



July 24, 2024

# Benning Road Facility RI/FS Project Waterside Feasibility Study Update

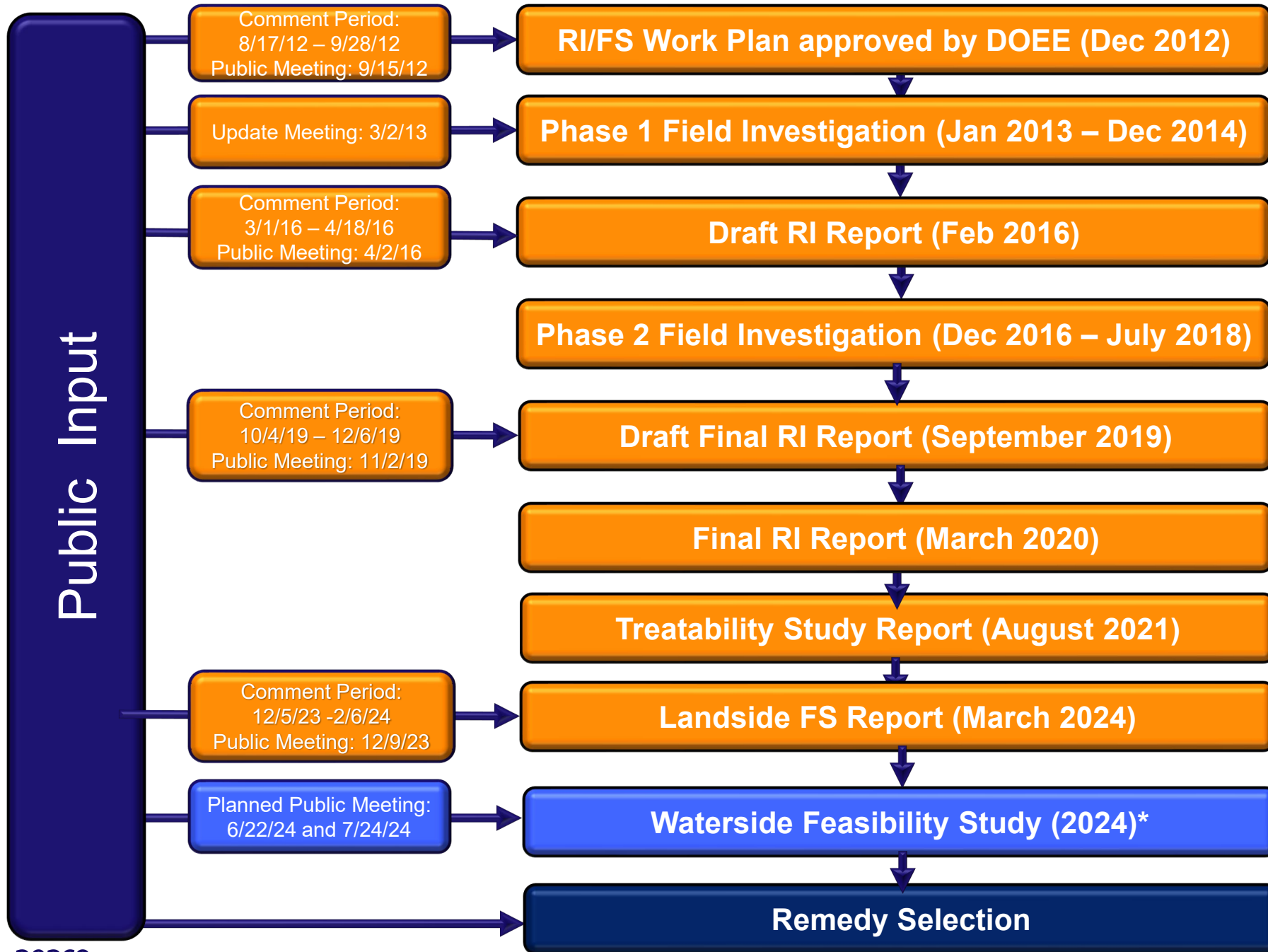
**Pepco Benning Road Facility**

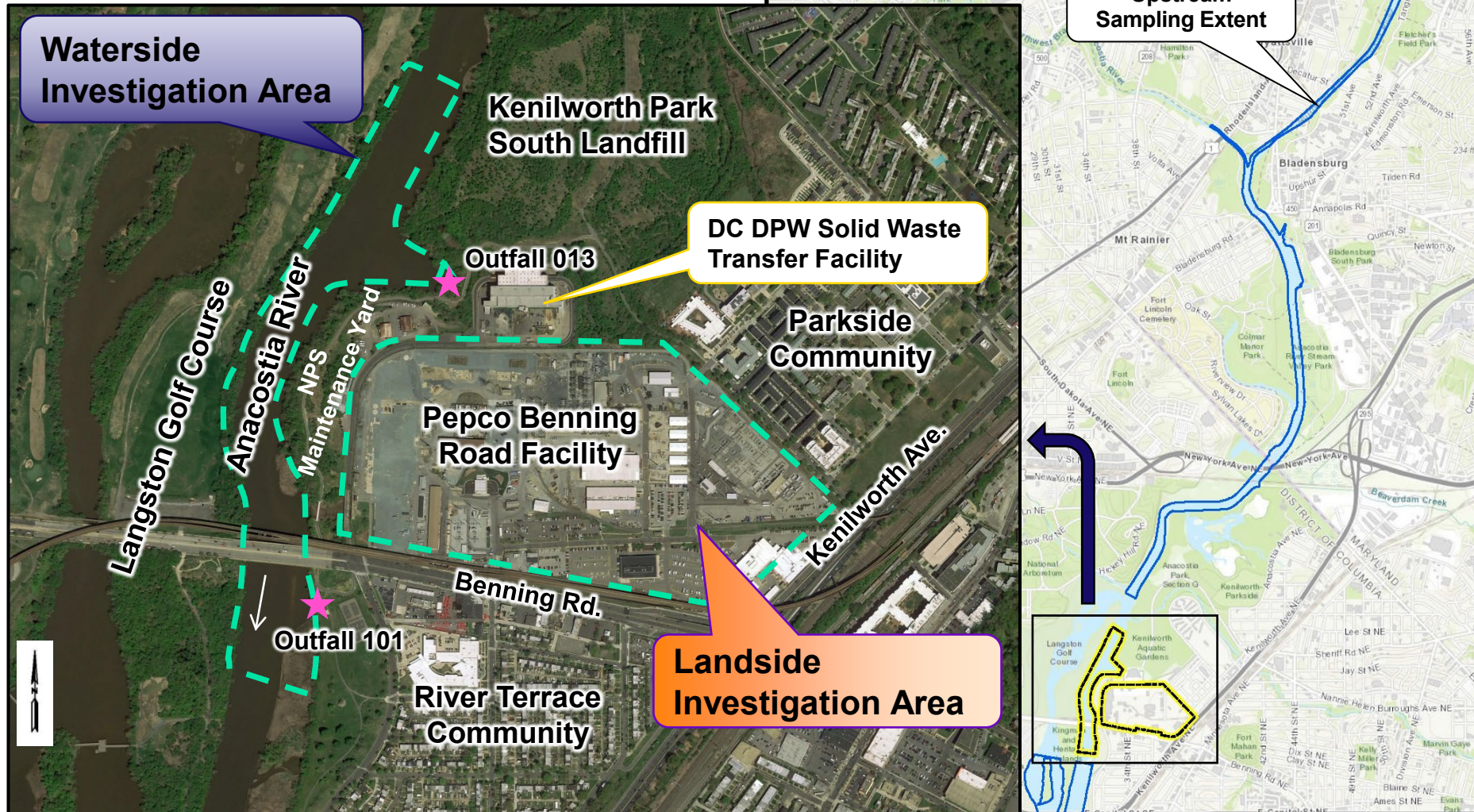
Pepco | Jamie Hill, Senior Manager, Environmental Management  
AECOM | Ravi Damera, Project Manager

# Introduction

- Pepco completed an assessment of environmental conditions at the Benning Road Facility and adjacent portions of the Anacostia River, as documented in the Remedial Investigation (RI) Report and approved by the District Department of Energy & Environment (DOEE) in 2020.
- Pepco conducted an evaluation of cleanup options to address actionable risks identified in the RI for landside and waterside portions of the Site (referred to as Operable Units 1 and 2 or OU1 and OU2, respectively), separately.
- Following public comment, Pepco finalized and DOEE approved the landside FS in March 2024.
- Following the finalization of OU1 FS, Pepco completed clean up options evaluations for the waterside portion of the Site (OU2) and documented the evaluation in the Waterside Focused Feasibility Study (FFS) Report.
- DOEE is overseeing Pepco's work and will be soliciting public input and comments on the Waterside FFS.

# Where are we in the RI/FS Process?





# Benning Study Area

# Benning Road Facility

- Pepco has operated this facility for more than 100 years. The facility is currently home to the Benning Service Center, which supports Pepco's operation of its electric transmission and distribution system.
- The facility historically housed a power generating station. The generating station was shut down in June 2012 and was completely demolished by May 2015.



# RI/FS Objectives

- The purpose of the RI/FS is to answer the following questions:
  1. What are the environmental conditions on the Benning site and the adjacent portion of the Anacostia River?
  2. Did past or present operations at the Benning site cause or contribute to these conditions?
  3. Do these conditions pose any unacceptable risks to human health and the environment?
  4. If so, what are the appropriate cleanup options or other actions to address such risks?
- The RI Report addressed the first three questions.
- The FS Reports address the fourth question. (**Today's focus on Waterside; Landside FS finalized in March 2024**)

*RI/FS is a phased process requiring DOEE review and approvals each step of the way.*



# Waterside Human Health and Ecological Risks

- Risk assessment conducted in accordance with Superfund guidance and DOEE-approved work plans
- Human Health Risks
  - No unacceptable risk from contact with Anacostia River surface water and sediment
    - ❖ Cancer risks  $< 5 \times 10^{-6}$  and noncancer hazard index (HI)  $< 1$
  - Potential unacceptable risk ( $> 10^{-5}$  and HI  $> 1$ ) from consuming Anacostia River fish
    - ❖ Risks from fish consumption are similar to risks found throughout Anacostia and Potomac Rivers
- Ecological Risks
  - No acute or short-term risks identified (hazard quotients [HQ]  $< 1$ )
  - No risks to fish and wildlife (HQs  $< 1$ )
  - Minimal to low ecological risks to benthic worms – similar to background area risks

Baseline Human Health Risk Assessment: [https://benningservicecenter.com/library/documents/RemedialInvestigationReport\(Final\)/NewAppendices/AppendixAA-BaselineHumanHealthRiskAssessment.pdf](https://benningservicecenter.com/library/documents/RemedialInvestigationReport(Final)/NewAppendices/AppendixAA-BaselineHumanHealthRiskAssessment.pdf)

Baseline Ecological Risk Assessment: [https://benningservicecenter.com/library/documents/RemedialInvestigationReport\(Final\)/NewAppendices/AppendixBB-BaselineEcologicalRiskAssessment.pdf](https://benningservicecenter.com/library/documents/RemedialInvestigationReport(Final)/NewAppendices/AppendixBB-BaselineEcologicalRiskAssessment.pdf)

# Area Targeted for Early Action



- PCB concentrations in the Cove are generally higher than the average concentrations in the rest of the WIA and the River.
- Pepco prioritized this Cove “hot spot” remediation in the WIA.
- To avoid potential recontamination, other areas within the WIA outside of the Cove will be addressed, as needed, in a subsequent remedial action once the upstream sources are controlled.
- This remediation strategy fits within the approach DOEE has adopted for the larger Anacostia River.





Aquatic Vegetation in the Cove

# Remedial Action Objective (RAO)

***Reduce exposure to total PCBs within the biologically active zone in the Cove, to the extent practicable, through early action addressing sediments within the Cove that exceed an interim RAL of 600 µg/kg of total PCBs measured as congeners.***

- RAL stands for Remedial Action Level
- RAL of 600 ug/kg of PCBs is the same RAL DOEE-derived to identify hot spots for Early Actions within the Anacostia River
- All of Cove sediments exceed the RAL, therefore, Pepco targeted the entire 3.7-acre Cove for Early Action



# Potential Sediment Cleanup Technologies

## ■ Institutional Controls

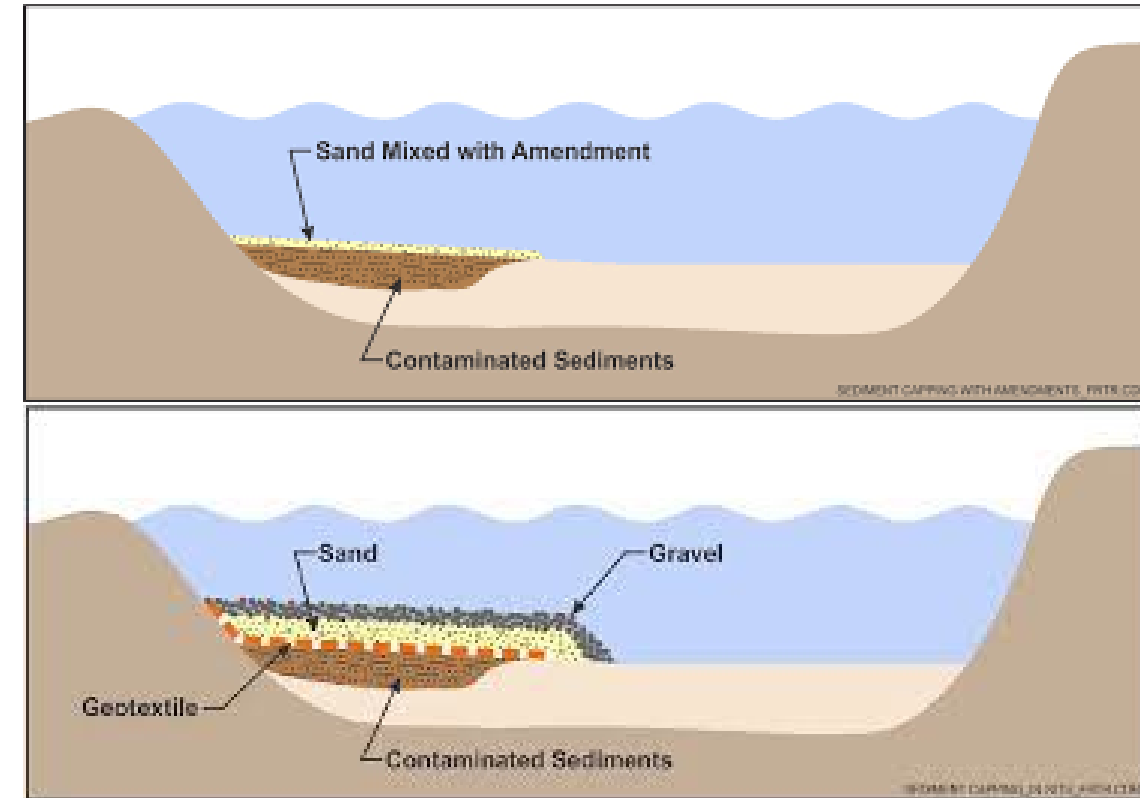
- Fish consumption advisories
- National Park Service and DOEE permitting requirements

## ■ Containment/Capping

- Sand/soil caps
- Amended sand caps
- Armored caps
- Multi-layer caps

## ■ Treatment

- Activated carbon application
- Solidification/stabilization

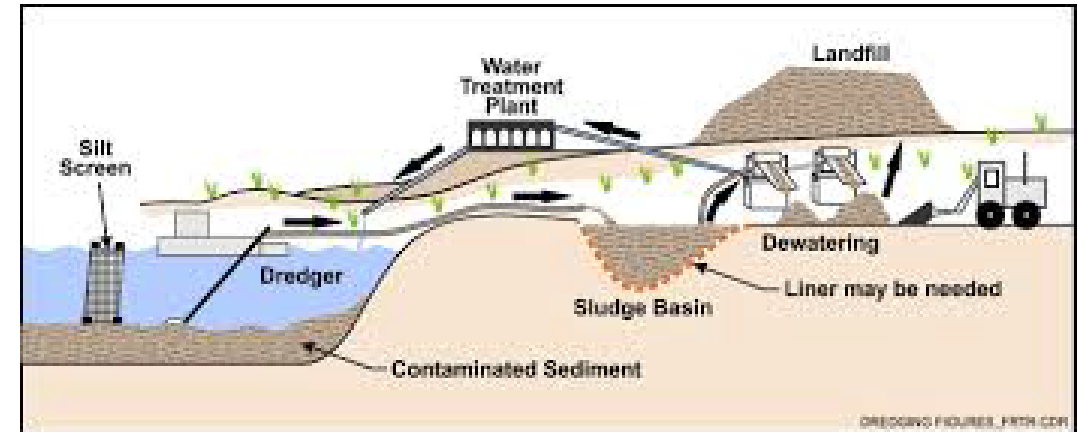


Source: Federal Remediation Technologies Roundtable

# Potential Sediment Cleanup Technologies (Cont'd)

## ■ Removal and Disposal.

- Mechanical dredging
- Hydraulic dredging
- Excavation in the dry
- Onsite/offsite disposal or reuse



Source: Federal Remediation Technologies Roundtable



# Evaluation Criteria (*Based on EPA Guidance*)

## ■ Threshold Criteria

- Protection of human health and the environment
- Compliance with regulations

## ■ Balancing Criteria

- Long-term effectiveness
- Short-term effectiveness
- Reduction in toxicity, mobility, volume through treatment
- Implementability
- Cost

## ■ Modifying Criteria

- Regulatory acceptance
- Community acceptance

# Evaluation Summary

Evaluation Criteria	WIA-1	WIA-3	WIA-4	WIA-5	WIA-6
	No Action	Capping (3.5 acres), and Limited Dredging with Capping (0.2 acres)	In-Situ Treatment (3.5 acres) and Limited Dredging with Capping (0.2 acres)	Dredging of the Entire Cove and Capping	In-Situ Treatment (over 2.5 acres) with Dredging and Capping (over 1.2 acres)
<b>Threshold Criteria</b>					
Overall Protectiveness of Human Health and the Environment	X	✓	✓	✓	✓
ARAR Compliance	X	✓	✓	✓	✓
<b>Balancing Criteria</b>					
Reduction in Toxicity, Mobility and Volume	NA	2	3	5	4
Long-term Effectiveness and Permanence	NA	3	3	5	4
Short-term Effectiveness and Potential Impacts	NA	3	4	2	3
Implementability	NA	2	4	1	3
Cost Effectiveness	NA	4	5	1	2
<b>Total Score</b>	<b>NA</b>	<b>14</b>	<b>19</b>	<b>14</b>	<b>16</b>
<b>Total cost</b>	<b>\$0</b>	<b>\$7,340,000</b>	<b>\$6,170,000</b>	<b>\$12,690,000</b>	<b>\$8,350,000</b>

# Highest Scoring Remedial Alternative (Subject to Public Comment and DOEE Approval)

Based on the evaluation of a number of cleanup options according to EPA criteria, the FFS identified alternative WIA-3 as the preferred cleanup option, which involves :

- In-place treatment of the majority of the sediments in the Cove with commercially available activated carbon amendments
- Selective dredging and capping in a small area of the Cove
- Erosion protection in areas of the Cove that are prone to erosion
- Restoration of impacted wetland/marsh
- Estimated cost: **\$6,170,000**

# Next Steps

- Release FFS Report for public comment (*Released on 06/20/2024*)
- Conduct two public meetings (*first meeting on 6/22/2024 + today's meeting*)
- Extended public comment period: **06/20/2024 to 08/30/2024**
- Receive and address public comments (*following the end of comment period*)
- DOEE to select cleanup action from the options evaluated in the FS Report
- Proposed Plan and Record of Decision (*Anticipated: Q2 2025*)
- Design and Permitting (*Anticipated: Q3 2025 – Q2 2026*)
- Pepco to implement selected cleanup option (*Anticipated: Q3 – Q4 2026*)



# Public Comment Information

- DOEE and Pepco are inviting public comments.
- FS Report is available on the DOEE website at: <https://dcgov.app.box.com/s/p5svsq3hhe8i0wzic1pbxfmqctehgz8z/folder/271038287949>
- FS Report is available on the Benning website at <https://benning-service-center.com/benning-consent-decree/documents.aspx>
- Hard copy documents are available in local libraries.
- Public Comment period closes on **August 30, 2024 (EXTENDED DATE)**.

Send comments by email to [DOEE.pepcoproject@dc.gov](mailto:DOEE.pepcoproject@dc.gov) or by mail to: Apurva Patil  
 1200 First Street NE, 5th Floor  
 Washington, DC 20002

Comment No.	Name	Organization	Document Section/Page no.	Comment



July 24, 2024

# Questions and Comments





pepperco<sup>SM</sup>

AN EXELON COMPANY