FACT SHEET

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 3
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

NPDES Permit No. DC0000094

The United States Environmental Protection Agency (EPA) is Proposing the Reissuance of a National Pollutant Discharge Elimination System (NPDES) Permit to Discharge Pollutants Pursuant to the Provisions of the Clean Water Act (CWA) For:

Pepco Benning Service Center
701 Ninth Street, NW Room 6220
Washington, DC 20068

FACILITY LOCATION:
3400 Benning Road NE
Washington, D.C. 20019

RECEIVING WATER:
Anacostia River

ACTION TO BE TAKEN:

EPA is proposing to reissue the NPDES permit for Pepco Benning Service Center subject to certain effluent discharge limitations, monitoring requirements, and other terms and conditions identified in the permit. The permit requirements are based on Section 402 of the Clean Water Act (33 U.S.C. 1342 et seq.), and NPDES regulations found at 40 CFR Parts 122, 124, 125 and 131.

Persons wishing to comment on, or request a public hearing for, the draft permit for this facility may do so in writing electronically by the expiration date of the public comment period. All public comments and/or requests for a public hearing must state the nature of the issues to be raised as well as the requester's name, address, and telephone number. All public comments and requests for a public hearing must be in writing and submitted electronically to the following:

Carissa Moncavage
Permit Writer
NPDES Permit Section
moncavage.carissa@epa.gov

Public Comment Start Date:
Public Comment Expiration Date:

Pursuant to 40 C.F.R. § 124.13, "[a]ll persons, including applicants, who believe any condition of a draft permit is inappropriate or that the [EPA]'s tentative decision to…prepare a draft permit is inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period (including any public hearing) under [40 C.F.R.] § 124.10. Any supporting materials which are submitted shall be included in full and may not be

incorporated by reference, unless they are already part of the administrative record in the same proceeding, or consist of State or Federal statutes and regulations, EPA documents of general applicability, or other generally available reference materials. Commenters shall make supporting materials not already included in the administrative record available to EPA as directed by the Regional Administrator." 40 C.F.R. § 124.13.

After the public comment period ends, and all comments have been considered, EPA's Regional Director for the Water Division will make a final decision regarding permit issuance. If no substantive comments have been received, the tentative conditions in the draft permit will become effective no less than 30 days after the issuance date, unless an appeal is submitted to the Environmental Appeals Board within 30 days pursuant to 40 C.F.R § 124.19, in which case 40 C.F.R. §§ 124.16 and 124.60 will apply such that contested permit conditions will be stayed but the remainder of the final permit will take effect.

The draft permit, fact sheet, and administrative record index are available on the EPA Region 3 public notice website https://www.epa.gov/dc/epa-public-notices-district-columbia or on the EPA Region 3 NPDES Permits website https://www.epa.gov/npdes-permits/district-columbia-npdes-permits. The administrative record contains all the records EPA used for the development of the draft permit, as required in 40 C.F.R. § 124.10(d)(vi). Copies of any document listed in the administrative record index can be obtained by contacting the permit writer below.

For additional information, please email the permit writer, Carissa Moncavage at moncavage.carissa@epa.gov or call 215-814-5798.

The following is a list of proposed changes to be made in this permit from the 2009 permit:

1. Implemented the applicable Anacostia Total Maximum Daily Loads (TMDLs) for the Anacostia River.
2. Removed internal monitoring point 003 that was used for the discharge of stormwater from off-site equipment vaults following treatment in the oil/water separator because that process has been eliminated.
3. Removed Outfalls 202 and 203 because these outfalls were associated with the cooling tower basin units 15 and 16 that have been demolished eliminating the associated discharges.
4. Removed internal monitoring point 201 since this was associated with the power plant that has been demolished.
5. Updated permit limits for Outfalls 013 and 101 based on the results of the reasonable potential analysis for the current effluent and receiving waters.
6. Added Outfalls 014, 015, 016, 005, 006, and 401 to the permit along with monitoring requirements because data show the presence of some pollutants in these discharges. These outfalls discharge to the District of Columbia's Municipal Separate Storm Sewer System (DC MS4) and were previously regulated under the DC MS4 NPDES Permit (DC0000221).
7. Added detailed reporting requirements to eliminate confusion on how data should be reported on the Discharge Monitoring Reports (DMRs).
8. Updated and combined the Standard Conditions in Part III and Part IV of the previous permit.
9. Moved "Part II. Stormwater Management" to "Part III Special Conditions" section of the permit.

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1.0 Facility Summary

1.1 Site Description

Potomac Electric Power Company (Pepco), owns the Benning Service Center (Site or Facility) in Washington, DC, a service center for Pepco's electric transmission and distribution system. The Site was formerly also the location of the Benning Generating Station, but the power plant was shut down in June 2012, and the power plant buildings were demolished in 2014 and 2015. Process wastewater and stormwater originating from the former power plant was permitted under National Pollutant Discharge Elimination System (NPDES) permit no. DC0000094, which authorized discharges via Outfalls 013 and 101 to the Anacostia River. Following the shutdown and demolition of the power plant, the effluent discharged from the site via Outfalls 013 and 101 consists only of stormwater. Pepco continues to sample and analyze stormwater in accordance with the facility's NPDES permit.

The Benning Service Center is located at 3400 Benning Road N.E., Washington, D.C. Occupying approximately 77 acres, the Benning facility is composed of three electric substations and a variety of administration, operation and maintenance activities, including office facilities, fleet services maintenance and a transformer maintenance shop, that support Pepco's electric transmission and distribution system throughout the Washington, D.C. area.

The facility's current NPDES Permit was issued June 19, 2009 (the 2009 permit). At that time, a steam electric generating station was still in operation at the site and, therefore, the permit listed the facility name as the "Benning Generating Station." In the intervening period, however, the generating station has been shut down, decommissioned, and removed from the site. The power plant ceased operations in June 2012. Two large cooling towers were dismantled and removed from the site in 2013. The remaining power plant buildings and structures were demolished and removed from the site in 2014 and 2015. The concrete basins for the cooling towers were removed in 2017, and two stormwater treatment basins were constructed within the footprints of the basins. In addition to the cooling towers and main power plant building, structures removed from the site since the permit was last renewed including the main smoke stacks, several large above-ground fuel storage tanks, two fuel oil pump houses, and several large station transformers. See Attachment 1 for a depiction of current and historical buildings at the site and Attachment 2 for an aerial view of the site as of 2018. The facility name has been updated to "Pepco Benning Service Center" to reflect the current activities at the site.

1.2 Discharge Description

The nature of the effluent discharges from the Benning facility has also changed significantly since the 2009 NPDES permit renewal. The process water discharges at the Site have ceased as a result of the generating station shutdown and removal. Discharges of stormwater occur at the facility via Outfalls 013, 101, 014, 015, 016, 005, 006, and 401.

1.2.1 Outfalls Discharging through the D.C. Municipal Separate Storm Sewer System (MS4) to the Anacostia River

Discharges from Outfalls 014, 015, 016, 005, 006, and 401 ("MS4 outfalls") were previously authorized under the District's MS4 permit (NPDES no. DC0000221). The Permittee analyzed one sample at each of the MS4 outfalls in 2020 at the request of the District Department of Energy and Environment (DOEE) and submitted these results to EPA and DOEE. Sampling data at these outfalls showed concentrations of

some pollutants to be above the District's water quality standard for that pollutant. A monitoring only requirement is included in the permit to collect data which will better characterize the stormwater discharges from these outfalls. The permit also includes a reopener clause at each MS4 outfall that states the permit may be reopened and modified if the monitoring data show that effluent limits or additional requirements are necessary to meet water quality standards.

The following table summarizes the drainage areas, internal and external outfalls, and operations contributing to the flow at each active outfall. See Attachment 3 for the site drainage area map and Attachment 4 for the sub drainage areas.

Outfall Number	**Average Flow (mgd)**	**Drainage Area (acres)**	**Operations Contributing Flow**	
013	5.86	50.27	Sub Drainage Area (SDA) 02	runoff from east side of former power plant, yard drains and internal roadways
			SDA 06	runoff from yard drains and roadways, Buildings 29, 35, 36, and 65, Substation 45 and overflow from fueling island bio-retention ponds and transformer storage area
			SDA 07	runoff from lay down area, transformer storage area and yard drains
			SDA 08	overflow from bio-retention ponds within former cooling tower basins
			SDA 10	runoff from laydown and material storage areas
			SDA 11	runoff from Building 68, transformer storage areas, yard drains and internal roadways
			SDA 12	runoff from Building 44, parking lot, material storage, transformer / drum storage areas, yard drains and internal roadways
			SDA 13	substation 41 transformer containment discharge
			SDA 14	runoff from Building 59, south side of Building 75, and parking lots
			SDA 15	runoff from Buildings 41, 42, 60, 61and south side of Building 40, laydown areas, and internal roadways
			SDA 16	runoff from Building 88, transformer storage, laydown areas, and internal roadways
			SDA 17	runoff from Building 57 and south side of Building 54, parking lots, transformer / drum storage areas
			SDA 18	runoff from east side of Building 59 and parking lot
			SDA 19	runoff from south side of Building 42 and parking lot
			SDA 20	runoff from Substation 41, Buildings 45, 66 and 67, laydown areas, transformer storage, bio-retention planters, and internal roadways
			SDA 21	runoff from north side of Building 56, parking lots, and internal roadways
			SDA 22	runoff from laydown areas and parking lot
			SDA 24	runoff from Building 56, north side of Building 54 and parking lot
			SDA 28	runoff from Substation 7 building, parking lot and internal roadways
			SDA 29	runoff from Building 38 and yard drains
			SDA 30	runoff from laydown areas, yard drains and internal roadways
			SDA 31	runoff from laydown areas and internal roadways
			SDA 32	runoff from north side of Building 75, southwest corner of Building 88, parking lot and internal roadways

Outfall Number	Average Flow (mgd)	Drainage Area (acres)	Operations Contributing Flow
			SDA 33 runoff from laydown areas
101	0.53	4.38	Stormwater collected in drop inlets on the west side of the Benning facility connected to a separate underground storm drain system.
014	0.28	2.42	Runoff from the northeast side of property including roadways and storage areas (SDA 23)
015	0.43	4.34	Runoff from Substation 7 and roadways all collect in Water Quality Structure prior to discharge (SDA 27)
016	0.26	2.27	Runoff from internal roadways and building 32 (SDA 5)
005	0.07	0.59	Runoff from parking area (SDA 25)
006	0.28	2.27	Runoff from parking areas and Benning Road entrance (SDA 9)
401	0.14	1.12	Runoff from Substation 7 (SDA 26)

The following table is a list of outfalls and monitoring points that have been removed from the permit.

Outfall/Monitoring point	Discharge Description	Status	Reason
201 (internal discharge to Outfall 013)	Stormwater from former power plant area, demineralized wash water, discharge associated with former ash settling tank, former tank drainage areas, and hydrostatic	Eliminated except for stormwater collected in drop inlets near the former power plant which flows through the structure for the former oil/water separator and then to outfall 013	Discharges associated with the power plant that has been demolished.
202 and 203 (internal discharges to Outfall 013)	Cooling tower blow down and basin wash water units 15 and 16	Eliminated	No longer applicable. Plant has been demolished.
003 (internal discharge to Outfall 013)	Oil/water separator for treatment of stormwater removed from Pepco equipment vaults around the city	To be eliminated with permit reissuance.	Following treatment at the oil/water separator, stormwater from off-site equipment vaults will be sent to either DC Water or shipped offsite.
406	Oil/water separator flows from inlet nos. 59, 61, 62, 63, 97, and 57.	Eliminated	No longer applicable. Plant has been demolished.

1.3 Stormwater Best Management Practices (BMPs)

Pepco employs a number of BMPs and other measures to manage and treat stormwater discharges at the Benning facility including the use of filters, screens, and absorbent booms at all storm drain inlets. These

measures would be continued under and incorporated into the renewed permit. Pepco first employed many of these BMPs pursuant to a Total Maximum Daily Load ("TMDL") Implementation Plan required under the 2009 NPDES permit, special condition in Part VII.C in that permit. That plan was to be implemented in three phases: stormwater inlet maintenance, metals management, and future recommendations for additional BMPs and low impact development structures. AMEC Foster Wheeler, *Benning Service Center Phase 3 TMDL Implementation Plan for Compliance with the NPDES Permit* (Dec. 2014) ("Phase 3 Compliance Plan"). Pepco completed implementation of the first two phases of control measures to reduce metal concentrations in stormwater as of December 2012, and then identified supplemental actions to further reduce metal levels in stormwater discharges in the Phase 3 Compliance Plan submitted to EPA in late 2014. These supplemental actions included identifying and addressing potentially significant contributors to metals in stormwater; evaluating and enhancing existing stormwater inlet controls; investigating potential groundwater infiltration to the storm drain system; conducting targeting storm drain inlet sampling to identify areas with the greatest metals loading and opportunities for additional controls; and updating the facility's Stormwater Pollution Prevention Plan (SWPPP).

Requirements to implement and maintain additional stormwater system BMPs and to install and operate a stormwater treatment system at the Benning facility were mandated under a Consent Decree entered into by Pepco and the United States, on behalf of EPA, on May 19, 2017. Consent Decree, *United States v. Pepco*, Civil No. 1:15-cv-01845-JEB, Doc. 18 (D.D.C. May 19, 2017). In accordance with the Consent Decree, Pepco has continued to implement these various BMPs and has installed a stormwater treatment system for stormwater flows at certain "hot spots" at the facility (i.e., areas identified as contributing relatively higher contaminant loads to stormwater). The consent decree with EPA is discussed in more detail in section 1.4 below.

1.4 2017 Consent Decree with EPA

On May 19, 2017 EPA and Pepco entered into a Consent Decree (CD) to address Pepco's violations of its Clean Water Act (CWA) NPDES permit limits and requirements for stormwater discharges from the facility to the Anacostia River under the 2009 permit. The CD outlines compliance requirements (Section VI of the CD) in five key areas: stormwater best management practices, treatment system, corporate practices and recordkeeping, stormwater pollution prevention plan, and sampling. The CD also includes specific reporting requirements (Section X.68 of the CD) and stipulated penalties for exceeding permit limits (Section XI.78 of the CD).

The CD also required Pepco to undergo a stormwater mitigation project (Section VIII of the CD) or "Stormwater Retention Project" by constructing various stormwater controls designed to capture, retain, and filter or treat stormwater that currently drains to Outfall 101. This was to be completed before June 30, 2018. Pepco reported in the second quarter 2018 status report that the Stormwater Retention Project described in Section VIII of the Consent Decree was not technically feasible and has paid the stipulated penalty for not implementing this project. Instead, Pepco is evaluating alternative options for treating stormwater discharges to Outfall 101. It should be noted that evaluating alternative options for treating stormwater discharges at Outfall 101 is not required under the terms and conditions of the Consent Decree or current permit. For more information see the CD which is included in the permit's administrative record.

1.5 2011 Consent Decree with District Department of Energy and Environment

The Pepco Benning Road Facility is one of several properties along the Anacostia River that are suspected sources of contamination. On December 1, 2011, Pepco entered into a Consent Decree with the District

of Columbia to resolve claims for liability under the Resource Conservation and Recovery Act, and under Section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act, and under Section 401(a)(2) of the District of Columbia Brownfield Revitalization Act of 2000. The District's Consent Decree with Pepco is part of the District's larger effort to address contamination in and along the lower Anacostia River. As part of this Decree Pepco agreed to perform a Remedial Investigation and Feasibility Study (RI/FS) at Pepco's Benning Road facility and a segment of the Anacostia River that is adjacent to the site. A final Remedial Investigation Report was submitted to DOEE on February 28, 2020 and can be accessed on DOEE's website here: https://doee.dc.gov/page/pepco-benning-road-facility-plans-and-deliverables. More information about the RI/FS can be found in the RI/FS Scope of Work which can also be found on DOEE's website. For more information see the District's CD which is included in the permit's administrative record. DOEE's consent decree does not affect the conditions and requirements of this permit.

1.6 Environmental Justice (EJ)

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies[1]. EPA has this goal for all communities and persons across the United States. EPA is committed to providing an environment where all people enjoy the same degree of protection from environmental and health hazards and equal access to the decision-making process to maintain a healthy environment in which to live, learn, and work. Although the power plant has been shut down for many years, historical operations at the site have led to ongoing public engagement between Pepco and the surrounding community and local action groups making this draft permit a candidate for environmental justice considerations. EPA's Office of Environmental Justice is working with community stakeholders in D.C. to constructively and collaboratively address community concerns related to the reissuance of this NPDES permit.

2.0 Special Conditions in the 2009 Permit

The 2009 permit contained eight special conditions listed in Part VII. The draft permit also contains Special Conditions which are discussed below in Section 3.0.

2.1 Special Condition A. PCB sampling and Limits

Under the 2009 Permit, the permittee was required to analyze for PCBs using EPA approved Method 608 over the permit term to ensure compliance with the "no discharge" PCB limit in Part I of the permit. The permittee was required to submit annually to EPA the laboratory reports showing the actual recorded values of PCBs and the results of the EPA Method 608 quality control checks. The permittee was required to report on the DMR a value of zero if the result was below the minimum level (ML) of detection for the test. The permittee was also required to test samples using Method 1668B[2] for screening purposes. If the results of the samples tested using Method 1668B are at or above the detection limit, the testing was to be continued during the life of the permit. A review of the lab data sheets from 2014-2018

[1] Chapter 11 of EPA's Permit Writers Manual, 2010.

[2] Method 1668 is not an EPA-approved test method under 40 C.F.R. Part 136 and therefore is not used for compliance purposes. Although Method 1668 is not an EPA-approved method , it was developed by EPA and can detect PCB congeners at much lower concentrations. Method 1668 is generally used for studies and screening purposes because of its low detection levels.

showed some samples that were tested using Method 1668C[3] had PCBs above the specified detection limit. It should be noted that the detection limits for Method 1668C are expressed in picograms per liter (pg/L), and 1 pg is equivalent to 0.000001 micrograms (µg).

The permittee was also required to submit a PCB Source Tracking and Pollutant Minimization Plan to determine the source or sources of the PCB discharge and identify possible measures and controls for each potential source.[4] The permittee found potential PCB sources to be areas that are used to store or process transformers, capacitors, or hydraulic equipment and areas that had historic spills or leaks, some of which drain to Outfalls 013 and 101. The permittee has implemented BMPs in these areas of potential sources of PCBs. The DMR data submitted over the last permit term show PCBs are not detected at or above 1 µg/L at Outfalls 013 and 101. The data submitted annually using Method 1668, the more sensitive method, has lower detection levels and shows PCBs present at several orders of magnitude lower than with method 608. The permittee has met the requirements in the 2009 Permit of this special condition.

2.2 Special Condition B. Monitoring at Outfall 013

The 2009 Permit required the permittee to monitor for Outfall 013 at a manhole (currently named Manhole #33) located prior to where the 54-inch pipe discharges to the Anacostia River. The permittee was also required to note the date, time and all other conditions specified in Part A. of the permit as well as the tidal conditions at the time of monitoring. The permittee has met the requirements of this special condition.

2.3 Special Condition C. Best Management Practices (BMPs)

The 2009 Permit required the permittee to maintain stormwater BMPs in the facility's SWPPP which are intended to be managed at internal monitoring points or other internal positions as required to reduce pollutant loads. The permittee has met the requirements of this special condition.

2.4 Special Condition D. Iron

No later than 12 months after the effective date of the 2009 permit, the permittee was required to conduct a study to determine the source(s) of iron released in the facility's stormwater discharge and identify a pollutant minimization strategy to reduce the presence of iron in their stormwater discharge. Within 3 years of the 2009 permit effective date, the BMPs were required to be identified and installed to ensure the iron concentrations were at or below 1.0 mg/L. On July 19, 2010, Pepco submitted an Iron Source Tracking Study and Pollutant Minimization Plan to EPA. The study identified potential sources of iron and various pollutant minimization measures at each identified source. More detail on the Iron Source Tracking and Minimization Plan can be found in the plan itself which is in the permit's administrative record. Although the permittee has met the requirements of this special condition, iron levels in the

[3] The 2009 permit required the use of Method 1668B (published January 2009), however, the permittee used Method 1668C (published April 2010). The "C" version of Method 1668 revises and improves the quality control acceptance criteria in EPA Method 1668B to allow the upper recovery limit for some congeners to be above 100 percent as well as other changes which are summarized in the method document named "Method 1668C Chlorinated Biphenyl Congeners in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS" which can be found in the permit's administrative record. Both Method 1668B and 1668C are acceptable methods for purposes of this Permit, with Method 1668C being a more refined method, and can be used in determining chlorinated biphenyl congeners in wastewater matrices. See the permit's administrative record for more information on this Method 1668C.

[4] See the permit's administrative record for more detail on the PCB Source Tracking and Pollutant Minimization Plan.

stormwater discharge at Outfalls 013 and 101 continue on occasion to be above the District's Water Quality Criterion of 1.0 mg/L.

2.5 Special Condition E. TMDL Implementation Plan

No later than one year after the effective date of the 2009 permit the permittee was required to submit a TMDL Implementation Plan that describes all previous, on-going, and future efforts by the permittee to meet pollutant reduction loads required by the Anacostia River TMDLs for TSS, iron, copper, lead, and zinc as well as cadmium and nickel (non-TMDL metals). On July 19, 2010, Pepco submitted a TMDL Implementation Plan to EPA. The Plan identified potential sources of heavy metal and TSS pollutants and an implementation schedule which included evaluating additional stormwater control measures and recommending new activities to achieve TMDL goals. The plan called for implementation in three phases. Phase I included storm drain inlet maintenance. Phase II included metals management such as removing unnecessary stored metal, improving good housekeeping measures such as repair and maintenance of secondary containment structures and covering dumpsters. Phase III included future recommendations for additional BMPs and low impact development structures, if necessary, to meet the permit requirements.

The Phase I and Phase II control measures were designed and implemented between 2010 and 2012. These measures were effective in achieving significant reductions in metal concentrations in stormwater discharged from the facility compared to the baseline concentrations prior to the 2009 permit renewal. In particular, based on the stormwater sampling conducted in January 2013 following the completion of Phase I and Phase II control measures, copper concentrations were reduced by 73 percent and zinc concentrations were reduced by 87 percent. Despite these reductions, the BMPs employed to that point were not sufficient to meet the new numeric permit limits for copper and zinc. As a result, Pepco implemented Phase III of the TMDL Implementation Plan in accordance with a supplemental compliance plan submitted to USEPA in December 2014.

Although the permittee has met the requirements of this special condition, heavy metals in the stormwater discharge at Outfall 101 continue to be above the District's Water Quality Criteria. This is addressed in the new draft permit in Part I.C and I.D and discussed in more detail below in section 7.0.

2.6 Special Condition F. TMDL Based Limits

This special condition outlined the new TMDL limits imposed in the 2009 permit. No action was required by the permittee.

2.7 Special Condition G. Temperature

This special condition in the 2009 permit pertained to the temperature limit for the discharge from the cooling tower blowdown units that have since been demolished. Therefore, this condition has not been included in the new draft permit.

2.8 Special Condition H. Manhole K

This special condition required the permittee to submit to EPA and the District Department of Energy and Environment a plan and implementation schedule to retrofit manhole K into a reliable monitoring point for Outfall 101. The permittee has met the requirements of this special condition by developing a

protocol for collecting a composite sample from multiple inlets in the vicinity of the former generating plant that were deemed representative of the stormwater discharge through Outfall 101. Following the demolition of the generating plant, the permittee has closed all inlets draining to Outfall 101 except for Inlet 87, which will be the designated monitoring point under the new permit.

3.0 Special Conditions in the Draft Permit

3.1 Special Condition A. Compliance Schedule for Outfall 101 (Part III.A)

The draft permit provides a twelve (12) month compliance schedule for Outfall 101 to allow the permittee time to come into compliance with the new limits set forth in Part I.B.4 of the permit. A reasonable potential analysis was conducted at this outfall (discussed in more detail in Section 7.0 below) and showed the discharge has the reasonable potential to cause or contribute to an exceedance of water quality criteria for some pollutants. Therefore, in accordance with 40 C.F.R § 122.44(d)(1)(iii), effluent limits were imposed in the permit at this outfall. Because these limits are new permit limits at this outfall, 40 C.F.R § 122.47 and the District of Columbia's Municipal Regulations Title 21 Section 21-1105.9 allows the permit to include a compliance schedule to allow time for the permittee to come into compliance with the new limits.

It should be noted that there are two sets of effluent limits in the permit. The effluent limits in Part I.C of the permit are the most stringent effluent limits calculated without including a dilution factor and the effluent limits in Part I.D of the permit are less stringent effluent limits calculated using a dilution factor. The reason for calculating two sets of limits are discussed in more detail below in Section 7.3. Beginning 24 months after the permit effective date, the permittee will be required to meet the more stringent limits in the event the permittee does not submit a mixing zone study, also discussed in more detail below in Section 7.3.

3.2 Special Condition B. Additional Monitoring Requirements (Part III.B)

3.2.1 Special Condition B.1. TMDL Pollutant Monitoring Requirements (Part III.B.1)

There are no sampling data for some of the Anacostia River TMDL pollutants, as such, this special condition requires the permittee to conduct additional monitoring of the TMDL pollutants listed in this part to ensure consistency with the assumptions and requirements of the Anacostia River TMDLs for Organics and Metals. If the results from the additional monitoring set forth in Part III.B.I of the permit show that four consecutive quarters of monitoring values for any parameter do not exceed the District's applicable water quality standard, monitoring may be discontinued for that parameter.

3.2.2 Special Condition B.2. TMDL Pollutant Source Tracking (Part III.B.2)

EPA assumes there is not a presence of the TMDL pollutants in this discharge, however, if the results from the additional monitoring set forth in Part III.B.1 of the permit show pollutant concentrations to be at or above the District's applicable water quality criteria, this special condition requires the permittee to take action. This special condition requires the permittee to enact controls to reduce concentrations to below the applicable water quality standard. If four consecutive quarters of monitoring data for any TMDL pollutant does not exceed the District's applicable water quality standard, monitoring may be discontinued for that parameter. EPA determined that evaluating four consecutive quarters of monitoring data for TMDL pollutants instead of the average of four quarters as specified in EPA's Multi-Sector

General Permit is a more conservative approach to addressing water quality impairments of the Anacostia River.

3.2.3 Special Condition B.3. Reopener (Part III.B.3)

This special condition is a reopener clause that allows the permit to be reopened and modified should the District of Columbia's Water Quality Standards be revised and/or if there are any changes to the TMDLs that are applicable to this permit.

3.2.4 Special Condition C. Water Quality Modeling Study (Part III.C)

When conducting the reasonable potential (RP) analysis for the pollutants of concern for this discharge, EPA had no information on how the effluent mixes with the receiving stream. Therefore, EPA assumed complete mixing of the effluent with the receiving stream and applied a dilution factor when conducting the RP analysis (see Section 7.0 for more information on the RP analysis). Under complete mixing conditions, applying a dilution factor to the discharge gives the permittee relief from meeting water quality standards at the end of the pipe. However, because complete mixing is assumed, EPA is giving the permittee the option to conduct a water quality modeling study to confirm this assumption or, if there is incomplete mixing, to determine a mixing zone in the receiving stream. This special condition gives the permittee twenty-four months to conduct this modeling study and submit these results to EPA. If needed, the permit will be reopened to impose new requirements based on the results of the study. If the permittee chooses not to conduct a modeling study, then the dilution factors will be removed and end-of-pipe effluent limits in Part III.C. of the permit will go into effect.

3.2.5 Special Condition D. Conditions Applicable to PCB Monitoring and Limits (Part III.D)

This special condition was carried over from the 2009 permit. This condition outlines specific monitoring and reporting requirements for PCBs. Over the previous permit term, the permittee submitted PCB monitoring data using both the 40 CFR Part 136 method, Method 608, and the more sensitive Method 1668 which is not in Part 136. The sampling results periodically showed a presence of PCBs in the discharge using Method 1668. Because the permittee has transformers on site, sampling of PCBs remains in the permit and this special condition outlines PCB specific requirements.

3.2.6 Special Condition E. Whole Effluent Toxicity (Part III.E)

The 2009 permit required acute Whole Effluent Toxicity (WET) testing at Outfalls 013 and 101 once during the permit term. The permittee submitted acute WET test results to EPA as required by the permit, however, the WET tests were conducted on 100% effluent without a dilution series. The EPA Acute WET test method under 40 CFR Part 136 (EPA-821-R-02-012) requires 5 effluent test concentrations and does not recommend a single effluent concentration because a dose-response relationship needs to be established to adequately determine effluent toxicity using the LC50. Therefore, Part III.E of the permit requires one acute WET test to be conducted on samples taken at Outfall 013 and at Outfall 101 using a general dilution series with a control. This special condition includes detailed testing and reporting requirements as well as actions to be taken should there be an endpoint failure. EPA does not anticipate test failures, however, if there is an endpoint failure, the permittee is required to initiate a re-test for the test species with the failure. If the re-test passes, the permittee is not required to conduct further WET monitoring at that outfall. If the re-test fails, this confirms toxicity and Part III.E.5 requires the permittee

to initiate a Phase I Toxicity Reduction Evaluation (TRE) as well as initiate quarterly WET testing for both species until there are four consecutive passing results at that outfall (Part III.E.2.e).

3.2.7 Special Condition F. Storm Water Pollution Prevention Plan (Part III.F)

This special condition outlines specific requirements for the management of stormwater to minimize the discharge of pollutants in the facility's stormwater discharge.

3.2.8 Special Condition G. Best Management Practices for Hazardous and Toxic Wastes (Part III.G)

This special condition applies to all permittees who use, manufacture, store, handle or discharge any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act or any pollutant listed as hazardous under Section 311 of the Act and who have ancillary manufacturing operations which could result in significant amounts of these pollutants reaching waters of the United States. This special condition is included in the permit because of the potential to discharge PCBs and PAHs, pollutants that are listed under Section 311 of the Clean Water Act.

3.2.9 Special Condition H. Benchmark Monitoring (Part III.H)

The permit includes benchmark monitoring for some pollutants at Outfalls 013 and 101. This special condition requires the permittee to take a corrective action if a sampling result exceeds the benchmark value in the permit. The benchmark value is not an effluent limitation; therefore, a benchmark exceedance is not a permit violation. However, if a corrective action is required as a result of a benchmark exceedance, failure to conduct a corrective action is a permit violation.

4.0 Receiving Water Characterization

4.1 303(d) Status of the Upper Anacostia River

The permittee discharges to the Upper Anacostia River. Based on the District's 2018 Integrated Report, the Anacostia River is not on the 303(d) list but has Total Maximum Daily Loads (TMDLs) for various pollutants. The applicable TMDLs are discussed in Section 4.2 below.

OUTFALL NO.	LATITUDE	LONGITUDE	RECEIVING WATER	DESIGNATED USES
013	**38° 53' 60" N**	**76° 57 30" W**	**ANACOSTIA RIVER**	**A, B, C, D, E**
101	**38° 53' 46" N**	**76° 57' 36" W**	**ANACOSTIA RIVER**	**A, B, C, D, E**
005	**38° 53' 51.9" N**	**76° 57' 0.0" W**	**ANACOSTIA RIVER**	**A, B, C, D, E**
006	**38° 53' 47.9" N**	**76° 57' 26" W**	**ANACOSTIA RIVER**	**A, B, C, D, E**
014	**38° 54' 0.0" N**	**76° 57' 11.4" W**	**ANACOSTIA RIVER**	**A, B, C, D, E**
015	**38° 53' 58.3" N**	**76° 57' 9.1" W**	**ANACOSTIA RIVER**	**A, B, C, D, E**
016	**38° 53' 48.5" N**	**76° 57' 31.2" W**	**ANACOSTIA RIVER**	**A, B, C, D, E**
401	**38° 53' 54.6" N**	**76° 57' 4.0" W**	**ANACOSTIA RIVER**	**A, B, C, D, E**

Classifications of the District's Waters, Defined:
Class A – Primary Contact Recreation
Class B – Secondary Contact Recreation
Class C – Protection and propagation fish, shellfish and wildlife
Class D – Protection of human health related to consumption of fish and shellfish
Class E – Navigation

4.2 Total Maximum Daily Loads (TMDLs)

Federal regulations at 40 C.F.R. §122.44(d)(1)(vii)(B) require that NPDES permits be consistent with assumptions and requirements of wasteload allocations (WLAs) in TMDLs. This permit includes effluent limits that are consistent with the assumptions and requirements of the TMDLs. Each TMDL applicable to this discharge is discussed in detail below.

TMDLs applicable to this discharge:

Anacostia Watershed TMDLs	Chesapeake Bay TMDLs (Established 2010)
Trash, approved 2010	Total Nitrogen (TN), Total Phosphorus (TP), TSS that address Dissolved Oxygen (DO), pH, Chlorophyll *a* impairments
Total Suspended Solids (TSS), approved 2007	
Nutrients/Biological Oxygen Demand (BOD) approved 2008	
Copper (Cu) and Zinc (Zn) approved 2003	
Chlordane, DDD, DDE, DDT, Dieldrin, Heptachlor Epoxide, and PAHs (approved 2003)	

4.2.1 TMDL for Trash for the Anacostia River Watershed (approved 2010)

The trash TMDL identifies both point and non-point sources of trash in the Anacostia River. The point sources identified in the TMDL are primarily from Municipal Separate Storm Sewer Systems (MS4) and Combined Sewer Systems (CSS). The TMDL has a "Other Facilities" category which addresses industrial facilities such as Pepco and includes these facilities in the aggregate.[5] The permittee has trash cans located throughout the property, with more trash cans located near buildings and work areas. There is a large part of the property where there are no trash cans, however the property isn't being used in these areas and the storm drains are adequately covered to prevent trash from entering the system.

4.2.2 Anacostia River Basin TMDL for Sediment/TSS (approved 2007)

The TMDL for Sediment/TSS requires an 85% reduction of the loading caps for both the Maryland and DC tidal and non-tidal waters. The TMDL does not assign a wasteload allocation to this facility and states "because most of the flow from the Pepco-Benning facility is stormwater, it is included as part of the urban loads in the TMDL analysis." The TMDL's technical memorandum for point sources identifies this facility's loads which are included in the DC MS4 loads for TSS. When the baseline loads for TSS were calculated, the TMDL included Pepco's discharge at the time which included TSS effluent limits at Outfalls 003 and 013 and internal monitoring points (IMPs) 201 and 010. The TSS effluents limits at these outfalls and internal monitoring points were 30 mg/L and 100 mg/L for the average monthly and daily maximum, respectively. However, discharges from Outfall 003 and internal monitoring points 201 and 010 no longer occur. Because this outfall and IMPs are no longer discharging and Outfall 101 did not have TSS limits in the 2009 permit, but has TSS limits of 100 mg/L in this permit, EPA believes the load transfer from Outfall 003 to Outfall 101 remains consistent with the assumptions and requirements of the TMDL for TSS.

[5] See section 3.1 of the TMDL of Trash for the Anacostia River Watershed

The maximum daily effluent limit of 100 mg/L at Outfall 013 will remain in the permit to be consistent with the assumptions and requirements of the TMDL for TSS.

4.2.3 Anacostia River Basin TMDL for Nutrients/BOD (Approved 2008)

The TMDL for Nutrients/Biological Oxygen Demand identifies this facility as an insignificant source of BOD and that TN and TP are not applicable. Part 2.2.5 of the TMDL identifies this facility as discharging BOD from a hydrostatic testing tank and that "discharges from the tank only occur, at most, once or twice a year; in the last two years, no discharges have occurred." However, the TMDL Technical Memorandum dated April 25, 2008 assigns this facility a wasteload allocation of 501 lbs/year for BOD which is based on maximum reported flow and an assumed maximum concentration of 30 mg/L. The 2009 permit included BOD limits for internal discharge point 201 (which discharged to Outfall 013) because this discharge point consisted of hydrostatic tank test water and wash water. The cleaning of these tanks is an activity that is no longer applicable since the facility was decommissioned and demolished. The tank wash waters are no longer applicable to this discharge and monitoring for BOD is not required. According to the permit application, internal discharge point 201 currently consists of only water from the oil/water separator. This water from the oil/water separator consists of stormwater runoff from sub-drainage area 2 and sub-drainage area 6 and yard drains. (See Attachment 2 at the end of the fact sheet).

4.2.4 Anacostia River Basin TMDL for Arsenic, Copper, Lead, and Zinc (Approved August 2003)

The TMDL for arsenic requires an 85% reduction of loads for stormwater discharges (Section 6.1.3 of the TMDL). The permittee was not required to monitor for arsenic; therefore, no discharge data is available for this pollutant. While Arsenic is not expected to be a pollutant of concern for this discharge, the permittee is required to submit sampling data for the TMDL parameters listed in Part III.B.1 of the permit to determine if there is a presence of these pollutants in the discharge. If arsenic is detected at levels above the District's Water Quality Criterion, Special Condition in Part III.B.2 requires the permittee to take measures to determine the source of arsenic and enact controls to reduce arsenic loadings to the Anacostia River. This approach is consistent with the TMDL for aresenic (Section 8.2.4).

The TMDLs for copper, lead, and zinc require a 1% reduction of loads for stormwater discharges (Section 6.2.3 of the TMDL) and allows reductions for NPDES point sources to be determined on a facility-by-facility basis (Section 8.2.4). In most cases for storm water discharges, reductions are required in the form of Best Management Practices or BMPs. The permittee has implemented BMPs and other pollution control measures to reduce the discharge of heavy metals to the Anacostia River at Outfalls 013 and 101. Additionally, as mentioned in Section 2.5 of this fact sheet, the permittee submitted a TMDL Implementation Plan that identified potential BMPs that are designed to reduce pollutant loads in the stormwater runoff. The permittee continues to reevaluate the BMPs where necessary to further the goal of attaining total load reductions for TMDL metals. Both the draft permit and CD require BMPs be checked for effectiveness and determine if additional controls are needed. The new draft permit contains a standard reopener clause that allows the permit to be reopened if monitoring data shows reasonable potential to cause or contribute to an exceedance of water quality criteria.

4.2.5 Anacostia River Basin TMDLs for Chlordane, DDD, DDE, DDT, Dieldrin, Heptachlor Epoxide, and PAHs (approved 2003)

The TMDL requires reductions for these pollutants for stormwater discharges. The permittee was not required to monitor for these pollutants during the last permit term, however, there are monitoring data for these pollutants that were collected as part of the remedial investigation discussed in Section 1.5 of this fact sheet. The data showed a presence of some TMDL pollutants in the discharge, however, because the data are over seven years old the permittee will be required to submit quarterly sampling data for the TMDL parameters listed in Part III.B.1 of the permit to determine if there continues to be a presence of these pollutants in the discharge. If any of these pollutants are detected at levels above the District's Water Quality Criteria, Special Condition in Part III.B.2 requires the permittee to take measures to determine the source and enact controls to reduce loadings to the Anacostia River. This approach is consistent with the assumptions and requirements of the TMDL (Section 8.2.4 of the TMDL). Part III.B.3 of the permit also includes a reopener clause to allow EPA to reopen the permit in the event that monitoring data demonstrates that additional water quality-based effluent limitations are needed. In addition, the permittee may seek modification of the permit in the event that EPA's approval of the TMDL is vacated and/or the TMDL is withdrawn, replaced or superseded.

4.2.6 TMDL for Total PCBs for Tidal Portions of the Potomac and Anacostia Rivers (approved 2007)

The TMDL requires a 99.9% reduction in PCBs for the upper Anacostia river segment. The jurisdictions (Maryland and D.C.) involved in the development of the TMDL have agreed to an adaptive implementation strategy for NPDES permits to comply with the wasteload allocation provisions of the TMDL as authorized by 40 C.F.R. § 122.44(k). This implementation strategy focused on requiring data collection in NPDES permits and the use of non-numeric WQBELs (BMPs). The TMDL recommended, and the regulatory authorities agreed, PCB sampling in NPDES permit should be performed using the most current version of EPA Method 1668, or other equivalent methods capable of providing low-detection level, congener specific results.

The 2009 permit required monitoring of PCB congeners at Outfalls 013 and 101 using both EPA Method 608 and Method 1668. The test results obtained using test Method 608 were reported on the DMRs because 40 C.F.R. § 122.41(j)(4) requires monitoring for reporting purposes be conducted according to test procedures approved under 40 C.F.R. Part 136. The test results obtained using test Method 1668 were submitted as a separate report along with the annual laboratory reports. As discussed in Section 2.1 of this fact sheet, the permittee was required to analyze for PCBs over the permit term to ensure compliance with the "no discharge" PCB limit in Part I of the permit. The permittee was required to submit annually to EPA the laboratory reports showing the actual recorded values of PCBs even if those results are below 1 µg/L. The permittee was required to report on the DMR a value of zero if the result was below this minimum level (ML) of 1 µg/L. The permittee reported zero on their DMRs for PCBs in their discharge over the last permit term. The data over the last permit term show no reportable levels of PCBs at or above 1 µg/L at Outfalls 013 and 101 using Method 608.

As indicated in Section 2.1 of this fact sheet, the previous permit also required the permittee to submit a PCB Source Tracking and Pollutant Minimization Plan. The permittee submitted the Plan on July 19, 2010 which identified potential sources of PCBs with proposed measures and controls for each potential pollutant source.[6] A review of the lab data sheets from 2014-2018 showed some samples that were tested using Method 1668C had PCBs above the specified detection limit. Because of this and the fact that the facility stores and maintains transformers on site, annual PCB monitoring has been retained in the permit.

[6] For more information on the study and pollutant minimization plan, see Table 4 of the Plan which is located in the permit's Administrative Record.

4.2.7 The 2010 Chesapeake Bay TMDL

EPA established the Chesapeake Bay TMDL for nitrogen, phosphorus, and sediment (Bay TMDL) in 2010 as a result of significant involvement and investment by the Chesapeake Bay Program (CBP) partnership. See EPA's website for more information on the development of the Bay TMDL: https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document. The Bay TMDL identified 478 individual wasteload allocations (WLAs) for significant wastewater facilities across the 92 river segments and identified aggregate WLAs for non-significant wastewater facilities. The CBP partners, including the District, have been implementing the Bay TMDL since 2010; most recently, the Bay states developed Phase III Watershed Implementation Plans (WIPs) to provide further information on how they intend to continue implementing the Bay TMDL.[7]

4.2.7.1 The District's 2019 Phase III Watershed Implementation Plan (WIP)

The District's Phase III WIP, which was finalized in 2019, describes the District's strategy for continuing to reduce nitrogen, phosphorus, and sediment in the Chesapeake Bay. The District's Phase III WIP guides the District's continued implementation of the Bay TMDL and outlines the various pollutant reduction strategies the District plans to implement to meet planning targets. These planning targets were calculated by EPA and agreed to by the CBP partnership. As part of its Phase III WIP, the District developed local planning goals for various source sectors, including individually permitted wastewater point sources.

Chapter 6 of the District's Phase III WIP includes planning goals for individually permitted municipal and industrial facilities. The planning goals for these facilities are based on existing permit limits at the time of WIP development and DMR data for the specific progress reporting period of July 2017 through June 2018. These data were used as inputs to the Chesapeake Assessment Scenario Tool[8] (CAST), which is a CBP partnership load estimator tool that provides estimates of load reductions for sources such as wastewater. States, federal agencies, and local governments use the results from CAST to identify which pollutant reduction strategies provide the greatest reduction in TN, TP, and TSS loads and to determine if WLAs are being met. DOEE used CAST to estimate load reductions and set planning goals for the nonsignificant permitted facilities in the District. See Table 6-5 of the District's Phase III WIP.

In an effort to better understand how the District's Phase III WIP planning goals for the nonsignificant permitted facilities are intended to implement the Bay TMDL aggregate WLAs, EPA Region 3 consulted with DOEE and the Chesapeake Bay Program Office. After several discussions, EPA Region 3 understands that the planning goals for the facilities listed in Table 6-5 of the District's Phase III WIP are not intended to be incorporated into NPDES permits as effluent limits. The District's Phase III WIP and the WLAs of the Bay TMDL both have the ultimate goal of reducing pollutant loadings into the Bay by 2025.

[7] As described on EPA's website https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-watershed-implementation-plans-wips, the Watershed Implementation Plans are the roadmap for how the Bay jurisdictions, in partnership with federal and local governments, will achieve the Bay TMDL allocations.
[8] For more information about CAST visit https://cast.chesapeakebay.net/about.

4.2.7.2 Nonsignificant Dischargers and the Bay TMDL

The Chesapeake Bay TMDL categorizes Pepco as a non-significant industrial discharger and includes this facility in the aggregate wasteload allocations for Total Nitrogen (TN), Total Phosphorus (TP), and TSS. Section 8.3.3 of the Bay TMDL acknowledges that due to the lack of information from nonsignificant discharges included in the aggregate, information on these discharges may be based on default assumptions regarding flow and concentrations. The TMDL expects these facilities to provide, at minimum, TN, TP, and TSS monitoring data to verify the loads do not contribute to any exceedance of the individual or aggregate WLA.

4.2.7.3 Justification of the TN, TP, and TSS limits

TN and TP

This facility is categorized as a non-significant discharger of TN and TP and is included in the Bay TMDL's aggregate wasteload allocation for these pollutants. The permittee has not monitored for TN and TP so there are no discharge data for these two parameters to verify the assumptions of the TMDL for nonsignificant dischargers. Because this facility is not expected to be a significant source of TN and TP, the draft permit requires monitoring only for TN and TP. EPA may reopen the permit to include TN and/or TP limits based upon an evaluation of the monitoring data. After two years, the permittee can submit a request to EPA to modify the permit to remove this monitoring requirement.

TSS

Section 4.5.2 of the Bay TMDL states that discharges from industrial facilities represent a *de minimis* source of sediment. The aggregate WLA for sediment was established based on the TSS effluent limits for each facility included in the aggregate. At the time the Bay TMDL was approved, this facility's permit included average monthly and daily maximum TSS effluent limits of 30 mg/L and 100 mg/L, respectively, for Outfall 013. Therefore, consistent with the assumptions of the Bay TMDL, the maximum daily effluent limit for TSS of 100 mg/L will be retained in this permit at Outfall 013. There were no TSS limits in the 2009 permit for Outfall 101 so the 100 mg/L limit was also applied to this outfall. From June 2015 to June 2019, the permittee has reported an average TSS concentration of 24.5 mg/L at Outfall 013 and is therefore expected to meet this limit upon permit reissuance. The permittee is also expected to meet this limit at Outfall 101 in accordance with the compliance schedule.

Although the previous permit contained concentration limits for both average monthly and daily maximum frequencies, EPA has determined that effluent limits expressed as a monthly average are not appropriate for intermittent or non-continuous discharges. Therefore, the effluent limits are expressed as maximum daily limits, consistent with 40 C.F.R. §122.45(e).

5.0 Basis for Effluent Limitations

In general, the Clean Water Act (Act) requires compliance with all applicable statutory and regulatory requirements, including effluent limitations based on the capabilities of technologies available to control pollutants (i.e., technology-based effluent limits) and limitations that are protective of the water quality standards of the receiving water (i.e., water quality-based effluent limits). Typically, technology-based

effluent limitations or TBELs are developed for all applicable pollutants of concern (40 C.F.R § 122.44(a)). Technology-based treatment requirements represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the Clean Water Act. EPA has not promulgated technology-based effluent limitation guidelines (ELGs) for the category or class of this discharge. As such, there are no TBELs included in the permit with the exception of TSS. The TSS effluent limits are carried over from the 2009 permit and are TBELs that were calculated based on best professional judgement (BPJ).

Water quality-based effluent limitations, or WQBELs, are developed where TBELs are not adequate to meet water quality standards in the receiving water (§122.44(d)). This permit contains water quality-based effluent limits to ensure compliance with all applicable water quality standards.

6.0 Water Quality Based Effluent Limitations (WQBELs)

40 C.F.R. § 122.44(d)(1)(i) requires limitations to be established in permits to control all pollutants or pollutant parameters that are or may be discharged at a level that *cause*, have the *reasonable potential (RP) to cause*, or *contribute* to an excursion above any state water quality standard (WQS), including state narrative water quality criteria. The WQBELs in this permit will be as stringent as necessary to ensure that the designated uses of the Anacostia River are protected, maintained, and/or attained. EPA assessed the reasonable potential (RP) for the discharge from this facility to cause, have the RP to cause, or contribute to an exceedance of the District's applicable WQS. EPA used the *Technical Support Document for Water Quality-based Toxics Control* (TSD) approach to conduct that analysis.

6.1 pH and Oil &Grease

The pH and Oil & Grease effluent limits for Outfall 013 and Outfall 101 are WQBELs adopted from District's WQS for those parameters, specified in Section 21-1104.8 of the District of Columbia's Water Quality Standards Regulations.

6.2 Iron, Copper, Lead, Zinc, Cadmium, and Nickel

The iron, copper, lead, zinc, cadmium, and nickel effluent limits are calculated WQBELs and discussed in more detail below in Section 7.0.

6.3 TSS

As discussed in Section 4.2 above, the TSS limits in the permit are based on TMDL assumptions and requirements.

7.0 Reasonable Potential Analysis

A reasonable potential analysis was conducted on all data submitted to EPA to determine if the discharge shows the potential to exceed in-stream water quality criteria. 40 C.F.R § 122.44(d)(1)(iii) requires effluent limitations be established in permits when it is determined that a discharge will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including narrative criteria. Procedures in the TSD were used in the RP analysis. All data collected over the 2009 permit term were evaluated, which includes data reported on the permittee's DMRs, application data, and additional data submitted to EPA over the 2009 permit term. For pollutants in which the RP

analysis shows the potential to exceed in-stream water quality values, water quality-based effluent numbers must be calculated as required at 40 C.F.R. § 122.44(d).

The District of Columbia water quality criteria for copper, lead, zinc, cadmium, and nickel are expressed as dissolved. EPA is assuming a 1:1 translator using a conservative approach to convert the total dissolved metals criterion to total recoverable effluent limits, consistent with EPA Metal Translator Guidance.

7.1 Parameters of Concern

The permittee has two active outfalls discharging to the Anacostia River, Outfall 013 and Outfall 101. The parameters of concern for this facility are copper, iron, cadmium, lead, zinc, nickel, Total Suspended Solids (TSS), pH, and WET. A parameter of concern is defined as a pollutant with quantifiable values reported to EPA. A parameter is considered a candidate for a RP analysis when the reported quantifiable values are at or above water quality criteria after accounting for variability.

The TSS limits are TBELs from the 2009 permit based on BPJ and are being carried over to this permit in order to be consistent with the assumptions and requirements of the Anacostia and Chesapeake Bay TMDLs.

7.2 Five-step TSD approach to Reasonable Potential Analysis

Using the TSD approach, the following is a description of the 5 steps used to conduct the RP analysis at Outfall 004.

1) Determine the total number of effluent data values (n) for the pollutant of interest and identify the highest value of the dataset for that parameter.
2) Determine the coefficient of variation (CV) of the dataset. The CV is equal to the standard of deviation divided by the long-term average. The default CV for fewer than 10 data values is 0.6, as specified in Box 3-2 of the TSD.
3) Determine the appropriate confidence level for the RP analysis. For this permit, EPA used the 99th confidence level, recommended by the TSD in section 5.5.4.
4) Determine the RP multiplier, using Table 3-1 of the TSD. Generally, if n is greater than 20, the multiplier is calculated per section 3.3.2 of the TSD. However, the RP multiplier was calculated for all pollutants regardless of the number of samples. The highest value from the data set is then multiplied by the RP multiplier. Use this value with the appropriate dilution to project a maximum receiving water concentration (MRWC).

Before projecting the maximum receiving water concentration, EPA calculates an "adjusted effluent concentration" or AEC to determine if the pollutant of concern is a candidate for completing reasonable potential analysis. If the pollutant does not exceed the water quality criterion (WQC) after applying the multiplying factor to the highest effluent concentration, then that pollutant does not continue with the RP analysis to completion. The AEC is calculated by multiplying the highest effluent concentration (HEC) by the reasonable potential multiplier (RPM) which is the first part in Step 4 above.

If the AEC > WQC then the pollutant should continue with the RP analysis and the projected MRWC is calculated which is in the second part of Step 4.

5) Compare the projected maximum receiving water concentration (MRWC) to the applicable

standard. EPA finds reasonable potential when the projected MRWC is greater than the ambient criterion.

TSD Steps 1-4

Outfall 013							
Parameter of concern	**# of samples**	**Highest Effluent Concentration**	**CV**	**RP Multiplier**	**Adjusted Effluent Concentration**	**DC WQC**	**Continue with RP Analysis?**
Cadmium (µg/L)	12	0.34	0.60	2.82	0.957	1.79	NO
Copper (µg/L)	21	23.0	0.82	2.86	65.9	13.44	YES
Iron (mg/L)	20	3.64	1.32	4.53	16.5	1.00	YES
Lead (µg/L)	18	13.0	0.74	2.82	36.7	64.6	NO
Nickel (mg/L)	17	0.01	0.67	2.68	0.03	0.468	NO
Zinc (µg/L)	22	175	0.72	2.54	445	117.2	YES
Oil & Grease (mg/L)	12	7.0	0.58	2.04	14.3	10.0	YES

Outfall 101							
Parameter of concern	**# of samples**	**Highest Effluent Concentration**	**CV**	**RP Multiplier**	**Adjusted Effluent Concentration**	**DC WQC**	**Continue with RP Analysis?**
Cadmium (µg/L)	13	1.12	0.39	2.63	2.95	1.79	YES
Copper (µg/L)	19	270	0.74	3.05	824.6	13.44	YES
Iron (mg/L)	19	12.0	0.72	2.99	35.9	1.00	YES
Lead (µg/L)	18	220	0.91	3.94	866	64.6	YES
Nickel (µg/L)	19	198	0.73	3.04	602	468.2	YES
Zinc (µg/L)	19	553	0.76	3.16	1749	117.2	YES
Oil & Grease (mg/L)	9	2.80	0.60	2.09	5.84	10.0	NO

Step 4, continued. Calculate the Maximum Receiving Water Concentration (MRWC):

MRWC = ((AEC – IBC/DF) +IBC, where

AEC – Adjusted Effluent Concentration
IBC – Instream Background Concentration
DF – Dilution Factor – see calculation after the table in Step 5 below

EPA obtained Anacostia River instream background concentrations for copper and zinc that were collected by the DC Department of Energy and Environment (DOEE). These background concentrations were used in the RP analysis.

TSD Step 5.

Outfall 013						
Parameter of concern	**Adjusted Effluent Concentration**	**Instream Background Concentration**	**Dilution Factor**	**MRWC**	**WQC**	**RP?**
Copper (µg/L)	65.9	7.2 µg/L	1.6	44.08	13.44	YES
Iron (mg/L)	16.5	Not available	1.6	10.36	1.00	YES
Zinc (µg/L)	445	15.7 µg/L	1.6	285.4	117.2	YES
Oil & Grease (mg/L)	14.3	Not available	1.6	8.98	10.0	NO

Outfall 101						
Parameter of concern	**Adjusted Effluent Concentration**	**Instream Background Concentration**	**Dilution Factor**	**MRWC**	**WQC**	**RP?**
Cadmium (µg/L)	2.95	Not available	9.6	0.306	1.79	NO
Copper (µg/L)	824.6	7.2 µg/L	9.6	92.0	13.44	YES
Iron(mg/L)	35.9	Not available	9.6	3.72	1.00	YES
Lead (µg/L)	865.7	Not available	9.6	89.8	64.58	YES
Nickel (µg/L)	602.2	Not available	9.6	62.45	468.2	YES
Zinc (µg/L)	1749.1	15.7 µg/L	9.6	195.5	117.2	YES
Oil & Grease (mg/L)	5.84	Not available	9.6	0.606	10.0	NO

7.3 Dilution Factor Calculation (DF):

A calculated dilution factor of 1.6 for Outfall 013 and 9.6 for Outfall 101 was applied to these discharges based on the default assumption of complete mixing of the effluent with the receiving water. The dilution factors affect the outcome of the RP analysis and the calculation of water quality-based effluent limits (WQBELs). EPA's assumption of complete mixing is only applied to the WQBELs in the permit for a 24-month term. Within this time, the permittee has the option of submitting a water quality modeling study to provide site specific information on how the effluent mixes with the receiving stream. This information can be used to re-evaluate the discharge and re-calculate the WQBELs using the results from the site-specific water modeling study.

If EPA does not receive a mixing zone study within 24 months of the permit effective date, the limits in Part I Section C of the permit go into effect. These limits in Part I.C are end-of-pipe limits that do not include dilution. If EPA receives the mixing zone study within 24 months of the permit effective date, the limits in Part I Section D go into effect which are the same limits in Part I. B of the permit and include the dilution factors listed above. EPA will reevaluate the discharge based on the site specific mixing information and may reopen the permit to incorporate any changes that may result in the evaluation.

If the mixing zone study is submitted….	**Applicable effluent limits….**
Within 24-months of permit effective date	Effluent limits in Part I.D apply
After 24-months of permit effective date	Effluent limits in Part I.C apply

The dilution factor was calculated based on the discharge flow and the 7Q10 stream flow of the Anacostia River. EPA followed a conservative approach to the calculation by using 1/3 of the 7Q10 flow of the Anacostia River[9]. The USGS calculated the 1Q10 and 7Q10 of the Anacostia River to be 14 cfs[10].

Therefore, 14 cfs x 33% = 4.67 cfs is the 1Q10 of the Anacostia River

Dilution Factor Calculation is:

(Max effluent flow + stream flow) / Max effluent flow

DF_{013} = (7. 9 cfs + 4.67) cfs / 7.9 cfs = **1.59**

DF_{101} = (0.54 cfs + 4.67) cfs / 0.54 cfs = **9.64**

[9] This approach was based on Chapter 21 section 1105.7(f) of the DC WQS regulations which does not allow a discharge's mixing zone to occupy more than one third (1/3) of the width of the waterway.

[10] 7Q10 flow was calculated manually by a hydrologist at USGS Maryland-Delaware-District of Columbia Water Science Center in Baltimore, Maryland. This can be found in the permit's administrative record.

Effluent Flow:

	Annual Reported Average	Max Monthly
Outfall 013 Flow (MGD)	1.00	5.10
Outfall 013 Flow (cfs)	1.56	7.89
Outfall 101 Flow (MGD)	0.140	0.349
Outfall 101 Flow (cfs)	0.216	0.540

Stream Flow:

	Condition	Receiving Water Flow, cfs	Allowable % of river flow	Dilution Factor Outfall 013	Dilution Factor Outfall 101
Aquatic Life - Chronic (cfs)	7Q10	14	33%	**1.6**	**9.6**
Aquatic Life – Acute (cfs)	1Q10	14	33%	**1.6**	**9.6**

7.4 Developing a Water-Quality Based Effluent Limit:

For those pollutants where there was a reasonable potential to cause or contribute to an exceedance of applicable WQSs, the second step is the development of WQBEL for each pollutant. The procedure for this is described at Section 5.4 of the TSD.

1. Compute the Wasteload Allocation (WLA): WLA = ((WQC – IBC) * DF) + IBC, where

   WQC – Water Quality Criterion
   IBC – Instream Background Concentration
   DF – Dilution Factor

Outfall 013				
Parameter of Concern	**Water Quality Criterion**	**Instream Background Concentration**	**Dilution Factor**	**Wasteload Allocation**
Copper (µg/L)	13.44	7.2	1.6	17.1
Iron (mg/L)	1.00	Not available	1.6	1.59
Zinc (µg/L)	117.2	15.7	1.6	177.2
Outfall 101				
Parameter of Concern	**Water Quality Criterion**	**Instream Background Concentration**	**Dilution Factor**	**Wasteload Allocation**
Copper (µg/L)	13.44	7.2	9.6	67.36
Iron (mg/L)	1.00	Not available	9.6	9.64
Lead (µg/L)	64.6	Not available	9.6	622.74
Zinc (µg/L)	117.2	15.7	9.6	994.2

2. Calculate the Long-Term Average (LTA). The long-term average calculation is based on the 99th confidence level as reflected with the z score of 2.326.

   LTA = WLA * e $^{(0.5*\text{sigma square} - 2.326*\text{sigma})}$
   Sigma square (σ^2) = ln (CV^2 +1)
   Sigma (σ) = square root of σ^2

Outfall 013					
Pollutant	**Z**	**CV**	**σ^2**	**σ**	**LTA**
Copper (µg/L)	2.326	0.82	0.51	0.71	14.7
Iron (mg/L)	2.326	1.32	1.01	1.00	1.36
Zinc (µg/L)	2.326	0.72	0.4175	0.6461	48.6

Outfall 101					
Pollutant	**Z**	**CV**	**σ^2**	**σ**	**LTA**
Copper (µg/L)	2.326	0.74	0.435	0.659	18.062
Iron (mg/L)	2.326	0.72	0.420	0.648	2.634
Lead (µg/L)	2.326	0.91	0.605	0.778	138.068
Zinc (µg/L)	2.326	0.76	0.460	0.678	258.409

3. Calculate the Maximum Daily Limits (MDL) permit limits:

   i. $MDL = LTA * e^{(2.326*\sigma - 0.5*\sigma^2)}$
   $\sigma^2 = \ln(CV^2 + 1)$
   σ = square root of σ^2
   The MDL is based on the 99th confidence level with the z score of 2.326 as recommended by the TSD[11].

Outfall 013						
Pollutant	**Z**	**CV**	**σ^2**	**σ**	**LTA**	**MDL**
Copper (µg/L)	2.326	0.82	0.51	0.71	14.7	60.1
Iron (mg/L)	2.326	1.32	1.01	1.00	1.36	8.48
Zinc (µg/L)	2.326	0.72	0.4175	0.6461	48.6	177.2

Outfall 101						
Pollutant	**Z**	**CV**	**σ^2**	**σ**	**LTA**	**MDL**
Copper (µg/L)	2.326	0.74	0.435	0.659	17.3	64.5
Iron (mg/L)	2.326	0.72	0.420	0.648	2.51	9.2
Lead (µg/L)	2.326	0.91	0.605	0.778	131.5	593.0
Zinc (µg/L)	2.326	0.74	0.435	0.659	17.3	947.6

7.5 RP analysis with *no dilution factor*

The RP analysis was also conducted without a dilution factor in the event a site-specific mixing study is not conducted and submitted to EPA for review. The same equations outlined above were used in the "no dilution" RP analysis, the only difference is the dilution factor for both outfalls is one, or no dilution. Calculate the Maximum Receiving Water Concentration (MRWC) and determine RP:

[11] Refer to section 5.5.4 of the TSD

TSD Step 5. ***No dilution factor***

Outfall 013 – No dilution						
Parameter of concern	**Adjusted Effluent Concentration**	**Instream Background Concentration**	**Dilution Factor**	**MRWC**	**WQC**	**RP?**
Copper (µg/L)	66	7.2 µg/L	1	65.9	13.44	YES
Iron (mg/L)	16	Not available	1	16.5	1.00	YES
Zinc (µg/L)	445	15.7 µg/L	1	42.4	117.2	YES
Oil & Grease (mg/L)	14	Not available	1	1.97	10.0	YES
Outfall 101 – No dilution						
Parameter of concern	**Adjusted Effluent Concentration**	**Instream Background Concentration**	**Dilution Factor**	**MRWC**	**WQC**	**RP?**
Cadmium (µg/L)	2.95	Not available	1	3.02	1.79	YES
Copper (µg/L)	824.6	7.2 µg/L	1	648.00	13.44	YES
Iron(mg/L)	35.9	Not available	1	28.80	1.00	YES
Lead (µg/L)	865.7	Not available	1	528.00	64.6	YES
Nickel (µg/L)	602.2	Not available	1	475.20	468.2	YES
Zinc (µg/L)	1749.1	15.7 µg/L	1	1327.20	117.2	YES
Oil & Grease (mg/L)	5.84	Not available	1	0.637	10.0	NO

Developing a Water-Quality Based Effluent Limit without applying dilution

Compute the Wasteload Allocation (WLA):

Outfall 013 – No dilution				
Parameter of Concern	**Water Quality Criterion**	**Instream Background Concentration**	**Dilution Factor**	**Wasteload Allocation**
Copper (µg/L)	13.44	7.2	1	13.44
Iron (mg/L)	1.00	Not available	1	1.00
Zinc (µg/L)	117.2	15.7	1	117.2
Oil & Grease (mg/L)	10.0	Not available	1	10.0
Outfall 101 – No dilution				
Parameter of Concern	**Water Quality Criterion**	**Instream Background Concentration**	**Dilution Factor**	**Wasteload Allocation**
Cadmium (µg/L)	1.79	Not available	1	1.79
Copper (µg/L)	13.44	7.2	1	13.44
Iron (mg/L)	1.00	Not available	1	1.00
Lead (µg/L)	64.6	Not available	1	64.6
Nickel (µg/L)	468.2	Not available	1	468.2
Zinc (µg/L)	117.2	15.7	1	117.2

Calculate the Long-Term Average (LTA) and Maximum Daily Permit Limits without applying dilution:

Outfall 013 – No dilution						
Pollutant	**Z**	**CV**	**σ^2**	**σ**	**LTA**	**MDL**
Copper (µg/L)	2.326	0.82	0.510	0.714	3.29	13.44
Iron (mg/L)	2.326	1.32	1.01	1.00	0.160	1.00
Zinc (µg/L)	2.326	0.72	0.418	0.646	32.1	117.2
Oil & Grease (mg/L)	2.326	0.87	0.290	0.539	3.30	10.0
Outfall 101 – No dilution						
Pollutant	**Z**	**CV**	**σ^2**	**σ**	**LTA**	**MDL**
Cadmium (µg/L)	2.326	0.39	0.140	0.375	0.904	1.79
Copper (µg/L)	2.326	0.74	0.435	0.659	3.60	13.44
Iron (mg/L)	2.326	0.72	0.420	0.648	0.273	1.00
Lead (µg/L)	2.326	0.91	0.605	0.778	14.3	64.6
Nickel (µg/L)	2.326	0.73	0.432	0.657	126.0	468.2
Zinc (µg/L)	2.326	0.76	0.460	0.678	30.5	117.2

8.0 RP Discussion

Pepco proposed to include benchmark monitoring values rather than set Daily Maximum Limits in the permit for the pollutants of concern. These benchmarks would trigger additional stormwater controls if the average of four-quarters of monitoring samples exceeds the applicable benchmarks, following the same approach as under EPA's Multi-Sector General Permit (MSGP). EPA believes this approach is not appropriate for this discharge because various pollutants were found to have RP to exceed water quality criteria and the site has a long history of discharging metals via these outfalls to the Anacostia River which is impaired and has TMDLs for metals. EPA determined benchmark monitoring was appropriate for the pollutants with reportable concentrations but do not demonstrate RP. The 2015 MSGP evaluates benchmark monitoring results using the average of four quarterly samples, however, this approach was not applied to the benchmark monitoring in the permit because, as stated above, this facility has a history of these pollutants in their discharge and the receiving waterbody is impaired for these pollutants. The benchmark values were calculated in accordance with Section 5.4 of the TSD. The benchmark value is not an effluent limitation; a benchmark exceedance, therefore, is not a permit violation. However, if a corrective action is required as a result of a benchmark exceedance, failure to conduct a corrective action is a permit violation.

As discussed above in Section 5.0, the TSS effluent limits are carried over from the 2009 permit and are TBELs that were calculated based on best professional judgement (BPJ). The TSS limits are being carried over to be consistent with the TMDL assumptions and requirements

Since stormwater discharges are intermittent events, EPA determined that effluent limits expressed as an average monthly is not appropriate, therefore, only maximum daily limits were included in the permit which is consistent with 40 C.F.R. §122.45(e).

8.1 Outfall 013 Copper, iron, cadmium, lead, zinc, nickel, and oil & grease

With Dilution Factor

Copper, iron, and zinc exhibited RP when dilution was applied, therefore, effluent limits were imposed in the permit for these pollutants. If the permittee does not submit a water quality modeling study within 24 months of the permit effective date, then the end-of-pipe limits (i.e. no

dilution) calculated in Section 7.5 of this fact sheet go into effect for all parameters at Outfall 013 that have the potential to cause or contribute to an exceedance of criteria.

There was no RP for cadmium, lead, and nickel when dilution was applied to the analysis, therefore no limits are warranted for these pollutants, however, a benchmark monitoring and reporting requirement was imposed because these pollutants have a history of being present in the discharge.

There was no RP for oil & grease to cause or contribute to an excursion of DC's WQS when a dilution factor was applied, however, because of the industrial activities occuring on the site, oil & grease continues to be a pollutant of concern for this discharge. Therefore, the permit limits for oil & grease will remain in the permit at Outfall 013. The oil & grease limit is adopted from the District's WQS as specified in Section 21-1104.8 of the District of Columbia's Water Quality Standard Regulations.

Without Dilution Factor
Copper, iron, zinc, and oil & grease exhibited RP when no dilution was factored into the analysis. Effluent limits were calculated for all pollutants except oil & grease and included in Part I.C of the permit. There was no RP for oil & grease to cause or contribute to an excursion of DC's WQS when no dilution was factored into the analysis, however, because of the industrial activities occuring on the site, oil & grease continues to be a pollutant of concern for this discharge. Therefore, the permit limits for oil & grease will remain in the permit at Outfall 013. The oil & grease limit is adopted from District's WQS as specified in Section 21-1104.8 of the District of Columbia's Water Quality Standards Regulations. The effluent limits in Part I.C will go into effect if EPA does not receive a mixing zone study within 24-months of the permit effective date.

8.2 Outfall 101 Copper, iron, cadmium, lead, zinc, nickel, and Oil & Grease

With Dilution Factor
Copper, iron, lead, and zinc showed reasonable potential to cause or contribute to an excursion of water quality criteria when dilution was applied, therefore, limits were calculated and imposed in the permit for these pollutants.

There was no RP for cadmium, and nickel when dilution was applied to the analysis, however, a benchmark monitoring and reporting requirement was imposed because this pollutant has a history of being present in the discharge. If the permittee does not submit a water quality modeling study within 24 months of the permit effective date, then the end-of-pipe limits (i.e. no dilution) calculated in Section 7.5 of this fact sheet go into effect for all parameters at Outfall 101 that have the potential to cause or contribute to an exceedance of criteria. These limits are included in Part I.C of the permit.

There was no RP for oil & grease to cause or contribute to an excursion of DC's WQS when a dilution factor was applied, however, because of the industrial activities occuring on the site, oil & grease continues to be a pollutant of concern for this discharge. Therefore, the permit limits for oil & grease will remain in the permit at Outfall 101.

Without Dilution Factor

Cadmium, copper, iron, lead, nickel, and zinc showed reasonable potential to cause or contribute to an excursion of water quality criteria when no dilution was applied, therefore, limits were calculated and imposed in the permit for these pollutants and included in Part I.C of the permit.

There was no RP for oil & grease to cause or contribute to an excursion of DC's WQS when no dilution was factored into the analysis, however, because of the industrial activities occuring on the site, Oil & Grease continues to be a pollutant of concern for this discharge. Therefore, the permit limits for Oil & Grease will remain in the permit at Outfall 101.

9.0 Endangered Species Protection

EPA requested an official species list from the U.S. Fish and Wildlife Service (USFWS) using their *Information for Planning and Consultation* tool found on their website at: https://ecos.fws.gov/ipac to determine if there are any federally listed threatened or endangered species or their designated critical habit(s) that will be affected by this discharge. The FWS has indicated that there are no critical habitats near the facility or the discharge.

For listed species or critical habitats that fall under the jurisdiction of The National Oceanic and Atmospheric Administration Fisheries (also known as National Marine Fisheries Service) EPA has made a "no effect" determination. A "no effect" determination means there will be no direct or indirect effects to listed species or critical habitat from this proposed action.

10.0 National Historic Preservation Act

The National Historic Preservation Act of 1966. and implementing regulations (36 C.F.R. Part 800) requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation, or designee, the opportunity to comment on such undertakings. See Section 106, 54 U.S.C. § 306108. EPA notified the District of Columbia State Historic Preservation Office (DC SHPO) that it is proposing to reissue NPDES permit no. DC0000094 and that EPA has determined that this permit does not have the potential to affect historic properties. See 36 C.F.R § 800.3(1).

11.0 Anti-Backsliding

Section 402(o) of the CWA and 40 CFR §122.44(l) prohibit the renewal, reissuance or modification of an existing NPDES permit that contains effluent limits, permit conditions, or standards that are less stringent than those established in the existing permit, unless certain exceptions are met.

12.0 Antidegradation Statement

The Anacostia River is a Tier 1 protected water. The draft permit contains water quality-based effluent limits sufficient to maintain and protect the water quality necessary to protect existing uses. Discharges from this facility therefore will not downgrade the water quality of Anacostia River.

13.0 Clean Water Act Section 401 Certification

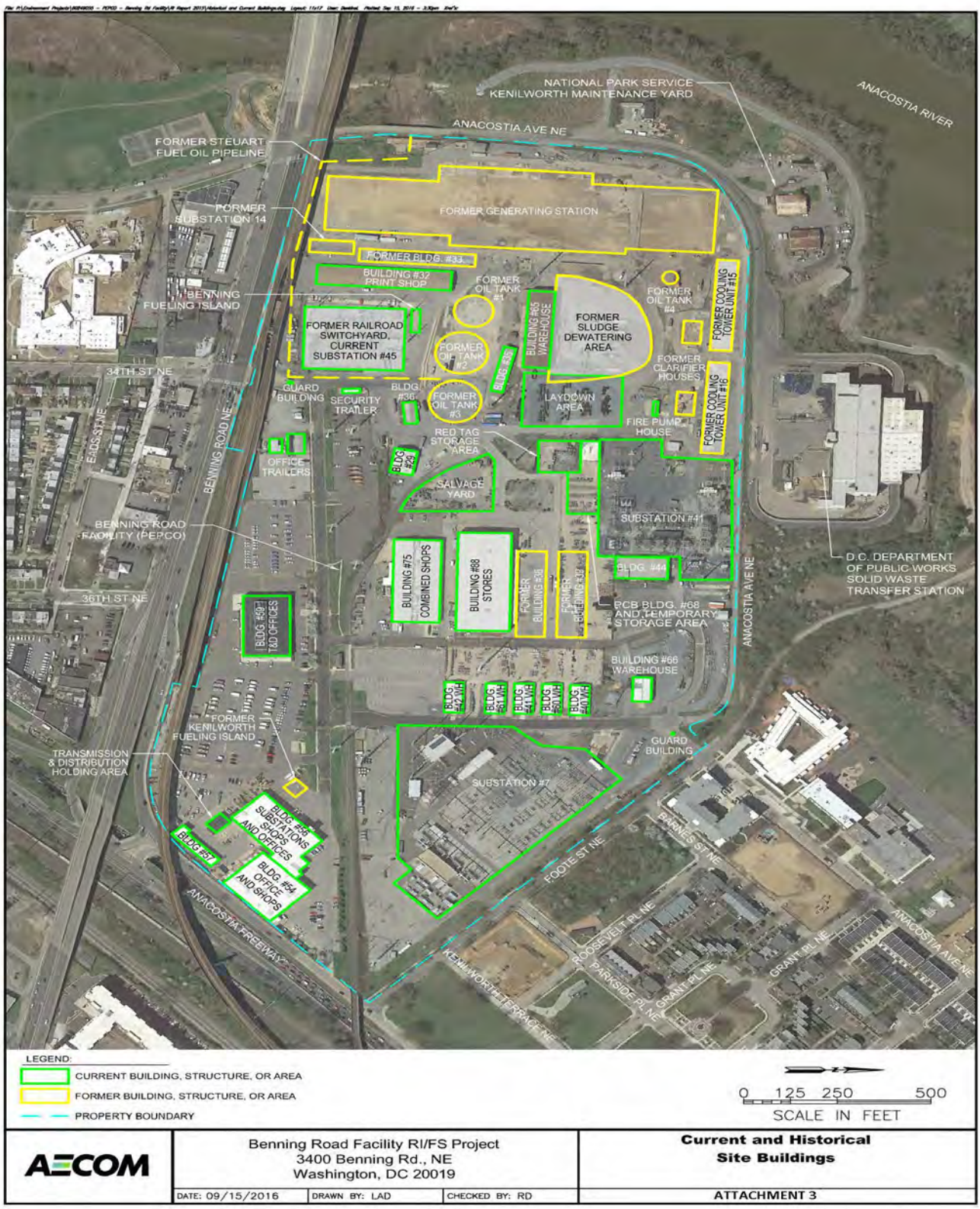
In accordance with CWA 401(a)(1), EPA requested a water quality certification from the District of Columbia, via DOEE, to ensure compliance with the District's WQS.

401 Certification request to DOEE: TBD
401 Certification received from DOEE:TBD

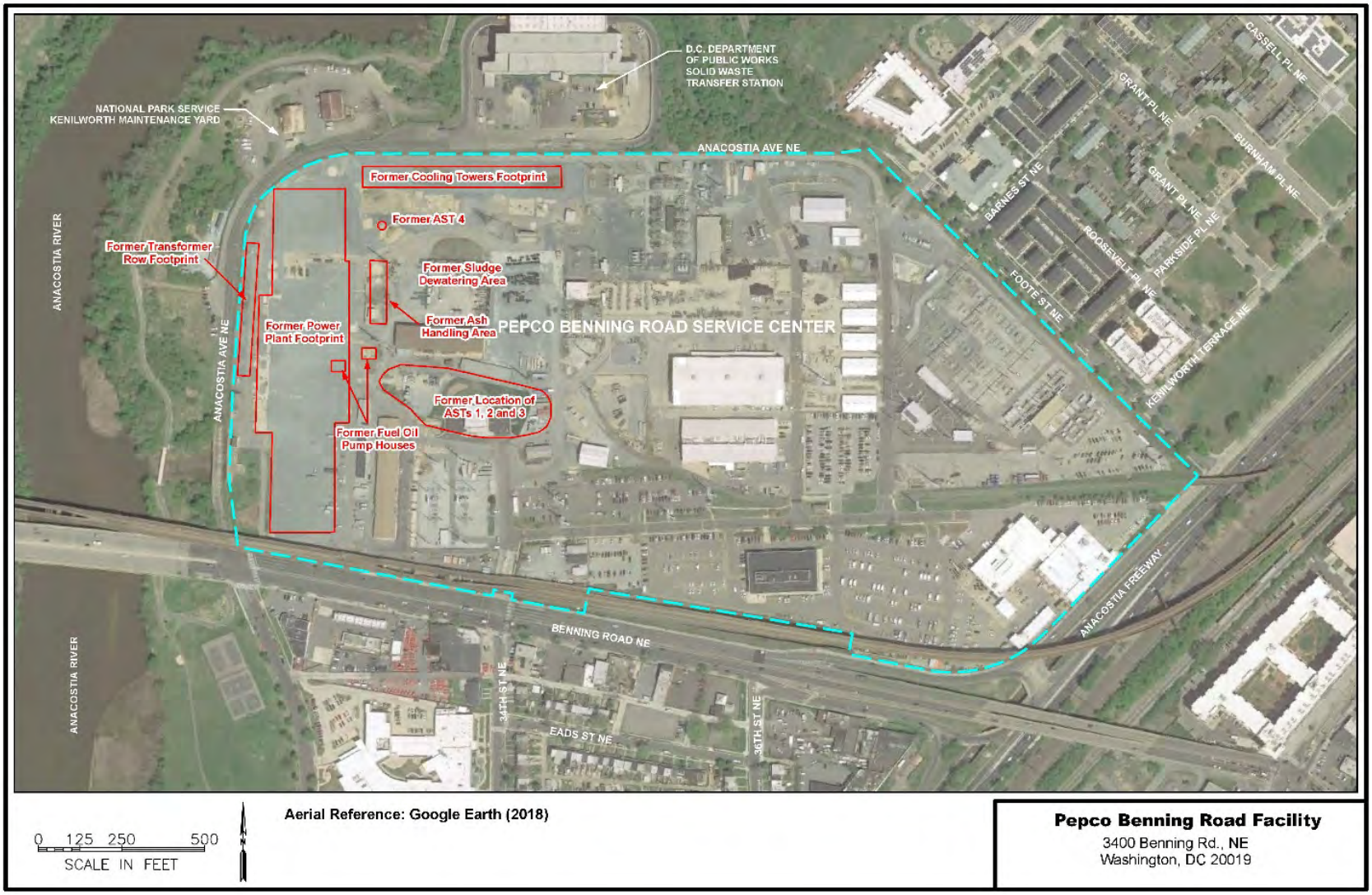
401 Notification letter sent to MDE: TBD
401 Notification letter received from MDE:TBD

401 Notification letter sent to VADEQ: TBD
401 Notification letter received from VADEQ:TBD

Attachment 1. Current and Historical Buildings



Attachment 2. Aerial view of the Pepco Benning Road Service Center as of 2018.



Attachment 3. Site Drainage Area Map and corresponding monitoring points and outfalls.

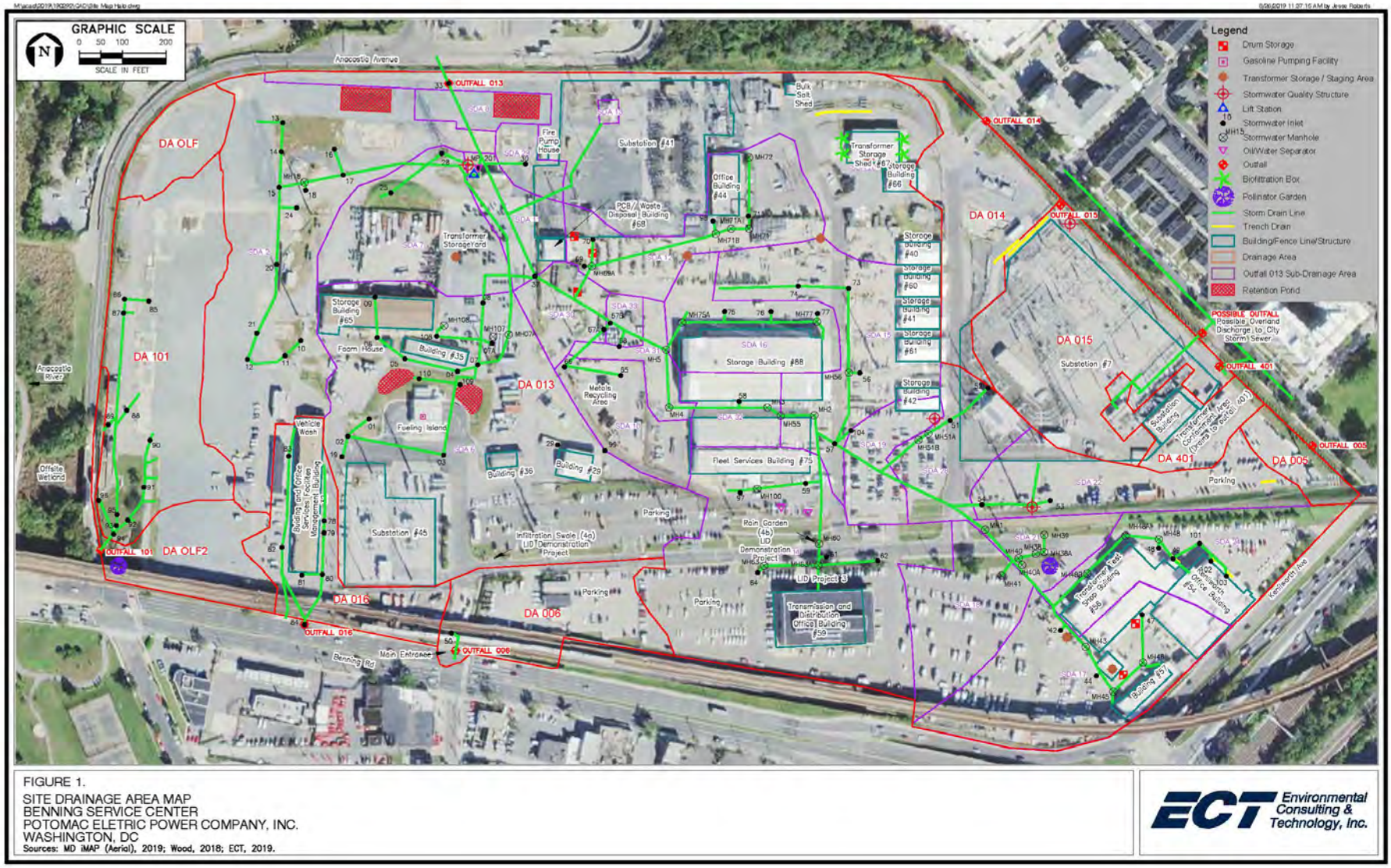


FIGURE 1.
SITE DRAINAGE AREA MAP
BENNING SERVICE CENTER
POTOMAC ELETRIC POWER COMPANY, INC.
WASHINGTON, DC
Sources: MD iMAP (Aerial), 2019; Wood, 2018; ECT, 2019.

ECT Environmental Consulting & Technology, Inc.

Attachment 4. Sub-drainage areas