

Number	Commenter/ Representative	Comment	Response
1	Algernon Austin	<p>I know that the groundwater flow on the Benning Road facility is said to only flow into the Anacostia River, but it seems prudent to have some exploratory analysis at least of the adjacent Parkside Community. There were four PCB spills fairly close to the community. It seems possible that some of the groundwater flow could have gone in the direction of Parkside.</p>	<p>Groundwater flow in the area of the Site is to the west-northwest towards the river, as evidenced by numerous regional studies (e.g., Koterba, M.T., Dieter, C.A., and Miller, C.V., 2010, Pesticides in groundwater in the Anacostia River and Rock Creek watersheds in Washington, D.C., 2005 and 2008: U.S. Geological Survey Scientific Investigations Report 2010-5130, 90; National Park Service (NPS). 2007. Final Remedial Investigation at the Kenilworth Park North Landfill, NE Washington, DC. Ecology & Environment, Inc. November 2007). Pepco installed a total of 30 monitoring wells on Site and confirmed that the groundwater at the Site flows toward the Anacostia River.</p> <p>Tidal influence monitoring during the RI/FIS found that tidal influence on the onsite water table is limited primarily to the southwest corner of the Site where the dredged river inlet is located. The size and direction of the hydraulic gradient at the site observed during this investigation and previous studies in the area indicate that groundwater flow away from the river is limited to the river shoreline during high tide, and that groundwater does not flow from the Benning Road facility to the Parkside neighborhood to the northeast of the Site.</p> <p>The four historic PCB spills in the eastern portion of the Site referred to in the comment (1985, 1988, 1991, and 1997) were cleaned up at the time of release, and further investigated during the RI. PCBs were not detected in groundwater at any of the release locations. Additionally, PCBs were not detected in the two groundwater monitoring wells installed in the northeast of the Site (MW-14 and MW-15), which monitor groundwater along the Site boundary adjacent to the Parkside neighborhood. The analytical evidence collected to date and the understanding of groundwater flow in this area indicate</p>

Responses to Public Comments on Draft Benning RI Report

August 23, 2016

Number	Commenter/ Representative	Comment	Response
			that it is extremely unlikely that groundwater contamination originating at the Site has impacted the Parkside neighborhood to the northeast.
2	David Holmes	Since the current RI/FS is provisional or preliminary, the DOEE should provide an additional public comment period when the new necessary studies and evaluation have been completed. Additionally, Pepco and DOEE should provide another public presentation that incorporates any new findings from the upcoming new Field Investigation.	After DOEE and Pepco perform the work required to address data gaps in the draft RI report, they will issue a revised draft RI report. The revised draft RI report summarizing the additional investigation results will also be made available for public review and comment. During that public comment period, Pepco and DOEE will hold a public meeting to present additional remedial investigation findings and answer questions regarding the results.

<p>3</p>	<p>David Holmes</p>	<p>A fuller explanation is needed of the movement of pollutants within and adjacent to the site from this time forward. What will 25, 50, 100 year floods do to pollutants currently under the river bed or under the new hard-surface top cover of the Plant site? Will flood damage to the ground cover (vegetation or rock/cement) carry covered and buried pollutants from the Pepco site into the River?</p>	<p>A portion of the northwestern part of Pepco property is within a 100-year flood event zone. The cooling tower basins are located in this portion of the property and are known to contain caulk affected by polychlorinated biphenyls ("PCBs") and PCB-impacted soils. A removal action plan approved by DOEE includes demolition and removal of the concrete basins, excavation, and off-site disposal of impacted soils. This removal action will eliminate the possibility of PCBs from this area entering the Anacostia River under 100-year flood event conditions.</p> <p>The available data on the Anacostia River, which is subject to 100-year storm events, indicates that subsurface sediment concentrations of contaminants tend to be higher than the surface sediment concentrations. This indicates that there is a strong degree of sediment stability in the riverbed. This finding will be further tested by high resolution cores, radio isotope analysis, and other methods and the results will be presented in the Final RI Report.</p> <p>There is also strong evidence that the ongoing deposition of cleaner sediment on top of the existing sediment will help prevent the scenario described in your comment. The ongoing Anacostia River Sediment Project includes development of a hydrodynamic and contaminant fate and transport model that will provide additional ability to evaluate this concern. This model will be calibrated to include flow, stage, and other parameter data. The data collected will be used to assess various remedial options for contaminated sediment during a feasibility study. This model will be used to identify portions of the river bottom that may be susceptible to erosion or deposition with particular attention to areas where subsurface sediment is contaminated.</p>
----------	---------------------	---	--

<p>4</p>	<p>David Holmes</p>	<p>DOEE/Pepeco should provide a brief explanation near the beginning of the RI/FS document about why the deposition of the substantial air pollutants from the Power Plant is not included in this study. This is probably the greatest neighborhood adverse-effect of the many years of uncontrolled pollution from coal burning. An explanation seems required for the community to understand why this is not being considered in this Remedial Investigation.</p>	<p>DOEE carefully considered the air depositional pathway, and addressed this matter substantially in responses to public comment on the RI/FS work plan. Ultimately, DOEE concluded that it is not appropriate to expand the scope of the RI/FS sampling program to include air deposition, a conclusion supported by the pertinent guidance from the U.S. Environmental Protection Agency (“EPA”). In reaching this conclusion, DOEE considered the following factors:</p> <p>Health effects from power plant emissions have been the subject of extensive, long-term studies by EPA, as documented in a report to Congress that has formed the basis for EPA’s subsequent regulatory actions: Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units – Final Report to Congress, EPA-453/R-98-004a, February 1998. This study identified inhalation as the primary exposure pathway of concern, and the deposition of materials via the smoke stack exhaust was not a significant pathway affecting human health. The Benning power plant ceased operating in June of 2012 and therefore no longer contributes to any potential exposure from inhalation of airborne contaminants. Since 1976, the facility exclusively burned fuel oil and was operated only 10 to 15 days annually to ensure sufficient available power during peak demand periods. Fuel oil burns much cleaner than coal, and produces air emissions similar to many other sources (e.g., automobiles, combustion engines).</p> <p>Furthermore, studies conducted in 2005 and 2007 by the Agency for Toxic Substances and Disease Registry (“ATSDR”)1, to assess health effects from ambient air concentrations in the River Terrace neighborhood from all sources, concluded that “overall, levels of metals, PAHs, and VOCs are not expected to result in harmful health effects for exposed residents in and near the River Terrace community.”</p> <p>DOEE recognizes airborne particulate emissions from coal combustion at the Benning Road Power Plant may have deposited in the surrounding properties over the period of time the facility used coal to generate electricity. These</p>
----------	---------------------	---	---

			<p>residuals would have been deposited prior to 1976 when coal was burned at the facility. Although modern chemical analyses and environmental forensic techniques may provide the ability to separate fuel oil and coal-sourced soil polycyclic aromatic hydrocarbon (PAH) contamination from other sources of PAH contamination, DOEE believes identifying and delineating specific plant-related impacts in soil from neighboring properties would be subject to significant uncertainty and would likely be scientifically inconclusive. There is no conclusive scientific basis to distinguish soil impacts that may be attributable to emissions from the Benning power plant from soil impacts attributable to any number of other sources of air emissions in the area (including point sources, such as the coal fired power plant at the U.S. Capitol, and mobile sources, like traffic on Interstate 295 and other nearby roadways), or from naturally occurring background soil constituents. In fact, the emissions from the Benning power plant, and the potential soil impacts resulting from deposition, would be expected to be relatively modest compared to other sources affecting the ambient air in the vicinity of the plant site.</p>
--	--	--	---

<p>5</p>	<p>David Holmes</p>	<p>The EPA has cited and continues to fine Pepco for the amount of heavy metal pollutants transiting from the Benning Road site. Do the measured levels of metal pollutants found at Outfall 13 indicate that this is a sufficient catch basin for all of the metals moving offsite? The investigation has found heavy metals at no other location. Why is there no evidence of a downstream plume of heavy metal deposition from Outfall 13?</p>	<p>Stormwater discharges from Pepco's Benning Service Center facility are similar to stormwater discharges from any other urbanized environment. Controls installed by Pepco over the years have significantly reduced metal concentrations in the facility's stormwater discharges. Pepco is working with EPA to install additional controls to ensure consistent compliance with the stringent permit limits.</p> <p>The RI conducted by Pepco and work completed by others to date demonstrate that metals are present in Anacostia River sediments, both upstream and downstream of Outfall 013, at concentrations above screening levels. For the most part, the majority of metals present in the Outfall 013 area were present at concentrations consistent with upriver background concentrations, indicating that discharges from Outfall 013 are not a major source of metals in the river sediments. However, the RI data collected to date does indicate concentrations of several metals may be slightly elevated in the Outfall 013 area. Note that, Total organic carbon (TOC), which is a measure of organic matter, was found to be relatively elevated in the Outfall 013 area sediments compared to the rest of the study area. Sediment contaminant concentrations typically exhibit a correlation with TOC concentration. Given appropriate geochemical conditions, metals can bind to organic matter and, in that process, become immobilized. Metals also readily sorb to fine silt and clay sized sediment. The lower flow rates in the cove will promote the precipitation of particulate-bound metals before they enter the river. These two phenomena may explain the slightly elevated levels found in the outfall area compared to the rest of the study area.</p> <p>It is also important to note while the issue of metal exceedances in discharges emanating from the facility was brought to DOEE's attention several times, DOEE is not a delegated authority. In other words, the fines issued by EPA are solely within their purview. DOEE has no authority to enforce the terms of EPA's National Pollutant Discharge Elimination System ("NPDES") permits.</p>
----------	---------------------	---	--

Responses to Public Comments on Draft Benning RI Report

August 23, 2016

6	Sylvia Midgett	<p>More sampling needs to be done on the surrounding neighborhoods. A number of contaminated areas and former spill sites are located immediately adjacent to the Parkside and River Terrace neighborhoods. There is some evidence from the groundwater contamination originating from Benning road that contaminants can migrate north as well as west. This could potentially place Parkside residents in danger. The Parkside neighborhood is significantly closer to these spills than the Anacostia river.</p>	<p>See the response to Comment No. 1</p>
7	Sylvia Midgett	<p>In particular test sites SUS 06, SUS 18 and SUS 24 (identified in Table 4-1) had high levels of PCBs and other contaminants. More testing must be done to determine possible effects of these contaminants on the surrounding community. SUS 18 and 24 are a short distance from the Parkside community, including Neval Thomas Elementary School and the Educare early childhood center. Whereas SUS 06 is located in close proximity to the River Terrace Education Campus. The areas along Foote street and at these educational facilities must be tested to ensure the safety of the community and its children.</p>	<p>Onsite exceedances detected during the RI to conduct to date will be delineated to levels below their respective Project Screening Levels (PSLs) during the next phase of field investigation.</p>
8	Jon K	<p>Page 13 of Powerpoint presentation - the listed Target Contaminants specifically (PCBs) and PCE specifically mention products including electrical equipment banned in 1979.</p>	<p>PCBs are a mixture of man-made chemicals that were used as coolants in electrical equipment because they did not burn easily and were good insulators. PCBs were also used in inks and dyes for paper, paints, adhesives, caulks, and sealants. In 1979, USEPA banned the manufacture and sale of PCBs. Pepco fully complied with the ban and discontinued the purchase or installation of new PCB-containing equipment as of 1979. Beyond compliance with the ban, although existing PCB equipment was allowed to remain in service after the PCB ban, Pepco implemented a voluntary program over time to actively drain PCB oils from transformers and other electrical equipment and retro-fill the equipment with non-PCB oils.</p> <p>PCE is not used in electrical equipment. It is a common dry cleaning fluid, solvent, and has many other industrial</p>

			applications.
9	Jon K	Page 17 of Powerpoint presentation :what are the scale representations for this slide? The information was not clear in the presentation nor on the page. Can you present the legend in a more legible format?	This picture is an excerpt of Figure 3-5 of the Draft RI Report and was intended as an illustration for the overview presentation. Additional details on scale and legend are included on Figure 3-5 of the Draft RI Report.
10	Jon K	Page 18 of Powerpoint presentation: what is meant by signification PCB contamination was detected and in what quantities and amounts?	Significant PCB contamination refers to approximately 7,900 tons of PCB-contaminated soil around and beneath the cooling tower basins. Pepco developed and DOEE reviewed and approved a Soil Removal Action Plan for removing the impacted soils. For additional information on this subject, please refer to Section 4.9.3 of the Draft RI Report.
11	Jon K	Page 19 of Powerpoint presentation - a claim is made without any foundation perchloroethene, tetrachloroethene, tetrachloroethylene, may also be referred to as "Perc". PCE is also used as a degreaser and in some consumer products (e.g., shoe polish, typewriter correction fluid). In over 100 years and 700 employees could not or did not use any degreaser or consumer products in excess of a defunct neighborhood commercial business. What's the mathematical calculations necessary to achieve the requisite amount of exposure to achieve this amount of leak in a non-examined area that could pose a long term health risk to the community if the speculative allegation made by this presentation is correct. The more reasonable explanation is that the exposure that exist in to separate areas on the PEPCO site is a result to the PEPCO disposal procedures. What are the specific chemical analysis of the PCE and in what quantities? Even if the speculations that the toxins crossed from the community to PEPCO is the amounts larger near the to the defunct dry cleaning and does it diminish further away? Specifically at the single PCE location in slide	As noted in our presentation and in the Draft RI Report, PCE was found in two different locations of the site in excess of the screening levels. These two locations are: (1) around MW-09 in the southern portion of the property east of the 34th Street; and (2) in MW-01 located in the southwest portion of the Site. Based on the non-detection of PCE in areas between these two locations, it is unlikely that these two areas are connected. An extensive investigation was conducted as described in the RI Work Plan Addendum #1 to determine the source of PCE in the MW-09 area. Groundwater samples were collected and analyzed for PCE using USEPA Method for Volatile Organic Compounds, SW 846 – Method 8260. The concentration gradients observed in multiple sampling points in this area pointed to an off-site source, potentially centered around the former off-site dry cleaner. No samples were collected outside Pepco's fence line. Therefore, the concentrations at the former dry cleaner location are not known. DOEE plans to further investigate the off-site impacts, which would help confirm the source. The presentation and the Draft RI Report clearly noted that the source of PCE in the southwest corner of the Site, closest to the River is unknown and will be further

Responses to Public Comments on Draft Benning RI Report

August 23, 2016

		number 20 and the PCE & Naph location. the General Groundwater Flow doesn't include any information that would allow for the PCE's to cross into the tested area if the contamination came from the community into PEPCO by some other means that would not be shown on any of the slides which would either be physically impossible or highly improbable scientifically or psychically	investigated. Pepco is performing a thorough review of available historical information and will conduct additional investigation to determine the source of PCE in MW-01.
12	Jon K	Page 21 of Powerpoint presentation -The Storm Drains information doesn't include any Wind Pattern information. Why not if the purpose of the study is to assess risks to human health and environment?	Site wind patterns were discussed in Section 3.2 of the Draft RI Report. Wind patterns are expected to have minimal impact on storm drain residue and water concentrations.
13	Jon K	Page 23/24 of Powerpoint presentation: who took the photographs for slides 23/24 and etc? Why were the sample tests done outside the area in NW and MD?	The pictures in slides 15, 16, 23 and 24 were taken by AECOM field staff. Plant demolition pictures in Slides 6 and 7 were taken by Pepco. Pictures on Slide 31 are stock photos or from public sources. Photos on Slides 37 and 38 were taken by Pepco's storm drain inspection contractor. River sediment and water samples were collected outside the Study Area in NW and MD to determine river impacts from other background sources including urban runoff.
14	Jon K	Page 25/27 of Powerpoint presentation7 mention Outfall 013 is not explained on the slide unless that was verbally explained during part of the presentation which was not always clearly audible.	Outfall 013 was clearly labeled on Slides 25 and 27 of the power point presentation. Outfall 013 drains majority of Pepco's stormwater runoff to the Anacostia River in accordance with a National Pollutant Discharge Elimination System (NPDES) permit issued by USEPA.
15	Jon K	Page 28 of Powerpoint presentation: the lead distribution charts doesn't indicate levels? What are the numbers and where are the numbers?	The lead distribution chart presented three different levels as noted in the legend: (1) locations with no exceedance noted with a blue dot; (2) locations that exceed a low effects level of 31 parts per million, noted with a yellow dot; and (3) locations that exceeded a probable effects level of 128 ppm, noted by a red dot. Exact lead levels

			<p>found at each location were presented in Tables 4-9 and 4-10 of the Draft RI Report.</p>
<p>16</p>	<p>Jon K</p>	<p>Page 32 of Powerpoint presentation: Can you provide an accurate overlay of slide 17 on page 9 with slide 32 on page 16 to show the exposure with the soil? During the presentation the number 17 over 32 was mentioned by not clearly audible and what was that in reference to specifically? Concerning slide 32 the first six (6) inches is a lot of worms especially when birds eat worms. Their feces's can be a concern of contamination but not mentioned in the study why? Fish migration in the area?</p>	<p>The first two questions under this comment are not clear.</p> <p>As illustrated on slide 32, the potential ecological receptors and exposure pathways evaluated in the preliminary BERA (Appendix AA of the Draft RI Report) focused on aquatic biota and habitats as terrestrial ecological exposure pathways were considered incomplete and insignificant due to the lack of habitat available in the Landside Investigation Area. The BERA evaluated potential risks to avian receptors (birds) using USEPA-approved methods and a work plan approved by DOEE. The evaluation of potential risks to birds and mammals focused on potential ingestion of sediment and prey items (i.e., fish) containing Site-related compounds (i.e., PCBs) in the Waterside Investigation Area. Based on the two publicly-available fish tissue datasets that were used to evaluate prey item PCB tissue concentrations (the DOEE dataset to support human health fish consumption advisories [Pinkney, 2014] and a Maryland Department of Environment dataset to support the state's evaluation of fish consumption advisories [MDE, 2012]), it was determined that PCBs are present in fish tissue throughout the river, both upstream and downstream of the site. PCBs biomagnify in food chains and as such, in both datasets, it was shown that higher PCB concentrations were measured in larger, higher trophic level species (e.g., American eel, carp) than smaller fish species (e.g., sunfish).</p> <p>The two representative avian species evaluated in the BERA (belted kingfisher and great blue heron) were assumed to consume fish from the river. Both species consume small fish as a portion of their diet (USEPA, 1993) and these smaller prey fish species likely have lower PCB concentrations than the larger fish that are representative of the high end of the range reported by Pinkney (2014) and MDE (2012). However, for the</p>

			<p>purposes of the BERA, it was conservatively assumed that the maximum fish tissue concentration measured for a channel catfish is representative of the heron and kingfisher diets. Based on these conservative assumptions, the BERA concluded that there is little to no potential for ecological risks to the birds in the Waterside Investigation Area from ingestion of fish containing PCBs. Similar results were reported by Tetra Tech (2016) in which no unacceptable risks to birds were found for this section of the river.</p> <p>PCBs have been measured in very low levels in bird excrement in several literature studies (Douillard and Norstrom, 2000; FOSTER ET AL., 2011) and it is possible that anacostia river fish-eating birds excrete extremely low levels of PCBs in their feces. However, given the relatively low numbers of herons and kingfishers in this portion of the river, and due to the low concentrations, bird fecal matter was not considered a significant source of PCBs to the Study Area as the magnitude of fecal matter contribution is likely insignificant compared to the primary sources, (e.g., residuals from historical operations and cleanups, stormwater discharges from the facility and urban runoff from off-Site sources).</p> <p>Regarding fish migration, the preliminary BERA evaluated risks to the fish community of the Anacostia River, which include both resident and migratory species. Migratory fish, including alewife and blueback herring, use the Anacostia River to access spawning habitat on upstream tributaries to the river; however, due to blockages and poor habitat quality of tributaries, the populations of these species have declined (NRDC, 2011) and they are estimated to be using only 10 to 20 percent of their range of habitat (USACE; http://www.nab.usace.army.mil/Missions/Environmental/Anacostia-Watershed-Restoration/). For the preliminary BERA, the fish tissue chemistry data available from two sources described above (Pinkney, 2014; MDE, 2012) were compiled and compared to literature-derived critical</p>
--	--	--	--

			<p>body residue concentrations for Site-related compounds (PCBs). Based on the results of this evaluation, no risks were found for the fish community. The refined BERA will further evaluate fish community exposures by including critical body residue concentrations for both the adult and early life stages for growth, reproduction, and mortality endpoints (as available in the literature). The refined BERA will also be updated to include the more recently-collected fish tissue data from the Anacostia River Sediment Investigation, which include migratory species such as striped bass and herring.</p> <p>Notes:</p> <ul style="list-style-type: none"> (1) Pinkney, A.E. 2014. Analysis of contaminant concentrations in fish tissue collected from the waters of the District of Columbia. Final Report. CBFO-C14-03. U.S. Fish and Wildlife Service, Chesapeake Bay Field Office, Annapolis, MD. September 2014. (2) MDE. 2012. Database query for contaminant concentrations in fish tissue collected from the Anacostia River, 2002 to 2010. John Hill, Environmental Specialist, Maryland Department of Environment. May 21, 2012. (3) USEPA, 1993. Wildlife Exposure Factors Handbook. Vols. I and II. U.S. Environmental Protection Agency, Office of Research and Development; Washington, D.C. EPA/600-R/R-93/187a,187b. (4) Tetra Tech. 2016. Draft Phase 1 Remedial Investigation Report: Anacostia River Sediment Project, Washington, DC. Prepared for DOEE. Prepared by Tetra Tech. March 18, 2016. (5) Drouillard, K. G. and Norstrom, R. J. (2000), Dietary absorption efficiencies and toxicokinetics of polychlorinated biphenyls in ring doves following exposure to aroclor® mixtures. Environmental Toxicology and Chemistry, 19: 2707–2714. doi:10.1002/etc.5620191114
--	--	--	--

			<p>(6) Foster, K. L., Mallory, M. L., Hill, L. and Blais, J. M. (2011), PCB and organochlorine pesticides in northern fulmars (<i>Fulmarus glacialis</i>) from a High Arctic colony: Chemical exposure, fate, and transfer to predators. <i>Environmental Toxicology and Chemistry</i>, 30: 2055–2064. doi:10.1002/etc.592</p> <p>(7) Haywood, H. C. and C. Buchanan. 2007. Total maximum daily loads of polychlorinated biphenyls (PCBs) for tidal portions of the Potomac and Anacostia rivers in the District of Columbia, Maryland, and Virginia. Interstate Commission on the Potomac River Basin. ICPRB Report 07-7. Rockville, MD. October 2007.</p> <p>(8) NRDC. 2011. Petition to List Alewife (<i>Alosa pseudoharengus</i>) and Blueback Herring (<i>Alosa aestivalis</i>) as Threatened Species and to Designate Critical Habitat. Natural Resources Defense Council. Submitted to National Oceanic and Atmospheric Administration. Available at http://www.nmfs.noaa.gov/pr/pdfs/petitions/riv_erherring.pdf.</p> <p>(9) USACE, Baltimore District. Anacostia Watershed Restoration. Available at http://www.nab.usace.army.mil/Missions/Environmental/Anacostia-Watershed-Restoration/.</p>
17	Jon K	Page 33 of Powerpoint presentation : In the preliminary findings there is no mention of sink holes whatsoever? Both unusual and highly unlikely? On what degrees and extremes?	No sink holes were encountered in the Study Area.
18	Jon K	Page 34 of Powerpoint presentation: There is no mention of either birds or raccoons and or possums why did you not look at them and why since they also pose a risk to the community's health especially to household pets and children	Three wildlife receptors were considered in the preliminary ecological risk assessment, as detailed in Section 3.6.1 of Appendix AA of the RI Report, including two bird species (great blue heron and belted kingfisher) and one mammal species (raccoon). These three species were selected to represent the exposure of piscivorous (i.e., predominantly fish-eating) birds and mammals that may be exposed to sediment and prey items (i.e., fish) from within the

			Waterside Investigation Area. Potential exposure of the raccoon, the belted kingfisher and the great blue heron were evaluated in a food web model under conservative assumptions. A similar analysis was conducted by DOEE in their Anacostia River RI report. Both Pepco and DOEE have concluded that risks to birds and mammals from exposure to PCBs within the Waterside Investigation Area are not expected.
19	Jon K	Page 37/38 of Powerpoint presentation what were the results at each portions of the storm drains or were the amounts consistent throughout which would seem highly unlikely? Where their any cracks in the drains or were the drains examined for cracks and if so to what extent or if not why not?	Slides 37 and 38 are examples of blockages in the main 48/52-inch diameter storm drain. Much of the 2,230 LF of main storm drain investigated was clean, except for two separate stretches that indicated a partial blockage. The main storm drain was also examined for cracks. Some minor cracking was observed in the main storm drain and repairs were completed by Pepco. Additional inspection of the entire storm drain system including the laterals is currently in progress. The results will be shared in the Final RI Report.
20	Keith Benjamin	More sampling needs to be done on the surrounding neighborhoods. A number of contaminated areas and former spill sites are located immediately adjacent to the Parkside and River Terrace neighborhoods. There is some evidence from the groundwater contamination originating from Benning road that contaminants can migrate north as well as west. This could potentially place Parkside residents in danger. The Parkside neighborhood is significantly closer to these spills than the Anacostia river.	See the response to comment No. 6
21	Keith Benjamin	In particular test sites SUS 06, SUS 18 and SUS 24 (identified in Table 4-1) had high levels of PCBs and other contaminants. More testing must be done to determine possible effects of these contaminants on the surrounding community. SUS 18 and 24 are a short distance from the Parkside community, including Neval Thomas Elementary School and the Educare early childhood center. Whereas SUS 06 is located in close proximity to the River Terrace Education Campus. The areas	See the response to comment No. 7

Responses to Public Comments on Draft Benning RI Report

August 23, 2016

		along Foote street and at these educational facilities must be tested to ensure the safety of the community and its children.	
22	Simeon Hahn	Specifically NOAA does not agree with the background designations used in the draft report and supports evaluating the broader data set available in the draft Anacostia RI report prepared by DOEE to more specifically evaluate the nature and extent and spatial patterns of sediment contamination.	We agree that the DOEE RI dataset available from the Anacostia River upstream from the Pepco site can be used to establish constituent Site-specific background concentrations for surface sediment. Pepco will propose for DOEE review and approval the specific samples from the DOEE RI dataset that are appropriate for use in evaluating background surface sediment concentrations.
23	Simeon Hahn	NOAA also does not agree with the approach used for doing fingerprint evaluations of PCBs in soils and sediments in the area of investigation.	Waiting for clarification from NOAA regarding the fingerprint evaluations of PCBs used by Pepco.
24	Simeon Hahn	NOAA does not agree with the conclusions reached about the sources of contamination relative to fish tissue concentrations in the River. More specific analysis of the dispersion of contaminated fish from potential exposure areas is required. For the revised ecological risk assessment NOAA requests that a specific assessment endpoint evaluating contaminant impacts on anadromous fish spawning and early life stages of fish which occur and use the habitat in the area of investigation.	An assessment endpoint evaluating anadromous fish spawning and early life stages of fish using habitat in the area of investigation will be included in the revised BERA.
25	CAG	Significant data gaps identified throughout this report should have been identified and addressed sooner given how much time has been taken. DOEE and Pepco have made many promises to the public of continuous evaluation and oversight, but we have only seen excuses and delays throughout this process, which are reflected by the outcomes of the Draft RI Report. We ask that Pepco and DOEE be more forthcoming about their expectations for the completion of the RI/FS and that improvements and adjustments be made	During the review of the Draft RI report, Pepco and DOEE had a lot of discussions and meetings to resolve the technical disagreements. Outcome of the extensive discussions was identifying the data gaps and agreeing for the necessity of the additional work as a part of RI phase. A detailed schedule for completing RI/FS is available on Pepco and DOEE websites. As per the schedule, final FS Report is due on March 30, 2018 without treatability study and on June 30, 2018 if treatability study is necessary.

		in order to stand by their commitments to the communities.	
26	CAG	<p>Statements in the report such as the one below (see pages ES-2, 4-30, 4-36, 4-37) are not well understood. These assertions ignore the fact that Pepco operated a combustion-based power plant for almost 100 years and operates a fleet of vehicles at its Benning Road property. Could the differences in the two classifications on PAHs mentioned here be explained further? And since more investigation and forensic analysis is being planned to better define PAH sources, what will be the determining factors to better understand contamination sources?</p> <p>“This preliminary forensic analysis suggests that PAHs in site soils and stream sediments may be predominantly from combustion related sources (pyrogenic) rather than fuels (petrogenic), although as noted, this conclusion is based on a limited list of PAHs and a limited site-specific background dataset.” (page 4-36)</p>	<p>PAHs can be broadly divided into two major classes, Petrogenic PAHs and Pyrogenic PAHs. The PAHs found in petroleum products like gasoline, diesel fuel, fuel oils, etc. are referred to as Petrogenic. The PAHs that are produced by combustion such as in vehicle exhaust, wood smoke, coal or oil burning, etc. are referred to as Pyrogenic PAHs (pyro = fire/burn). These two types of PAHs have very different patterns. By plotting ratios of the various PAH types it is possible to distinguish between combustion and petroleum sources, as well as to differentiate between the site PAHs (those that might have originated at the Pepco facility) and background PAHs (those that are present due to regional activities unrelated to Pepco). Pepco will collect additional forensic samples. An expanded list of PAHs, geochemical biomarkers, and saturated hydrocarbons in the new forensic samples will be used to refine the analysis of possible specific petroleum related sources on site and in the river.</p>
27	CAG	<p>We agree with statements in the report indicating that more exposure pathways need to be addressed (pages ES-4 and 7-8). In addition to the current/future construction worker, future industrial worker, and future recreational user scenarios, nearby residents (particularly those who dig or have pets that dig on their properties) should be evaluated since their properties were likely contaminated when the power plant was in operation. If risks for this group will not be evaluated going forward, please explain.</p>	<p>Additional landside exposure pathways will be evaluated in the revised BHHRA. The current understanding of the Conceptual Site Model (CSM) does not suggest that historical operations have resulted in impacts to off-site soils in residential areas. The evaluation of any impacts from historical airborne emissions is outside the scope of the RI/FS for the Site (please see response to comment 4).</p>

28	CAG	<p>This report continues to state that there have been five historical releases of PCBs on the Pepco Benning Road property. For consistency and accuracy this number needs to be changed to "six" throughout the report (RI Report pages 1-3 and 1-6; Appendix Z page 2-1). There were six historical releases of PCBs. EPA has documented six and the July 2012 RI Work Plan was revised to reflect this and other changes and officially re-released in February 2013. (Table 1-2)</p>	<p>We agree that six historical incidents resulting in the release of PCBs at the Site were listed in Table 1 of the 2009 EPA Site Inspection Report. One of these six incidents listed in the EPA report referred to oil staining observed by EPA personnel during a 1997 Multi Media Inspection on the exterior of one of the two 10,000-gallon PCB oil holding tanks located inside Building 57. There was no release to the environment associated with the observed oil staining on this tank because the oil remained within the secondary containment. Nonetheless, the RI Report will be revised to consistently state all six of the incidents listed in the 2009 EPA report and the approved RI/FS Work Plan.</p>
29	CAG	<p>Will all contaminants that exceed screening levels and that are determined to be a risk to human and/or ecological health on the Pepco Benning road property be remediated regardless of the source?</p>	<p>Any contamination that exceeds screening levels and exhibits actionable risk through a site-specific risk assessment on Pepco Benning Road property (regardless of the source) will be addressed through active remediation and/or institutional controls as needed.</p>
30	CAG	<p>We understand that further investigation is warranted on the landside, but in the meantime will potential remediation options for the landside start to be evaluated much like what has been done to clean up PCB contamination surrounding the cooling tower basins, for example? We suggest landside remediation options in all risk areas be evaluated as not to delay further.</p>	<p>Regarding cooling tower basin: Note that Pepco collected over 200 samples to characterize and delineate the PCB contamination around the basin since the PCB levels exceeded regulatory risk-based cleanup levels. The PCB contamination around cooling tower basin area was fully characterized and delineated and therefore, Pepco prepared a remediation plan of soil removal. Unless the sources are characterized and delineated and the risk assessment is completed, it will not be possible to evaluate remedial options. Pepco has always been in favor of implementing interim actions where needed. Another example of such an action undertaken was the storm drain system inspection and cleaning. If additional areas needing immediate attention are identified in the additional landside investigation, Pepco will work with DOEE to expedite the process for remedy evaluation and selection. This process includes completion of the RI, risk assessment, Feasibility Study to evaluate remedial options.</p>

31	CAG	Bird species observations seem incomplete in this report because it missed the migratory species that use the river at other times of the year than November and December. (page 3-10)	Due to the timing of the RI field activities, direct bird observations were only made in November and December. A list of potential bird species that may be present in this part of the river will be researched from local sources (e.g., District of Columbia Audubon Society) and presented in the relevant sections of the revised RI.
32	CAG	Could the rationale for the screening levels used for this investigation be explained? For example, the use of mean values seems to gloss over potential problems with contamination hotspots (see pages 4-26 and 4-27, giving mean values for PCBs in sediments that are an order of magnitude lower than the peak values in particular samples). If any of the values used here differ from those proposed in the original Remedial Investigation Work Plan (July 2012), please also explain the rationale for changing those values.	<p>The screening values used in the Benning Road Remedial Investigation were selected from a variety of sources (e.g., EPA risk-based screening levels, DOEE surface water quality criteria, etc.) to help place the environmental data collected at this site into context. Data tables in Section 4.0, Appendix Z and Appendix AA of the Draft RI Report include complete citations for the sources from which the screening values were obtained. These screening values are not meant to be cleanup levels, but rather were selected to provide a benchmark for evaluating the soil, sediment, surface water, and groundwater data. Broadly speaking, if a contaminant is present at a concentration below the screening value, it can be considered to present little or no potential risk to humans or the environment. Conversely, if a contaminant is present at a concentration above the screening value, then additional information is needed to determine the potential risks. For the most part screening levels from the original Remedial Investigation Work Plan (July 2012) have been used in the Draft RI Report, unless the source guidance documents were updated by the agencies publishing the documents.</p> <p>A variety of statistics were run on the data to facilitate a discussion of the data distribution. These statistics include minimum, maximum, arithmetic mean and median. Pepco has discussed these parameters (not just mean) in the text and documented all parameters in the tables.</p>
33	CAG	What are the implications of contaminant groups (such as PCBs, PAHs, heavy metals, etc.) found together at sampling locations? For example, what does it tell us about the condition or need for remediation when PCBs and PAHs are found	As described above, if contaminants are found above screening values, it suggests that additional analysis in the risk assessment is required to determine whether or not there are potential risks to humans and the environment, and whether or not remediation may be

		exceeding screening levels at the same location?	<p>required. That said, it is not surprising that some compounds are found together. This is a complex urban landscape and PAHs and metals are ubiquitous. Some of these compounds may be derived from the Site, and others may be a background condition (either naturally occurring or due to the urban landscape surround the Benning Road site). It is also possible that some types of organic compounds or metals may “travel” together due to their chemical similarities. For instance, in sediment with a high level of organic carbon (for instance, black silty sediment), we often see higher levels of PAHs and PCBs than in sediment with lower levels of organic carbon (for instance, sandy sediment).</p> <p>The BHHRA was performed in accordance with USEPA guidance which stipulates a cumulative approach. The cancer risks of chemicals with potential carcinogenic effects are summed. For chemicals with potential noncancer effects, the hazard quotients are summed for chemicals with the same target endpoints. Remediation decisions are based on cumulative risks, with the objective of reducing the cumulative risk to within acceptable levels.</p>
34	CAG	If contaminants that exceed screening levels are ruled out as having migrated from the Pepco Benning Road property (i.e., contaminants are not from Pepco’s operations), will the source of pollution be investigated further by DOEE to ensure remediation? If so, which areas does DOEE plan to continue investigating?	For the contaminant concentration that exceed the screening levels are concluded to be migrated from off-site like PCE plume in the southern portion of the facility east of the 34 th street, DOEE plans to further investigate to confirm the off-site source.
35	CAG	The transport of chemicals of concern needs to be further explained. It is not clear that all modes of chemical transport have been identified; implications of past and future extreme weather events, for example, needs to be better understood. The health impacts in turn must also be revisited.	The fate and transport of Constituents of Potential Concern (COPCs) is thoroughly evaluated in the Contaminant Fate and Transport section (Section 5) of RI Report, including physical, chemical, and biological transport processes. The potential impact of extreme weather events, including surface water runoff, erosion, and dust transport, have been included among the migration pathways considered in the Conceptual Site Model (CSM) for the Site, which directly informed the preliminary Baseline Human Health Risk Assessment

			(BHHRA). The BHHRA (Appendix Z of the RI Report) discusses the potential release mechanisms and exposure pathways related to human receptors and evaluates the potential risk to human health from Site contaminants. See response to Comment #3 with respect to severe weather conditions. Additional analysis regarding the implications of severe weather events and COPC F&T will be included in the RI. The BHHRA will be revised and updated following a planned additional round of field sampling.
36	CAG	What will be done to address any sampling that resulted in false positives or negatives identified in the report? (pages 4-16, 4-17, 4-20)	Resampling of the groundwater will be conducted to minimize the turbidity that we suspect produced false positive detections for PCBs and other hydrophobic contaminants due to the inclusion of sediment in the groundwater. The false positives for organochlorine pesticides can also occur due to the coelution of PCB congeners in the pesticide chromatographic windows when EPA Method 8081 is used. If pesticides are still detected by EPA Method 8081 under low flow sampling conditions, then GC/MS/MS will be used to verify the pesticide detections are real. The GC/MS/MS method is very sensitive and very selective, and should be able to confirm whether or not the low level pesticides are really present. If high levels of any pesticides are detected by EPA Method 8081, such as the methoxychlor detection in storm drain sediment SDRPEPR5, then conventional low resolution GC/MS by EPA Method 8270 may be used to confirm or deny the pesticides are present.
37	CAG	Background sample locations are too close to the contaminant plumes near the Pepco Benning site. We recommend that background samples be taken farther away in order to establish more accurate background levels. The Anacostia River is a small tidal river where there is a constant mixing of contaminants up and down the entire tidal portion as the tide goes in and out. It may be beneficial to take background samples in the nearby Potomac River. (See definition of "background" given on page 4-2)	<p>The Anacostia River upstream from the Pepco site is appropriate for assessing Site-specific background concentrations in surface sediment. Based on preliminary results from surface water modeling of the Anacostia River, it is incorrect to state that a constant mixing of contaminants up and down the length of the river occurs because of tidal mixing.</p> <p>The Site-specific background sample locations were selected to characterize the urban and off-site influences, such as stormwater runoff, to sediment outside of the</p>

		<p>o What are the “revised background conditions” for PCBs referenced on page 4-28 that will be assessed in conjunction with the additional field investigation?</p>	<p>Waterside Investigation Area in the Anacostia River. Therefore, these locations comply with the USEPA definition of background, which are “locations that are not influenced by the releases from the Site and are usually described as naturally occurring or anthropogenic”. Pepco will conduct the necessary analyses to confirm that the locations from the upstream Anacostia River selected for Site-specific background assessment are not influenced by releases from the Site. As stated in the comment, the Anacostia River is a small tidal river. Locations on the Potomac River are not appropriate because it is a deeper, faster flowing river, and also upstream of the confluence with the Anacostia River, there are fewer of the urban impacts (e.g., CSS discharges) that influence the Anacostia River.</p> <p>The revised background conditions refers to potential elimination of some historical data (that is >10 years old) and additional background samples to be collected as part of the additional round of field investigation to address Site data gaps and uncertainties that remain following the initial field sampling conducted in the period from January 2013 through December 2014. The revised background evaluation will be documented along with the results of the additional field investigation in the Final RI Report for the Benning Road facility.</p>
38	CAG	<p>The discussion of the PCB forensic analysis from page 4-37 through 4-47 seems to ignore the possibility that tidal flows could have distributed PCBs from the Benning Road site throughout the tidal portions of the Anacostia River, both upstream and downstream. Further explanation is needed.</p>	<p>Given the tidal situation, it is possible that there is some limited upstream transport, but the net flow is downstream. Historical sediment transport models prepared by others support this conclusion. The waterside investigation area was selected based on PCB concentration patterns and is representative of the potential Site influence in a tidal condition.</p>
39	CAG	<p>There has been and continues to be an assumption that contamination has not migrated from the Pepco Benning Road property to nearby residential areas. What is it about the fence-line</p>	<p>Pepco's Benning operations and equipment staging are limited to the confines of the Benning Service Center property. Any solid and hazardous wastes generated at the Site are collected and disposed of at off-site disposal</p>

		that protects or protected (when the plant was in operation) these communities from contaminants?	facilities. Process water and stormwater runoff from the facility have been collected in an elaborate site drain system and discharged to either the city sewer or Anacostia River through permitted outfalls. When the Benning Road power plant was in operation, the plant operated under appropriate environmental permits (air, water, and waste). There were no documented spills or impacts to the residential areas as a result of Pepco's operations. The air pathway is further addressed in the response to Comment #4. Therefore, the investigation areas were limited to Pepco property and an adjacent portion of the Anacostia River, based available information.
40	CAG	We strongly recommend that the sampling be expanded to include neighborhoods immediately adjacent to the site since there is reason to expect that smokestack contaminants migrated to these neighborhoods at a minimum. Citing that this is not a requirement of the consent decree is not an acceptable response; Pepco and DOEE should and have claimed to be committed to the residents of the District and therefore should go above and beyond minimum consent decree requirements if truly committed to community and environmental health.	See the response to comments No. 4, 39, and 41.
41	CAG	Where contaminants are found near the fence, the extent of the contamination needs to be investigated further and Pepco needs to continue to follow the contamination regardless of where it is until acceptable levels are detected. For example, Human Health Risk Assessment Screening Levels for total PCBs were exceeded (1,400 ug/kg) at SUS18 (Figure 4-2, Table 4-1) which is near the border of a community area.	No onsite detections of contaminants in excess of Project Screening Levels (PSLs) were found at the Site fence line during the RI. SUS18 is located approximately 250 ft southwest of the Site property boundary adjacent to the Parkside neighborhood. This and other locations where contaminants were found to exceed PSLs will be further investigated in a planned additional round of sampling, during which samples will be collected adjacent to the prior detection until the constituent(s) in question are delineated at levels below their respective PSLs. These results will be reported in the revised RI report.

<p>42</p>	<p>CAG</p>	<p>The direction of the PCE plume (pages 4-50 and 4-51) suggests that migration of contaminants can occur in directions that are not westward as is the assumption for the modeling. This assumption of westward migration of contaminants towards the river may be erroneous based on the PCE contaminants found on the site which is north and west of the historical dry cleaner site (suspected source of pollution) and should be reexamined. This becomes especially important since most of the historically reported PCB spills occurred on the eastern section of the site near Kenilworth Parkside. If migration can occur in directions such as east then you would expect that PCB and other contaminants might be found in Kenilworth Parkside as that is closer to the spill sites than the river.</p>	<p>The location of the former dry cleaners is approximately due south (cross-gradient) from the center of the detected onsite PCE groundwater plume. Cross-gradient contaminant migration due to dispersion is not unusual, especially where hydraulic gradients are shallow, source area contamination is significant, and a long period of time has passed since the contaminant release, all of which appear to be the case here. Furthermore, although the former dry cleaners is the suspected source of the contamination, the exact source, location, time, and duration of the offsite release of PCE is not known. There is no evidence of upgradient (eastward) migration of groundwater contamination in any portion of the Site.</p> <p>Although a number PCB releases and cleanups are known to have occurred in the eastern portion of the Site, PCBs are relatively insoluble in water and PCB concentrations in groundwater in the upper and lower water-bearing zones at the two monitoring wells on the northeastern and eastern boundaries of the Site (MW-14 and MW-15) were not detectable. Therefore, areas to the northeast, east, or southeast of the Site are unlikely to be impacted by known or suspected groundwater contamination originating at the Site.</p>
<p>43</p>	<p>CAG</p>	<p>Conclusions from the Pepco Benning RI risk assessments seem to be inconsistent with what has been concluded for the Phase 1 Anacostia River Sediment RI risk assessments. These need to be addressed:</p> <ul style="list-style-type: none"> o Baseline Ecological Risk Assessment - Pepco found “little to no potential for ecological risks to the wildlife community from ingestion of prey items containing PCBs” (Pepco Benning RI at 6-3), but the Anacostia River Sediment RI found possible PCB risks to green heron and kingfishers in Reach 456 (which includes the Pepco Benning study area) when NOAEL TRVs were used (Anacostia River RI at 139 and Table 10.14). 	<p>The two BERAs were consistent in findings pertaining to mammals. However, the differences in conclusions with regards to birds (particularly heron species and belted kingfisher) are explained by the fact that the Anacostia River Sediment RI exposure point concentration is based on data collected from sampling locations in a different area than the Pepco Benning Road RI (only the Waterside Investigation Area), which would result in different EPCs. Also, the small differences in NOAEL TRV for total PCBs used (1.8 mg/kg bw/day in the Pepco Benning Road RI and 1.27 mg/kg bw/day in the Anacostia River Sediment RI) and in the other variables and assumptions made for food web modeling, including body weights, area use factors, food and sediment ingestion rates, etc, contribute to different exposure assumptions for birds. Nonetheless, the DOE’s Phase I Anacostia River RI reached a similar</p>

			<p>conclusion to the Pepco RI (page 155 of the RI concluded that “Available data indicate that birds and mammals are exposed to little or no risk from chemicals in the Anacostia River sediments, surface water, or fish or invertebrate tissue”).</p>
44	CAG	<p>Conclusions from the Pepco Benning RI risk assessments seem to be inconsistent with what has been concluded for the Phase 1 Anacostia River Sediment RI risk assessments. These need to be addressed: Human Health Risk Assessment - Pepco concluded that fish consumption presents a risk only for non-cancer effects (Pepco Benning RI at 6-2), but the Anacostia River Sediment RI found total PCBs were a contaminant of concern for both fish ingestion cancer risks and fish ingestion non-cancer hazards for all reaches of the river (Anacostia River RI at 149).</p>	<p>The conclusions of the two BHHRA are consistent for a recreational angler receptor. The Pepco BHHRA evaluated a subsistence angler in the uncertainty section while the riverwide RI BHHRA evaluated the subsistence angler in the main body of the report.</p>
45	CAG	<p>It is unacceptable that little effort has been made to post signs near the Pepco Benning property warning people not to fish or consume fish caught in the area. Many studies, including Pepco’s RI, over the years have shown that the river and fish in the river contain high levels of contamination. We strongly urge DOEE to ensure that sufficient signage is posted up and down the entire river, focusing on locations frequented by people.</p>	<p>Based on your request, DOEE installed the Fish Advisory sign across from upper entrance to Kingman Lake and upstream from the confluence of Watts Branch. The fishing area is in Kenilworth Park, accessed from Deane Ave.</p>
46	CAG	<p>The many assumptions and hypothetical scenarios mentioned throughout the RI report gives it an opinion-like tone. Pepco seems more interested in placing the responsibility on other potential sources rather than uncovering the facts and presenting unbiased evidence. We expect DOEE to ensure Pepco is thoroughly investigating pollution sources.</p>	<p>DOEE identified data gaps in the RI on several occasions, which is why there have been several rounds of field sampling in the process. The data gaps identified during RI will be addressed during the additional investigation. The conceptual site model (CSM) will also be updated as a part of the RI Addendum to evaluate additional pollution sources. The updated CSM will include a comprehensive list of the significant hazardous materials used or generated at the site, the historical timeline when each material was used, graphic displays showing the aerial footprint where each material was used. Additional</p>

			investigation will be designed to investigate source areas identified in the revised CSM. All of these efforts are demonstrative of DOEE’s intent to ensure that Pepco has exhaustively investigated all potential pollution sources.
47	CAG	There is a substantial amount of work that Pepco and DOEE are going to be engaged in to better understand contaminants found in order to finalize the Remedial Investigation report. We recommend that an additional comment period for RI Work Plan Addendum #3 or at the very least the report on findings following this additional work (second/revised draft RI report) be offered to the public. We realize that this will add more time to the schedule, but with so much new work and information to come we feel it is important to give the public some time to review and comment.	See the response for comment No. 2
48	CAG	We recommend a couple changes to the way the RI information and all future reports are presented: - Large tables for this report (e.g., Tables 4-1, 4-3, 4-5; Appendix R) should be made available in Excel spreadsheets because it was difficult to navigate such large datasets in PDF form. - All references to Figures, Tables, and Appendices in the report should either be 1) hyperlinked to the direct source of information or 2) shown (specific content) in-line with the text of the report to make it easier for the general public to review.	It is standard practice to produce tables in PDF format so that the data therein cannot be subsequently altered. For future reports, Pepco will explore the possibility of releasing large tables as locked Excel spreadsheets for easier viewing. It is not practical to display tables, figures, and appendices in-line with the report text due to their size, which would interrupt the continuity of the report text. Pepco will make an effort to bookmark the report for easier navigation within a PDF viewer. However, due to their size, figures, tables, and appendices are typically supplied as separate files from the report text, precluding hyperlinking or bookmarking to them from the text.
49	Anacostia Riverkeeper	Significant data gaps identified throughout this report should have been identified and addressed sooner given how much time has been taken. DOEE and PEPCO have made many promises to the public of continuous evaluation and oversight, but we have only seen excuses and delays throughout this process, which are reflected by the outcomes of the Draft RI Report. We ask that PEPCO and DOEE be more forthcoming about	See the response for comment No. 25

		<p>their expectations for the completion of the RI/FS and that improvements and adjustments be made in order to stand by their commitments to the communities.</p>	
50	Anacostia Riverkeeper	<p>Statements in the report such as the one below (see pages ES-2, 4-30, 4-36, 4-37) are not well understood. These assertions ignore the fact that PEPCO operated a combustion-based power plant for almost 100 years and operates a fleet of vehicles at its Benning Road property. The import or relevance of any asserted differences in the two classifications on PAHs mentioned should be explained and not left openended. Since more investigation and forensic analysis is being planned to better define PAH sources, what will be the determining factors to better understand contamination sources?</p> <p>“This preliminary forensic analysis suggests that PAHs in site soils and stream sediments may be predominantly from combustion related sources (pyrogenic) rather than fuels (petrogenic), although as noted, this conclusion is based on a limited list of PAHs and a limited sitespecific background dataset.” (page 4-36)</p>	See the response for comment No. 26
51	Anacostia Riverkeeper	<p>Given the long and relatively complex operational history at the property, has consideration been given to using a Tentatively Identified Compound (TIC) analysis in the follow-up work that has been proposed in the RI, to identify any additional compounds of potential interest? Limiting the number of COPIs too early in the process can result in a sampling and characterization program that is too restrictive (and reduced reporting) that can result in missed potential COCs.</p>	<p>Pepco based the list of COPCs on results from previous investigations, including those conducted by EPA, and knowledge of industrial processes and chemicals used on site. DOEE reviewed and approved the Work Plan for the RI/FS which included VOC and SVOC analyses using the extensive EPA CLP Target Compound Lists. Review of the VOC and SVOC chromatograms indicates that the largest discrete peaks are usually attributable to target compounds like COPCs such as PAHs when significant discrete peaks are present. Use of Tentatively Identified Compound analysis in the VOC and SVOC data is unlikely to produce additional useful information for the RI/FS.</p>

52	Anacostia Riverkeeper	The report goes to some lengths to compare PCBs found on the landside with those found in the waterside, including forensic analyses to determine to what extent the landside PCBs likely contributed to the waterside PCBs. This preliminary forensic assessment exhibits some shortcomings that should be addressed in the next phase of work - including: the PCB comparison does not appear to consider the weathering of PCBs and the effect this has on the analysis; the PCB comparison appears to neglect the role of sediments that were removed from overflows/storm drains on PCB transport and contamination; the initial conclusion of the RI that the site is not a substantial contributor appears to contradict previous findings by EPA.	Weathering of PCB patterns will be considered in the additional RI/FS investigation. Preliminary analysis of the congener patterns suggests no significant weathering via reductive dechlorination or volatilization and water washing has occurred in site sediments or soils. PCBs sorbed to soils or sediments are generally strongly bound and resist changes due to weathering. PCB mixtures dominated by lower chlorination homolog groups more susceptible to weathering, such as Aroclors 1221, 1016, and 1232 have not been detected on-site. Potential sources of PCBs, including on-site and off-site storm drains will be considered in the next phase of work.
53	Anacostia Riverkeeper	Some of the sample results were ascribed to the collection of turbid samples. Further evaluation of these “outlier” results should be provided in the next phase of work since at least some of the COCs (e.g., PCBs) are known to be transported as or facilitated by colloids.	The onsite groundwater monitoring wells will be redeveloped and a subset of them resampled in the next phase of field work to address the potential impact of turbidity on groundwater samples collected previously.
54	Anacostia Riverkeeper	We agree with statements in the report indicating that more exposure pathways need to be addressed (pages ES-4 and 7-8). In addition to the current/future construction worker, future industrial worker, and future recreational user scenarios, nearby residents (particularly those who dig on their properties) and instream workers (ie Groundwork Anacostia DC employees who regularly work in nearby wetlands and tributaries in the water and sediment) should be evaluated since their properties were likely contaminated when the power plant was in operation. Further, we recommend that anglers are examined according to subsistence fishing practices, not only recreational fishing. If risks to any of these groups will not be evaluated going forward, please explain why not.	See response to Comment No. 27 above. The in-stream worker who may contact river sediment was evaluated in the Pepco BHHRA. As noted in the response to Comment 44, the subsistence angler was evaluated in the uncertainty section of the Pepco BHHRA.

55	Anacostia Riverkeeper	With regard to the potential exposure scenarios that are listed as being under consideration in the revised BHHRA: these appear to all be relatively short duration exposure scenarios, that would tend to lead to higher cleanup levels than longer duration exposure scenarios. Given this, detailed attention must be paid to the assumptions that are incorporated into these scenarios.	With the exception of the construction worker, the recreational and commercial/industrial scenarios are long-term scenarios.
56	Anacostia Riverkeeper	This report continues to state that there have been five historical releases of PCBs on the PEPCO Benning Rd property. For consistency and accuracy this number needs to be changed to "six" throughout the report (RI Report pages 1-3 and 1-6; Appendix Z page 2-1). There were six historical releases of PCBs. EPA has documented six and the July 2012 RI Work Plan was revised to reflect this and other changes and officially re-released in February 2013.	See Response to comment No. 28
57	Anacostia Riverkeeper	Will all contaminants that exceed screening levels and that are determined to be a risk to human and or ecological health on the PEPCO Benning road property be remediated regardless of the source?	See Response to comment No. 29
58	Anacostia Riverkeeper	If contaminants exceeding screening levels are ruled out as having migrated from the PEPCO Benning Rd property (i.e. contaminants are not from PEPCO's operations); how will the source(s) be further evaluated by DOEE to ensure remediation and how will DOEE and PEPCO work to ensure no further delay in remedial actions on PEPCO property? For instance, if a contaminant deemed to originate off-site is found in the immediate vicinity of a contaminant deemed to originate on-site, how will DOEE and PEPCO ensure that remedial action is taken as soon as possible for the on-site origin contaminant regardless of the off-site origin contaminant found in the same area of the site?	<p>For the contaminant concentration that exceed the screening levels are concluded to be migrated from off-site like PCE plume in the southern portion of the facility east of the 34th street, DOEE plans to further investigate to confirm the off-site source.</p> <p>For any on-site contamination that exceeds screening levels and exhibits actionable risk through a site specific risk assessment on Pepco Benning Road property (regardless of the source) will be addressed through active remediation and/or institutional controls as needed.</p>

59	Anacostia Riverkeeper	We understand that further investigation is warranted on the waterside, but in the meantime will potential remediation options for the landside start to be evaluated much like what has been done to clean up PCB contamination surrounding the cooling tower basins? We suggest this be done as not to delay further.	See Response to comment No. 30
60	Anacostia Riverkeeper	Bird species observations seem incomplete in this report because it missed the migratory species that use the river at other times of the year than November and December (page 3-10.) While winter can be a good time for sighting resident birds, there should have been observations throughout the year, especially given the nearly 2 year duration of field studies.	Due to the timing of completed RI field activities, bird observations were only made in November and December. A list of potential bird species that may be present in this part of the river will be researched from local sources (e.g., District of Columbia Audubon Society) and presented in the relevant sections of the RI.
61	Anacostia Riverkeeper	It would have been helpful if the large tables for this report (e.g., Tables 4-1, 4-3, 4-5; Appendix R) were made available in Excel spreadsheets because it was difficult to navigate such large datasets in PDF form.	See Response to comment No. 48
62	Anacostia Riverkeeper	Could the rationale for the screening levels used for this investigation be explained? For example, the use of mean values seems to gloss over potential problems with contamination hotspots (see pages 4-26 and 4-27, giving mean values for PCBs in sediments that are an order of magnitude lower than the peak values in particular samples). If any of the values used here differ from those proposed in the original Remedial Investigation Work Plan (July 2012), please also explain the rationale for changing those values. In addition, if a mean value is to be used, regulatory guidance in many settings proposes the use of an upper confidence limit (UCL) for the mean that accommodates the variability in the sample data and resulting uncertainty in the estimate of the true mean.	See Response to Comment No. 32. The exposure point concentrations were calculated in the risk assessments to represent the lower of either the maximum detected concentration or the 95% UCL on the mean value in accordance with the USEPA guidance and approved BHHRA and BERA work plans. These calculations were carried out using USEPA's ProUCL software program.

63	Anacostia Riverkeeper	What are the implications of contaminant groups (such as PCBs, PAHs, heavy metals, etc.) found together at sampling locations? For example, what does it tell us about the condition or need for remediation when PCBs and PAHs are found exceeding screening levels at the same location?	See Response to comment No. 33
64	Anacostia Riverkeeper	With regard to the contaminant groups (see above): has or will consideration be given to the role that co-disposal / co-contamination can have on facilitated transport of some contaminants – for example, the transport of PCBs has been documented as facilitated at some sites by co-disposal with solvents.	The Pepco RI/FS included the analysis of solvents as part of the TCL VOC group. Very few solvents, such as tetrachloroethene and MTBE, were detected and only at low concentrations in isolated locations not co-located with PCBs. There is no evidence of co-solvent facilitated transport of PCBs on-site.
65	Anacostia Riverkeeper	How are potential interactions and cumulative or additive effects going to be handled in the human and ecological risk assessments, given that contaminants overlap at different sample locations and given that many exposure pathways do not expose people or wildlife to just this dose of a single contaminant at a time?	See response to Comment No. 3. The potential for cumulative exposures via multiple pathways will be further evaluated in the revised BHHRA and BERA.
66	Anacostia Riverkeeper	The transport and fate of chemicals of concern between media, across the site, and across the study area needs to be further explained. It is not clear that all modes of chemical transport have been identified; implications of extreme weather events and the potential for colloidal transport, for example, need to be better understood and explicated, and health impacts need to be revisited to account for resultant changes in assumptions.	See Response to comment No. 35
67	Anacostia Riverkeeper	What will be done to further evaluate and address any sampling that resulted in false positives or negatives identified in the report? (pages 4-16, 4-17, 4-20)	See Response to comment No. 36

<p>68</p>	<p>Anacostia Riverkeeper</p>	<p>Background sample locations are too close to the contaminant plumes near the PEPCO Benning site. Given that the Anacostia River is a small tidal river subject to dispersal of suspended sediment and its associated toxics upstream and downstream from the source with the tides as well as upstream during storm surge events, and given the length of time during which the PEPCO Benning site contributed contaminants to the river, it is unreasonable to assume this report's background sites actually exclude contamination from this site. We recommend that the background sites used in the Anacostia River Sediment RI be used for this report as well. Given that DOEE is already using the data from the Potomac sites as background for the Anacostia River, including the stretch covered in this PEPCO specific RI, we see no reason why switching to the Anacostia River Sediment RI background sites should present significant difficulty. (See definition of "background" given on page 4-2). What are the "revised background conditions" for PCBs referenced on page 4-28 that will be assessed in conjunction with the additional field investigation?</p>	<p>The Anacostia River upstream from the Pepco site is the appropriate water body for the collection of surface sediment for background characterization. As discussed in the response to comment No. 37, Pepco will perform additional analyses to justify the portion of the upstream river selected for background sample collection. The Potomac River is inappropriate for use in background assessment since it cannot account for known potential point sources of contamination upstream of the Pepco site that could influence sediment quality yet are completely unrelated to the Pepco site.</p>
<p>69</p>	<p>Anacostia Riverkeeper</p>	<p>With regard again to background data: there is a concern that using data from within the Anacostia River which is known to be contaminated to define "sitespecific background" conditions is only potentially of use in determining whether the Benning Road facility contributed significantly to an otherwise already impacted waterway. If the intent of the RI/FS process is to lead to actions that help to return the watershed to maximum beneficial uses then this impacted "site-specific background" condition should be supplemented by consideration of an "unimpacted" background condition – which in the case of anthropogenics such as PCBs, would be zero. Otherwise, in the limit, if every source equally contributed to contamination, and the "impacted background" is</p>	<p>See response to comment No. 68</p>

Responses to Public Comments on Draft Benning RI Report

August 23, 2016

		uniformly equal and elevated throughout the waterway, the inference would be that no-one has rendered an impact “above background” such that nothing need be done: the fact contamination is ubiquitous doesn’t remove the obligation of contributors to minimize long-term impacts.	
70	Anacostia Riverkeeper	The discussion of the PCB forensic analysis from page 4-37 through 4-47 seems to ignore the possibility that tidal flows could have distributed PCBs from the Benning Road site throughout the tidal portions of the Anacostia River, both upstream and downstream.	See Response to comment No. 38
71	Anacostia Riverkeeper	There has been and continues to be an assumption that contamination has not migrated from the PEPCO Benning Rd property to nearby residential areas. What is it about the fence-line that protects or protected (when the plant was in operation) these communities from contaminants? o We strongly recommend that the sampling be expanded to include neighborhoods immediately adjacent to the site since there is reason to expect that smokestack contaminants migrated to these neighborhoods at a minimum. Citing that this is not a requirement of the consent decree is not an acceptable response; PEPCO and DOEE should and have claimed to be committed to the residents of the District and therefore should go above and beyond minimum consent decree requirements if truly committed to community and environmental health.	See the response to comments No. 4

72	Anacostia Riverkeeper	Where contaminants are found near the fence, the extent of the contamination needs to be investigated further and PEPCO needs to continue to follow the contamination regardless of where it is until the full extent of contamination is determined and acceptable levels are detected. For example, screening levels for total PCBs were exceeded at SUS18 (Figure 4-2, Table 4-1) which is near the border of a community area.	See Response to comment No. 41
73	Anacostia Riverkeeper	The direction of the PCE plume (pages 4-50 and 4-51) suggests that migration of contaminants can occur in directions that are not westward as is the assumption for the modeling. This assumption of westward migration of contaminants towards the river may be erroneous based on the PCE contaminants found on the site which is north and west of the historical dry cleaner site (suspected source of pollution) and should be reexamined. This becomes especially important since most of the historically reported PCB spills occurred on the eastern section of the site near Kenilworth Parkside. If migration can occur in directions such as east then you would expect that PCB and other contaminants might be found in Kenilworth Parkside as that is closer to the spill sites than the river.	See Response to comment No. 42
74	Anacostia Riverkeeper	Conclusions from the PEPCO Benning RI risk assessments seem to be inconsistent with what has been concluded for the Phase 1 Anacostia River Sediment RI risk assessments. These need to be addressed: <ul style="list-style-type: none"> o Baseline Ecological Risk Assessment - PEPCO found "little to no potential for ecological risks to the wildlife community from ingestion of prey items containing PCBs" (PEPCO Benning RI at 6-3), but the Anacostia River Sediment RI found possible PCB risks to green heron and kingfishers in Reach 456 (which includes the PEPCO Benning study area) when NOAEL TRVs were used (Anacostia River RI at 139 and Table 10.14). 	See Response to comment No. 43

Responses to Public Comments on Draft Benning RI Report

August 23, 2016

75	Anacostia Riverkeeper	Conclusions from the PEPCO Benning RI risk assessments seem to be inconsistent with what has been concluded for the Phase 1 Anacostia River Sediment RI risk assessments. These need to be addressed: Human Health Risk Assessment - PEPCO concluded that fish consumption presents a risk only for non-cancer effects (PEPCO Benning RI at 6-2), but the Anacostia River Sediment RI found total PCBs were a contaminant of concern for both fish ingestion cancer risks and fish ingestion non-cancer hazards for all reaches of the river (Anacostia River RI at 149).	See Response to comment No. 44
76	Anacostia Riverkeeper	It is unacceptable that little effort has been made to post signs near the PEPCO Benning property warning people not to fish or consume fish caught in the area. We strongly urge DOEE to ensure that sufficient signage is posted up and down the entire river, especially locations frequented by people.	See Response to comment No. 45
77	Anacostia Riverkeeper	The report states that “To some extent, the existing operational and institutional controls that are in place at the Site provide effective exposure prevention measures, and direct contact exposure pathways may be currently incomplete or insignificant.” While this might be to some extent true for the time-being, incidental land-use controls for operational or occupied facilities do not constitute legally-binding institutional controls or covenants that are protective of human health and the environment. We are pleased therefore to see that the revised BHHRA will reflect some more realistic potential exposure scenarios.	Noted.
78	Anacostia Riverkeeper	The general tone of this RI report seems much more like an opinion piece than a scientific report. PEPCO seems more interested in placing the responsibility on other potential sources rather than uncovering the facts and presenting data in an unbiased manner. For instance, PCE should not be described as a dry-cleaning agent unless it	Pepco believes that the conclusions made in the Draft RI Report were fully supported by the data collected and the report meets the standards of a scientific report. Nevertheless, the comment will be taken into consideration when preparing the final RI Report. Any assumptions such as the one noted for PCE will be reexamined and revised as needed.

Responses to Public Comments on Draft Benning RI Report

August 23, 2016

		is also described as a solvent potentially used on-site. Either no assumptions should be encouraged, or all the potential scenarios should be explicated together.	
79	Anacostia Riverkeeper	There is a substantial amount of work that PEPCO and DOEE are going to be engaged in to better understand contaminants found in order to finalize the Remedial Investigation report. We recommend that an additional comment period for RI Work Plan Addendum #3 or at the very least the report on findings following this additional work (second/revised draft RI report) be offered to the public. We realize that this may add more time to the schedule, but with so much new work and information to come it is important to give the public time to review and comment.	See Response to comment No. 2
80	Anacostia Riverkeeper	The report states that "...this CSM will be updated in a separate stand-alone CSM Technical Memorandum." The public should have the opportunity to review and comment on this separate CSM Tech Memo. We note that this newly-proposed document was not previously listed as being provided to the public for review and comment: will it be made available for such a review, and if not, please explain the rationale since the CSM is a critical component of the RI/FS process.	The conceptual site model is a living document that is developed and refined as more information becomes available. The conceptual site model will evolve as information is gathered throughout the life of this project. As the understanding of the source, nature and extent of contamination is realized, the information will be used to evaluate fate and transport of the contaminants to the receptors. The CSM will be periodically evaluated for the completeness; data gaps will be more readily identified and addressed to ensure there is a complete understanding of contaminant impacts. Since updating CSM is a continuous process throughout the project, it is not possible to share it with public for review and comments at each and every update. The original CSM was shared for public review and comment already. The updated CSM was also reviewed and commented upon as part of the Draft RI Report. The finalized CSM will be shared with public as part of the revised draft RI Report. During that public comment period, Pepco and DOEE will hold a public meeting to present additional remedial investigation findings and answer questions regarding the results, including questions on the CSM.

81	Anacostia Riverkeeper	We recommend that PEPCO reassess the way it presents figures and tables for public consideration in this report. At the very least, references to them should be hyperlinked so members of the community accessing the report electronically can have the referenced information immediately to hand. Requiring members of the community to flip between appendices and the main report as they review it in their leisure time puts an extra burden on them as they voluntarily educate themselves about the potential threats to their health and that of their community. PEPCO and DOEE, in their commitment to the community, should do everything in their power to make this report as accessible as possible to those residents who take it upon themselves to read and understand it. The best option would be to include pertinent figures in-line with the pertinent discussions. Many figures in the report combine contaminant name, level, and location in maps that cover much of the most relevant information from the tables. Where a table is still needed, a trimmed version in-line would greatly aid the accessibility of the document.	See the response to comment No. 48
82	Pyper Davis	Our concern is that more sampling needs to be done on the surrounding neighborhoods and along the border of the facility. A number of contaminated areas and former spill sites are located immediately adjacent to the Parkside neighborhood. There is some evidence from the groundwater contamination originating from Benning Road that contaminants can migrate north as well as west. This could potentially place	There is no evidence of upgradient (eastward) migration of groundwater contamination in any portion of the Site, and limited evidence of northward (cross-gradient) migration. PCB concentrations in groundwater in the upper and lower water-bearing zones at the two monitoring wells on the northeastern and eastern boundaries of the Site (MW-14 and MW-15) adjacent to the Parkside neighborhood were not detectable. There is no evidence that areas to the northeast, east, or southeast of the Site are impacted

Responses to Public Comments on Draft Benning RI Report

August 23, 2016

		our children at Educare in danger. The Parkside neighborhood is significantly closer to these spills than the Anacostia River.	by known or suspected groundwater contamination originating at the Site.
83	Pyper Davis	In particular, test sites SUS 06, SUS 18 and SUS 24 (identified in Table 4-1) had high levels of PCBs and other contaminants. More testing must be done to determine possible effects of these contaminants on the surrounding community and on the children served at Educare DC. Our children are young, rapidly developing, and vulnerable to contaminants in their environment. I trust that you will take our concerns seriously for the health and safety of the young children who live, play and learn in the Parkside neighborhood.	Onsite exceedances detected during the RI to conduct to date will be delineated to levels below their respective Project Screening Levels (PSLs) during the next phase of field investigation.
84	Janet A. Phoenix	I have served as a member of the Pepco Benning Community Advisory Group for more than two years. During that time, I have waited patiently for the Remedial Investigation Report to be completed. The Community Advisory Group received the preliminary draft report some time ago and submitted questions. Some questions, such as a request for verification of the locations of the samples taken so that we could verify locations where sampling took place, have not received a response. The receipt of this current report has unfolded in a similar way. A number of questions were submitted in advance by the Community Advisory Group and although some responses were received, most questions have not been answered. It has been a disappointment to not receive answers to questions that were raised about the draft report or this report. What is more troubling, however, is the perception I have that there is not much interest in assisting the Community Advisory Group, or the community of residents who live near the plant, in making comments.	In May 2014, based on the CAG Technical Group (TG) request, we shared the validated sampling data in advance of the release of the draft RI Report to give the CAG the opportunity to begin its consideration of the voluminous data set. On October 2014, we met with TG to answer the questions. We provided the GIS coordinates for the sample locations. In December 2014, we answered additional questions raised by the TG in writing related to the RI data. During the draft RI report public comment period, we answered most of the questions submitted by CAG before the comment period ended to assist CAG to better understand the technical report. Pepco and DOEE held public meetings with technical experts during the comment period for RI/FS work plan, field work for RI/FS and during the public comment period for draft RI report. The CAG has been constituted and is actively engaged. It has received support and resources from DDOE and PEPCO, including: providing meeting space; assistance in creating, developing and disseminating meeting notices and other materials; and the hiring of a professional facilitator. Technical experts regularly attend CAG meetings to give project updates and answer any technical questions from CAG members and members of the public, on the project. With all of the CAG meetings

			and community engagements, additional meetings would be superfluous.
85	Janet A. Phoenix	When I first was asked to serve on the CAG we were told we would have an opportunity to receive documents in advance and to dialogue with PEPCO and District government representatives. We thought we would gain a better understanding of the process so we could better inform our constituents. The process has been very different from what I expected. I have been at many meetings where DOEE has acknowledged a lack of health expertise within its' agency. Yet, we have had no participation from the DC Department of Health to ensure that health concerns raised were addressed in the Remedial Investigation.	Refer to response to comment No. 84. The validated RI data was shared with CAG before the draft RI report. The documents e.g draft RI/FS work plan and draft RI report were shared with public as soon as DOEE and Pepco finalized the drafts. Additional review time for the CAG members before the public would have excessively delayed the project. Regarding the health studies, refer to response to comment No. 89.
86	Janet A. Phoenix	The Community Advisory Group was discouraged from meeting prior to the public comment period. We were not provided copies of the Remedial Investigation Report as promised. When we insisted on a meeting, we were told that questions we had posed in advance would not be answered at that meeting. We asked other questions and made suggestions for how the materials could be revised to make them more accessible to the public. Most of those suggestions were not implemented. We informed Pepco and DOEE that documents were not as accessible as they could be. For example, the graphs and charts that illustrate the report are stored in a different location. It is not possible to download a single pdf that includes all the charts as well as the report narrative. No links to the documents are visible when you log into the DOEE website. There is no header alerting visitors to the DOEE website that a public comment period is open. This process has led me to believe that neither DOEE or PEPCO is interested in assisting the public to understand the potential chemical contamination	<p>Technical experts regularly attend monthly CAG meetings to give project updates and answer any technical questions from CAG members and members of the public, on the project. Pepco and DOEE held public meetings with technical experts during the comment period for RI/FS work plan, field work for RI/FS and during the public comment period for draft RI report. The CAG has been constituted and is actively engaged. It has received support and resources from DDOE and PEPCO, including: providing meeting space; assistance in creating, developing and disseminating meeting notices and other materials; and the hiring of a professional facilitator.</p> <p>It is not practical to display tables, figures, and appendices in-line with the report text due to their size, which would interrupt the continuity of the report text. Pepco will make an effort to bookmark the report for easier navigation within a PDF viewer. However, due to their size, figures, tables, and appendices are typically supplied as separate files from the report text, precluding hyperlinking or bookmarking to them from the text.</p> <p>Due to the size of the documents, it is not possible to</p>

		<p>at the plant or to participate fully in the public comment process. The public meeting that was held on April 2nd was held a couple of weeks before the public comment period ended. The Community Advisory Group had made numerous requests to PEPCO and DOEE to hold the public meeting early to give people living near the plant more time to digest the information and make comments if they chose to. These requests were not honored. The Community Advisory Group was told that there was no site available and that the proposed date of March 12th had to be postponed a full 3 weeks.</p>	<p>upload the documents to DOEE’s website as a whole. However, the documents are also available on Pepco’s website and are available in only four parts as Text, Appendices, Figures and Tables.</p> <p>Pepco RI/FS can be searched by typing “Pepco RI/FS” on any search engine. Also, as detailed in the Community Involvement Plan (CIP) which was commented by public before finalizing has details about the Pepco and DOEE websites for locating the documents.</p> <p>DOEE and Pepco have dedicated internet websites to provide updates to the RI/FS project. These websites have been publicized in all public meetings and project fact sheets.</p> <p>Regarding public meetings, refer to response to comment No. 84.</p>
87	Janet A. Phoenix	<p>I feel that both PEPCO and DOEE can do better in terms of facilitating genuine public participation. There should be more than one opportunity for people to ask questions about a document of this size and complexity. The plant operated from the early 1900’s until a couple of years. Why is a two and ½ hour community meeting sufficient examine environmental sampling data that took two years to collect? Why are there are no plans to let people come back to the table with additional questions after the additional sampling that has been recommended takes place?</p>	<p>Refer to responses to comments No. 88 and 2. DOEE and Pepco are implementing the CIP reviewed and commented on by the public. The CIP follows EPA guidance and is consistent with practices across the United States.</p>
88	Janet A. Phoenix	<p>Set up additional meetings to allow the public to review the document with technical experts.</p>	<p>Pepco and DOEE held public meetings with technical experts during the comment period for RI/FS work plan, field work for RI/FS and during the public comment period for draft RI report. The CAG has been constituted and is actively engaged. It has received support and resources from DDOE and PEPCO, including: providing meeting space; assistance in creating, developing and disseminating meeting notices and other materials; and the hiring of a professional facilitator. Technical experts regularly attend CAG meetings to give project updates</p>

Responses to Public Comments on Draft Benning RI Report

August 23, 2016

			and answer any technical questions from CAG members and members of the public, on the project. With all of the CAG meetings and community engagements, additional meetings would be superfluous.
89	Janet A. Phoenix	Involve the District of Columbia Department of Health in a health assessment that looks at the potential human health impacts for residents living near the plant in addition to recreational river users, and workers at the plant. It is unconscionable that more consideration has been given to chemical contamination of fish swimming in the river than to people living just outside the fence line or children playing at the local elementary school.	Fish tissue data was evaluated as a pathway by which contaminants of concern might affect human health, i.e. from people eating potentially contaminated fish. This data was not collected in lieu of gathering data from residents. Rather, the Agency for Toxic Substances and Disease Registry has performed two studies, in coordination with the District of Columbia Department of Health, for residents next to the plant. Both of these studies concluded that any health effects were consistent with living in an urban environment. If a <i>third</i> study were conducted, it would have to be done by the ATSDR and DOH, who have the specialized expertise to perform the assessment. However, DOEE and Pepco do not have any reason to undermine the identical conclusions reached in the first two assessments, For more information please see the response to comment no. 3.
90	Janet A. Phoenix	Ensure that an additional public comment period takes place after the new sampling results have been received and analyzed.	After DOEE and Pepco perform the work required to address data gaps in the draft RI report, they will issue a revised draft RI report. The revised draft RI report summarizing the additional investigation results will be made available for public review and comment. During that public comment period Pepco and DOEE will hold a public meeting to present additional remedial investigation findings and answer questions regarding the results.
91	Janet A. Phoenix	Start thinking about a community benefit plan. There is strong evidence that coal fired power plants have long lasting effects on community health that can persist for more than a generation after the exposure takes place. What do the neighboring communities need that the responsible parties can provide?	This project is an RI/FS, the purpose of which is to identify and delineate the nature and extent of contamination from the Benning Road facility. Neither CERCLA nor the Brownfield act, or any of its regulations provide authority for issuing a 'community benefit plan.' To the best of our knowledge, EPA does not issue or prepare 'community benefit plan(s)' as part of their Superfund program. DOEE was similarly unable to find any authority within its mandate for pursuing such a claim. The closest analogy we could find was related to large-scale redevelopment projects, some of which included

			<p>brownfield sites, but nothing comparable to the RI/FS project. To date, we have two ATSDR health assessments, both of which do not show any effects beyond those typical of an urban environment. If there is documented evidence of health effects related to the Pepco facility then recompense for such effects must be sought in a private legal action, e.g. class action or individually.</p>
92	<p>Kathy Henderson</p>	<p>I am very concerned about the sampling results, documenting the presence of polycyclic aromatic hydrocarbons (PAH's), which are mutagenic to DNA and carcinogenic. PAH's disrupt the actual structure of the DNA helix and give rise to cancer. What are the health implications for organisms in habitats on and near the sampling sites? What are the health implications for children and adults? The sampling report confirms the presence of dioxins, which disrupt the functioning of the immune system as a result of long-term exposure. The report confirms the presence of elevated mercury levels, which also disrupts the immune system and liver functioning. Long-term exposure to vinyl chloride also disrupts liver functioning, causes headaches and cancer. What are the health implications for organisms on and near the sampling sites? What are the health effects for children and adults? What about the health impact resulting from trihalomethanes, bromodichloromethane, polychlorinated biphenals (PCB's), dieldin, antimony, arsenic, lead, barium and copper, all of which are in the report and toxic to humans in elevated levels? What are the health effects on organisms residing on and near the sampling sites?</p>	<p>The BHHRA and BERA were conducted in accordance with EPA and DOEE's guidance, which stipulates use of current EPA or other peer-reviewed toxicity assumptions and approaches to assess potential health risks/hazards posed by the chemicals of potential concern (COPCs). The human health toxicity factors used are derived by agency toxicologists to be health-protective even for sensitive individuals. The toxicity approach used also includes evaluating chemicals with a potential mutagenic mode of action (MMA), such as carcinogenic PAHs, using age-dependent adjustment factors that account for potential greater sensitivity as children. The revised BERA will include additional biological, chemical, and toxicological evaluations of the potential for Site-related COPCs to pose a risk to ecological receptors.</p>
93	<p>Kathy Henderson</p>	<p>The report raises a number of troubling concerns that warrant further study. Ward 5 has an alarmingly high rate of asthma, breathing impairments and cancer. I respectfully request an extension of the public comment period and request that the Department of Health evaluate</p>	<p>See the response to comment No. 89</p>

		the report and provide comments. All stakeholders have a specific duty to evaluate and inform the public regarding what the risks identified in the report mean and Pepco/Exelon has a duty to mitigate the harm to our community.	
94	NPS	First, as you know, the Site is separated from the Anacostia River by a strip of federal land managed by NPS, but the RI did not collect any samples from that property. If hazardous substances, such as polychlorinated biphenyls (“PCBs”) or polycyclic aromatic hydrocarbons (“PAHs”), have migrated from the Site to the Anacostia River, then the land between the Site and the river is likely to be affected as well. In addition, NPS is aware of evidence indicating that Pepco dredged sediments from the Anacostia River near the Site and disposed these sediments on this NPS-managed land. In light of recent sampling activities conducted or overseen by DOEE, there is reason to believe these sediments may have been contaminated with hazardous substances and that land on which these sediments were disposed may also have been contaminated with hazardous substances.	<p>We agree that groundwater from Pepco site flows beneath the NPS property prior to discharging to the adjacent portion of the Anacostia River. Pepco's investigation did not find any gross contamination such as light non-aqueous phase liquids (LNAPLs) or dense non-aqueous phase liquids (DNAPLs) in the subsurface. Low concentrations of a limited number of metals and a limited set of hydrophobic organics were detected in the groundwater samples collected from the four the wells closest to the River. It should be noted that there is a significant uncertainty with respect to the hydrophobic organics concentrations. Re-sampling is proposed to verify/confirm these detections.</p> <p>Pepco is evaluating the evidence of dredged spoils disposal provided as an attachment to the NPS Comments letter dated April 18, 2016. Pepco will consider sampling of the NPS property as part of the planned additional field investigation. The objective of any sampling on NPS property would be to determine if and to what extent Pepco's actions may have impacted the NPS property.</p>
95	NPS	Second, while NPS agrees with the conclusion that the Site does not appear to be a current source of PCBs to the river sediments, the draft report fails to acknowledge the likely connection between historic releases of PCBs from the Site and PCB contamination observed at depth in the subsurface sediments of the river.	The potential for historic releases of PCBs will be investigated in upcoming high resolution coring with radiometric dating and co-located PCB sampling near the Pepco 013 and 101 outfall locations.

<p>96</p>	<p>NPS</p>	<p>Failure to Collect Samples on NPS Property between the Site and the Anacostia River</p> <p>AECOM did not collect any samples on the NPS property located between the Site and the Anacostia River. This is problematic for at least two reasons. First, one of the primary purposes of the RI is to determine whether hazardous substances, including PCBs, released at the Site may have migrated to the Anacostia River through groundwater or stormwater¹. If such migration has occurred, it is likely that hazardous substances traveled over or through the NPS property and may still remain there. Pepco requested and obtained from NPS two special use permits (“SUPs”) to collect sediment samples from the Anacostia River (under the jurisdiction of NPS) and to install a single geotechnical boring on the NPS property between the Site and the river. NPS previously alerted both Pepco and DOEE to the need for additional data collection on the NPS property, but the additional data has not been collected². Second, NPS has reason to believe that Pepco dredged sediment from the Anacostia River on multiple occasions and placed the dredged material on the strip of NPS land between the Site and the river³. The RI data demonstrate that there are high concentrations of PCBs in both the surface and subsurface sediments in the portions of the river adjacent to the Site. If the sediments in the river were contaminated with hazardous substances when that dredging occurred, then there is a reasonable probability that the NPS land on which the dredged material was disposed is contaminated as well.</p> <p>For these reasons, NPS recommends that the second phase of the RI include soil sampling on the NPS property using incremental sampling methodologies (“ISM”).</p>	<p>Pepco completed the first phase of the RI. There was no reason to believe that Pepco’s Site may have impacted the NPS property until the results of this first phase of RI were available and fully evaluated. As you know there is still a significant uncertainty in the groundwater results. Further, Pepco wasn’t aware of the potential historical dredge spoil disposal information provided by the NPS. Given these two sets of data are now available Pepco is committed to performing necessary sampling as needed. Pepco will consider sampling of the NPS property as part of the planned additional field investigation. The objective of any sampling on NPS property would be to determine if and to what extent Pepco’s actions may have impacted the NPS property.</p>
-----------	------------	---	---

		<p>Footnotes:1. See Consent Decree in District of Columbia v. Potomac Electric Power Co., No. 11-cv-282 (D.D.C. 2011) at 2 (noting that “because of the Facility’s proximate location to the Anacostia River, the PCBs that have been released at the Facility over time may have migrated from the property into the sediment of the adjacent Anacostia River via the storm water system, overland flow or groundwater discharge”).</p> <p>2. See Letter from Gopaul Noojibail, Superintendent, National Capital Parks – East, NPS, to Fariba Mahvi, Pepco (Feb. 5, 2015) (attached as Appendix 1); Letter from Gopaul Noojibail, Superintendent, National Capital Parks – East, NPS, to Tommy Wells, Director, DOEE (Apr. 24, 2015) (attached as Appendix 2).</p> <p>3. It appears that in 1967, for example, Pepco dredged a portion of the river near an intake channel and placed 9,000 cubic yards of dredged material on the NPS property between the Site and the Anacostia River. See Appendix 3.</p>	
--	--	--	--

<p>97</p>	<p>NPS</p>	<p>PCB Forensic Data Interpretations</p> <p>With respect to the PCB forensic data interpretations, the report is flawed because some information is either not yet presented or not discussed at all. AECOM concludes that the Site is not likely a current source of PCB contamination in the riverbed (see page 5-11, Section 5.3). While this may be true, the draft report does not discuss PCB contamination at depth in the subsurface sediments. If it had addressed that issue, a more probable connection between the Site and sediment contamination would have emerged. The draft report does acknowledge, however, that Pepco could have been a source of contamination to the river through overland flow from the Site and discharges through Stormwater Outfalls 013 and 101. As part of the RI work, AECOM removed 46 cubic yards of sediment from the 48-inch pipeline under the facility that discharges into the river at Outfall 013. But AECOM did not provide the data for that sediment so there is no way to know what level of PCBs or PAHs the sediment contained. In order to assess whether the storm sewers may have served as a transport pathway for hazardous substances between the Site and the river sediments, the second phase of the RI should include the analytical data associated with the sediment removed from the pipeline. The second phase RI report should also directly address whether historic releases of PCBs from the Site may have migrated to the river.</p>	<p>The available analytical data from the 47 cubic yards of sediment removed from the storm sewer will be provided as part of the Work Plan for the Phase 2 investigation. The Pepco draft RI/FS report presented PCB results for near-Site subsurface river sediment analysis in Table 4-10, Figure 4-11, and Figure 4-12. These results are discussed in Section 4.6 of the report text. The report also included PCB and PAH results for the storm drain sediments in Table 4-7 and Figure 4-20. These results are discussed in Section 4.4 of the report text. Additional investigations will include high resolution coring with radiochemical dating near the outfalls to help address the changes in concentration of PCBs over time in the near-Site river sediments.</p>
	<p>NPS</p>	<p>Global Comment: Please change “National Parks Service” to “National Park Service” wherever that term appears in the document.</p>	<p>This correction will be made in the Final RI Report.</p>
<p>98</p>	<p>NPS</p>	<p>ES-2 (Last Bullet): In the sentence “The composition of PCBs detected at the Site differ from the composition of PCBs detected in the Anacostia River sediments,” add the word</p>	<p>In the report documenting the Phase 2 sampling, the text will be revised based on the additional information collected and will clearly differentiate between surficial and sub-surficial sediment PCB patterns. As stated in Section</p>

		<p>“surface” before sediments. The composition of PCBs in the river sediments do show a better match to the composition of Site PCBs with depth, which you would expect, as that is when active discharging would have occurred.</p>	<p>4.8 of the draft RI report, the PCB congener cosine theta values and principal component analysis for samples collected to date appear to indicate river sediments resemble each other more than most landside site soil patterns. Site soils with the closest resemblance to river sediments are SUS1000N, DPS1510N, and DPS4403N. Additional samples will be analyzed and evaluated as part of the planned additional field investigation to help clarify the historical contribution aspect. The text will be revised based on the additional information collected and will clearly differentiate between surficial and sub-surficial sediment PCB patterns.</p>
99	NPS	<p>Section 1.3.1.1 (Former Pepco Studies): In aerial photographs from pre-1998 provided in the EDR report, the intake area appears to have been open water, but this section indicates that the intake area was dredged to create wetlands. It is unclear why dredging, rather than filling, would have been required. What was the origin of the sediments used to fill the intake area?</p>	<p>The intake area was dredged by Pepco in 1995 to install a new intake pipe for the Generating Station. The dredged sediments were used to construct a wetland area along the river bank to the northwest of the intake area, adjacent to the sea wall. The approximate area of constructed wetlands is shown in Figure 1-4 of the RI Report.</p>
100	NPS	<p>Section 1.4 (Potential Sources of Contamination...): The AWTAs statement that “the [Kenilworth] landfill extended into the Anacostia River and no barriers were constructed to prevent migration of wastes mixed with soil into the water” appears to have no basis, and has not been substantiated by any of the investigations performed at Kenilworth.</p>	<p>The June 2008 report entitled "Final Remedial Investigation at Kenilworth Park South Landfill N.E. Washington D.C." by Ecology and Environment, Inc. on behalf of NPS states on Page 2-7 "Aerial photographs (Appendix A) show that initial patches of fill appeared in 1957. By October 15, 1963, the fill area extended nearly 700 feet north-to-south from the inlet of Kenilworth Aquatic Gardens to the inlet south of the park receiving the discharge of Piney Run just north of the PEPCO plant. Watts Branch bisects the fill area. The landfill material was placed directly into the river without any barrier, and landfill wastes mixed with soil still extend into the water." This statement appears to be at least partially based on the noted 1963 aerial photograph which shows apparent waste material at the water's edge of the river without any barrier between the waste and the river.</p>

101	NPS	Section 2.1.4 (Phase I, Task 4: ERI): What was the purpose of the former sludge dewatering area (TA#1)? What was the origin of the sludge? How and where was the water discharged after dewatering?	The purpose of the former sludge dewatering area was to dry the settled solids collected from the clarifiers associated with the former cooling towers. Makeup water taken from the Anacostia River was treated in the clarifiers to remove suspended solids. The water in the sludge dewatering area was allowed to evaporate.
102	NPS	Section 2.1.5 (Phase I, Task 5: Geotech Borings): The purpose of a geotechnical boring without any chemical data on National Park Service (NPS) property remains unclear.	This boring was initially proposed in the 2012 RI/FS Work Plan to obtain subsurface geological information between the Site and the Anacostia River at the request of DOEE. In light of the new information provided by NPS, Pepco is re-evaluating the purpose of this boring.
103	NPS	Section 2.1.9 (Phase III, Task 3: Monitoring Well Sampling): The use of passive samplers in place of low-flow sampling was introduced in the Work Plan Addendum #1, with the stated advantage of collecting “targeted groundwater samples from specific intervals within the well screen that other sample collection methods such as low-flow sampling cannot achieve.” Because the well screens were atypically long, particularly the shallow screens (several were 20 feet, and one was 25 feet), it is unlikely that the HydraSleeve, vertical mixing and, therefore, dilution would have occurred. In addition, it is unclear why all samples were collected from the middle of the screen, as this zone, in an equilibrated well with a long screen, is likely to underestimate the concentrations of both light and dense contaminants of concern.	There is no evidence of LNAPL or DNAPL in site media, and therefore it is not expected that the top or bottom of the water column would have significantly different contaminant concentrations than the screen centers. HydraSleeve sampling at the screen mid-point is representative of groundwater conditions over 5 ft interval (the length of the HydraSleeve). HydraSleeve sampling is known to limit vertical mixing and dilution during sampling, and provide groundwater samples that are representative of formation water.
104	NPS	Section 2.1.11 (Phase III, Task 5)/Section 3.5.2 (Site Specific Hydrogeology): Shallow well at MW-3 is screened across two different geological units, and the shallow wells at MW-9 and MW-11 are screened across three different units. It is unlikely that the hydraulic properties of these wells are representative of any units.	The Patapsco Formation is a heterogeneous lithologic formation consisting of interbedded sediments of varying grain sizes and thicknesses, but in the site vicinity the Formation is bisected into an upper and lower water-bearing zones (UWZ and LWZ) by a semi-confining silt-clay layer. This semi-confining layer was observed at nearly every monitoring well location, and its depth and thickness helped to determine the placement of the UWZ and LWZ well screens.

			In MW-3, the shallow screened interval above the semi-confining layer is entirely permeable sands and gravels. In MW-9, the bottom of the shallow screened interval is in gravel, while the top of the shallow screened interval was placed in shallow clay material so that the top of the screen would be above water table, as is standard practice. In MW-11, the shallow well was screened from above the water table to the top of the semi-confining layer. This interval, although containing beds of fines, is considered to be a single hydraulic unit (the UWZ).
105	NPS	Section 2.2.2 (Phase II, Task 1: Surface Water Sampling): Using the term "background" to describe any of the samples along this tidal river is misleading, particularly for downstream locations.	The term "background" in this section will be replaced with the term "Site-specific background" to be consistent with the Background Evaluation. The Site-specific background locations include locations both upstream and downstream of the Study Area to best characterize the urban influences to surface water in this section of the Anacostia River and are outside the influence of the Site.
106	NPS	Section 3.1 (Site Improvements): Was there a drain in the Transportation and Distribution Holding Area outside Building #56 that was surrounded by a 1-foot concrete berm, and was it connected to the storm drain? Also, the building marked as Target Key Area 11 is marked on the figures as "PCB Building #68," but its purpose does not appear to be described in this section or elsewhere in the report.	Additional information on Building 68 and other areas of the site will be added to Conceptual Site Model Technical Memorandum. This information will be included in the Final RI Report.
107	NPS	Section 3.1 (Site Improvements): The geomorphological changes paragraph at the end of this section is erroneous. The "arm of the River" was a lake constructed for recreation (see http://www.nature.nps.gov/parkscience/archive/PDF/ParkScience15(1)Winter1995.pdf).	The Final RI report will be updated accordingly.
108	NPS	Section 3.4.2 (Site Specific Geology)/Section 4.2.2 (Subsurface Soils): Where is the Metro line fill? Is it near DP-19, which exhibited very high PAH concentrations from 1.5 to 10.5 feet below ground surface?	This was meant to be a qualitative statement and the exact extent of fill associated with the underground Metro line along the southeast property boundary cannot be confirmed.

Responses to Public Comments on Draft Benning RI Report

August 23, 2016

109	NPS	Section 4.2.1 (Surface Soils)/Figure 4-2: Where is SUS21? It has a high PAH concentration and the highest PCB concentration, but does not appear on Figure 4-2.	This location is in the southeast portion of the Site, adjacent to Building 57. The analytical results at this location were inadvertently left out of Figure 4-2 and will be included in the Final RI Report.
110	NPS	Figure 3-2: What is the "Dolphin" that is marked on the side scan sonar?	A dolphin is a man-made marine structure that extends above the water line, typically to provide a platform as a berth or mooring point for boats. They typically consist of a number of piles driven into the riverbed.
111	NPS	Figure 3-5 (Geologic Cross Section A-A'): Where is the river level?	The water table is at ground surface on mud flat and is therefore not shown. A full river cross section does not appear on this figure.
112	NPS	Figures 3-5, 3-6, and 3-7 (all Geologic Cross Sections): It would be very helpful to place the well screens on these cross sections, showing the deep and shallow well screen intervals.	Agreed. The figure will be revised accordingly in the Final RI Report.
113	NPS	Section 4.3 (VOC discussion), pg 4-14: MTBE was detected above screening levels in four subsurface soil samples, and detected in other wells. Why aren't these detections shown on any figures? They are useful to indicate the groundwater flow direction.	These detections were not shown because these are relatively low concentrations and limited to a small portion of the Site. Additional delineation of MTBE concentrations will be performed as part of the additional field investigation. This information will be updated and included in the Final RI Report along with new figures showing the extent of MTBE concentrations.
114	NPS	Section 4.4 (Storm Drain Sampling Results): PCBs were detected in storm drain sediment at relatively elevated concentrations in two locations: 1) in the vicinity of Building #56/transformer staging area; and 2) downstream from the sludge dewatering area/transformer storage yard. The concentration in the sample downstream from the sludge dewatering area/transformer storage yard is attributed as follows, "it is possible that the Outfall 013 sampling manhole locations may have been impacted by river sediments at high tide due to backflow from the River into the Site storm drain system." However, the PCA Scores Plot (Figure 4-21) shows these two storm drain	The available analytical data from the 47 cubic yards of sediment removed from the storm sewer will be provided as part of the Work Plan for the Phase 2 investigation. PCB concentrations detected in the storm drain sediment during the RI/FS Phase 1 were all below 1 mg/kg. As stated in Section 4.4 of the draft RI report, the Outfall 013 drain pipe is filled with river water at high tide and this may have impacted the sediment at the SDR013 manhole location. Impacts from backflow at other storm drain locations are unlikely. The ratio of Aroclor 1248 and Aroclor 1260 reported in sample SDR013N is more like the river sediments, even though the PCA congener analysis indicated a proximity to Aroclor 1260 on the scores plot and profiles in Figure X-2. This may be

		sediment samples plotting very close to each other, in the quadrant closest to Aroclor 1260. It is extremely unlikely that the River is the source of PCBs in the storm drain sediment in the vicinity of Building #56/transformer staging area, nearly 3,000 feet away from the River.	attributable to inhomogeneity in the sediment, which was extracted and analyzed independently at two different laboratories.
115	NPS	Section 4.9.3 (Cooling Tower Building Materials): Will the additional soil sampling in the vicinity of the Cooling Towers include PCB congener sampling? The Aroclors that have been detected in this area (Aroclor 1254 and Aroclor 1260) are the same as that has been detected in transformer-related areas.	The options of collecting soil samples for PCB congener analysis in the vicinity of the cooling towers will be evaluated further. However, the forensic analysis of surface and subsurface soils in the RI/FS report Section 4.8 indicated the congener data from EPA Method 1668 confirmed the qualitative Aroclor analysis from EPA Method 8082 in each case examined. In particular, the congener profile for samples SUS0500N and DPS0515N collected near Cooling Tower #15 displayed near perfect matches for Aroclor 1254 (cosine theta values were 0.993 and 0.994, respectively, where a perfect match is 1.0).
116	NPS	Figure 4-20: The title includes "Storm Drain Residue," but the concentrations shown in the vicinity of the storm drains listed above in the comment regarding Section 4.4 do not appear to match those results.	This figure will be revised in the Final RI Report to clearly indicate the storm drain sample collection points and PCB concentrations.
117	NPS	Figure 4-23 (PCE Plume Isoconcentration Map): Where are DP09 and MW-9 in relation to these borings? How were the depths of these borings determined? If the depth of the DB-B7 shallow sample was marked on the Figure 3-6 cross-section, it would show that the sample was collected in the "clay, silt, and sand intermixed" unit, which is deeper than the soil sample depth in DP09 (the "sand/gravel" unit). In addition, the well screen for MW-9 is 20 feet long and spans two clay/silt/sand units and the sand/gravel unit, the well screen for MW-1 is 25 feet long and spans the sand/gravel unit, and the well screen for MW-2 is 20 feet long and spans the fill and sand/gravel	<p>DP-09 and MW-9 will be added to the PCE plume figure in the Final RI Report.</p> <p>Macro cores from the PCE Source Investigation borings were collected and examined to determine the depth of the silt-clay semi-confining layer at each boring location. The depth of the silt-clay layer determined the depth of the groundwater samples, which were collected from directly above the silt-clay layer.</p> <p>The groundwater sample at DPB7 from 30-35 ft. bgs was from the interval directly above the silt-clay layer, as shown by the geologic log for that location. (The sampling interval spanned the formation break between the UWZ</p>

		<p>unit. The concern is that if different units were sampled and used to create the isoconcentration map, it may mistakenly indicate that the PCE concentrations are confined to the Site rather than migrating to the Anacostia River.</p>	<p>and the silt-clay layer.) The groundwater directly above the silt-clay layer was also sampled at DP09, but because the ground surface is at a lower elevation at DP09 than the location of DPB7, the sampling interval at DP09 was 25-30 ft bgs rather than 30-35 ft bgs.</p> <p>The shallow screens at MW-1 and MW-2 were placed such that the entire zone between the water table and silt-clay layer (the UWZ) would be captured and if desired, different intervals within this zone could be targeted for sampling.</p>
118	NPS	<p>Figure 4-1 and 4-3: Cobalt is misspelled as coblat.</p>	<p>This correction will be made in the Final RI Report.</p>
119	NPS	<p>Section 5.2 (Constituents of Potential Concern): There are no VOCs listed, but MTBE and PCE/daughter products are present above screening levels. These should be listed even though additional sampling for them appears to be planned.</p>	<p>MTBE and PCE were not identified as COPCs by the Preliminary Human Health Risk Assessment. However, Pepco will evaluate including these compounds in mass flux calculations following the completion of the planned additional investigation. These compounds will be considered, as appropriate, in the revised risk assessments.</p>
120	NPS	<ul style="list-style-type: none"> Section 5.4 (Mass Flux Calculations): The extremely long well screens that span two or three geological units in MW-2, MW-3, and MW-4 result in such a high level of uncertainty that these mass flux estimates are essentially meaningless, and should be removed from this report. 	<p>Our subsurface investigation had confirmed the presence of Patapsco formation and the underlying Arundel clay, a well-defined regional feature. The subsurface investigation identified a silt-clay semi-confining layer underlying much of the Site and dividing the Patapsco Formation aquifer into an upper water-bearing zone (UWZ) and lower water-bearing zone (LWZ). These findings are consistent with available literature. The monitoring wells were installed as nested wells, targeting the UWZ and LWZ. This was verified in the field using continuous cores produced by the Rotasonic drilling method. Cores were examined by a field geologist to identify UWZ and LWZ, and wells were constructed to effectively seal off the borehole in between the two zones. We are confident that the wells were positioned in the two identified water-bearing zones properly and the water quality is representative of the zone it was placed in. We do agree there are uncertainties in the estimates due to</p>

			excessive sediment noted in some of the groundwater samples. Pepco has proposed to redevelop and re-sample the wells. The mass flux estimates will be revised following the re-sampling.
--	--	--	--

121. Comment from CAG (Listed separately as could not be fitted in the above table):
 The additional sampling that will be conducted should not delay work needed for the treatability and feasibility studies. If these activities are carried out in sequence rather than parallel, it will take a lot more time to complete the RI/FS. The chart below shows the significance of the delays thus far (delays in red).

Action	Originally Proposed RI/FS Timeline (From Consent Decree and RI/FS Work Plan)	Actual RI/FS Timeline
Approval of RI/FS Work Plan by DOEE	No estimate or deadline provided	December 28, 2012
Obtain Permits (NPS, USACE, DCRA/DOEE)	Within 30 days of RI/FS Work Plan approval	Final permit approved Sept 10, 2013 (Approval took more
Begin RI Field Work	Within 30 days of RI/FS Work Plan approval	January 25, 2013
Complete RI Field Work	Within 120 days of field work start date	December 31, 2014 (field work took over 700 days)
Pepco's Submission of Draft RI Report	Within 120 days after completion of RI field work	April 30, 2015
Pepco's Submission of Draft FS Report	Within 180 days after completion of RI filed work or 120 days after approval of treatability study report, if required	Incomplete - Treatability Study (TS) is required and expected to take 6-9 months from approval of a TS work plan and issuance of permits. TS currently on hold, no date identified.
Completion of the RI/FS	Within 18-24 months of consent decree filing	Incomplete (currently 4+ years and counting)
DOEE Issuance of Record of Decision Regarding Cleanup Actions	Promptly after approval of RI/FS reports	DOEE estimates 2 years after RI/FS completion (from May 2015 status report to the court)

Response: A detailed schedule for completing RI/FS is available on Pepco and DOEE websites. As per the schedule, final FS Report is due on March 30, 2018 without treatability study and on June 30, 2018 if treatability study is necessary.