

November 17, 2021

Apurva Patil, P.E.
Remedial Project Manager
Remediation & Site Response Program
Toxic Substances Division
District Department of the Environment
1200 First Street, NE, 5th Floor
Washington, DC 20002

**Subject: *Additional Data Collection at the Waterside Investigation Area Cove
Benning Road Facility, 3400 Benning Road, NE, Washington, DC***

Dear Ms. Patil:

AECOM has prepared this work plan, on behalf of Potomac Electric Power Company (Pepco), to collect additional data to evaluate potential discharges to the Cove from the National Park Service Kenilworth Park South (KPS) Landfill site and the D.C. Department of Public Works (DPW) Solid Waste Transfer Station. Specifically, this work plan has been prepared to identify potential discharge pathways and assess potential contaminant contributions to the Cove from a silt pond at the KPS Landfill site and stormwater outfalls associated with the DPW facility. This data is intended to help evaluate the potential for recontamination of any future remediation of Cove sediments. Accordingly, as described in more detail below, this work plan includes the collection and analysis of the following samples:

- Surface and subsurface sediment samples from three locations within the silt pond, two surface soil samples along the spillway structure and one water sample from the silt pond,
- One stormwater sample and one residue/soil sample from Outfall 6 (DPW Outfall 001),
- Soil samples collected immediately next to and in line with the outfall location of four culverts crossing the Anacostia Trail and stormwater samples from the culverts, if possible, and
- Two sediment cores at the mouth of the Cove to supplement the Cove dataset.

Background

Pepco recently completed treatability studies to support the evaluation of potential remedial alternatives to address contaminated sediments in the Cove within the Waterside Investigation Area (WIA). During the field work for the treatability studies, Pepco identified several potential additional discharges from sites adjacent to the Cove. These include a silt pond located on the KPS landfill site just to the north of the Cove and several additional stormwater outfalls that discharge to the Cove.

A network of drainage ditches and silt ponds were constructed on the KPS Landfill site in the late 1990s to collect surface water runoff and allow for sedimentation prior to discharge to the adjacent surface water features during overflow events (NPS, 2008). According to NPS, three silt ponds were constructed – one in the northern portion of the KPS Landfill site adjacent to Watts Branch, one in the western portion of the site next to the unnamed tributary to Watts Branch, and a third pond in the southeastern portion of the

site. Although no discharge from the pond was observed during the recent site visits, a riprap spillway was observed on the southwest side of the pond, which appears to be designed to convey overflow from the pond to the north shore of the Cove. Currently, there is no data available from this silt pond or the spillway structure to evaluate the impact of potential discharges from the silt pond to the Cove. Pictures of the pond and spillway structure are provided in **Attachment A**.

In late April/early May 2018, Tetra Tech on behalf of District Department of Energy and Environment (DOEE) collected four seep samples (KPS-S-1, KPS-S-4, KPS-S-7, and KPS-S-12) at the KPS Landfill site at locations within 25 feet of adjacent surface waters subject to tidal influences of the Anacostia River. The sampling locations were identified based on field observations and identification of a preferential flow pathway from the toe of the landfill to the river based on infrared thermographic analysis. At each location, seep water was observed flowing away from the buried waste toward the surface water. Contaminants detected in these seep samples included dioxin TEQ, polycyclic aromatic hydrocarbons (PAHs), pesticides, and polychlorinated biphenyls (PCBs).

Although none of these seep samples were located along the northern face of the Cove, during low tide on April 24, 2021, AECOM noticed a potential seep with reddish brown tinge from KPS flowing toward the channel in the Cove. Pictures of this potential seep are provided in **Attachment A**. If conditions permit, Pepco proposes to collect a sample from this seep.

During the field work for the Treatability Study, a total of six outfalls were identified as discharging into the Cove, as summarized in the following table:

Outfall	Pipe Size	Invert Elevation*	Source
1	21" RCP	2.47'	DPW Transfer Station (Outfall 002)
2	54" CMP External, 36" DI Internal	-1.42'	Pepco (Facility Outfall 013)
3	12" RCP	2.60'	DPW Transfer Station (Outfall 003)
4	15" CMP	2.67'	Unknown
5	12" RCP	5.51' **	Unknown
6	21" RCP	not measured	DPW Transfer Station (Outfall 001)

*Elevations shown use the NAVD88 datum as identified in 2020 site survey. **Site survey captured top of pipe elevation. Estimated invert shown here based on 12" diameter and assumed 3" pipe wall thickness.

One of the three outfalls associated with the waste transfer station property, Outfall 6 (DPW Outfall 001), was not identified until after the field sampling was completed. Additional sampling is proposed in this plan to assess potential impacts to the Cove from this outfall. In addition, it is our understanding that DOEE is planning a further investigation to confirm the sources of both wet and dry weather flow to Outfall 3 (DPW Outfall 003) and Outfall 4 (unknown origin) as well as the apparent interconnection of the drain pipes leading to these two outfalls.

Field inspections also identified four culverts associated with the Anacostia Trail. These culverts all appear to discharge to the Cove directly or indirectly. Additional sampling is proposed in this plan to further assess potential impacts to the Cove of flows from these discharge points.

In addition, Pepco is proposing to collect two additional sediment samples, SED6.5C and SED7.5C, at the locations shown in Figure 2 of **Attachment B**. These samples would provide additional data at the

mouth of the Cove to the main stem of the Anacostia River. This additional data would help better understand the sediment profile in this transition zone.

The following table presents the proposed sampling plan and investigation methodology.

Sampling Plan

The proposed sample locations are shown in Figures 1 and 2 of **Attachment B**. Sample locations/IDs, sampling intervals, proposed analysis, and location rationale are summarized in the table below:

Proposed Feature/ Location	Sample ID	Sample Medium	Proposed Sampling	Location/Rationale
KPS Silt Pond	KPS SP-1	Sediment (Hand Auger or VibeCore to 3')	Three intervals (0-1', 1-2', 2-3') analyzed for PCB Aroclors (8082), Geochemical Biomarkers (GBM), saturated hydrocarbons (SHC) (8015D), PAHs (8270D), metals (6020), dioxins (8290A), and Total Organic Carbon (TOC by Lloyd-Kahn). The interval exhibiting the highest total PCB Aroclor concentration will be analyzed for congeners (1668C)	Potential recontamination pathway to the Cove; No existing data
	KPS SP-2	Sediment (Hand Auger or VibeCore to 3')	Three intervals (0-1', 1-2', 2-3') analyzed for PCB Aroclors (8082), GBM, SHC (8015D), PAHs (8270D), metals (6020), dioxins (8290A), and TOC (Lloyd-Kahn). The interval exhibiting the highest total PCB Aroclor concentration will be analyzed for congeners (1668C)	Potential recontamination pathway to the Cove; No existing data
	KPS SP-3	Sediment (Hand Auger or VibeCore to 3')	Three intervals (0-1', 1-2', 2-3') analyzed for PCB Aroclors (8082), GBM, SHC (8015D), PAHs (8270D), metals (6020), and dioxins (8290A), and TOC (Lloyd-Kahn). The interval exhibiting the highest total PCB Aroclor concentration will be analyzed for congeners (1668C)	Potential recontamination pathway to the Cove; No existing data
	KPS SPW	Water (grab, if feasible)	Grab water sample from the Pond; Analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), and metals (6020).	Potential recontamination pathway to the Cove; No existing data
KPS Silt Pond Spillway	KPS SPSW-1	Soil	Collect surface sample from the interstitial soil accumulated between the riprap. If insufficient soil is present, collect from 0.5 ft depth under/adjacent to riprap; analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), metals (6020), dioxins (8290A), and TOC (Lloyd-Kahn).	Potential recontamination pathway to the Cove; No existing data

Proposed Feature/ Location	Sample ID	Sample Medium	Proposed Sampling	Location/Rationale
	KPS SPSW-2	Soil	Collect surface sample from the interstitial soil accumulated between the riprap. If insufficient soil is present, collect from 0.5 ft depth under/adjacent to riprap; analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), metals (6020), and dioxins (8290A), and TOC (Lloyd-Kahn).	Potential recontamination pathway to the Cove; No existing data
Potential KPS Seep into the Cove	KPS Seep	Water (grab, if feasible)	Grab water sample from seep (if present during field mobilization); analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), and metals (6020).	Potential recontamination pathway to the Cove; No existing data
Outfall 006 (DPW 001)	OU006 Sediment	Sediment	Grab sediment sample (if sufficient sediment is present in the outfall pipe); analyzed for PCBs (1668C), Total Organic Carbon (Lloyd Kahn), metals (6020), GBM, SHC (8015D), PAHs (8270D), and dioxins (8290A), and TOC (Lloyd-Kahn).	Potential recontamination pathway to the Cove; recently discovered outfall -data not collected during Treatability Study
	OU006 Water	Stormwater (if feasible)	Collected during a storm event, following "first flush", defined as runoff from the initial 30 minutes of precipitation from a storm of 0.1 inch or greater intensity; analyzed for Total Suspended Solids (TSS) (2540-D), PCBs (1668C), total metals (method SW6020A), PAHs (8270D), GBM and SHC (8015D)	Potential recontamination pathway to the Cove; recently discovered outfall -data not collected during Treatability Study
Anacostia Trail Culvert	PN1001 Soil	Soil	Collect from 0-0.5 ft depth; analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), metals (6020), dioxins (8290A)	Potential recontamination pathway to the Cove
	PN1002 Soil	Soil	Collect from 0-0.5 ft depth; analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), metals (6020), dioxins (8290A)	Potential recontamination pathway to the Cove
	PN1001 SPW	Stormwater (if feasible)	Collected during a storm event, following "first flush", defined as runoff from the initial 30 minutes of precipitation from a storm of 0.1 inch or greater intensity; analyzed for TSS (2540-D), PCBs (1668C), total metals (method SW6020A), PAHs (8270D), GBM and SHC (8015D)	Potential recontamination pathway to the Cove
Anacostia Trail Culvert	PN1000 Soil	Soil	Collect from 0-0.5 ft depth; analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), metals (6020), dioxins (8290A)	Potential recontamination pathway to the Cove
	PN1003 Soil	Soil	Collect from 0-0.5 ft depth; analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), metals (6020), dioxins (8290A)	Potential recontamination pathway to the Cove

Proposed Feature/ Location	Sample ID	Sample Medium	Proposed Sampling	Location/Rationale
	PN1000 SPW	Stormwater (if feasible)	Collect during a storm event, following “first flush”, defined as runoff from the initial 30 minutes of precipitation from a storm of 0.1 inch or greater intensity; analyzed for TSS (2540-D), PCBs (1668C), total metals (method SW6020A), PAHs (8270D), GBM and SHC (8015D)	Potential recontamination pathway to the Cove
Anacostia Trail Culvert	PN1004 Soil	Soil	Collect from 0-0.5 ft depth; analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), metals (6020), dioxins (8290A)	Potential recontamination pathway to the Cove
	PN1005 Soil	Soil	Collect from 0-0.5 ft depth; analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), metals (6020), dioxins (8290A)	Potential recontamination pathway to the Cove
	PN1004 SPW	Stormwater (if feasible)	Collect during a storm event, following “first flush”, defined as runoff from the initial 30 minutes of precipitation from a storm of 0.1 inch or greater intensity; analyzed for TSS (2540-D), PCBs (1668C), total metals (method SW6020A), PAHs (8270D), GBM and SHC (8015D)	Potential recontamination pathway to the Cove
Anacostia Trail Culvert	PN1006 Soil	Soil	Collect from 0-0.5 ft depth; analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), metals (6020), dioxins (8290A)	Potential recontamination pathway to the Cove
	PN1007 Soil	Soil	Collect from 0-0.5 ft depth; analyzed for PCBs (1668C), GBM, SHC (8015D), PAHs (8270D), metals (6020), dioxins (8290A)	Potential recontamination pathway to the Cove
	PN1006 SPW	Stormwater (if feasible)	Collected during a storm event, following “first flush”, defined as runoff from the initial 30 minutes of precipitation from a storm of 0.1 inch or greater intensity; analyzed for TSS (2540-D), PCBs (1668C), total metals (method SW6020A), PAHs (8270D), GBM and SHC (8015D)	Potential recontamination pathway to the Cove
SED6.5C	SED6.5C	Sediment	Coring to 3 ft depth; Four intervals (0-0.5, 0.5-1.0, 1.0-2.0, 2.0 -3.0) analyzed for PCBs (8082); surface samples for PCB (1668C)	Additional data resolution for Cove remedy planning
SED7.5C	SED7.5C	Sediment	Coring to 3 ft depth; Four intervals (0-0.5, 0.5-1.0, 1.0-2.0, 2.0 -3.0) analyzed for PCBs (8082); surface samples for PCB (1668C)	Additional data resolution for Cove remedy planning

Samples KPS SPSW-1 and KPS SPSW-2 were proposed to be collected along a riprap spillway structure observed on the southwest side of the pond. No other outlets were observed during Pepco’s dry-weather reconnaissance. In the event that other outlets are observed during field actives, additional soil/sediment

samples will be collected and analyzed for the parameters specified for the KPS Silt Pond Spillway samples in the table above. Sample locations along the riprap spillway structure, or other pond outlets identified, will be field determined based on evidence of surface water runoff (i.e. erosional features such as worn or lack of vegetation, scours, gullies, etc.).

All sampling activities will be conducted in accordance with the procedures documented in the previously approved RI/FS Quality Assurance Project Plan (included under the Sampling and Analysis Plan) and Work Plan dated 2013 and Work Plan Addenda.

Permitting

It is anticipated that a NPS Special Use permit will be needed to collect samples on Park property and sediment samples in the river (KPS and the river bottom). In addition, a U.S. Army Corps of Engineers (USACE) permit will be needed to collect the two additional samples in the River. Concurrent with DOEE's review of this work plan, Pepco will submit request letters to NPS and USACE to extend the Treatability Study-phase permits to cover these additional sampling activities.

Reporting

The findings of this additional sampling will be presented and discussed in a brief technical memorandum that will be submitted to DOEE for review and comment. The sampling results are one of multiple lines of information regarding contaminant sources and migration pathways collected either as part of this investigation or independent investigations conducted by NPS and DPW, and will be discussed in that context.

Restoration

The available KPS documents do not indicate installation of any liners in the silt ponds. Unless directed otherwise by NPS, the holes created by sample retrieval within the silt pond will be filled with bentonite chips and will be hydrated to prevent any preferential pathways. This work plan will be provided to NPS along with the permit application.

Waste Management

Disposable materials and supplies (e.g. core liners, tubing, PPE, etc.) will be rinsed and disposed of as ordinary solid waste. Excess soil cuttings and purge water generated during boring installation will be temporarily staged on-site in 55-gallon drums for disposal by Pepco's waste management services department.

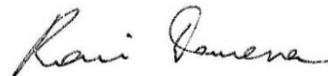
Anticipated Schedule

Field work will be scheduled within two weeks of receiving necessary approvals and permits. A draft technical memorandum will be submitted to DOEE within 30 days of receiving the analytical results.

Delays or restrictions associated with potential COVID-19 generated impacts, including reduced or restricted travel or site access, reduced availability of AECOM, subcontractor, or Pepco staff, quarantines and other actions by local, city, county, state governments and the federal government could impact project deadlines. Allowance for such potential impacts has not been considered in the above schedule.

Pepco and AECOM look forward to your approval of this work plan. Please contact Ravi Damera at (202) 734-0749 or via email at ravi.damera@aecom.com, if you have any questions regarding this submittal.

Sincerely,



Ravi Damera, P.E., BCEE
Senior Program Manager



Sharon Drummond, P.G.
Senior Geologist

Attachments:

Attachment A – Photolog

Attachment B – Figures

Photo No. 1	Date: 04/02/2021	
Description: Silt pond in the southeastern portion of KPS.		

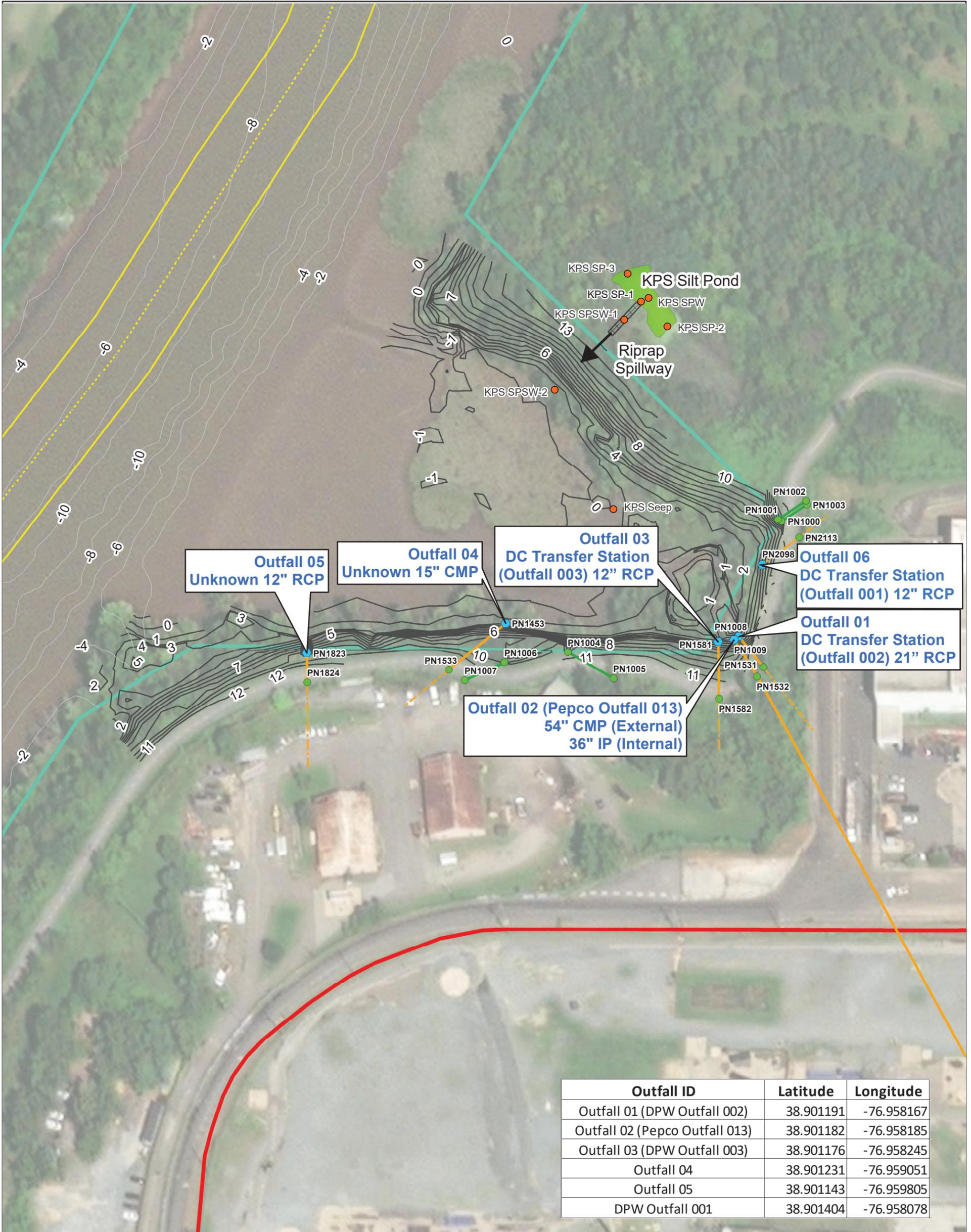
Photo No. 2	Date: 04/02/2021	
Description: A riprap spillway was observed on the southwest side of the silt pond, which appears to be designed to be discharge to the north shore of the Cove.		

Photo No. 3	Date: 04/02/2021	
Description: A riprap spillway was observed on the southwest side of the silt pond, which appears to be designed to be discharge to the north shore of the Cove.		

Photo No. 4	Date: 04/24/2020	
Description: A potential seep with reddish brown tinge from KPS was observed to be flowing toward the channel in the Cove during low tide on April 24, 2021.		

Photo No. 5	Date: 04/24/2021	
Description: A potential seep with reddish brown tinge from KPS was observed to be flowing toward the channel in the Cove during low tide on April 24, 2021.		

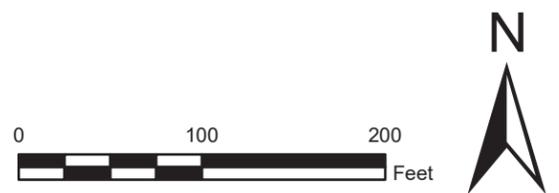
Photo No. 6	Date: 04/02/2021	
Description: DPW Outfall 001 (Outfall 06 in Figure 1), one of the three outfalls associated with the waste transfer station property, was not identified until after the field sampling was completed.		



LEGEND

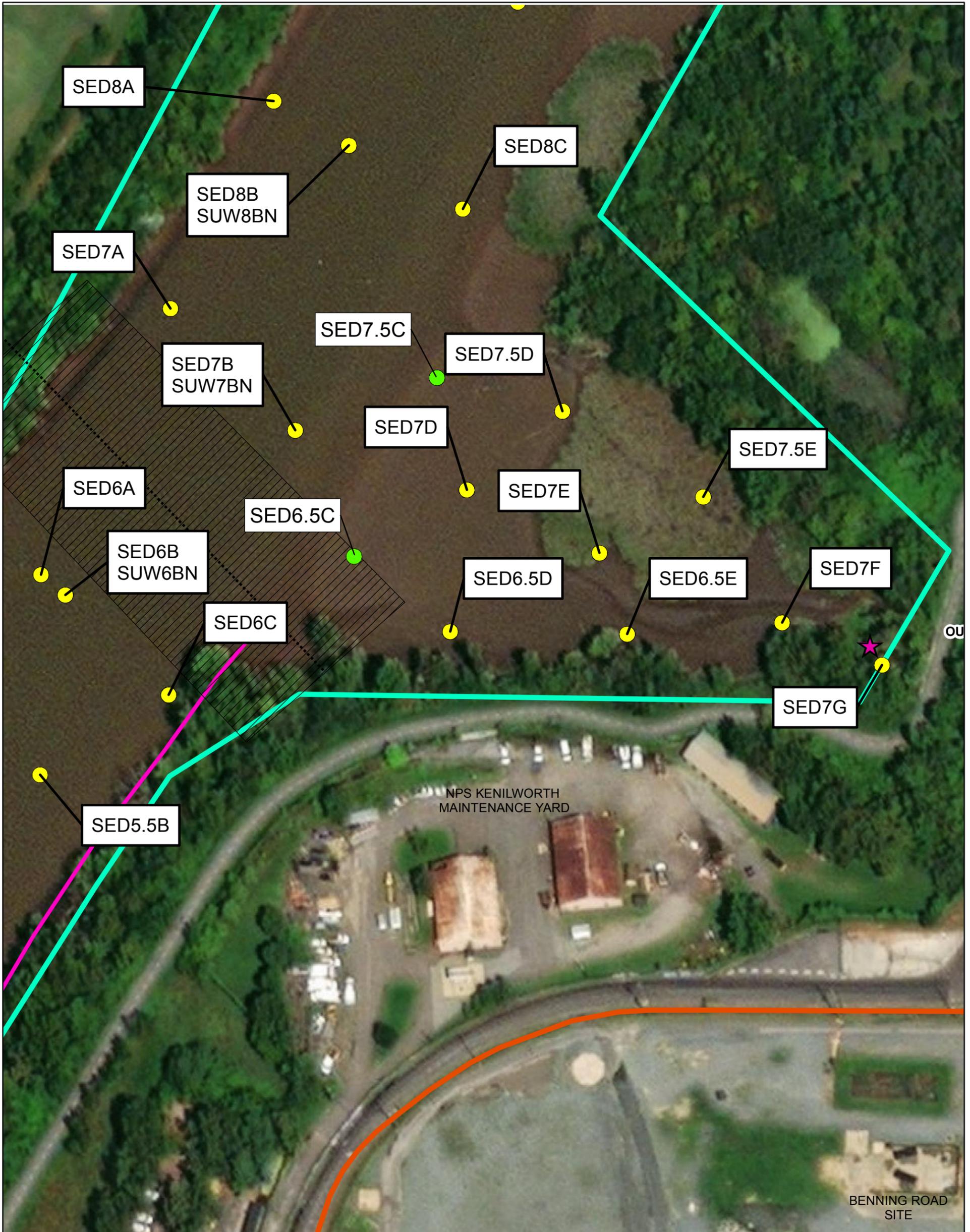
- Surveyed Outfalls
 - Outfall Locations
 - Culvert Pipe
 - Outfall Pipe
 - - - Unknown Outfall Pipe
 - ▭ Benning Road Facility Property Boundary
 - ▭ Waterside Investigation Area
- Type**
- ▭ KPS Silt pond
 - ▭ Riprap Spillway
 - Sampling Location

- Navigational Channel (Approx)
- 2.0' Contour (Bathymetry – June 2020)
- 1.0' Contour (Cove Survey – May 2020)



BENNING ROAD FACILITY RI/FS PROJECT 3400 BENNING RD., NE WASHINGTON, DC 20019			COVE OUTFALL LOCATIONS	
Date: 5/14/2021	Drawn By: DCB	Checked By: RD	FIGURE 1	





- LEGEND**
- Additional Sediment Sample Location
 - Existing Sediment Sample Location
 - ★ Outfalls
 - Utility Crossing
 - Waterside Investigation Area
 - Benning Road Facility Property Boundary



BENNING ROAD FACILITY RI/FS PROJECT
 3400 BENNING RD., NE
 WASHINGTON, DC 20019

ADDITIONAL SEDIMENT SAMPLES
 IN THE COVE

Date: 7/15/2021

Drawn By: KNS

Checked By: SED

FIGURE 2

