAMILY DWELLING	4620 E D ST	Infiltration	Private
237B	FS_11	4/1/2022	SDEV21-0406	SINGLE FAMILY DWELLING	4616 E D ST	Infiltration	Private
237B	FS_11	5/1/2022	SDEV21-0414	SINGLE FAMILY DWELLING	4610 E D ST	Infiltration	Private
237B	FS_11	6/1/2022	SDEV21-0519	SINGLE FAMILY DWELLING	XXX MCKINLEY AVE	Infiltration	Private
237B	FS_11	7/1/2022	SDEV22-0026	SINGLE FAMILY DWELLING	8018 MCKINLEY AVE	Infiltration	Private
237B	FS_11	7/1/2022	SDEV22-0026	SINGLE FAMILY DWELLING	8018 MCKINLEY AVE	Infiltration	Private
237B	FS_11	7/1/2022	SDEV21-0520	SINGLE FAMILY DWELLING	XXX E 80TH ST	Infiltration	Private
237B	FS_11	7/1/2022	SDEV21-0521	SINGLE FAMILY DWELLING	XXX E 80TH ST	Dispersion	Private
237B	FS_11	10/1/2022	SDEV21-0157	SINGLE FAMILY DWELLING	4632 E D ST	Infiltration	Private
237B	FS_11	10/1/2022	SDEV21-0159	SINGLE FAMILY DWELLING	4624 E D ST	Infiltration	Private
237B	FS_11	12/1/2022	SDEV21-0452	SINGLE FAMILY DWELLING	709 E 53RD ST	Infiltration	Private

Figure A-1a
Private Treatment Facilities in the Thea Foss Watershed



Legend

Private Surfacewater Facilities
FACILITYTYPE

-  Bioretention
-  Holding Basin
-  Media Filter
-  Oil Water Separator
-  Pervious Pavement
-  Pond
-  Pump Station
-  Sand Filter
-  Swale
-  Swirl Separator
-  Tank
-  To Be Determined
-  Trench
-  Vault
-  Vegetated Box



0 1,000 2,000 4,000
 Feet

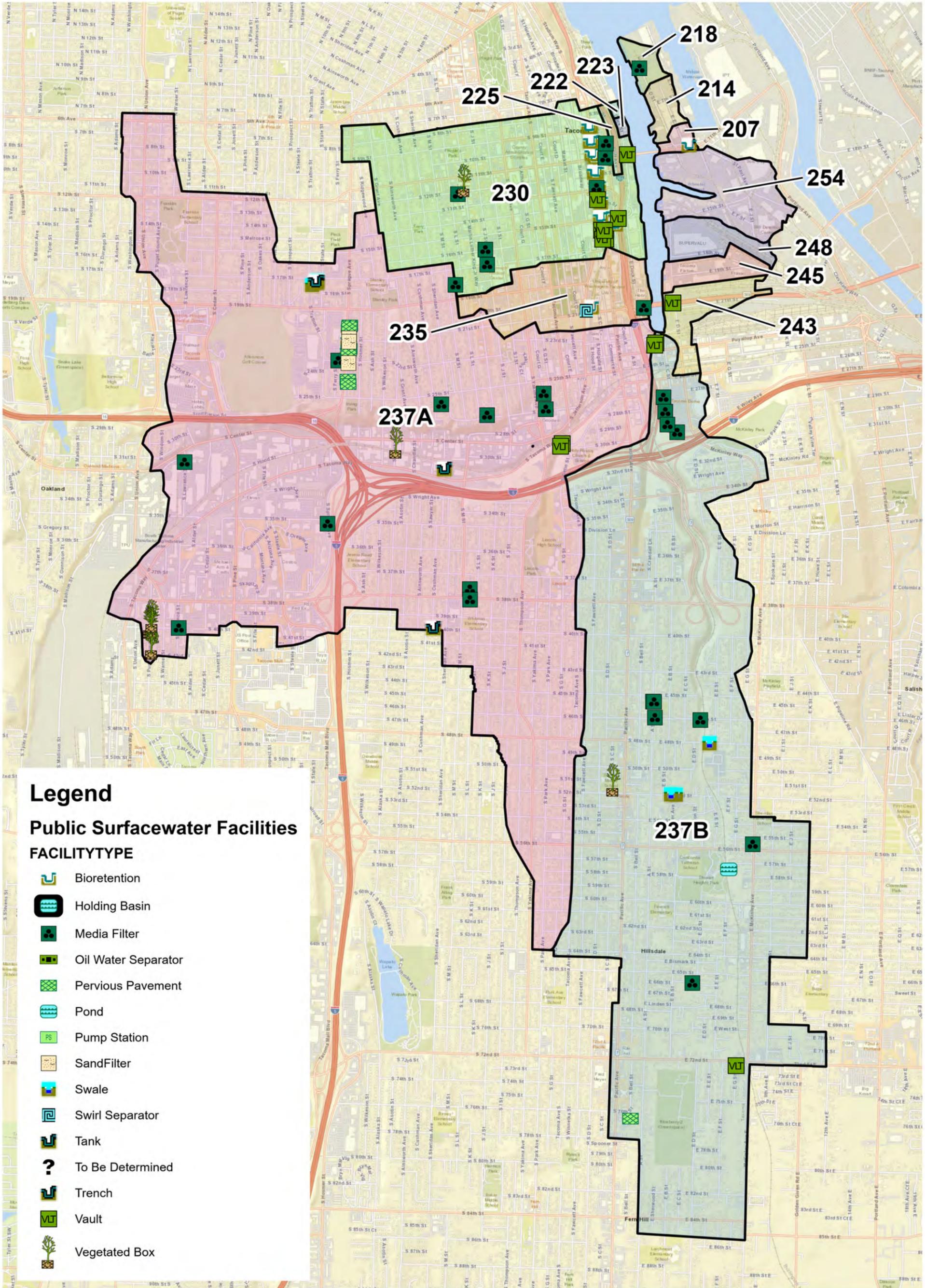


Map Date: 1/6/2023
 Source: Science and Engineering Division
 Environmental Services Department
 City of Tacoma
 326 East D Street, Tacoma WA 98421
 (253) 591-5588



C:\Users\pvanpell\OneDrive - City of Tacoma\Documents\ArcGIS\Projects\MyProject27\MyProject27.aprx

**Figure A-1b
Public Treatment Facilities in the Thea Foss Watershed**



Legend

**Public Surfacewater Facilities
FACILITYTYPE**

-  Bioretention
-  Holding Basin
-  Media Filter
-  Oil Water Separator
-  Pervious Pavement
-  Pond
-  Pump Station
-  Sand Filter
-  Swale
-  Swirl Separator
-  Tank
-  To Be Determined
-  Trench
-  Vault
-  Vegetated Box



0 1,000 2,000 4,000 Feet



Map Date: 1/6/2023
 Source: Science and Engineering Division
 Environmental Services Department
 City of Tacoma
 326 East D Street, Tacoma WA 98421
 (253) 591-5588



C:\Users\pvanpell\OneDrive - City of Tacoma\Documents\ArcGIS\Projects\MyProject27\MyProject27.aprx



Memorandum

To: Laura Nokes
From: Kali Legg
Date: January 2023
Re: Foss Business Inspections and Spills/Complaints from 2022

Mary.

Here are the summary tables for the 2021 Business Inspections and Spills/Complaints that took place in the Thea Foss drainage basin.

	Business inspections	Spills/Complaints
Foss Drainage Basin	154	233
Citywide	479	851

2022 Foss business inspections	
Outfall	# of inspections
237A	73
237B	26
207	1
214	2
218	12
222	0
223	0
225	0
230	20
235	9
243	3
245	2
248	0
254	6
Total	154

2021 Thea Foss Business Inspections

Outfall	Inspection Date	Company Name	Address1
237A	8/29/2022	APEX APARTMENTS	2424 S 41ST ST
237A	6/15/2022	BRADKEN FOUNDRY-40000162466	3001 S ALASKA ST
237A	6/3/2022	BRADKEN FOUNDRY-40000162466	3001 S ALASKA ST
237A	10/3/2022	BRADKEN FOUNDRY-40000162466	3001 S ALASKA ST
237A	3/24/2022	TACO BELL-GGI	2945 S 38TH ST
237A	5/13/2022	TACO BELL-GGI	2945 S 38TH ST
237A	2/7/2022	TACOMA SCHOOLS FRANKLIN ELEMENTARY SCHOOL	1402 S LAWRENCE ST
237A	7/18/2022	OUTBACK STEAKHOUSE-GGI	3111 S 38TH ST
237A	9/19/2022	OUTBACK STEAKHOUSE-GGI	3111 S 38TH ST
237A	7/5/2022	SPRINT SWITCH CENTER FACILITY	2210 S 35TH ST
237A	2/22/2022	STAR RENTALS	2302 SOUTH TACOMA WAY
237A	3/24/2022	FIAT OF TACOMA	3740 SOUTH TACOMA WAY
237A	7/13/2022	TITUS WILL COLLISION CENTER	2302 S 35TH ST
237A	2/8/2022	TACOMA SCHOOLS LINCOLN HIGH SCHOOL	701 S 37TH ST
237A	2/24/2022	SPLASH-N-DASH CAR WASH	851 S 38TH ST
237A	3/21/2022	SPLASH-N-DASH CAR WASH	851 S 38TH ST
237A	4/8/2022	PIERCE COUNTY FLEET SERVICES	2406 PACIFIC AVE
237A	8/2/2022	JOHNSTONE SUPPLY	2134 TACOMA AVE S
237A	4/5/2022	HOBBY LOBBY	3130 S 23RD ST
237A	2/18/2022	7-11 CONVENIENCE STORE #32308	1901 S TRAFTON ST
237A	8/31/2022	BROWN & HALEY	110 E 26TH ST
237A	6/3/2022	ATLAS GP INC	3021 S WILKESON ST
237A	1/18/2022	23RD STREET TOWNHOMES (METRO CITY HOA) - 701	701 S 23RD ST
237A	4/18/2022	ALLENMORE MEDICAL PLAZA	2202 S CEDAR ST
237A	1/18/2022	23RD STREET TOWNHOMES (METRO CITY HOA) - 2140	2140 S G ST
237A	8/15/2022	POWDER COATING SYSTEMS	3133 S LAWRENCE ST
237A	11/23/2022	POWDER COATING SYSTEMS	3133 S LAWRENCE ST
237A	8/18/2022	FIRE WORKS FORGE, LLC	1720 S 23RD ST
237A	8/31/2022	COT FIRE STATION #9	3502 6TH AVE
237A	1/26/2022	PERFORMANCE RADIATOR	2705 SOUTH TACOMA WAY
237A	7/25/2022	A & E AUTOMOTIVE REPAIR & PARTS	3201 SOUTH TACOMA WAY
237A	7/18/2022	CAR WASH ENTERPRISES, INC.- 1661	3002 S 38TH ST
237A	1/27/2022	BILL'S TOWING, INC.	1651 CENTER ST
237A	5/26/2022	BILL'S TOWING, INC.	1651 CENTER ST
237A	7/5/2022	CENTER ST AUTO REPAIR INC	3007 S PINE ST

January 27, 2022

237A	8/23/2022	GOOD BODY SHOP	763 S 56TH ST
237A	3/24/2022	AUTOBAHN SPECIALIST	2520 SOUTH TACOMA WAY
237A	7/5/2022	PREMIUM MOTORS-STW	2403 SOUTH TACOMA WAY
237A	7/18/2022	TACO TIME-38TH ST	2908 S 38TH ST
237A	5/23/2022	GRIT CITY FIRE PROTECTION	1108 CENTER ST
237A	3/9/2022	TOMLINSON LINEN SERVICE	2902 S 12TH ST
237A	8/31/2022	TOMLINSON LINEN SERVICE	2902 S 12TH ST
237A	8/10/2022	PACIFIC WELDING SUPPLIES, INC.	2902 S M ST
237A	7/19/2022	MICHAEL'S PLAZA-0781	2921 S 38TH ST
237A	7/21/2022	SOLAR GEM GREENHOUSES	1904 STEWART ST
237A	9/30/2022	PACIFIC KITCHENS	2729 S HOSMER ST
237A	4/7/2022	ALLENMORE MEDICAL CENTER, BUILDING C	3124 S 19TH ST
237A	1/18/2022	LIFE CENTER SCHOOL	1717 S UNION AVE
237A	7/13/2022	LINCOLN PLAZA-0592	3702 S FIFE ST
237A	7/13/2022	PASSCO LINCOLN PLAZA S LLC ET AL	2505 S 38TH ST
237A	7/13/2022	TACOS GUAYMAS	2630 S 38TH ST
237A	1/18/2022	LIFE CENTER ASSISTED LIVING	1601 S UNION AVE
237A	8/4/2022	US SHEET METAL INC	1325 SOUTH TACOMA WAY
237A	3/30/2022	SUPERIOR LINEN SERVICE	1012 CENTER ST
237A	7/13/2022	ARBY'S	2612 S 38TH ST
237A	7/18/2022	KENTUCKY FRIED CHICKEN / KFC	3101 S 38TH ST
237A	8/15/2022	AFFORDABLE DENTAL CARE	3402 S 18TH ST
237A	3/22/2022	CEDAR DENTAL CARE	1901 S CEDAR ST
237A	8/15/2022	DAVID E HANSEN ESTHETIC AND FAMILY DENTISTRY	3515 S 15TH ST
237A	5/26/2022	P.S. CANNABIS	1565 CENTER ST
237A	8/18/2022	FIBRO CORP	3101 SOUTH TACOMA WAY
237A	8/24/2022	TFNC COMMUNITY DINNER	3640 S M ST
237A	7/13/2022	BEV MO!	2330 S 37TH ST
237A	4/8/2022	BIG M STAINED GLASS	711 S 25TH ST
237A	5/27/2022	TRAN N DANG DMD	3815 S M ST
237A	6/3/2022	BRADKEN	3025 S ALASKA ST
237A	3/30/2022	NORTHWEST PAINT CORRECTION AND DETAIL	2302 A ST
237A	3/10/2022	Whites Motorcycle Services	2733 S ASH ST
237A	3/22/2022	Enterprise	3505 SOUTH TACOMA WAY
237A	3/28/2022	ROE THE T SHIRT GURU	2118 S HOSMER ST
237A	3/31/2022	FRUIT BAT BAKING	3707 S L ST
237A	3/24/2022	Ramin Auto Sales	3517 S CEDAR ST
237A	7/11/2022	BOWLBY FURNITURE STUDIO	521 S 48TH ST
237B	7/12/2022	COT FIRE STATION #15 (NEW)	6415 MCKINLEY AVE

January 27, 2022

237B	3/10/2022	COT LEMAY AMERICA'S CAR MUSEUM	2702 E D ST
237B	12/20/2022	COT POLICE SECTOR FOUR	400 E 56TH ST
237B	10/12/2022	BLUEBERRY PARK, METRO PARKS	7402 E D ST
237B	2/23/2022	JIFFY LUBE #888	7056 PACIFIC AVE
237B	8/17/2022	JIFFY LUBE #888	7056 PACIFIC AVE
237B	2/8/2022	WILLARD STAFF RESOURCE CENTER	3201 S D ST
237B	3/16/2022	MCKINLEY CAR WASH	7212 MCKINLEY AVE
237B	8/17/2022	MCKINLEY CAR WASH	7212 MCKINLEY AVE
237B	2/23/2022	AUTOZONE #1184	7001 PACIFIC AVE
237B	10/28/2022	GIBSON GARDENS	5001 PACIFIC AVE
237B	12/15/2022	GIBSON GARDENS	5001 PACIFIC AVE
237B	4/27/2022	JACKSONS SHELL STATION #641	3740 PACIFIC AVE
237B	4/28/2022	LLANTERA SINALOA	4540 PACIFIC AVE
237B	8/11/2022	BOYS AND GIRLS CLUB - EAST SIDE BRANCH	614 E 64TH ST
237B	2/11/2022	TACOMA SCHOOLS STEWART MIDDLE SCHOOL	5010 PACIFIC AVE
237B	8/23/2022	LYNN'S TOWING	6311 MCKINLEY AVE
237B	2/23/2022	COMFORT DENTAL EAST TACOMA	3820 PACIFIC AVE
237B	2/28/2022	TACOMA FAMILY DENTAL	5221 PACIFIC AVE
237B	3/25/2022	TACOMA FAMILY DENTAL	5221 PACIFIC AVE
237B	5/27/2022	MILLERS JEWELRY	4602 PACIFIC AVE
237B	4/18/2022	NEW FRONTIER	301 E 25TH ST
237B	11/23/2022	DUSTYS HIDEAWAY LLC	723 E 34TH ST
237B	2/11/2022	KOZ AT THE DOME	304 PUYALLUP AVE
237B	7/8/2022	GROUNDLED CAFE & GIFTS FOOD TRUCK	5501 E E ST
237B	8/23/2022	A TEAM TOWING	6323 MCKINLEY AVE
207	8/30/2022	COT FIRE STATION #18	302 E 11TH ST
214	3/31/2022	COMMENCEMENT BAY MARINE SERVICES	820 E D ST
214	3/31/2022	GLOBE MACHINE MFG CO	701 E D ST
218	3/24/2022	CASCADE CAPITAL	230 E F ST
218	2/28/2022	CASCADE CAPITAL	230 E F ST
218	1/20/2022	CASCADE CAPITAL	230 E F ST
218	10/24/2022	CASCADE CAPITAL	230 E F ST
218	11/22/2022	CASCADE CAPITAL	230 E F ST
218	3/22/2022	JACKSONS OIL	510 E 3RD ST
218	2/28/2022	JACKSONS OIL	510 E 3RD ST
218	1/20/2022	JACKSONS OIL	510 E 3RD ST
218	5/6/2022	JACKSONS OIL	510 E 3RD ST
218	7/6/2022	JACKSONS OIL	510 E 3RD ST

January 27, 2022

218	10/17/2022	JACKSONS OIL	510 E 3RD ST
218	11/22/2022	JACKSONS OIL	510 E 3RD ST
230	2/4/2022	TACOMA PUBLIC SCHOOLS	701 S 8TH ST
230	8/11/2022	PIERCE COUNTY JAIL	910 TACOMA AVE S
230	9/14/2022	COT CONVENTION CENTER	1500 BROADWAY
230	10/26/2022	COT FIRE STATION #1	901 FAWCETT AVE
230	8/9/2022	BROOK'S DENTAL STUDIO	732 BROADWAY
230	8/9/2022	PLANNED PARENTHOOD OF W W	1515 MARTIN LUTHER KING JR WAY
230	10/13/2022	PLANNED PARENTHOOD OF W W	1515 MARTIN LUTHER KING JR WAY
230	8/16/2022	BOB'S BAR-B-Q INC	911 S 11TH ST
230	2/10/2022	COMCAST SOUTH L FACILITY	1219 S L ST
230	1/5/2022	CLUB SILVERSTONE	739 1/2 ST HELENS ST
230	8/31/2022	NORTHWEST DENTAL SERVICES	725 ST HELENS AVE
230	8/31/2022	DOMINO'S PIZZA - 805 PACIFIC AVE	805 PACIFIC AVE
230	8/17/2022	DORKY'S ARCADE	754 PACIFIC AVE
230	8/18/2022	SUBWAY #24152	1112 S 11TH ST
230	6/30/2022	VOSTOK	1126 COMMERCE ST
230	9/1/2022	Charles Kim Dentistry	1102 BROADWAY
230	10/18/2022	JEFFERSON-HOOD PIPELINE (FOWLER PROJECT)	1147 DOCK ST
230	3/29/2022	HUNNYBUN BAKERY LLC	933 S GRANT AVE
230	4/1/2022	BEYOUTIFUL ANAJAH LLC	806 S J ST
230	4/14/2022	FIRST CHOICE TOWING AND TRANSPORT	1714 MARTIN LUTHER KING JR WAY
235	4/7/2022	OASIS OF HOPE	1937 S G ST
235	4/6/2022	MUSEUM OF GLASS	1801 DOCK ST
235	4/7/2022	ALBER'S MILL	1821 DOCK ST
235	4/6/2022	REPUBLIC PARKING MUSEUM OF GLASS	1801 DOCK ST
235	4/7/2022	GREATER CHRIST TEMPLE CHURCH	1926 S G ST
235	9/28/2022	ST. JOSEPH MEDICAL CLINIC	1708 YAKIMA AVE
235	9/27/2022	ST JOSEPH MEDICAL PAVILION	1802 YAKIMA AVE
235	4/7/2022	DOCK STREET MARINA	1817 DOCK ST
235	3/30/2022	Dancing Goats Coffee Bar	2102 COMMERCE ST
243	3/25/2022	FOSS LANDING MARINA & BOAT STORAGE	1940 E D ST
243	7/20/2022	FOSS LANDING MARINA & BOAT STORAGE	1940 E D ST
243	12/28/2022	PIUS KITCHEN & BATH	424 PUYALLUP AVE
245	4/15/2022	HERITAGE-CRYSTAL CLEAN, LLC	2202 PORT OF TACOMA RD
245	9/8/2022	APAC TRANSPORTATION	495 E 19TH ST
254	4/13/2022	Specialty Forest Products	1616 ST PAUL AVE

January 27, 2022

254	9/22/2022	ALASKAN LEADER FISHERIES	401 E 15TH ST
254	4/13/2022	CODEL	4101 INDUSTRY DR E
254	5/23/2022	MARINE FLOATS FABRICATION FACILITY	1204 ST PAUL AVE
254	1/20/2022	XPO LOGISTICS	1730 E PORTLAND AVE
254	9/7/2022	LIFE EXPRESS LLC (MOVED IN JANUARY 2016)	525 E 15TH ST



Memorandum

To: Laura Nokes
From: Kali Legg
Date: January 2022
Re: 2022 Year end complaints/spills and inspections data for Thea Foss Watershed

I have gathered the following information detailing the amount of work performed by the Source Control Representatives for the Surface Water and Wastewater Source Control units. Please keep in mind that these numbers only reflect a portion of our overall program

Spills and Complaints – 18 years of database records (2002-2019) **

Thea Foss Spills and Complaints - 18 years of database records (2002-2019)																			
Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	TOTAL
Chemical	17	13	20	11	6	3	13	6	8	11	9	9	9	8	5	2	3		153
Concrete	3	6	6	6	4	9	9	3	3	5	4	11	10	4	13	2	4	3	105
FOG						9	4	5	2	6	6	11	4	3	9		2	4	65
Garage						12		14	25	10	25	18	20	5	4	6	7	6	152
Mud	23	22	18	21	13	17	21	17	13	26	51	36	37	13	23	11	15	6	383
Paint	9	12	9	9	3	7	4	3	4	4	4	3	6	7	6	7	1	4	102
Petroleum	47	55	70	53	42	57	35	33	81	90	94	82	65	51	49	42	44	42	1032
Sewage	9	25	31	23	34	16	20	23	34	64	71	64	29	35	25	26	19	35	583
Soap	18	22	9	4	11	1	4	16	9	5	8	12	4	2	5	3	5	3	141
Toxic													1						1
Unknown	15	17	6	28	77	12	15	14	11	18	14	18	13	40	14	27	23	36	398
Water	11	25	13	21	29	15	19	13	22	23	36	20	32	25	33	17	17	20	391
Animal Waste														1	1				2
Odor														3			1		4
Household Hazard																		3	3
TOTAL	152	197	182	176	219	158	144	147	212	262	322	284	230	197	187	143	141	162	3515

**Numbers are based on sorting and database and statistical analysis and does not account for the possibility of incorrect data entry.

In 2020, asset management restructured the Spills and Complaints program to better comply with new permit requirements. The program no longer records the complaint material. Instead, a spill or complaint call is classified as environmental, flooding, or sewer. Below is the breakdown of incident type for 2020-2022 spills documented in the Foss basin.

Incident Type	2020	2021	2022
Environmental Issue	91	129	179
Flooding Issue	17	10	12
Sewer Issue	40	27	42
Total	148	166	233



**City of Tacoma
Environmental Services
Department**

Memorandum

TO: Laura Nokes
 FROM: John Sunich, Kevin Brennan
 SUBJECT: 2022 Enforcement Report
 DATE: January 13, 2023

Hello Laura,

In 2022 Environmental Compliance issued 16 enforcement actions (10 Warning letters, 1 Illicit Connection letter, 3 Surfacing Effluent letters and 2 Notice of Violations) for violations of Tacoma Municipal Code, Chapter 12.08 regarding illicit discharges to the City's MS4 system. Of the 16 enforcement actions, 3 were issued for violations within the Thea Foss Waterway drainage basin. Copies of the enforcement letters can be found in:

<G:\EnviroCompliance\Enforcement\2022 Enforcement Memo\Letters>

Please note, those enforcement actions issued for violations in the Thea Foss drainage basin are highlighted in yellow below.

Action	Recipient	Date Issued	Address of Incident	Issue
Warning Letter	Sound Solid Surfaces	1/31/2022	4401 Orchard St	Illicit Discharge
Warning Letter	Octavio Muro Complete Landscape Services	2/18/2022	5111 Grand Lp	Illicit Discharge
Warning Letter	Rainier Auto Group	2/18/2022	4326 S Tacoma Way	Illicit Discharge
Notice of Violation	James W. Fowler Co.	2/28/2022	109 S 15TH ST	Illicit Discharge
Illicit Connection Letter	MultiCare Tacoma General	3/14/2022	321 S J St	Illicit Connection
Warning Letter	Tom and Karen Powell	5/23/2022	643 N Howard	Illicit Discharge
Warning Letter	Pak & Sons, LLC	5/26/2022	1314 E 72nd	Illicit Discharge
Warning Letter	NW Concreteworx, LLC	7/20/2022	6831 S Park Ave	Illicit Discharge
Warning Letter	GCR- Tire Distribution	8/9/2022	1671 Lincoln Ave	Stormwater BMP Maintenance
Warning Letter	391TWO, LLC	8/10/2022	3912 N 34th St	Illicit Discharge
Surfacing Effluent Letter	Daniel Garcia	9/12/2022	1641 E 35 th St	Surfacing Effluent
Surfacing Effluent Letter	William & Michelle Henneman	9/16/2022	1310 N Heatherwood	Surfacing Effluent
Surfacing Effluent Letter	Brent Wood & Clinton Langer	9/29/2022	4306 Pacific Ave	Surfacing Effluent
Notice of Violation	Portland At St. Paul, LLC	10/13/2022	510 East 3rd St	Illicit Discharge
Warning Letter	American Petroleum Inc	10/18/2022	4814 Center St	Illicit Discharge
Warning Letter	JM General Contractor	10/20/2022	802 E 34th St	Illicit Discharge

ATTACHMENT A.2 - OF230

**Table A.2-1
2022 Pipe Maintenance Activities for OF230**

Date	Location	Type of Work	Outfall	Sub-Basin
12/30/2022	1110 S 17th St - Clogged CB	CLEAN ASSET	230	FS_05
10/24/2022	S 12TH AND MLK - SPILL FROM ROOF	CLEAN ASSET	230	FS_05
10/24/2022	S 12TH AND MLK - SPILL FROM ROOF	CLEAN ASSET	230	FS_05
11/18/2022	Check CB's 9th and Commerce	CLEAN ASSET	230	FS_05
12/29/2022	INSP & CLN 15 RNGRDN 1 MO, PACIFIC AVE	CLEAR BRUSH	230	FS_05
9/23/2022	INSP & CLN RNGRDN 1911 JEFFERSON 2/12MO	CLEAR BRUSH	230	FS_05
9/21/2022	INSP & CLN RNGRDN 1911 JEFFERSON 2/12MO	CLEAR BRUSH	230	FS_05
8/24/2022	INSP & CLN 15 RNGRDN 1 MO, PACIFIC AVE	CLEAR BRUSH	230	FS_05
9/21/2022	INSP & CLN RNGRDN 1911 JEFFERSON 2/12MO	CLEAR BRUSH	230	FS_05
8/24/2022	INSP & CLN 15 RNGRDN 1 MO, PACIFIC AVE	CLEAR BRUSH	230	FS_05
9/21/2022	INSP & CLN RNGRDN 1911 JEFFERSON 2/12MO	CLEAR BRUSH	230	FS_05
8/24/2022	INSP & CLN 15 RNGRDN 1 MO, PACIFIC AVE	CLEAR BRUSH	230	FS_05
9/21/2022	INSP & CLN RNGRDN 1911 JEFFERSON 2/12MO	CLEAR BRUSH	230	FS_05
9/8/2022	INSP & CLN FILTERRA 1202 MLK 1YR	CLEAR BRUSH	230	FS_05
3/17/2022	INSP & CLN 15 RNGRDN 1 MO, PACIFIC AVE	CLEAR BRUSH	230	FS_05
3/17/2022	INSP & CLN RNGRDN 1911 JEFFERSON 2/12MO	CLEAR BRUSH	230	FS_05
9/7/2022	INSP & CLN FILTERRA 8388 6TH AVE 1 YR	CLEAR BRUSH	230	FS_05
4/12/2022	723 S AINSWORTH - PAVING - BACKCUT	BACKCUT	230	FS_05
2/14/2022	723 S AINSWORTH - PAVING - CLEAN	CLEAN ASSET	230	FS_05
6/17/2022	CLN Flow Splitter MH 1911 On Jefferson	CLEAN ASSET	230	FS_05
1/12/2022	1424 Tacoma Ave S - CB PLUGGED	CLEAN ASSET	230	FS_05
2/7/2022	2021 Media Filter Maintenance 6003590	Clean Asset	230	FS_05
2/15/2022	INSP & CLN RNGRDN 1911 JEFFERSON 2/12MO	CLEAR BRUSH	230	FS_05
3/1/2022	Check CB's 9th and Commerce	CLEAN ASSET	230	FS_05
4/27/2022	BC 1 SEG YEARLY, 1214 YAKIMA AVE	BACKCUT	230	FS_05
2/7/2022	2021 Media Filter Maintenance 6003471	Clean Asset	230	FS_05
2/7/2022	2021 Media Filter Maintenance 6003472	Clean Asset	230	FS_05



MEMORANDUM

Date: January 30, 2023
To: Mary Henley and Laura Nokes
cc: Kurt Fremont and Cassandra Moore
From: Tony Miller
Subject: OF230 (FD3A and FD18) 2022 Source Tracing Investigation

INTRODUCTION

The City of Tacoma (City) is tasked with source tracing contaminants of concern identified through annual sediment trap sampling in the Thea Foss Watershed. There has been an ongoing investigation in a portion of the Outfall (OF) 230 drainage basin since 2012 to identify possible sources of PCBs discovered during annual sediment monitoring.

SOURCE CONTROL HISTORY

OF230 is one of the primary outfalls discharging into the Thea Foss Waterway. The land use for the OF230 drainage basin is primarily commercial downtown with pockets of residential areas. Based on on-going sediment monitoring in OF230, specific sections of this drainage basin were identified as having continuing issues with Thea Foss Waterway contaminants of concern, including PCBs and mercury.

FD3A and FD18 are both sub-basins in the larger OF230 drainage basin. The FD3A sediment trap represents the drainage basin in downtown Tacoma from St. Helens to South 14th and Market Streets to A Street (Figure 1). The FD18 sediment trap represents the downtown area from South 11th to South 9th Streets, Market Street to Martin Luther King Jr. Way, the residential area from South 9th Street to South 8th Street, and Martin Luther King Jr. Way to South Sprague Avenue (Figure 2).

For further details of the historic investigations in this basin please review the reports from previous years (Tacoma 2015, 2016, 2017, 2018, 2019, 2020, 2021).

SITE SPECIFIC INVESTIGATIONS SUMMARY

PCBs - South 12th & Pacific

Wells Fargo:

The catchbasins were cleaned in October 2017, and it was anticipated that they would be resampled during 2019 when sufficient sediment had accumulated. The system was inspected for the availability of sediment for sampling in August 2019, and sediment levels ranged from zero to one inch of sediment in some basins while other catchbasins had yet to be cleaned. Sampling was attempted at the targeted catchbasins receiving drainage from Wells Fargo in June of 2020 to determine if a source of PCB contamination remained at this site. Results from this sampling were inconclusive due to the inability to collect from most of the targeted catchbasins due to lack of access and sediment. During 2022, the City resampled the

catchbasins adjacent to this location and found that there is a continuing source of contamination at the SE corner of this location (Figure 1). Environmental Compliance (EC) met with Susan Robicheau and Dan Novack of Unicorp (Property Management of The Wells Fargo Complex) and shared our findings. EC and Unicorp discussed initial results which showed that the catchbasin in the SE corner of the site showed a concentration of 0.9 ppm in 2016 and 1.8 ppm in 2017, and as a result the system was cleaned in 2017. Following this cleaning, this same catchbasin had a concentration of 12 ppm in 2022. At the meeting, it was agreed that EC would clean and then sample again in 2023 to ensure that the concentration detected in 2022 was not an anomaly. It was further agreed that the City would then meet with Unicorp again to discuss any required remediation moving forward. Email correspondence is enclosed. Sewer Transmission cleaned all of the catchbasins surrounding this complex in October 2022.

(Formerly) 1123 Pacific Partners:

During 2017, the City requested an update of the status of work at the 1123 Pacific Partners site. A written plan of action and timeline were requested. No report was received and the City initiated the enforcement process. A warning letter was mailed in October 2017. Subsequently, staff worked with the property owner for the 1123 Pacific Partners building to obtain a written plan of action for addressing the PCB contamination on this site. On October 12, 2018, the City received the final correspondence from the property managers stating the remediation had been completed.

Sampling of the targeted catchbasins was completed in June 2020 to determine if a source of PCB contamination remained at this site. The City successfully sampled two catchbasins receiving drainage from this site. The results from this sampling event indicated either a continued source of PCBs at this location or insufficient catchbasin cleaning after the remediation of this property.

The City re-cleaned these catchbasins in May 2021 and checked for available sediment to sample in late November 2021. There was insufficient sediment to obtain samples at that time.

During 2022, the City attempted to resample three catchbasins adjacent to this location. One of the locations did not have enough sediment to sample (6512434). The catchbasin at the NE corner of 12th and Pacific exhibited a sediment concentration of 3.4 ppm, which, though still elevated, was reduced from the 2020 concentration of 8.9 ppm. The sediment sampled from the other catchbasin on the corner of South 12th and Court A also exhibited a significant reduction with a PCB concentration of 0.34 ppm down from 1.2 ppm from 2020 (Figure 1).

Environmental Compliance and Special Programs met with the new owners of 1123 Pacific Avenue in September 2022. The owners Steve Dewalt and Rob Brewster with IU Development were unaware of the past PCB investigations and remediation at this location. The City provided them with all of the historical investigations and work that has been performed to date. Based on the lack of sediment at one of the three catchbasins targeted for sampling in 2022 and the reduction in concentration at the others, it was agreed that the City would clean all of the targeted catchbasins and re-sample in 2023 (Appendix A: Email correspondence attached). The City cleaned the targeted catchbasins in October 2022.

2023 Plan

The City will attempt to sample the targeted catchbasins surrounding the entire Wells Fargo Complex and in front of 1123 Pacific Avenue in the spring of 2023 to determine if the sources of PCBs are ongoing or if the remediation at these locations was successful. If contamination persists, EC will work with these businesses to ensure further remediation takes place.

PCBs - South 13th Street & Commerce Street

During 2022 – These catchbasins were checked for sediment in May and November 2022 and there was insufficient sediment to sample.

2023 Plan – The city will attempt to sample the catchbasins in spring of 2023.

Enclosures:

Figure 1 FD3A Drainage Area with Sampling Results

References:

Tacoma 2014. 2013 Stormwater Source Control Report and Water Year 2013 Stormwater Monitoring Report. City of Tacoma. March 31, 2013

Tacoma 2015. 2014 Stormwater Source Control Report and Water Year 2014 Stormwater Monitoring Report. City of Tacoma. March 31, 2014

Tacoma 2016. 2014 Stormwater Source Control Report and Water Year 2015 Stormwater Monitoring Report. City of Tacoma. March 31, 2015

Tacoma 2017. 2016 Stormwater Source Control Report and Water Year 2016 Stormwater Monitoring Report. City of Tacoma. March 31, 2016

Tacoma 2018. 2017 Stormwater Source Control Report and Water Year 2017 Stormwater Monitoring Report. City of Tacoma. March 31, 2017

Tacoma 2019. 2018 Stormwater Source Control Report and Water Year 2018 Stormwater Monitoring Report. City of Tacoma. March 31, 2018

Tacoma 2020. 2019 Stormwater Source Control Report and Water Year 2019 Stormwater Monitoring Report. City of Tacoma. March 31, 2020

Tacoma 2021. 2020 Stormwater Source Control Report and Water Year 2020 Stormwater Monitoring Report. City of Tacoma. March 31, 2021

Figure 1
FD3A Drainage Area with Sampling Results

Figure 1

OF 230 PCB Sampling Results 2013 - 2022 (FD3A)

Map Date: September 2022
Source: Environmental Services
Division, Public Works Department
City of Tacoma

Environmental Services/ Business Operations
2201 Portland Ave. E. Tacoma WA 98421
Contact: Tony Miller (253) 502-2195



6512434
2013: 4.3 ppm
2017: 0.15 ppm
2022: N/S

6517068
2013: 4.3 ppm
2020: 8.9 ppm
2022: 3.4 ppm

6524028
2013: 1.8 ppm
2016: 1.2 ppm
2017: 1.2 ppm
2020: 1.2 ppm
2022: 0.34 ppm

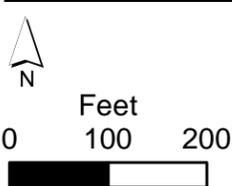
6525785
2013: 9.2 ppm
2016: 5.4 ppm
2020: N/S
2022: N/S

6501618
2013: 9.2 ppm
2016: 5.4 ppm
2017: 0.24 ppm
2022: 0.59 ppm

6501636
2013: 16 ppm
2016: 0.9 ppm
2017: 1.8 ppm
2022: 12 ppm

2013: 7.9 ppm
CB Removed

Sample Site FD3A



Legend - (R-1 & R-2: Areas of PCB Remediation)

- Non-sampled Storm MH
- Storm CB
- Storm Lines
- FD3A Drainage



PCBs 2013 - 2022 (Latest Results)

- < 0.5 ppm
- 0.5 - 2.5 ppm
- > 2.5 ppm





MEMORANDUM

Date: January 26, 2023
To: Mary Henley and Laura Nokes
cc: Kurt Fremont and Cassandra Moore
From: Tony Miller
Subject: OF230 (FD18) South 9th and Fawcett 2022 Actions

INTRODUCTION

The City of Tacoma (City) is tasked with source tracing contaminants of concern identified through annual sediment trap sampling in the Thea Foss Watershed. There has been an ongoing investigation in a portion of the Outfall (OF) 230 drainage basin since 2012 to identify possible sources of PCBs discovered during annual sediment monitoring.

SITE SPECIFIC INVESTIGATIONS SUMMARY

The South 9th Street & Fawcett Avenue sampling location is in the FD18 drainage area. This was one of two sites in the FD18 drainage area that were identified with elevated PCB concentrations during initial investigations. Historic investigations at this site are available to review. (Tacoma 2015, 2016, 2017, 2018, 2019, 2020, 2021).

2022 ACTIONS

Environmental Compliance (EC) staff re-sampled the catchbasins that received discharge from South 9th and Fawcett location in July of 2022. The results exhibited concentrations of PCBs in the catchbasin sediment ranging from 170-2000 ug/Kg. It appeared that the sediment socks in place during the pressure washing in November 2021 may have failed. Transmission was asked to clean the catchbasins on July 26, 2022.

Before the cleaning took place a construction project began at this location, which involved the removal and replacement of all of the curb/gutter and sidewalk at this intersection. The project also removed one of the catchbasins sampled during this investigation. Due to the duration of this project, no further investigation or cleaning of the system was completed in this drainage area during 2022.

2023 PLAN

After completion of the sidewalk replacement project, EC will request these catchbasins to be cleaned. Once adequate sediment has accumulated, the catchbasins will be resampled to ensure the sources of PCBs have been removed from this site.

Please Contact me if you have any questions or concerns.

References:

Tacoma 2014. 2013 Stormwater Source Control Report and Water Year 2013 Stormwater Monitoring Report. City of Tacoma. March 31, 2013

Tacoma 2015. 2014 Stormwater Source Control Report and Water Year 2014 Stormwater Monitoring Report. City of Tacoma. March 31, 2014

Tacoma 2016. 2015 Stormwater Source Control Report and Water Year 2015 Stormwater Monitoring Report. City of Tacoma. March 31, 2015

Tacoma 2017. 2016 Stormwater Source Control Report and Water Year 2016 Stormwater Monitoring Report. City of Tacoma. March 31, 2016

Tacoma 2018. 2017 Stormwater Source Control Report and Water Year 2017 Stormwater Monitoring Report. City of Tacoma. March 31, 2017

Tacoma 2019. 2018 Stormwater Source Control Report and Water Year 2018 Stormwater Monitoring Report. City of Tacoma. March 31, 2018

Tacoma 2020. 2019 Stormwater Source Control Report and Water Year 2019 Stormwater Monitoring Report. City of Tacoma. March 31, 2019

Tacoma 2021. 2020 Stormwater Source Control Report and Water Year 2020 Stormwater Monitoring Report. City of Tacoma. March 31, 2021



MEMORANDUM

Date: January 26, 2023
To: Mary Henley and Laura Nokes
cc: Kurt Fremont and Cassandra Moore
From: Tony Miller
Subject: OF230 (FD3A) South 14th Street and Court A

INTRODUCTION

The City of Tacoma (City) is tasked with source tracing contaminants of concern identified through annual sediment trap sampling in the Thea Foss Watershed. There has been an ongoing investigation in a portion of the Outfall (OF) 230 drainage basin since 2012 to identify possible sources of PAHs discovered during annual sediment monitoring.

SITE SPECIFIC INVESTIGATIONS SUMMARY

The catchbasin sediments at this location have a history of ongoing issues with relatively elevated PAH concentrations but have shown a drastic decrease in recent years. At this time, the City continues to monitor this location for PAHs to ensure the issues have been resolved. In addition to periodic monitoring, the City required Republic Parking Lot to implement quarterly cleanings of their private basins as well as yearly sampling to confirm the removal of PAHs. Historic investigations in this basin are available for review in Appendix A of the previous Foss Stormwater Source Control Reports (Tacoma 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021).

2022 ACTIONS

Throughout 2022, Environmental Compliance (EC) maintained contact with Melissa Broom with Neil Walters Consulting. Neil Walters was able to obtain the necessary permits to fix the two broken stormwater laterals located at their properties at 14th and Court A. Both laterals were repaired in early October 2022 and the municipal catchbasins that the private systems connect to were cleaned in November of 2022. Future sampling will need to take place to ensure the source of contamination has been removed. Email correspondence for 2022 is enclosed (Appendix A).

2023 PLAN

In the spring of 2023, EC will check the municipal stormwater catchbasins in Court A for sediment accumulation. If sufficient sediment is present, EC will sample these catchbasins and analyze for PAHs to determine if the source of the contamination has been appropriately removed.

Please contact me if you have any questions or concerns.

Enclosure:

Appendix A: Email Correspondence Regarding 14th and Court A

References:

Tacoma 2014. 2013 Stormwater Source Control Report and Water Year 2013 Stormwater Monitoring Report. City of Tacoma. March 31, 2013

Tacoma 2015. 2014 Stormwater Source Control Report and Water Year 2014 Stormwater Monitoring Report. City of Tacoma. March 31, 2014

Tacoma 2016. 2014 Stormwater Source Control Report and Water Year 2015 Stormwater Monitoring Report. City of Tacoma. March 31, 2015

Tacoma 2017. 2016 Stormwater Source Control Report and Water Year 2016 Stormwater Monitoring Report. City of Tacoma. March 31, 2016

Tacoma 2018. 2017 Stormwater Source Control Report and Water Year 2017 Stormwater Monitoring Report. City of Tacoma. March 31, 2017

Tacoma 2019. 2018 Stormwater Source Control Report and Water Year 2018 Stormwater Monitoring Report. City of Tacoma. March 31, 2018

Tacoma 2020. 2019 Stormwater Source Control Report and Water Year 2019 Stormwater Monitoring Report. City of Tacoma. March 31, 2019

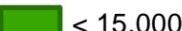
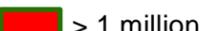
Tacoma 2021. 2020 Stormwater Source Control Report and Water Year 2020 Stormwater Monitoring Report. City of Tacoma. March 31, 2021

Tacoma 2022. 2021 Stormwater Source Control Report and Water Year 2021 Stormwater Monitoring Report. City of Tacoma. March 31, 2021

Figure 1:
FD3A PAH Locations and Concentrations



**Figure 1 (2020)
FD3A (OF 230)
PAH Source Tracing
Investigation**

 Pubic CB	PAHppb
 Private CB	 < 15,000
 Public Main	 15,000 - 200,000
 Private Main	 200,000 - 1 million
 Storm MH	 > 1 million

0  Feet 25 50



Map Date: February 2021
Source: Science and Engineering Division,
Environmental Services Department
City of Tacoma
Center for Urban Waters
326 East D Street, Tacoma WA 98421
(253) 591-5588

R:\Projects\2021\FD3A_PAHSourceTracing\Investigation\2020.mxd

Appendix A
Email Correspondence Regarding
750 South Fawcett Avenue

Petty, Cassie

From: Melissa Broom <mmelton@neilwalter.com>
Sent: Monday, October 3, 2022 4:01 PM
To: Miller, Tony
Cc: m.hash.engineering@gmail.com
Subject: FW: Parking Lots at 1310 A Street

Tony,
The work is now completed at the parking lots. See the update below from the vendor.

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Clint Goold <clint.goold@racewayutilities.com>
Sent: Monday, October 3, 2022 8:03 AM
To: Melissa Broom <mmelton@neilwalter.com>
Cc: Marc Hash <m.hash.engineering@gmail.com>; Levi Venn <levivenn@racewayutilities.com>
Subject: Re: Parking Lots at 1310 A Street

Good Morning Melissa,

We have completed the painting of the new curb, and parking stall. All the parking spaces are now back open. Also, I have a flash drive that I will give to Marc that shows the inside of the storm lines which shows no blockages.

Any questions please let me know.

Thank you very much!

On Fri, Sep 30, 2022 at 7:23 AM Melissa Broom <mmelton@neilwalter.com> wrote:

Thanks for the follow up Clint. Once the lots are officially open back up let me know so I can notify the parking operators.

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: clint.goold <clint.goold@racewayutilities.com>
Sent: Thursday, September 29, 2022 7:42 AM
To: Melissa Broom <mmelton@neilwalter.com>; Marc Hash <m.hash.engineering@gmail.com>
Cc: Levi Venn <levivenn@racewayutilities.com>
Subject: RE: Parking Lots at 1310 A Street

Hi Melissa,

We are currently getting that lower parking paved back, so we can get the parking lot open this afternoon.

Tomorrow we have concrete lined up to pour back the one small section of sidewalk, and we will be done and out of the way.

Clint

----- Original message -----

From: Melissa Broom <mmelton@neilwalter.com>
Date: 9/29/22 7:01 AM (GMT-08:00)
To: Clint Goold <clint.goold@racewayutilities.com>, Marc Hash <m.hash.engineering@gmail.com>
Cc: Levi Venn <levivenn@racewayutilities.com>
Subject: RE: Parking Lots at 1310 A Street

Good Morning Clint,

Diamond Parking, who is the parking operator for the Post Office lot (1310) is asking for an update on the schedule and wanted to see if you had an update on when this project would be completed so they can notify their parkers as they are having to find parking for those that typically park in this lot elsewhere until these stalls are open again.

Thanks for the follow up.

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Clint Goold <clint.goold@racewayutilities.com>
Sent: Saturday, September 24, 2022 3:59 PM
To: Marc Hash <m.hash.engineering@gmail.com>
Cc: Melissa Broom <mmelton@neilwalter.com>; Levi Venn <levivenn@racewayutilities.com>
Subject: Re: Parking Lots at 1310 A Street

Good Afternoon Melissa, and Marc. Quick update on the parking lot project. We will be returning on Monday to do more jetting of the storm lines. We scoped the lines with the camera and it was not as clean as we would have liked. Therefore we did not backfill the hole in the lower parking lot. We covered the hole, and the site is secure for the weekend. We also rescheduled out inspection with the City Inspector.

Any questions or concerns please let me know.

Thank you.

On Fri, Sep 23, 2022 at 9:32 AM Marc Hash <m.hash.engineering@gmail.com> wrote:

Great. Thanks for the update.

Thanks, Marc

On Fri, Sep 23, 2022, 8:54 AM clint.gould <clint.gould@racewayutilities.com> wrote:

Good Morning,

Yes, the inspector came by and approved the work on the sidewalk. We have backfilled and prepped for concrete. I am aiming for early next week.

The inspector will be back today to look at our new connections in the parking lot off of A street. Once approved we will backfill today and prep for asphalt. Asphalt is scheduled for for part of next week as well.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: Marc Hash <m.hash.engineering@gmail.com>

Date: 9/23/22 8:46 AM (GMT-08:00)

To: Melissa Broom <mmelton@neilwalter.com>

Cc: Clint Gould <clint.gould@racewayutilities.com>, Levi Venn <levivenn@racewayutilities.com>

Subject: Re: Parking Lots at 1310 A Street

Clint, has the inspector come by yet for the sidewalk? Ill stop by again today.

Thanks, Marc

On Fri, Sep 23, 2022, 8:40 AM Melissa Broom <mmelton@neilwalter.com> wrote:

Hi Clint,

Thank you for the follow up. The only follow question I have is now that you have exposed the areas, how long do you anticipate the job taking? Marc, do you have any questions?

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Clint Goold <clint.goold@racewayutilities.com>

Sent: Thursday, September 22, 2022 3:55 PM

To: Melissa Broom <mmelton@neilwalter.com>

Cc: Levi Venn <levivenn@racewayutilities.com>

Subject: Parking Lots at 1310 A Street

Good afternoon Melissa,

I just wanted to check in and see if you needed any updates on our progress with repairing and cleaning out the Storm Drain lines in the Parking lots at 1310 A Street, and 1319 Pacific Ave. Mark has been on site checking in, and we have been going over our findings and the work we have completed.

Let me know if you have any questions or would like to know details on the work.

Thank you!

--

Clint Goold

Raceway Utilities Inc.

Clint.goold@racewayutilities.com

253-670-1869

www.Racewayutilities.com

--

Clint Goold

Raceway Utilities Inc.

Clint.goold@racewayutilities.com

253-670-1869

www.Racewayutilities.com

--

Clint Goold

Raceway Utilities Inc.

Clint.goold@racewayutilities.com

253-670-1869

www.Racewayutilities.com

Petty, Cassie

From: Melissa Broom <mmelton@neilwalter.com>
Sent: Tuesday, September 20, 2022 7:28 AM
To: Miller, Tony
Cc: m.hash.engineering@gmail.com
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Tony,

I wanted to send you an update that the repairs to the lots are starting today. I will send you an update once this work is completed.

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Miller, Tony <TMiller@cityoftacoma.org>
Sent: Tuesday, June 14, 2022 7:06 AM
To: Melissa Broom <mmelton@neilwalter.com>
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Thank you for the update Melissa. I'm excited to get this one knocked out.

Thanks!

Tony Miller
City of Tacoma
Environmental Services
Desk: (253) 502-2195 Mobile: (253) 355-8955
tmiller@cityoftacoma.org



From: Melissa Broom <mmelton@neilwalter.com>
Sent: Tuesday, June 14, 2022 7:03 AM
To: Miller, Tony <TMiller@cityoftacoma.org>
Cc: m.hash.engineering@gmail.com
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Tony,

See the latest update attached. They have just received the permit and are now looking to get this work on the schedule. Once we have the schedule for this I will forward so you are aware.

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Miller, Tony <TMiller@cityoftacoma.org>

Sent: Monday, June 13, 2022 7:33 AM

To: Melissa Broom <mmelton@neilwalter.com>

Cc: m.hash.engineering@gmail.com

Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Good morning Melissa, I was curious if you had any new updates on this project?

Thanks!

Tony Miller

City of Tacoma

Environmental Services

Desk: (253) 502-2195 Mobile: (253) 355-8955

tmiller@cityoftacoma.org



From: Melissa Broom <mmelton@neilwalter.com>

Sent: Wednesday, March 23, 2022 4:35 PM

To: Miller, Tony <TMiller@cityoftacoma.org>

Cc: m.hash.engineering@gmail.com

Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Hi Tony,

Our vendor, Raceway Utilities, is still working through the paperwork side of this with the City. The latest update we received from Levi is attached which was on 2/18 in which he indicated he is working on the contaminated soils paperwork. I will reach out to him and see if there is another update. Apparently the permitting process for this has been a very long process.

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Miller, Tony <TMiller@cityoftacoma.org>

Sent: Wednesday, March 23, 2022 11:02 AM

To: Melissa Broom <mmelton@neilwalter.com>

Cc: m.hash.engineering@gmail.com

Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Good Morning Melissa,
Since we haven't spoken yet in 2022 I was curious if you had any updates on this project?
Thank you!

Tony Miller
City of Tacoma
Environmental Services
Desk: (253) 502-2195 Mobile: (253) 355-8955
tmiller@cityoftacoma.org



From: Melissa Broom <mmelton@neilwalter.com>
Sent: Monday, December 20, 2021 3:07 PM
To: Miller, Tony <TMiller@cityoftacoma.org>
Cc: m.hash.engineering@gmail.com
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Tony,
Due to the issue that came up with contamination, the vendor we initially hired for the work pulled out. Attached is the correspondence with Pipe Guys related to this. They did pull a permit for this work, but later declined with the possible soil contamination. We are now working with Raceway Utilities, see second attachment regarding their scope of work/proposal that we just approved. They will be pulling a permit for this and are aware of the urgency to get this work completed ASAP. They will be completing the work for both locations. Once I have a schedule for this I will share it with you. Appreciate your patience with us. Sorry this is taking so long.

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)
D: [253-779-2420](tel:253-779-2420)

From: Miller, Tony <TMiller@cityoftacoma.org>
Sent: Monday, December 20, 2021 9:13 AM
To: Melissa Broom <mmelton@neilwalter.com>
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Good morning Melissa, would it be possible for you to send me a breakdown of the work (Including coordination of contractors and permitting) that you completed at this site in 2021?

Thank you.

Tony Miller
City of Tacoma
Environmental Services
Desk: (253) 502-2195 Mobile: (253) 355-8955
tmiller@cityoftacoma.org

From: Melissa Broom <mmelton@neilwalter.com>
Sent: Thursday, November 4, 2021 4:21 PM
To: Miller, Tony <TMiller@cityoftacoma.org>
Cc: Fremont, Kurt <KFremont@cityoftacoma.org>; Marc Hash <m.hash.engineering@gmail.com>
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Hi Tony,

We are now looking at another vendor for this work as the position stands and the City will still not allow us to line this. I will keep you updated once we hear back from our other vendor. Sorry this has taken so long!

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Miller, Tony <TMiller@cityoftacoma.org>
Sent: Thursday, November 4, 2021 9:33 AM
To: Melissa Broom <mmelton@neilwalter.com>
Cc: Fremont, Kurt <KFremont@cityoftacoma.org>; Marc Hash <m.hash.engineering@gmail.com>
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Melissa, were you able to get this issue worked out?

Thanks!

Tony Miller
City of Tacoma
Environmental Services
Desk: (253) 502-2195 Mobile: (253) 355-8955
tmiller@cityoftacoma.org

From: Melissa Broom <mmelton@neilwalter.com>
Sent: Friday, September 24, 2021 9:09 AM
To: Miller, Tony <TMiller@cityoftacoma.org>
Cc: Fremont, Kurt <KFremont@cityoftacoma.org>; Marc Hash <m.hash.engineering@gmail.com>
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

You got it. I will get this information from Pipe Guys and forward it over. Thanks for your help!

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Miller, Tony <TMiller@cityoftacoma.org>
Sent: Friday, September 24, 2021 8:29 AM
To: Melissa Broom <mmelton@neilwalter.com>

Cc: Fremont, Kurt <KFremont@cityoftacoma.org>; Marc Hash <m.hash.engineering@gmail.com>

Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

I'll see what I can do. Is it possible for you to send me any correspondence you might have with the permit department?

Tony Miller
City of Tacoma
Environmental Services
Desk: (253) 502-2195 Mobile: (253) 355-8955
tmiller@cityoftacoma.org

From: Melissa Broom <mmelton@neilwalter.com>

Sent: Friday, September 24, 2021 8:26 AM

To: Miller, Tony <TMiller@cityoftacoma.org>

Cc: Fremont, Kurt <KFremont@cityoftacoma.org>; Marc Hash <m.hash.engineering@gmail.com>

Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Tony,
As you know, we initially wanted to line this but was told that was not an option. I am hoping this could be reconsidered now given the circumstances and wanted to see if you could go back to the permit department and ask if the lining option can be approved as this is a special circumstance. This very much complicates matters if we are possibly dealing with contaminated soil when we believe lining this would be a great option and at that point would not have to touch the soil. I hope the City can make some accommodations on this given the circumstances. Please let me know.

Thanks!

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Miller, Tony <TMiller@cityoftacoma.org>

Sent: Tuesday, September 21, 2021 8:51 AM

To: Melissa Broom <mmelton@neilwalter.com>

Cc: Fremont, Kurt <KFremont@cityoftacoma.org>; Marc Hash <m.hash.engineering@gmail.com>

Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Melissa, I'm not sure of which contractors provide soil borings with analysis. I know the City has gone through Geotechnicians in the past to provide or oversee this type of work. If the work only consists of a spot repair the amount of borings needed should be minimal. Hope this helps.

Thank you!

Tony Miller
City of Tacoma
Environmental Services
Desk: (253) 502-2195 Mobile: (253) 355-8955
tmiller@cityoftacoma.org

From: Melissa Broom <mmelton@neilwalter.com>
Sent: Tuesday, September 21, 2021 8:15 AM
To: Miller, Tony <TMiller@cityoftacoma.org>
Cc: Fremont, Kurt <KFremont@cityoftacoma.org>; Marc Hash <m.hash.engineering@gmail.com>
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Ok, sounds good. Do you have a recommendation on who I would contact to conduct this sampling?

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Miller, Tony <TMiller@cityoftacoma.org>
Sent: Tuesday, September 21, 2021 8:14 AM
To: Melissa Broom <mmelton@neilwalter.com>
Cc: Fremont, Kurt <KFremont@cityoftacoma.org>; Marc Hash <m.hash.engineering@gmail.com>
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419
Importance: High

At this point I think the best bet would be to have soil borings completed to confirm the presence or absence of hazardous waste contaminated soils.

Kurt, please jump in if I'm off track on this.

Thanks!

Tony Miller
City of Tacoma
Environmental Services
Desk: (253) 502-2195 Mobile: (253) 355-8955
tmiller@cityoftacoma.org

From: Melissa Broom <mmelton@neilwalter.com>
Sent: Tuesday, September 21, 2021 8:11 AM
To: Miller, Tony <TMiller@cityoftacoma.org>
Cc: Fremont, Kurt <KFremont@cityoftacoma.org>; Marc Hash <m.hash.engineering@gmail.com>
Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Thank you Tony. Both Marc and I were also confused. Attached is the latest email I received from Pipe guys.

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: Miller, Tony <TMiller@cityoftacoma.org>
Sent: Tuesday, September 21, 2021 7:19 AM

To: Melissa Broom <mmelton@neilwalter.com>

Cc: Fremont, Kurt <KFremont@cityoftacoma.org>

Subject: RE: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Melissa, I had no idea of the neighboring contaminated site and the previous work that had been done there. The contaminants related to your site are different than those listed on Ecology's website. I would recommend doing some soil borings in the area of the excavation to determine if the soil you'll be encountering is contaminated with TCE or not. I'm cc'ing my manager Kurt Fremont as he may have some other recommendations to add.

Thank you!

Tony Miller
City of Tacoma
Environmental Services
Desk: (253) 502-2195 Mobile: (253) 355-8955
tmiller@cityoftacoma.org

From: Melissa Broom <mmelton@neilwalter.com>

Sent: Monday, September 13, 2021 8:23 AM

To: Miller, Tony <TMiller@cityoftacoma.org>

Cc: m.hash.engineering@gmail.com; Melissa Broom <mmelton@neilwalter.com>

Subject: FW: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Tony,

Related to the budget lot work (1319 Pacific Avenue), Pipe Guys was supposed to start their work today but they sent us the below email as they were notified by department of ecology that this area is a site of contamination. I understand we have been working with the City and established a plan to have the storm drains cleaned out due to high levels found in the run off but I was not aware that this site has been flagged and anyone working on this site has to account for special handling of the soil etc. Any information you can give me would be helpful.

Thanks!

Melissa Broom

Director of Property Management | Neil Walter Company

P: [253-779-8400](tel:253-779-8400)

D: [253-779-2420](tel:253-779-2420)

From: The PipeGuys (Office) <office@pipeguys.com>

Sent: Monday, September 13, 2021 7:46 AM

To: Melissa Broom <mmelton@neilwalter.com>

Subject: FW: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Importance: High

Melissa,

We received this email Terradex after our service hours on Friday.

This email is to inform you that we have been notified by a government agency, i.e. the Washington Department of Ecology, that our area of excavation is potentially restricted by environmental covenants that we were not aware of

prior to this notification. Our scope of work does not include transport, or disposal, of any hazardous or contaminated material of any kind.

We would appreciate your acknowledgement to this email as soon as possible, so that we are all on the same page.

Regards,

Kathy Carsen

Office Administrator
The Pipe Guys
PO Box 445
Spanaway, WA 98387

253.537.2830
www.pipeguys.com

From: Terradex <operator@terradex.com>
Sent: Friday, September 10, 2021 4:43 PM
To: office@pipeguys.com
Cc: pbal461@ecy.wa.gov; operations@terradex.com
Subject: Dig Clean Safety Advisory Number 4382485, Washington 811 Ticket 21418419

Dear KATHY CARSEN

On behalf of the Washington Department of Ecology (Ecology), Terradex, Inc. is providing the attached Dig Clean Safety and Land Use Advisory (Advisory) regarding a planned excavation, as referenced by the Excavation Ticket issued by Washington 811.

The purpose of the Advisory is to notify you that your planned excavation is in the vicinity of an area with subsurface restrictions. These restrictions are typically due to the presence of contaminated soil and/or groundwater.

The attached Advisory shows the location of the property or properties subject to this Advisory in relation to the planned excavation as recorded by Washington 811. The Advisory provides details about safe use, identifies the point-of-contact for additional information, and provides a link to the legal document that enforces restricted activities.

To view the advisory, please open the attached pdf file or go to www.digclean.com and enter this Reference Number 4382485 under Option 2

Thank you,

Terradex Team

This message has been sent to you by Terradex, Inc. on behalf of the Washington State Department of Ecology.

Terradex, Inc.

650 227 3250

operations@terradex.com

www.terradex.com

855 El Camino Real, Suite 309

Palo Alto, California 94301



City of Tacoma
Environmental Services Department

February 23, 2022

SENT VIA CERTIFIED MAIL

John B. Fowler
James W. Fowler Co.
12775 Westview Drive
Dallas, OR 97338

Subject: Notice of Violation and Corrective Action

Dear Mr. Fowler:

Under the legal authority granted in Tacoma Municipal Code (TMC), Chapter 12.08D, the Environmental Services Department hereby issues James W. Fowler Co. located at 12775 Westview Drive in Dallas, Oregon the enclosed Notice of Violation for violations of TMC 12.08D, 12.08B.120 and SAD Authorization #21-008.

- Illicit discharge of untreated sanitary sewage to the City's municipal stormwater system in violation of TMC 12.08D.110.C that resulted from a sanitary sewer overflow (SSO) on January 28, 2022.
- Unauthorized discharge of seawater into the City's municipal sanitary sewer system in violation of TMC 12.08B.120 and SAD Authorization #21-008 from February 4th thru February 8th of 2022.

This Notice of Violation with Corrective Action represents a determination by the Environmental Services Department Compliance Officer that a violation of TMC Chapter 12.08D, 12.08B.120, and SAD Authorization #21-008 TMC has occurred, which is final unless you appeal this Notice of Violation to the City of Tacoma's Hearing Examiner and request a hearing.

If you decide to file an appeal, you must do so in accordance with procedures set forth in TMC 1.82.050.J within thirty (30) days of this Notice.

Service shall be deemed complete upon the third day following the day upon which the notice is placed in the mail, unless the third day falls on a Saturday, Sunday, or federal legal holiday, in which event service shall be deemed complete on the first day other than a Saturday, Sunday, or legal holiday following the third day.

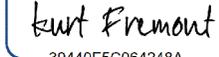
Appeals must be directed to:

City of Tacoma
Tacoma Municipal Building
Office of the Hearing Examiner
747 Market Street
Tacoma, WA 98402

If you have any questions, please contact Senior Environmental Specialist, Kevin Brennan at 253-405-7248 or Kbrennan@cityoftacom.org.

Sincerely,

DocuSigned by:



39440F5C064248A...

Kurt Fremont

Division Manager, Compliance Officer
Environmental Compliance, Business Operations

Enclosures: Notice of Violation with Corrective Action, invoice
Sent by First Class and Certified Mail: 7021 1970 0000 0082 4636

CITY OF TACOMA
Department of Environmental Services

IN THE MATTER OF)
NOTICE OF VIOLATION) No. 2022 - 001
WITH CORRECTIVE ACTION)

RESPONSIBLE PERSON¹

John B. Fowler
James W. Fowler Co.
12775 Westview Drive
Dallas, OR 97338

I. Location of Violations

Jefferson and Hood Street Surfacewater Interceptor Construction Site, Tacoma, WA

II. Legal Authority and Notices of Violation

In accordance with Tacoma Municipal Code (TMC) 12.08D.400 and TMC Ch. 1.82, the City of Tacoma Environmental Services Department (City) is issuing this Notice of Violation with Corrective Action to James W. Fowler Co., at 12775 Westview Drive Dallas, OR 97338 for the following violations:

- A. Failing to properly reroute a public sanitary sewer during a utility construction project and causing a sanitary sewer overflow (SSO). During the SSO, raw sewage left the City's collection system and ultimately flowed to the Thea Foss Waterway. SSOs are a reportable violation of the National Pollutant Discharge Elimination System (NPDES) permit issued by the Washington Department of Ecology to the City. This specific overflow is also in violation of **Tacoma Municipal Code (TMC) 12.08D.110.C.**²
- December 27, 2021 – Pump failure caused a City sewer main to surcharge. Raw sewage backed up through a customer's drain and damaged private property.
 - January 28, 2022 - Pump failure occurred during early morning hours causing approximately 5,000 gallons of sewage to flow from the sanitary sewer into stormwater catch basins and the Thea Foss Waterway.
- B. Unauthorized discharge of seawater from the Thea Foss Waterway, exceeding discharge limits, bypassing treatment, failure to meter discharge and failure to notify

¹ **TMC 1.82.010 Reasonable Person**, states, in part: a developer, builder, business operator, or owner who is developing, building, or operating a business on the building, premises, structure, or land that is subject to the regulation alleged to have been violated.

² **TMC 12.08D.110.C Prohibited Discharges**, states, in part: No person shall throw, drain, spill, or otherwise discharge, cause, or allow others under their control to throw, drain, spill, or otherwise discharge any substance not specifically allowed or conditionally allowed into the municipal stormwater system or receiving waters. By way of example and not limitation, discharges that are contaminated with the following substances are prohibited: sewage, and any other material that is regulated as a hazardous substance by federal, state, or local laws and regulations.

Control Authority as stated by the Special Approved Discharge (SAD) Authorization #21-008. This discharge is in violation of **Tacoma Municipal Code 12.08B.120**.³

- Discharge of seawater from the Thea Foss Waterway (unrelated to SAD) untreated and unmetered directly into sanitary manhole 6776826 along with the authorized treated discharge.

Violations occurred on:

- a. February 4, 2022
- b. February 5, 2022
- c. February 6, 2022
- d. February 7, 2022
- e. February 8, 2022

Discharge rates were estimated at 600 gpm to 1200 gpm, the maximum discharge rate for manhole 6776826 as stated in SAD Authorization #21-008, Section II is 200 gpm. James W. Fowler Co. estimated that 5,022,000 gallons of unauthorized seawater discharged to the City of Tacoma's municipal sanitary sewer.

III. **Background**

- A. The City of Tacoma contracted with James W. Fowler Co. for the Jefferson and Hood Street Surfacewater Interceptor Project to construct a new stormwater interceptor as well as to construct a new outfall to the Thea Foss Waterway. As design-builder, James W. Fowler Co. agreed to undertake and execute the work in a manner which does not interfere with or impair the ongoing operations of the City utility systems or private utilities. At times, this involves using pumps to move untreated sewage around sewer segments that are under construction.
 - On December 27, 2021, City of Tacoma Environmental Services (Control Authority) staff were notified that a pump used to bypass the sanitary sewer during construction had failed and caused a City sewer main to surcharge. As the City's sanitary sewer filled up, raw sewage backed up through a customer's drain and damaged private property.
 - On January 20, 2022, Control Authority staff received a complaint of water flowing up through a sanitary sewer manhole on Dock Street just upstream of the construction project. When Control Authority staff responded they did not witness sewage leaving the collection system, but they did find the sanitary system surcharged because of another failed pump. A representative of James W. Fowler Co. told the Control Authority that their contractor, Sunbelt, had been able to respond with another pump just in time to prevent an SSO.
 - On January 28, 2022, another pump failure occurred during early morning hours. The James W. Fowler Co. employee posted as pump-watch did not report the pump failure and raw sewage was discovered flowing out of multiple manholes in Dock

³ **TMC 12.08B.120 Limitations on point of discharge** states - *No person shall discharge any substances directly or indirectly into a manhole or other opening within the POTW, unless authorized by the control authority.*

Street by City employees. Upon direction from the City, a representative of James W. Fowler Co. hired a contractor to clean the street and affected stormwater collection system. Control Authority staff estimated that about 5,000 gallons of sewage had flowed from the sanitary sewer into stormwater catch basins and the Thea Foss Waterway. Control Authority staff reported the SSO to Washington State Department of Ecology, and the Tacoma-Pierce County Health Department issued a health advisory for Thea Foss Waterway.

- B. James W. Fowler Co. was issued a SAD for the discharge of treated contaminated groundwater that may be encountered throughout the Jefferson and Hood Street Interceptor Project. Each discharge location was given a specific discharge rate to prevent overwhelming the City's municipal sanitary sewer system.
- On February 8, 2022, City of Tacoma Environmental Compliance (Control Authority) was notified that Sanitary Pump Station 3104 was running at extremely high numbers for flow. The Control Authority performed a site visit and found a discharge hose from the cofferdam that was pumping seawater from the Thea Foss Waterway (not part of the SAD) untreated and unmetered directly into sanitary manhole 6776826 along with the authorized treated discharge. James W. Fowler Co. was instructed to cease discharge of seawater from the Thea Foss Waterway immediately and provide the Control Authority with a five-day report of duration of discharge and an estimated volume.
 - On February 11, 2022, the Control Authority received a five-day report from James W. Fowler Co., as required in their SAD Authorization #21-008, Section VI.5. The report stated that from the afternoon of February 4, 2022, to 12pm on February 8, 2022, James W. Fowler Co. discharged the unauthorized seawater from the Thea Foss Waterway out of the cofferdam.

Discharge rates were estimated at 600 gpm to 1200 gpm, the maximum discharge rate for manhole 6776826 as stated in SAD Authorization #21-008, Section II is 200 gpm. James W. Fowler Co. estimated that 5,022,000 gallons of unauthorized seawater discharged to the City of Tacoma's municipal sanitary sewer.

IV. Notice of Violation with Corrective Action

- A. Pursuant to TMC 12.08D.400, for the violations described in Section II.A, which occurred on January 28, 2022, this Notice of Violation with Corrective Action is issued to James W. Fowler Co. and John B. Fowler

John B. Fowler, and James W. Fowler Co., are further ordered to:

Immediately take action to prevent any illicit discharges to the City's stormwater system and submit a written sanitary bypass contingency plan to sad@cityoftacoma.org within 10 working days to the Control Authority that identifies ways to prevent impact to the municipal stormwater system and other property in the event a mechanical failure to the bypass system occurs.

- B. Pursuant to TMC 12.08B.340, for the five violations described in Section II.B, which occurred between February 4, 2022, thru February 8, 2022, James W. Fowler Co. is

assessed supplemental fees in the amount of \$34,711.38 for the 5,022,000 gallons of unauthorized discharge of seawater.⁴

Supplemental fees shall become due and payable to the City within 30 days of receipt of this assessment. If supplemental fees are appealed and affirmed in whole or in part, such fees shall become due and payable within 30 calendar days of receipt of a final decision by the Hearing Examiner or a court.

The Failure to comply with this order and/or further violations of TMC 12.08 may result in escalating enforcement actions, including, but not limited to, Notices of Violation with Civil Penalties of up to \$10,000 per day for each violation of TMC 12.08.

V. Appeal Process

This Notice of Violation with Corrective Action represents a determination that violations of TMC Chapter 12.08D have occurred, which determination is final unless you appeal this Notice of Violation with Corrective Action to the City of Tacoma's Hearing Examiner and request a hearing as provided in TMC 1.82.050.J. If you decide to file an appeal, you must do so within 10 days from the date of service of this Notice, pursuant to TMC 12.08A.140 and TMC 1.84.020.

The procedures for filing appeal are set forth in TMC 1.82.050.J and TMC 1.84.020. Appeals must be directed to:

City of Tacoma
Tacoma Municipal Building
Office of the Hearing Examiner
747 Market Street
Tacoma, WA 98402

By Order of the Undersigned Environmental Services Department Compliance Officer:

Signed this ²³ day of February, 2022, at Tacoma, Washington

DocuSigned by:



39440F5C064248A...

Kurt Fremont
Division Manager, Compliance Officer
Environmental Compliance, Business Operations

⁴ **12.08B.340 Liability for supplemental fees** states, in part, *Liability for supplemental fees under this section shall also apply to any person responsible for discharging a substance in violation of this chapter or TMC Chapter 12.08C to the POTW, regardless whether they own the property from which the prohibited discharge originates. Assessment of supplemental fees shall be in addition to:*



WASTEWATER OPERATIONS-BILLING
2201 PORTLAND AVENUE EAST
TACOMA, WA 98421-2711
253 502 2100



INVOICE

All incoming payments will be first applied against any existing late charges and penalties on this account.
 A late fee of 1% (\$3.00 minimum) may be assessed on delinquent accounts.

ZSD_SMF_SD103_INVOICE

Bill-To-Party
JAMES W FOWLER CO 12775 WESTVIEW DR DALLAS OR 97338-9632

Information	
Invoice #	91071577 Date: 02/23/2022
PO #	
Payment Terms	Due 03/25/2022
Customer #	400686430
Account #	300134952
Service Order #	
Sales Doc #	809147

Description	Quantity	UM	Net Price	Net Amount
FOR UNAUTHORIZED DISCHARGE OF 5,022,000 GALLONS OF SEA WATER				
NOTICE OF VIOLATIONS	1.000	EA	34,711.38	34,711.38
Invoice Subtotal:				\$34,711.38
Taxes:				\$0.00
Amount Due:				\$34,711.38



MAKE CHECKS PAYABLE TO CITY OF TACOMA AND MAIL TO: WASTEWATER OPERATIONS-BILLING
 P.O. BOX 11367 TACOMA, WA 98411-0367 2201 PORTLAND AVENUE EAST
 PAY WITH INTERACTIVE VOICE SYSTEM (253)534-8486 TACOMA, WA 98421-2711
 OR PAY IN PERSON AT 747 MARKET STREET, ROOM 246 253 502 2100

#0003001349522#

JAMES W FOWLER CO
 12775 WESTVIEW DR
 DALLAS OR 97338-9632

Account Number:
300134952

Amount Due:
\$34,711.38

Amount Enclosed:
\$ _____

Changes?
 Name
 Address
 Telephone
 Provide details on
 back of stub.

ATTACHMENT A.3 - OF235

**Table A.3-1
2022 Pipe Maintenance Activities for OF235**

Date	Location	Type of Work	Outfall	Sub-Basin
3/11/2022	CLN CDS Swirl Separator 1911 Jefferson	CLEAN ASSET	235	FS_06
6/16/2022	CLN CDS Swirl Separator 1911 Jefferson	CLEAN ASSET	235	FS_06
7/21/2022	CLN CDS Swirl Separator 1911 Jefferson	CLEAN ASSET	235	FS_06
9/9/2022	CLN CDS Swirl Separator 1911 Jefferson	CLEAN ASSET	235	FS_06
11/18/2022	CLN CDS Swirl Separator 1911 Jefferson	CLEAN ASSET	235	FS_06



MEMORANDUM

Date: January 26, 2023
To: Mary Henley and Laura Nokes
cc: Kurt Fremont and Cassandra Moore
From: Tony Miller
Subject: OF230/235 2022 Source Tracing Investigation

INTRODUCTION

The City of Tacoma (City) is tasked with source tracing contaminants of concern identified through annual sediment trap and stormwater sampling in the Thea Foss Watershed. Copper was newly identified as a contaminant of concern within Outfalls (OF) 230 and 235 in WY2019 due to some intermittent elevated concentrations in stormwater with other potential outliers starting in 2016. All of these outliers as well as those detected since that time have been detected in the spring and summer. Due to a large construction project which rerouted the municipal stormwater system in this area, source tracing efforts were focused on business inspections rather than sampling of the municipal storm system until this project was completed.

SOURCE CONTROL HISTORY

OF230 and 235 are two of the primary outfalls discharging into the Thea Foss Waterway. The land use for these drainage basins is primarily commercial downtown with pockets of residential areas. Based on on-going stormwater monitoring, OF230 and 235 were exhibiting elevated copper concentrations in the spring and summer, outside of the normal concentrations seen in the basin.

SITE SPECIFIC INVESTIGATIONS SUMMARY

Due to the seasonal and intermittent nature of the outlier copper concentrations showing up in stormwater samples, it was theorized that it is possible that excess copper is caused by a commercial cleaning or maintenance operation taking place in the drainage basin. Copper is used as a moss killer on roofs and sidewalks as well as being present in some herbicides. The Tacoma Building Improvement Area (BIA) maintains large portions of the downtown area (i.e. pressure washing buildings, sidewalks, etc.). In August of 2022, Environmental Compliance (EC) staff contacted the BIA asking what if any products they used to assist with their cleaning activities. Jim Burgess replied that the BIA does not use anything other than water (pressure washers) to perform their cleaning and maintenance activities.

In addition, City staff identified buildings with copper exteriors as possible contributors. Tacoma's Union Station was identified as a possible source due to its large copper roof. EC staff contacted Multi-Air Services Engineers who is the property management company for permission to sample the private catchbasins around the property. On April 27, 2022, EC staff sampled five private catchbasins around the property of Union Station, multiple of which had roof drain connections. The copper results ranged from 86 ppm to 4,360 ppm (analysis available

upon request), and all of the catchbasins were heavily impacted with sediment. The stormwater leaving this site splits with approximately half going to OF230 and half going to OF235.

Based on these results, in June 2022, EC staff reached out to Multi-Air Services Engineers and requested that they clean their catchbasins and connecting laterals. Initially they were very responsive to phone calls and emails, but communication dwindled since that time. Finally in November 2022 they confirmed that they had procured funding for the cleaning and that it should take place in January 2023. (Email correspondence attached).

2023 Plan

The City will follow up with the property management company in February 2023. If catchbasin maintenance has not been completed at 1717 Pacific Avenue (Union Station) by that time EC will be writing a 30-day warning letter to ensure this cleaning takes place. Once the system has been cleaned EC staff will follow-up once sufficient sediment has built up to re-sample the system.

EC will also follow-up further with other concerns at this site such as the application of moss killers and herbicides and confirmation as to the drainage locations of the facility's cooling towers.

EC Staff will also continue to look for other potential sources of copper within the OF230 and 235 drainage basins as needed.

Enclosures:

Figure 1 Union Station Drainage Map with Sample Results

Appendix A Email Correspondence

References:

Tacoma 2014. 2013 Stormwater Source Control Report and Water Year 2013 Stormwater Monitoring Report. City of Tacoma. March 31, 2013

Tacoma 2015. 2014 Stormwater Source Control Report and Water Year 2014 Stormwater Monitoring Report. City of Tacoma. March 31, 2014

Tacoma 2016. 2014 Stormwater Source Control Report and Water Year 2015 Stormwater Monitoring Report. City of Tacoma. March 31, 2015

Tacoma 2017. 2016 Stormwater Source Control Report and Water Year 2016 Stormwater Monitoring Report. City of Tacoma. March 31, 2016

Tacoma 2018. 2017 Stormwater Source Control Report and Water Year 2017 Stormwater Monitoring Report. City of Tacoma. March 31, 2017

Tacoma 2019. 2018 Stormwater Source Control Report and Water Year 2018 Stormwater Monitoring Report. City of Tacoma. March 31, 2018

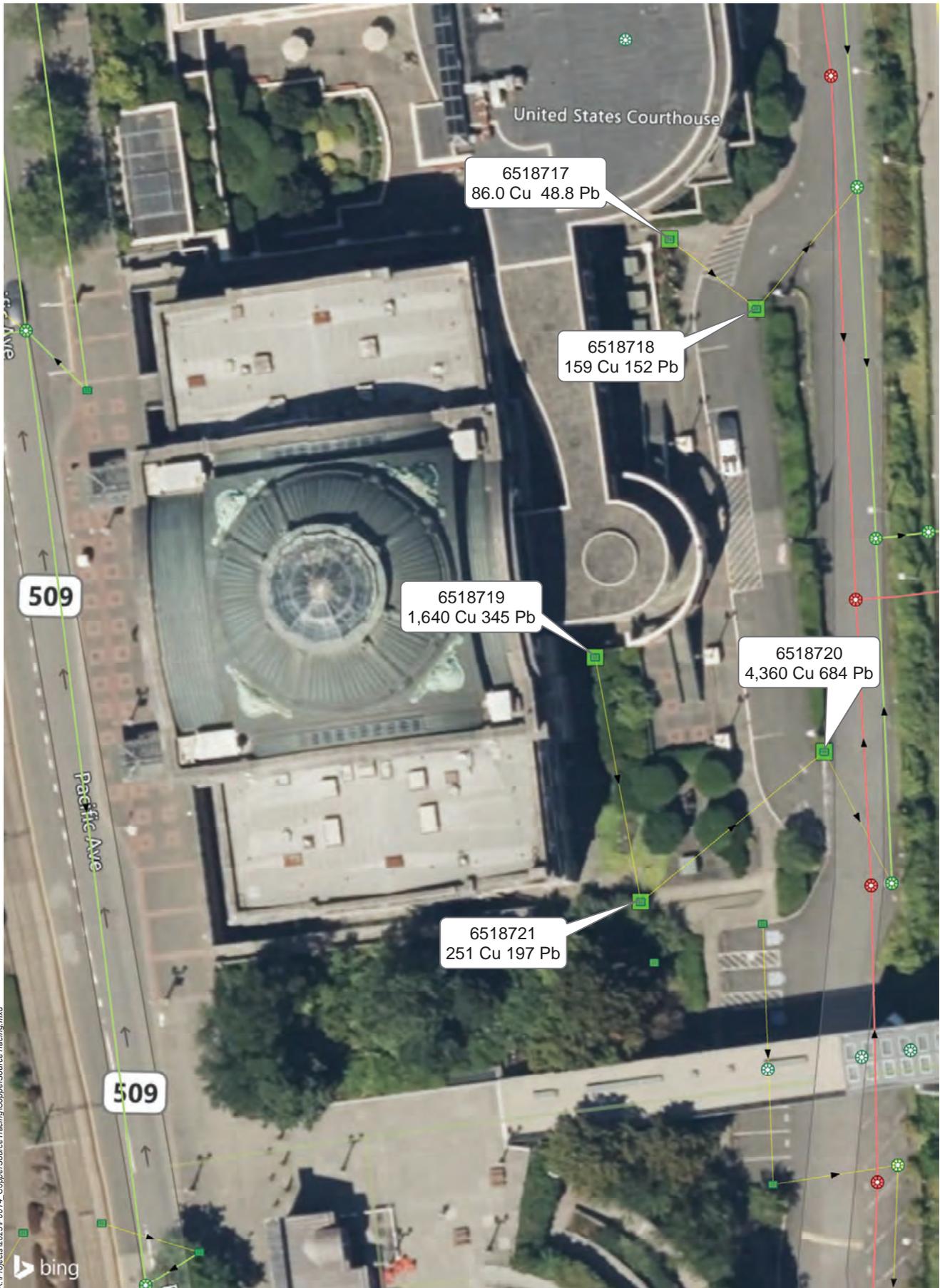
Tacoma 2020. 2019 Stormwater Source Control Report and Water Year 2019 Stormwater Monitoring Report. City of Tacoma. March 31, 2020

Tacoma 2021. 2020 Stormwater Source Control Report and Water Year 2020 Stormwater Monitoring Report. City of Tacoma. March 31, 2021

Figure 1

Union Station Drainage Area with Sampling Results

Figure 1 (2022) Outfalls 230 & 235 Copper Source Tracing



Note: Concentrations are in mg/Kg (ppm)

■ Sampling locations and concentrations at 1717 Pacific Ave. (Union Station).



0 12.5 25 50 Feet

Map Date: 1/30/2023
 Source: Science and Engineering Division
 Environmental Services Department
 City of Tacoma
 326 East D Street, Tacoma WA 98421
 (253) 591-5588



R:\Projects\12231P0014_CopperSourceTracing\CopperSourceTracing.mxd

Appendix A
Email Correspondence

Petty, Cassie

From: Jim Burgess <jimb@downtownacomapartnership.com>
Sent: Monday, August 22, 2022 2:51 PM
To: Miller, Tony
Subject: Re: Stormwater Investigation Downtown Tacoma

Hi, Tony

We don't use any chemicals when pressure washing sidewalks. We pressure washing all year except when there's a chance of freezing, not just in the spring and summer. To much to do.

We do use regular bleach when cleaning areas were people defecate in the corners and a citrus product called Safety 2 to remove graffiti off the side of buildings. (Here is a link to Safety 2 if you'd like to check it out.

<https://www.snagwolf.com>)

But we don't use enough water with either to reach the storm drains.

We've also been tasked with watering flower baskets downtown three days a week. On Fridays we add miracle grow to the water as directed. Hopefully that's not the cause.

Sent from Jim's iPhone

On Aug 22, 2022, at 11:55 AM, Miller, Tony <TMiller@cityoftacoma.org> wrote:

Good afternoon Jim,

I am researching the presence of copper showing up in some of our storm samples coming from downtown. Mainly in the spring and early summer. I was curious if the BIA uses any kind of moss killer or any other products during their cleaning/pressure washing activities. Any information you have would be a big help.

Thank you.

Tony Miller
City of Tacoma
Environmental Services
Desk: (253) 502-2195 Mobile: (253) 355-8955
tmiller@cityoftacoma.org

<image001.png>

From: [Sanders, Michael](#)
To: [Miller, Tony](#)
Cc: kyle.wyman@gsa.gov
Subject: RE: TUS/City Drain Basins - Source Tracing high copper/lead samples at Union Station
Date: Tuesday, December 20, 2022 9:41:43 AM
Attachments: [image001.png](#)

Tony, I reached out to Kyle by telephone this morning and he stated the funding was approved in November 2022 and received the bids which were not within 18% of each other which caused some delay. Currently Kyle drafting the letter (task order) for GSA contractor specific work, this is required due to the funding amount and the federal government.
Kyle is stating this work should take place in January 2023.

Vr

Mike Sanders

From: Miller, Tony <TMiller@cityoftacoma.org>
Sent: Monday, December 19, 2022 12:42 PM
To: Sanders, Michael <msanders2@cityoftacoma.org>
Subject: RE: TUS/City Drain Basins - Source Tracing high copper/lead samples at Union Station

Mike, would you like to reach out to Kyle to see if anything was completed or would you like me to? Just want to know for my year end report.

Thank you!

Tony Miller
City of Tacoma
Environmental Services
Desk: (253) 502-2195 Mobile: (253) 355-8955
tmiller@cityoftacoma.org



From: Sanders, Michael <msanders2@cityoftacoma.org>
Sent: Tuesday, November 1, 2022 7:31 AM
To: Miller, Tony <TMiller@cityoftacoma.org>
Subject: FW: TUS/City Drain Basins - Source Tracing high copper/lead samples at Union Station

FYI

Vr

Mike Sanders

From: Kyle Wyman - 10PMAC <kyle.wyman@gsa.gov>
Sent: Tuesday, November 1, 2022 7:28 AM
To: Sanders, Michael <msanders2@cityoftacoma.org>
Subject: Re: TUS/City Drain Basins - Source Tracing high copper/lead samples at Union Station

Mike,

I am waiting on bids from contractors and have submitted pricing to finance. I have it scheduled with finance for the middle of November.

Thanks,

Kyle Wyman

Building Services Specialist

Cell- 253-310-6925

Tacoma Union Station

Service Calls: 1-800-806-8145

On Tue, Nov 1, 2022 at 7:10 AM Sanders, Michael <msanders2@cityoftacoma.org> wrote:

Kyle, Is it possible to get an update?

Vr

Mike Sanders

From: Sanders, Michael
Sent: Friday, September 23, 2022 7:45 AM
To: kyle.wyman@gsa.gov
Cc: Miller, Tony <TMiller@cityoftacoma.org>; Brett Reagan - 10PMAC <brett.reagan@gsa.gov>; Nokes, Laura <LNokes@cityoftacoma.org>; Henley, Mary <mhenley@cityoftacoma.org>; Brennan, Kevin <KBRENNAN@cityoftacoma.org>; Magoon, Stuart <SMagoon@cityoftacoma.org>; r.tillich@mase-usa.com; s.crespo@masepr.com
Subject: RE: TUS/City Drain Basins - Source Tracing high copper/lead samples at Union Station

Kyle, Thanks for taking my phone call this morning and just wanted to keep everyone in the loop that you will be reaching out to a contractor to have the private storm system cleaned within 30 days.

Just to recap what we discussed:

Understanding it has been 90 days with no action, we are asking you to have your private drains pressure washed, sediment removal and jet the leads. Once complete please notify myself and we will continue to sample to see if any changes. This process would take us into the new year. If high concentrates of contaminates are found again we can discuss further remedies, but in hopes this won't go any further.

Additionally we asked a few questions if you are able to provide:

1. is it possible to find out what month(s) moss treatment is typically applied on the roof or sidewalks and amounts.
2. schedule a time where we can dye test your hydroponics discharge point for your cooling towers to confirm connection to wastewater Vs stormwater.

Vr

Mike Sanders

From: Sanders, Michael

Sent: Thursday, August 25, 2022 6:54 AM

To: kyle.wyman@gsa.gov

Cc: Miller, Tony <TMiller@cityoftacoma.org>; Brett Reagan - 10PMAC <brett.reagan@gsa.gov>; Nokes, Laura <LNokes@cityoftacoma.org>; Henley, Mary <mhenley@cityoftacoma.org>; Brennan, Kevin <KBRENNAN@cityoftacoma.org>; Magoon, Stuart <SMagoon@cityoftacoma.org>; r.tillich@mase-usa.com; s.crespo@masepr.com

Subject: FW: TUS/City Drain Basins - Source Tracing high copper/lead samples at Union Station

Kyle, Thanks for taking my call this morning. As I understand you are waiting on the new fiscal year to address the storm drains.

Additionally as you stated please re-address this matter with the powers to be, as we want to find the contributing factors of high copper/lead effecting our open waters.

Vr

Mike Sanders

From: Sanders, Michael

Sent: Tuesday, June 7, 2022 12:16 PM

To: Kyle Wyman <k.wyman@mase-usa.com>

Cc: Brett Reagan - 10PMAC <brett.reagan@gsa.gov>; r.tillich@mase-usa.com; s.crespo@masepr.com; Miller, Tony <TMiller@cityoftacoma.org>; Nokes, Laura <LNokes@cityoftacoma.org>; Henley, Mary <mhenley@cityoftacoma.org>; Brennan, Kevin <KBRENNAN@cityoftacoma.org>; Magoon, Stuart <SMagoon@cityoftacoma.org>

Subject: RE: TUS/City Drain Basins - Source Tracing high copper/lead samples at Union Station

Kyle, nice to meet you today as per your summary, it is spot on. At this time I would request the cleaning of the private storm drains located at 1717 Pacific Ave as per the map provided. I would recommend to have the private drains pressure washed, sediment removal and jet the leads. Once complete please notify myself and we will continue to sample to see if any changes.

As per our discussion, is it possible to find out what month(s) moss treatment is typically applied on the roof or sidewalks and amounts. Additionally schedule a time where we can dye test your hydroponics discharge point for your cooling towers to confirm connection to wastewater Vs stormwater.

On our attached map the light green indicates private storm system the darker green is City and the red is the wastewater. The squares are the catch basins (storm drains) and the round icon indicate manhole structures. I also attached a contractors list (if needed) and the sample report.

Any questions or concerns please feel free to call me.

Mike Sanders

Source Control Representative
Business Operations/Environmental Services
2201 Portland Ave, P-1, Tacoma, WA 98421
Cell: (253) 651-3298
msanders2@cityoftacoma.org



“If it hits the ground, it hits the Sound.”

From: Kyle Wyman <k.wyman@mase-usa.com>
Sent: Tuesday, June 7, 2022 10:42 AM
To: Sanders, Michael <msanders2@cityoftacoma.org>
Cc: Brett Reagan - 10PMAC <brett.reagan@gsa.gov>; r.tillich@mase-usa.com;
s.crespo@masepr.com
Subject: TUS/City Drain Basins - High copper/iron samples

Mr. Sanders,

Per our conversation today; City of Tacoma has tested the sediment in/and around the Union Station property and found high copper/iron deposits. The city would like to find the exact source of this problem, and possibly change our current practices to keep these levels down. Your first suggestion is to have these drain basins pumped out and the connecting pipes cleaned. Please send along the diagrams we spoke about, and any pertinent information I left out.

Let's continue dialogue on this subject, and let me know if there is any documentation I can share with you to help us reach a conclusion.

Respectfully,

--

Kyle Wyman

Chief Engineer - Multi Air Services Engineers

Tacoma Union Station

C:253-320-6196/O:253-272-2651

ATTACHMENT A.4 - OF237A

**Table A.4-1
2022 Pipe Maintenance Activities for OF237A**

Date	Location	Type of Work	Outfall	Sub-Basin
7/15/2022	1717 S UNION - CLEAN FOR TV	CLEAN ASSET	237A	FS_01
7/15/2022	1717 S UNION - CLEAN FOR TV	CLEAN ASSET	237A	FS_01
7/20/2022	1717 S UNION - BC FOR ROOTS	BACKCUT	237A	FS_01
8/9/2022	3321 S LAWERENCE - CLEAN FOR TV	CLEAN ASSET	237A	FS_02
8/10/2022	3321 S LAWERENCE - CLEAN FOR TV	CLEAN ASSET	237A	FS_02
8/9/2022	3321 S LAWERENCE - CLEAN FOR TV	CLEAN ASSET	237A	FS_02
9/23/2022	INSP & MAIN FILTERRA 4010 S. Puget So.1Y	CLEAR BRUSH	237A	FS_02
10/18/2022	INSP & MAIN FILTERRA 4011 S. Puget So.1Y	CLEAR BRUSH	237A	FS_02
10/18/2022	INSP & MAIN FILTERRA 3418 S. 43rd St. 1Y	CLEAR BRUSH	237A	FS_02
10/11/2022	INSP & MAIN FILTERRA 3421 S. 43rd St. 1Y	CLEAR BRUSH	237A	FS_02
9/27/2022	INSP & CLN FILTERRA 3105 S TYLER 1YR	CLEAR BRUSH	237A	FS_02
7/25/2022	INSP & CLN FILTERRA 3105 S TYLER 1YR	CLEAR BRUSH	237A	FS_02
11/30/2022	2121 S 19TH - FLUSH STORM MAIN	CLEAN ASSET	237A	FS_03
11/28/2022	2121 S 19TH - TV	BACKCUT	237A	FS_03
10/26/2022	S 21ST AND S SPRAGUE AVE - ASSIST ES GM	CLEAN ASSET	237A	FS_03
10/11/2022	INSP & CLN RNGRDN 1 MO, BABY SPRAGUE	CLEAR BRUSH	237A	FS_03
8/9/2022	1650 CENTER ST - CLEAN MAIN FOR TV AMG	CLEAN ASSET	237A	FS_03
8/12/2022	2365 S SPRAGUE AVE - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
12/15/2022	2302 SOUTH TACOMA WAY - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
8/22/2022	2420 S STATE - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
8/23/2022	2216 CENTER - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
8/11/2022	2216 CENTER - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
8/11/2022	1425 S STATE - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
8/10/2022	2121 S 19TH - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
8/29/2022	1912 CENTER ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
9/21/2022	INSP & CLN RNGRDN 1 MO, BABY SPRAGUE	CLEAR BRUSH	237A	FS_03
6/29/2022	2010 SO TAC WAY - AMG - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
6/17/2022	1711 CENTER - AMG - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
6/17/2022	1711 CENTER - AMG - CLEAN FOR TV	CLEAN ASSET	237A	FS_03
6/8/2022	INSP & CLN CB 1 MO 3915 BLOSSOM DR NE	CLEAN ASSET	237A	FS_03
9/21/2022	INSP & CLN RNGRDN 1 MO, BABY SPRAGUE	CLEAR BRUSH	237A	FS_03
5/3/2022	INSP & CLN CB 1 MO 3915 BLOSSOM DR NE	CLEAN ASSET	237A	FS_03
9/21/2022	INSP & CLN RNGRDN 1 MO, BABY SPRAGUE	CLEAR BRUSH	237A	FS_03
5/3/2022	INSP & CLN CB 1 MO 3915 BLOSSOM DR NE	CLEAN ASSET	237A	FS_03
6/16/2022	1704 S PROSPECT LN CLEAN SWALES 1 Y	CLEAR BRUSH	237A	FS_03
6/16/2022	CLN FILTERSTRIP 1 YR 1704 S PROSPECT LN	CLEAR BRUSH	237A	FS_03
3/17/2022	INSP & CLN RNGRDN 1 MO, BABY SPRAGUE	CLEAR BRUSH	237A	FS_03
1/18/2022	INSP & CLN CB 1 MO 3915 BLOSSOM DR NE	CLEAN ASSET	237A	FS_03
1/18/2022	INSP & CLN CB 1 MO 3915 BLOSSOM DR NE	CLEAN ASSET	237A	FS_03
1/18/2022	INSP & CLN CB 1 MO 3915 BLOSSOM DR NE	CLEAN ASSET	237A	FS_03
2/15/2022	INSP & CLN RNGRDN 1 MO, BABY SPRAGUE	CLEAR BRUSH	237A	FS_03
2/15/2022	INSP & CLN RNGRDN 1 MO, BABY SPRAGUE	CLEAR BRUSH	237A	FS_03
1/18/2022	INSP & CLN CB 1 MO 3915 BLOSSOM DR NE	CLEAN ASSET	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03

**Table A.4-1
2022 Pipe Maintenance Activities for OF237A**

Date	Location	Type of Work	Outfall	Sub-Basin
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Media Filter Maintenance 6005616	Clean Asset	237A	FS_03
2/9/2022	2021 Media Filter Maintenance 6005616	Clean Asset	237A	FS_03
2/9/2022	2021 Media Filter Maintenance 6005616	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
2/9/2022	2021 Pervious Pavement Cleaning	Clean Asset	237A	FS_03
11/10/2022	2155 MLK JR WAY - RV DUMPING	CLEAN ASSET	237A	FS_04
11/22/2022	STORM BC 2 SEG YEARLY 17-19TH SHERIDAN	BACKCUT	237A	FS_04
6/9/2022	BC 2 SEG STORM YEARLY 21ST-23RD & MLK	BACKCUT	237A	FS_04
6/9/2022	BC 2 SEG STORM YEARLY 21ST-23RD & MLK	BACKCUT	237A	FS_04
2/3/2022	FS_04 QAM ASSET BC 6284229 8"	BACKCUT	237A	FS_04
5/2/2022	FS_04 QAM ASSET 6269912 15" BC	BACKCUT	237A	FS_04
5/2/2022	FS_04 QAM ASSET BACKCUT 6266877 12"	BACKCUT	237A	FS_04
3/2/2022	STORM BC 2 SEG YEARLY 17-19TH SHERIDAN	BACKCUT	237A	FS_04
3/9/2022	STORM BC 2 SEG YEARLY 17-19TH SHERIDAN	BACKCUT	237A	FS_04
10/7/2022	102 S 24 ST - REPAIR STORM MAIN	REPAIR ASSET	237A	FS_07
8/12/2022	2301 HOLGATE ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_07
8/12/2022	2301 HOLGATE ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_07
8/22/2022	2502 HOLGATE ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_07
8/22/2022	2502 HOLGATE ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_07
8/23/2022	114 S 24TH ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_07
8/22/2022	799 S 23RD ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_07
8/22/2022	800 S 28TH - CLEAN FOR TV	CLEAN ASSET	237A	FS_07
8/22/2022	2710 YAKIMA - CLEAN FOR TV	CLEAN ASSET	237A	FS_07
8/4/2022	2312 HOLGATE - AMG - CLEAN FOR TV	CLEAN ASSET	237A	FS_07
5/12/2022	3541 SOUTH M ST - INSTALL NEW CB	NEW INSTALLATI	237A	FS_08
5/12/2022	1131 S 35TH ST - INSTALL NEW CB	NEW INSTALLATI	237A	FS_08
4/20/2022	155 S 35TH - PAVING - CLEAN	CLEAN ASSET	237A	FS_08
4/20/2022	3501 S M - PAVING - CLEAN	CLEAN ASSET	237A	FS_08
8/10/2022	INSP & CLN 1 SEG 1 YR 730 S TACOMA WAY	Flush	237A	FS_08
1/19/2022	INSP & CLN 1 SEG 1 YR 730 S TACOMA WAY	CLEAN ASSET	237A	FS_08
6/27/2022	3311 SAWYER ST RAISE CB TO GRADE	REPAIR ASSET	237A	FS_08
10/24/2022	4102 YAKIMA AVE - CLEAN FOR TV	CLEAN ASSET	237A	FS_09
8/11/2022	3302 S G ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_09
8/24/2022	4540 S G ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_09

**Table A.4-1
2022 Pipe Maintenance Activities for OF237A**

Date	Location	Type of Work	Outfall	Sub-Basin
8/22/2022	3717 S PARK AVE - CLEAN FOR TV	CLEAN ASSET	237A	FS_09
8/26/2022	701 S 37TH ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_09
8/23/2022	3829 S PARK AVE - CLEAN FOR TV	CLEAN ASSET	237A	FS_09
8/24/2022	3831 S THOMPSON AVE - CLEAN FOR TV	CLEAN ASSET	237A	FS_09
8/26/2022	823 S 43RD ST - CLEAN FOR TV	CLEAN ASSET	237A	FS_09
8/25/2022	4607 YAKIMA AVE - CLEAN FOR TV	CLEAN ASSET	237A	FS_09
10/5/2022	BC 1 SEG 1 YR, 1000 S 40TH ST	BACKCUT	237A	FS_09
6/21/2022	816 S 37TH - AMG - CLEAN FOR TV	CLEAN ASSET	237A	FS_09
6/27/2022	3824 S PARK - AMG - CLEAN FOR TV	CLEAN ASSET	237A	FS_09
8/25/2022	3529 S THOMPSON - AMG - CLEAN	CLEAN ASSET	237A	FS_09
10/7/2022	BC 3 Seg 3 MO S 36th &Thompson	BACKCUT	237A	FS_09
10/6/2022	BC 3 Seg 3 MO S 36th &Thompson	BACKCUT	237A	FS_09
3/14/2022	BC 2 Seg 3 MO S 36th &Thompson	BACKCUT	237A	FS_09
3/14/2022	BC 2 Seg 3 MO S 36th &Thompson	BACKCUT	237A	FS_09
2/15/2022	870 S 38th - Diesel Spill Cleanup	Oil Spill	237A	FS_09
1/5/2022	BC 2 Seg 3 MO S 36th &Thompson	BACKCUT	237A	FS_09
1/4/2022	BC 2 Seg 3 MO S 36th &Thompson	BACKCUT	237A	FS_09
1/5/2022	BC 2 Seg 3 MO S 36th &Thompson	BACKCUT	237A	FS_09
1/4/2022	BC 2 Seg 3 MO S 36th &Thompson	BACKCUT	237A	FS_09
2/28/2022	3002 DELIN ST - BC FROM CB INTO WOODS	BACKCUT	237A	FS_09



MEMORANDUM

Date: January 26, 2023

To: Mary Henley and Laura Nokes

cc: Kurt Fremont and Cassandra Moore

From: Tony Miller

Subject: OF237A Source Tracing Status Update – Polycyclic Aromatic Hydrocarbons (PAH)

INTRODUCTION

The City of Tacoma (City) is tasked with source tracing contaminants of concern identified through annual sediment trap sampling in the Thea Foss Watershed. There has been an ongoing investigation in a portion of the Outfall (OF) 237A drainage basin since 2005 to identify possible sources of polycyclic aromatic hydrocarbons (PAHs) found during sediment monitoring. Several source control activities have taken place in the area, but the investigation continues as elevated concentrations of PAHs persist in the sediments. The targeted collection system is in the FD13B-New (previously FD13B) sediment monitoring area (Figure 1).

While great strides have been made to identify sources of PAHs and eliminate them during previous investigations, sediment monitoring results in 2017 and 2018 indicated a continued presence of PAHs in at least one private stormwater collection system (Tacoma, 2018). In response, City staff continued the investigation in this area and continued to work with a private property owner to implement source control measures to eliminate a source of PAHs in the FD13B-New basin. Additionally, short-term sediment traps exhibited elevated concentrations in the south part of this drainage basin. These elevated results from ST-C (Figure 1) isolated that the contamination was likely coming from the General Mechanical or CHI Franciscan Health System properties. Ongoing investigations in 2021 isolated it to the southernmost parking lot at the CHI Franciscan property. Reports for historic investigations in this basin are available to review upon request (Tacoma 2015, 2016, 2017, 2018, 2019, 2020, 2021).

2022 INVESTIGATION

Environmental Compliance (EC) staff were able to re-sample the private catchbasins at the CHI Franciscan property located at 2420 State Street in June of 2022. The targeted catchbasins exhibited high concentrations of PAHs (>300,000 ppb) when sampled in June 2021 and were subsequently cleaned in September of 2021. The concentrations from the June 2022 sampling event remained in the higher range for PAHs ranging from 709,230 – 5,424,490 ppb (Table 1).

Based on these results, EC sent CHI Franciscan a 30-day letter to submit a written plan of action and timeline to effectively eliminate the discharge of PAHs from its facility to the City's stormwater system. CHI Franciscan hired AEG consulting for the issue and decided that they will resurface the parking lot in question since the current coating is visibly failing. CHI and AEG put the project out to bid in the Fall of 2022, with the work to be completed in the spring of 2023.

2023 PLAN

In spring 2023 EC staff will follow-up with CHI Franciscan's property manager Tahni Madden to check on the progress of the parking lot resurfacing. After completion of this work, EC will request that the catchbasins be cleaned again to ensure removal of contaminants. Once enough sediment has reaccumulated EC staff will collect catchbasin samples in the CHI Franciscan parking lot to ensure that the contaminants are no longer discharging to the storm system.

Please let me know if you have any questions or concerns.

Enclosures:

Figure 1 Map of 2021 and 2022 sample locations and concentrations
Table 1 Sample data from 2022 sample results
Appendix A Correspondence with CHI Franciscan

References:

Tacoma 2016. 2015 Stormwater Source Control Report and Water Year 2015 Stormwater Monitoring Report. City of Tacoma. March 31, 2016

Tacoma 2017. 2016 Stormwater Source Control Report and Water Year 2016 Stormwater Monitoring Report. City of Tacoma. March 31, 2017

Tacoma 2018. 2017 Stormwater Source Control Report and Water Year 2017 Stormwater Monitoring Report. City of Tacoma. March 31, 2018

Tacoma 2019. 2018 Stormwater Source Control Report and Water Year 2018 Stormwater Monitoring Report. City of Tacoma. March 31, 2019

Tacoma 2020. 2019 Stormwater Source Control Report and Water Year 2019 Stormwater Monitoring Report. City of Tacoma. March 31, 2020

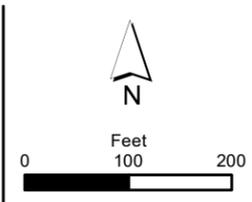
Tacoma 2021. 2020 Stormwater Source Control Report and Water Year 2020 Stormwater Monitoring Report. City of Tacoma. March 31, 2021

Figure 1
Map of 2021 and 2022 Sample Locations and
Concentrations



**Figure 1 (2021)
FD13BNew (OF 237A)
PAH Source Tracing
Investigation**

- Pubic CB
 - Private CB
 - Public Main
 - Private Main
 - Storm MH
 - X Sediment Trap
- PAHppb**
- < 15,000
- New sample locations and concentrations**
- PAH Levels**
- High
 - Low



Map Date: January 2022
Source: Science and Engineering Division,
Environmental Services Department
City of Tacoma

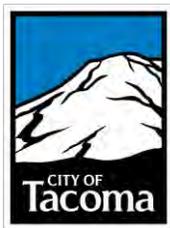
Center for Urban Waters
326 East D Street, Tacoma WA 98421
(253) 591-5588

Table 1
Sample Data from 2022 Sample Results

Table 1
FD13B-New (OF237A) 2022 Source Tracing Results

Sample Date Collected	SWIN103208 6/14/2022	SWIN128860 6/14/2022	SWIN103205 6/14/2022	SWIN103206 6/14/2022	SWIN103207 6/14/2022
Conventionals					
Total Solids (%)	57.1	40.6	54.7	69.3	49
PAHs in ug/kg					
2-Methylnaphthalene	7,580 U	10,900 U	8,030 U	6,460 U	8,460 U
Acenaphthene	7,580 U	10,200 J	8,030 U	3,060 J	11,700
Acenaphthylene	7,580 U	10,900 U	8,030 U	6,460 U	8,460 U
Anthracene	8,560	55,600	9,090	16,700	68,400
Benzo(a)anthracene	54,600	331,000	54,300	95,900	417,000
Benzo(a)pyrene	56,900	363,000	58,500	107,000	449,000
Benzo(b,k)fluoranthenes	119,000	752,000	124,000	215,000	957,000
Benzo(g,h,i)perylene	31,200	165,000	33,100	49,600	212,000
Chrysene	71,500	433,000	71,900	125,000	530,000
Dibenz(a,h)anthracene	8,420	53,400	9,940	15,900	66,700
Fluoranthene	142,000	899,000	154,000	258,000	1,080,000
Flourene	7,580 U	13,800	8,030 U	4,400 J	18,000
Indeno(1,2,3-cd)pyrene	42,700	233,000	44,100	71,500	312,000
Napthalene	7,580 U	10,900 U	8,030 U	6,460 U	8,460 U
Phenanthrene	46,400	367,000	54,900	102,000	434,000
Pyrene	109,000	704,000	113,000	196,000	856,000
Total PAHs in ug/kg	709,230	4,096,350	746,905	1,269,750	5,424,490

Appendix A
Written Correspondence



City of Tacoma
Environmental Services Department

July 25, 2022

Tahni Madden
Virginian Mason Franciscan Health
1149 Market Street, 10-06
Tacoma, WA 98402

SENT VIA CERTIFIED MAIL

**Subject: Private Stormwater System Inspection July 2022
2420 State Street, Tacoma, WA 98405**

Dear Tahni Madden:

Thank you for your cooperation and assistance with the City of Tacoma Environmental Services' Source Control Program. As we discussed, the City is obligated, under permit from the Washington Department of Ecology and a Consent Decree with the Environmental Protection Agency, to implement a Stormwater Management Program that, among other things, requires the City to identify pollutants in the City's stormwater system and identify and remove the sources of those pollutants in order to protect the local receiving waters. Tacoma Municipal Code (TMC) prohibits the discharge of anything other than stormwater into the stormwater system.¹

The Source Control team has been performing source-tracing project to find a source of Poly Aromatic Hydrocarbons (PAHs – typically components of fuel or oil) in the South 23rd Street/South Ferry Street drainage basin. The project was based on data collected from the Ferry Street regional stormwater treatment device showing elevated levels of PAHs in its sediments. The project identified very elevated levels of PAHs in sediments in the stormwater system at the CHI Franciscan's southern parking lot which drains to the City's system in South State Street and into the regional treatment device.

Corrective Actions

Within thirty (30) days of receipt of this letter, please complete the required action:

Submit a written plan of action and timeline to effectively eliminate the discharge of PAHs from this facility to the City's stormwater system

We very much appreciate your cooperation and will be glad to assist in any way we can. If you have any questions regarding this matter, please contact Environmental Specialist, Tony Miller at (253) 355-8955 or tmiller@cityoftacoma.org.

Sincerely,

DocuSigned by:



Kurt Fremont

Division Manager

Business Operations Division

Enclosures: Site Map and lab analysis (2022)

Sent by First Class and Certified Mail: 7021 1970 0000 0082 5053

¹ Tacoma Municipal Code (TMC) Chapter 12.08.080 - Prohibited, allowable, and conditional discharges - Storm.



MEMORANDUM

Date: January 23, 2023
To: Mary Henley and Laura Nokes
cc: Kurt Fremont and Cassandra Moore
From: Tony Miller
Subject: OF237A Source Tracing Status Update – Polyaromatic Hydrocarbons Investigation and PCBs in FD10c

INTRODUCTION

The City of Tacoma (City) is tasked with source tracing contaminants of concern identified through annual sediment trap monitoring and sampling in the Thea Foss Waterway. Based on sediment monitoring in Outfall 237A (OF237A), the FD10c drainage basin was identified as having moderate PCB contamination and elevated phthalate levels in catch basin sediments. In addition, past investigations have identified mercury as a potential source of contamination. In previous years the catch basins throughout the entire FD10c basin have been sampled, both public and private sources. The plan for 2022 was to re-sample some of the private locations, which previously held some concentrations of PCBs to determine if these concentrations have increased or decreased. Historic investigations in this basin are available for review in previous annual reports (Tacoma 2015, 2016, 2017, 2018, 2019, 2020, 2021).

2022 INVESTIGATION

In 2022, the City's Collection System Support Group performed an investigation to confirm that the private systems in this basin are accurately represented on the City's interactive map. Their investigation showed that the private collection system is mapped correctly and that there were no unknown/undocumented connections to the municipal storm system.

Additionally, short term sediment traps were installed at two new locations along Lawrence Street upstream from FD-10C (6764550 and 6764559). These locations isolate different private drainage systems that discharge to Lawrence Street, helping to identify the source of PCBs in this drainage area. Previous private systems investigations have not yielded results with similar concentrations to the FD_10C sediment trap. The short-term sediment trap results showed that the 6764550 trap had a concentration of 65ppm PCBs and the 6764559 trap had a concentration of 230ppm PCBs (analysis available upon request). 6764559's concentration of 230 ppm aligns closely with our historic data for the FD_10C sediment trap, however the storm municipal storm system where the sediment traps were installed was heavily impacted by sediment and debris, so it is questionable if the source of contamination is ongoing or historic (Figure 1). There were several construction projects on Lawrence Street completed in 2022 so it is possible that the sediment impacting the storm main could be from those activities. Sewer Transmission cleaned the entire system, and the sediment traps were requested to be re-installed in December 2022.

2023 PLAN

Once the short-term sediment traps have been collected and analyzed (early 2023) and if concentrations warrant it, Environmental Compliance will sample private systems and building materials of businesses whose private system connect to the locations with the highest PCB concentrations. Additionally, we will continue to monitor the sediment loading in the municipal storm system on Lawrence St. to determine if the sediment loading is an ongoing issue that needs addressed.

Please let me know if you have any questions or concerns.

Enclosure:

Figure 1 FD10C Sampling Map

References:

Tacoma 2015. 2014 Stormwater Source Control Report and Water Year 2013 Stormwater Monitoring Report. City of Tacoma. March 31, 2015

Tacoma 2016. 2015 Stormwater Source Control Report and Water Year 2014 Stormwater Monitoring Report. City of Tacoma. March 31, 2016

Tacoma 2017. 2016 Stormwater Source Control Report and Water Year 2015 Stormwater Monitoring Report. City of Tacoma. March 31, 2017

Tacoma 2018. 2017 Stormwater Source Control Report and Water Year 2016 Stormwater Monitoring Report. City of Tacoma. March 31, 2018

Tacoma 2019. 2018 Stormwater Source Control Report and Water Year 2017 Stormwater Monitoring Report. City of Tacoma. March 31, 2019

Tacoma 2020. 2019 Stormwater Source Control Report and Water Year 2018 Stormwater Monitoring Report. City of Tacoma. March 31, 2020

Tacoma 2021. 2020 Stormwater Source Control Report and Water Year 2020 Stormwater Monitoring Report. City of Tacoma. March 31, 2021

Figure 1
FD_10C Source Tracing 2021 Sampling Locations

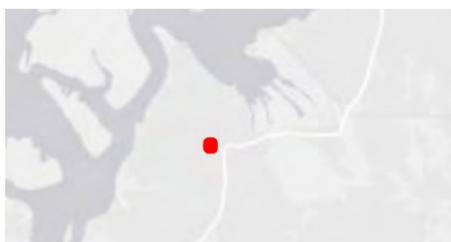
Figure 1: FD_10C Source Tracing 2022 Sampling Locations



R:\Projects\2022\PO001_PAHSourceTracingInvestigation\FD_10CSourceTracing2022SampleLocations.mxd

Legend

● Sample Locations



0 50 100 200 Feet

Map Date: 12/30/2022
 Source: Science and Engineering Division
 Environmental Services Department
 City of Tacoma
 326 East D Street, Tacoma WA 98421
 (253) 591-5588



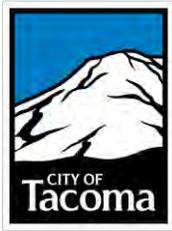
ATTACHMENT A.5 - OF 237B

**Table A.5-1
2022 Pipe Maintenance Activities for OF237B**

Date	Location	Type of Work	Outfall	Sub-Basin
8/22/2022	3815 TACOMA AVE S - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
8/10/2022	3201 PACIFIC AVE - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
8/10/2022	118 E 34TH ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
8/10/2022	103 S WRIGHT AVE - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
8/26/2022	502 S 38TH ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
8/10/2022	3510 A ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
8/10/2022	104 E 35TH - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
8/10/2022	104 E 35TH - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
8/18/2022	3323 PACIFIC AVE - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
8/22/2022	220 S 61ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
8/9/2022	101 E 68TH - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
6/16/2022	103 E 56TH - AMG - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
6/27/2022	218 S 32ND - AMG - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
6/21/2022	4801 S D ST - AMD - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
6/17/2022	402 S 60TH - CLEAN FOR TV	CLEAN ASSET	237B	FS_10
4/22/2022	E 46th & PAC AVE (200) BLK CLN CULVERT	CLEAN ASSET	237B	FS_10
3/1/2022	5602 PACIFIC AVE - FLOODING CB	CLEAN ASSET	237B	FS_10
1/11/2022	306 S 34th St - Flooding	CLEAN ASSET	237B	FS_10
8/9/2022	124 E 34TH ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
8/24/2022	403 E 40TH STREET CT - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
8/18/2022	306 E 43RD ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
8/18/2022	306 E 43RD ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
8/18/2022	306 E 43RD ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
8/18/2022	306 E 43RD ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
8/22/2022	1101 E 70TH - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
7/27/2022	516 E. 68th - STREETS/SH - TV	CLEAN ASSET	237B	FS_11
6/17/2022	250 WEST ST - AMG - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
6/17/2022	401 E 82ND - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
6/17/2022	8203 E SHERWOOD - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
9/8/2022	BC 8 STORMS 1 YR, BLUEBERRY FIELDS	BACKCUT	237B	FS_11
9/8/2022	BC 8 STORMS 1 YR, BLUEBERRY FIELDS	BACKCUT	237B	FS_11
9/8/2022	BC 8 STORMS 1 YR, BLUEBERRY FIELDS	BACKCUT	237B	FS_11
9/8/2022	BC 8 STORMS 1 YR, BLUEBERRY FIELDS	BACKCUT	237B	FS_11
9/8/2022	BC 8 STORMS 1 YR, BLUEBERRY FIELDS	BACKCUT	237B	FS_11
9/8/2022	BC 8 STORMS 1 YR, BLUEBERRY FIELDS	BACKCUT	237B	FS_11
8/26/2022	BC 8 STORMS 1 YR, BLUEBERRY FIELDS	BACKCUT	237B	FS_11
8/29/2022	BC 8 STORMS 1 YR, BLUEBERRY FIELDS	BACKCUT	237B	FS_11
3/22/2022	237 E 66th - CLEAN VAULT	OTHER MAINTENANCE	237B	FS_11
8/5/2022	5712 EAST G ST, CLEAN POND 1 YR	CLEAR BRUSH	237B	FS_11
6/22/2022	CLN SWALE 1 YR, 205 E 52ND ST	CLEAR BRUSH	237B	FS_11
6/22/2022	CLN SWALE 1 YR 211 EAST 52ND ST	CLEAR BRUSH	237B	FS_11
10/6/2022	CLNDI 1 YR, 315 N STADIUM WAY	CLEAR BRUSH	237B	FS_11
6/23/2022	INSP & CLEAN SWALE 4802 EAST E 1YR	CLEAR BRUSH	237B	FS_11
1/28/2022	401 E MORTON ST - SECURE MH RIM/COVER	REPAIR ASSET	237B	FS_11
2/7/2022	1002 E 57TH - PAVING - CLEAN ****	CLEAN ASSET	237B	FS_11

**Table A.5-1
2022 Pipe Maintenance Activities for OF237B**

Date	Location	Type of Work	Outfall	Sub-Basin
1/3/2022	7002 E E - PAVING - CLEAN FOR TV	CLEAN ASSET	237B	FS_11
2/15/2022	BC CB LATERAL 618 E 75TH 1 YR	BACKCUT	237B	FS_11
1/19/2022	STORM BC 1 SEG YEARLY 68-70TH PAC AVE	BACKCUT	237B	FS_11
2/7/2022	2021 Media Filter Maintenance 6004330	Clean Asset	237B	FS_11
8/25/2022	301 Puyallup Ave - CLEAN CB	CLEAN ASSET	237B	FS_12
8/9/2022	601 UPPPER PARK RD - CLEAN CB'S	CLEAN ASSET	237B	FS_12
8/15/2022	2616 E D ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_12
8/26/2022	723 E 34TH ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_12
8/12/2022	216 E 26TH ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_12
8/29/2022	2750 E D ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_12
8/29/2022	2750 E D ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_12
8/29/2022	2702 E D ST - CLEAN FOR TV	CLEAN ASSET	237B	FS_12
6/27/2022	2702 E D ST - AMG - CLEAN FOR TV	CLEAN ASSET	237B	FS_12



City of Tacoma
Environmental Services Department

September 29, 2022

SENT VIA CERTIFIED MAIL

Brent Wood & Clinton Langer
4306 Pacific Avenue
Tacoma, WA 98418

**Subject: Surfacing Effluent located at 4306 Pacific Avenue
September 28, 2022 – Repair Required**

Dear Homeowners:

City of Tacoma (City) Environmental Compliance staff has been notified of a failed side sewer at the above-referenced property. The private side sewer at the property was found to be causing sanitary sewage wastewater to leave the pipe and impact the surrounding environment, which caused sewage to surface, creating an unsanitary public nuisance that is a violation of Tacoma Municipal Code (TMC) 8.30.040.B.

Required Actions

- You are required to immediately cease the discharge to your side sewer.
- You must make arrangements to repair your side sewer's defects and provide a proper waste connection from your property to the sanitary sewer main within **18 calendar days** from receipt of this letter.

Property owners are responsible for constructing, servicing, maintaining, assessing condition, investigating service problems, and replacing the private side sewer.¹ Please understand that although the property may be occupied by a tenant, the ultimate responsibility for compliance lies with the property owner.

Side Sewer Repair/Replacement Requirements

- You may do the repair/replacement work yourself or hire a contractor.
- All repair work in the right-of-way must be done by a contractor who is licensed and bonded to work in the City of Tacoma.
- All work on new or existing side sewers **must be permitted** by the City and inspected by a Construction Division Inspector to ensure the side sewer is constructed in accordance with TMC and the Uniform Plumbing Code.²

¹ In accordance with TMC) 2.06 and the Uniform Plumbing Code (311.1), private side sewers must be properly connected to the City's Municipal Sewer System. Private side sewers are the segments of pipe that connect a property to the riser or wye at the City's public sanitary sewer main.

² Information regarding requirements and fees associated with obtaining a Side Sewer Permit can be found online at <http://tacomapermits.org/> or by contacting Planning and Development Services at (253) 591-5030.

Financial Assistance May be Available

Qualifying property owners may obtain financial assistance for side sewer repair or replacement by contacting Stephanie Seivert Wilson, Senior Source Control Representative at (253) 502-2255.

Technical Assistance is Available

It is the City's desire to achieve voluntary compliance. For technical assistance or to report that the repair has been completed, please contact Source Control Representative, Joseph Fuimaono at (253) 278-9875 or jfuimaono1@cityoftacoma.org.

Sincerely,

DocuSigned by:


F7F79691E9FA489...
Cassandra Moore
Assistant Division Manager
Environmental Compliance

CM:JF:cfp

cc: Jennifer Hines, City of Tacoma
Stephanie Seivert Wilson, City of Tacoma
DeJa Irving, City of Tacoma
NCSCSCustSvc@cityoftacoma.org
Permits@cityoftacoma.org

Sent by First Class and Certified Mail: 7018 3090 5413 4265

\\fs005\group\EnviroCompliance\Enforcement\Surfacing Effluent Letters\2022\4306 Pacific Ave- Surfacing Effluent\4306 Pacific Ave.docx

ATTACHMENT A.6 - OF243

**Table A.6-1
2022 Pipe Maintenance Activities for OF243**

Date	Location	Type of Work	Outfall	Sub-Basin
8/26/2022	1940 E D ST - CLEAN SEGMENT	CLEAN ASSET	243	FS_13
8/26/2022	1940 E D ST - CLEAN SEGMENT	CLEAN ASSET	243	FS_13
8/26/2022	1946 E D ST - CLEAN SUMP	CLEAN ASSET	243	FS_13
8/26/2022	1940 E D ST - CLEAN SUMP	CLEAN ASSET	243	FS_13
4/11/2022	2102 E D ST CLEAN STORM MAIN 6259679 36"	CLEAN ASSET	243	FS_13
1/20/2022	FS_13 QAM ASSET CLEANING 6282705 12 "	CLEAN ASSET	243	FS_13
4/11/2022	FS_13 QAM ASSET CLEANING 6282736 48 "	CLEAN ASSET	243	FS_13
4/11/2022	FS_13 QAM ASSET CLEANING 6283509 12 "	CLEAN ASSET	243	FS_13
4/11/2022	FS_13 QAM ASSET CLEANING 6283518 24 "	CLEAN ASSET	243	FS_13
2/7/2022	FS_13 QAM ASSET CLEANING 6283519 24 "	CLEAN ASSET	243	FS_13
1/20/2022	FS_13 QAM ASSET CLEANING 6283520 24 "	CLEAN ASSET	243	FS_13



06 July 2022

Mary Henley
ES Science and Engineering
326 East D Street
Tacoma, WA 98421

Subject: Foss FD23 Source Tracing 20220621

Enclosed are the analytical results for the sample collected 06/21/2022.

Quality Control Data are included with the sample results for your review.

If you have any questions concerning this report, call me at (253)502-2130. Please note that remaining samples associated with this report will be discarded **3 months** from the date of this report unless we are notified otherwise.

Sincerely,

DocuSigned by:
Stuart Magoon
F41AFFAA30F64EB...

Stuart Magoon
Assistant Division Manager
Environmental Services Laboratory

cc. Tony Miller

ES Science and Engineering326 East D Street
Tacoma WA, 98421Project: **Foss FD23 Source Tracing 20220621**

Project Number: ENV-03002-04-01

Project Manager: Mary Henley

Reported:

06-Jul-22 08:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled
6519946-20220621	2206054-01	Soil	21-Jun-22 12:00

ES Science and Engineering

326 East D Street
Tacoma WA, 98421

Project: **Foss FD23 Source Tracing 20220621**

Project Number: ENV-03002-04-01

Project Manager: Mary Henley

Reported:

06-Jul-22 08:36

CHAIN OF CUSTODY, SAMPLE RECEIPT, PRESERVATION AND STORAGE

Samples were received under appropriate Chain of Custody procedures.

HOLDING TIMES

All analyses were performed within the required holding times.

METHODS

The samples were analyzed by the following methods:

EPA Method 7471B for Total Mercury

METHOD DETECTION LIMITS

All analytes are reported to the Practical Quantitation Limit (PQL), which is below or no greater than the Minimum Project Reporting Limit.

BLANKS

Blanks were analyzed at the required frequencies of the methods. Analytes were not detected in the blanks or sample concentrations were greater than 10 times the blank values, or the analytes detected in the blanks were not detected in associated samples.

LABORATORY CONTROL SAMPLES

Laboratory Control Samples (LCS) were analyzed with these samples for all parameters: LCS recoveries were within the project limits.

MATRIX SPIKE AND MATRIX SPIKE DUPLICATE ANALYSIS

Matrix Spike and/or Matrix Spike Duplicate (MS/MSD) analysis was performed with these samples. Recoveries were within the laboratory project limits or above control limits with no detections of affected targets in associated source samples .

DATA AVAILABILITY

All data associated with the samples contained in this report are archived at the Environmental Services Laboratory and are available upon request.

ES Science and Engineering

326 East D Street
Tacoma WA, 98421

Project: **Foss FD23 Source Tracing 20220621**

Project Number: ENV-03002-04-01

Project Manager: Mary Henley

Reported:

06-Jul-22 08:36

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and project QAPP.

DocuSigned by:

Terri Torres

EBC808064E434A6...

Reviewed By

ES Science and Engineering326 East D Street
Tacoma WA, 98421Project: **Foss FD23 Source Tracing 20220621**

Project Number: ENV-03002-04-01

Project Manager: Mary Henley

Reported:

06-Jul-22 08:36

Environmental Services Laboratory**6519946-20220621****2206054-01 (Soil)****21-Jun-22 12:00**

Analyte	Result	PQL	Units
---------	--------	-----	-------

Metals

EPA 7471B_(1/98)

Prepared: 29-Jun-22

Analyzed: 29-Jun-22

Mercury**1.38****0.0606****mg/Kg dry**

ES Science and Engineering
 326 East D Street
 Tacoma WA, 98421

Project: Foss FD23 Source Tracing 20220621
 Project Number: ENV-03002-04-01
 Project Manager: Mary Henley

Reported:
 06-Jul-22 08:36

Metals - Quality Control
Environmental Services Laboratory

Sample ID Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
----------------------	--------	-----	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch BFF0293 - EPA 7471B (1/98)

Blank										Prepared & Analyzed: 29-Jun-22
BFF0293-BLK1										
Mercury	0.0040	U	0.0040	mg/Kg dry						
Matrix Spike										Source: 2206054-01 Prepared & Analyzed: 29-Jun-22
BFF0293-MS1										
Mercury	2.22		0.0587	mg/Kg dry	0.916	1.38	91	75-125	35	
Matrix Spike Dup										Source: 2206054-01 Prepared & Analyzed: 29-Jun-22
BFF0293-MSD1										
Mercury	2.10		0.0580	mg/Kg dry	0.906	1.38	79	75-125	6	35
Reference										Prepared & Analyzed: 29-Jun-22
BFF0293-SRM1										
Mercury	25.8		0.478	mg/Kg dry	24.4		106	63-137		

ES Science and Engineering

326 East D Street
Tacoma WA, 98421

Project: **Foss FD23 Source Tracing 20220621**

Project Number: ENV-03002-04-01

Project Manager: Mary Henley

Reported:

06-Jul-22 08:36

Notes and Definitions

- U Analyte Not Detected at or above the associated value
- UJ Analyte Not Detected at or above the associated estimated value
- J The analyte was positively identified. The associated value is an estimate. For BOD Analysis: The sample dilutions set-up for the BOD analysis did not meet the oxygen depletion criteria of at least 2 mg/l dissolved oxygen depletion. Therefore the reported BOD result is estimated biased high
- ND Analyte NOT DETECTED at or above the reporting limit
- E Analyte was determined above the upper quantitation range of the method. The associated value is an estimate.
- NJ There is evidence the analyte is present. The associated value is an estimate.
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- H The sample dilutions set up for the BOD analysis failed to meet the criteria of a residual dissolved oxygen of at least 1 mg/l. Therefore actual concentration is likely greater than the reported result.

Chain of Custody



326 East D Street
Tacoma
WA, 98421-1801

phone (253) 502-2130
fax (253) 502-2170

Page 1 of 1

Lab Work Order Number 2206045 / 2206054

Client Name ES Science and Engineering		Project Name		Requested Analyses						Requested Turn Around		
Client Contact Mary Henley		Project Number		58270E_PCB::Solids, Total SM2540	Mercury, Total DS 7471B					Sample Number	Rush requests subject to additional charge	
Address 326 East D Street		Project Description									Rush requests subject to lab approval	
City Tacoma		PO Number									Standard (days)	
State/Zip WA, 98421		Sampler Signatures 									Expedited (days)	
Phone (253) 502-2113 / (253) 502-2295		Fax								Due Date		
Sampler Tony Miller												

Sample Name or Field ID	Sampled Date	Sampled Time	Sample Type	Matrix Code	Container Count	Preservation Code						Sample	Comments
6526074 6303784 -20220621	6/21/22	11:30	G	S	1	1						2206045-01	11 6/22/22
6500794 6302833 -20220621	↓	11:33	G	S	1	1						2206045-02	↓
6500813 6300600 -20220621	↓	11:38	G	S	1	1						2206045-03	↓
6524028-20220621			G	S	1	1						-04	
6516375-20220621			G	S	1	1						-05	
6517068-20220621			G	S	1	1						-06	
6512434-20220621			G	S	1	1						-07	
6525485-20220621			G	S	1	1						-08	
6512423-20220621			G	S	1	1						-09	
6505129-20220621			G	S	1	1						-10	
6501636-20220621			G	S	1	1						-11	
6501618-20220621			G	S	1	1						-12	
6519946-20220621	6/21/22	12:00	G	S	1	1	1					2206054-01	-13 -14 11

Relinquished By 	Received By Cooler	Date/Time 6/21/22 12:13	Comments 118.4°C 11 6/22/22 4/21/22
Relinquished By Cooler	Received By 	Date/Time 6/21/22 12:34	
Relinquished By	Received By	Date/Time	

Cooler Numbers and Temperatures

Reviewed 6/21/22
Re-Reviewed 6/22/22

Matrix Codes: S=Soil Preserv. Codes: =Cool <6°C (All unpreserved samples) Cont. Codes: =250 mL WM CG, =250 mL WM HDPE

ATTACHMENT A.7 - OF245

Table A.7-1
2022 Pipe Maintenance Activities for OF245/OF248

Date	Location	Type of Work	Outfall	Sub-Basin
8/24/2022	1902 E D ST - CLEAN MH	CLEAN ASSET	245	FS_13

ATTACHMENT A.8 - OF254

**Table A.8-1
2022 Pipe Maintenance Activities for OF254**

Date	Location	Type of Work	Outfall	Sub-Basin
9/21/2022	INSP & CLN RNGRDN 1 MO EAST 11TH/EAST E	CLEAR BRUSH	OF254	FS_14
9/21/2022	INSP & CLN RNGRDN 1 MO EAST 11TH/EAST E	CLEAR BRUSH	OF254	FS_14
9/21/2022	INSP & CLN RNGRDN 1 MO EAST 11TH/EAST E	CLEAR BRUSH	OF254	FS_14
9/21/2022	INSP & CLN RNGRDN 1 MO EAST 11TH/EAST E	CLEAR BRUSH	OF254	FS_14
9/21/2022	INSP & CLN RNGRDN 1 MO EAST 11TH/EAST E	CLEAR BRUSH	OF254	FS_14
8/26/2022	FS_14 QAM ASSET CLEANING 6258861 30 "	CLEAN ASSET	OF254	FS_14
2/7/2022	FS_14 QAM ASSET CLEANING 6259132 15 "	CLEAN ASSET	OF254	FS_14
2/7/2022	FS_14 QAM ASSET CLEANING 6259144 24 "	CLEAN ASSET	OF254	FS_14
8/26/2022	FS_14 QAM ASSET CLEANING 6270983 36 "	CLEAN ASSET	OF254	FS_14
2/7/2022	FS_14 QAM ASSET CLEANING 6270994 30 "	CLEAN ASSET	OF254	FS_14



City of Tacoma
Environmental Services Department

October 13, 2022

SENT VIA CERTIFIED MAIL

Raymond Schuler
Portland at St. Paul, LLC
1201 Pacific Ave STE 1400
Tacoma, WA 98402-4322

Subject: Notice of Violation 2022-007

Dear Mr. Schuler:

Under the legal authority granted in Tacoma Municipal Code (TMC), Chapter 12.08D, the Environmental Services Department hereby issues Portland at St. Paul LLC, located at 510 East 3rd Street, in Tacoma WA, the enclosed Notice of Violation for violations of TMC 12.08D.

This Notice of Violation represents a determination by the Environmental Services Department Compliance Officer that a violation of TMC Chapter 12.08D has occurred, which is final unless you appeal this Notice of Violation to the City of Tacoma's Hearing Examiner and request a hearing.

If you decide to file an appeal, you must do so in accordance with procedures set forth in TMC 1.84.020 within ten (10) days of this Notice.

Service shall be deemed complete upon the third day following the day upon which the notice is placed in the mail, unless the third day falls on a Saturday, Sunday, or federal legal holiday, in which event service shall be deemed complete on the first day other than a Saturday, Sunday, or legal holiday following the third day.

Appeals must be directed to:

City of Tacoma
Tacoma Municipal Building
Office of the Hearing Examiner
747 Market Street
Tacoma, WA 98402

If you have any questions, please contact Senior Environmental Specialist, Kevin Brennan at 253-405-7248 or Kbrennan@cityoftacom.org or Source Control Representative, Erik Harrison at 253-348-1921 or EHarrison@cityoftacoma.org.

Sincerely,

DocuSigned by:

Cassandra Moore

F7F79691EFFA489...

Cassandra Moore, MES
Assistant Division Manager, Compliance Officer
Environmental Compliance
Business Operations Division
2201 Portland Avenue
Tacoma, WA 98421
253-502-2238

Enclosures: Notice of Violation

Sent by First Class and Certified Mail: 7021 1970 0000 0082 5046

G:\EnviroCompliance\Enforcement\2022 Enforcement\NOV 2022-007\Portland at St. Paul LLC - NOV Cover Letter.docx

Environmental Compliance/Source Control
2201 Portland Avenue, P-1 Tacoma, WA 98421
www.cityoftacoma.org

CITY OF TACOMA
Department of Environmental Services

IN THE MATTER OF)
NOTICE OF VIOLATION) No. 2022-007

RESPONSIBLE PERSON¹
Raymond Schuler
Portland at St. Paul LLC
1201 Pacific Ave STE 1400
Tacoma, WA 98402

I. Location of Violations

510 East 3rd Street, Tacoma, WA

II. Legal Authority and Notice of Violations

In accordance with Tacoma Municipal Code (TMC) 12.08D.400 and TMC Chapter 1.82, the City of Tacoma (City), Environmental Services Department (ES), is issuing this Notice of Violation to Portland at St. Paul LLC, at 1201 Pacific Avenue STE 1400 Tacoma, WA 98402 for the following violation:

The prohibited discharge of silt and sediment laden stormwater to the municipal stormwater system located at 303 E D ST on and between January 11, 2021, and July 6, 2022, in violation of **Tacoma Municipal Code (TMC) 12.08D.110.C²** and TMC 12.08D.400.D.1.

III. Background

510 East 3rd Street is a 0.75-acre gravel lot currently occupied by Jackson Energy and owned by Portland at St. Paul LLC. During periods of rain, turbid stormwater runoff has been observed flowing off the west side of the gravel lot and impacting the City of Tacoma's municipal stormwater system located on the neighboring property at 303 East D Street which ultimately discharges into the Thea Foss Waterway.

¹ **TMC 1.82.010 Reasonable Person**, states, in part: A developer, builder, business operator, or owner who is developing, building, or operating a business on the building, premises, structure, or land that is subject to the regulation alleged to have been violated.

² **TMC 12.08D.110.C Prohibited Discharges**, states, in part: No person shall throw, drain, spill, or otherwise discharge, cause, or allow others under their control to throw, drain, spill, or otherwise discharge any substance not specifically allowed or conditionally allowed into the municipal stormwater system or receiving waters. By way of example and not limitation, discharges that are contaminated with the following substances are prohibited: sewage, and any other material that is regulated as a hazardous substance by federal, state, or local laws and regulations.

- On January 11, 2021, City of Tacoma Environmental Services (Control Authority) staff observed highly turbid water along the East shore of the Thea Foss Waterway originating from a stormwater outfall located near the NE corner of Pierce County parcel 6375000181 (326 East D Street). The source of the turbid water was found to be stormwater runoff from 510 East 3rd Street impacting the stormwater collection system located at 303 East D Street
- On January 11, 2021, Control Authority staff reported the illicit discharge to the Washington State Department of Ecology in accordance with the City of Tacoma's National Pollutant Discharge Elimination System (NPDES) permit.
- On April 6, 2021, Control Authority staff sent a letter via certified mail to Raymond Schuler of Portland at St. Paul LLC describing the illicit discharge to the municipal stormwater system and required that BMPs be installed and maintained.
- On September 16, 2021, Control Authority staff confirmed that additional BMPs were installed along a portion of the west property line at 510 East 3rd Street. A second, and in some places a third set of straw wattles had been installed.
- On September 28, 2021, Control Authority staff and City Engineers met with Mr. Schuler onsite to view the area of concern and discuss options to correct the turbid flow from 510 East 3rd Street. At this time Mr. Schuler indicated he would be open to installing some kind of berm along the property line.
- On February 22, 2022, Control Authority staff confirmed that a new asphalt berm was installed along the fence line (west property line) of 510 East 3rd Street. The previous BMPs of straw wattles have been removed.
- On February 28, 2022, Control Authority staff observed turbid stormwater runoff flowing around and under the newly installed asphalt berm and continuing to impact the municipal stormwater system located at 303 East D Street.
- On July 6, 2022, Control Authority staff observed turbid stormwater flowing from 510 East 3rd Street continuing to impact the municipal stormwater system located on 303 East D Street. Stormwater was observed flowing around the asphalt berm, no flow observed from under the berm.

IV. Appeal Process

This Notice of Violation represents a determination that violations of TMC Chapter 12.08D have occurred, which determination is final unless you appeal this Notice of Violation to the City of Tacoma's Hearing Examiner and request a hearing as provided in TMC 1.82.050.J. If you decide to file an appeal, you must do so within 10 days from the date of service of this Notice, pursuant to TMC 1.84.020.

The procedures for filing appeal are set forth in TMC 1.82.050.J and TMC 1.84.020. Appeals must be directed to:

City of Tacoma
Tacoma Municipal Building
Office of the Hearing Examiner
747 Market Street
Tacoma, WA 98402

By Order of the Undersigned Environmental Services Department Compliance Officer:

Signed this ¹³ _____ day of October 2022, at Tacoma, Washington

DocuSigned by:

Cassandra Moore

F7F79691E9FA489...

Cassandra Moore, MES
Assistant Division Manager, Compliance Officer
Business Operations Division
2201 Portland Avenue
Tacoma, WA 98421
253-502-2237