delmarva power℠

AN EXELON COMPANY

USACE NWP 12 PRE-CONSTRUCTION NOTIFICATION: MILL CREEK GAS LINE REPLACEMENT PROJECT

DELMARVA POWER

401 EAGLE RUN RD

NEWARK, DE 19714

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Newark, DE 19714

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AN EXELON COMPANY

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Delmarva Power
401 Eagle Run Rd
Newark, DE 19714

Cover Letter

McCORMICK TAYLOR

April 8, 2026

USACE Philadelphia District
1203 College Park Drive, Suite 103
Dover, DE 19904

<Submitted electronically via PhiladelphiaDistrictRegulatory@usace.army.mil>

RE: USACE NWP 12 Pre-Construction Notification
Delmarva Power and Light Company
Mill Creek Gas Line Replacement Project
New Castle County, Delaware

To Whom it May Concern,

Delmarva Power & Light (DPL) is proposing to relocate approximately 870 feet of an existing gas line by installing a new gas line on the north side of the Jack A. Markell Trail at Little Mill Creek in Wilmington, Delaware (New Castle County). It will occur in cleared right-of-way (ROW) on both sides of Little Mill Creek. The project will require access along Norfolk Southern and Amtrak ROWs.

Work for the project will include construction activities on both sides of Little Mill Creek in the cleared ROW. The line will be installed underneath Little Mill Creek using 12 inch conduit. The existing line will be abandoned in place and filled with grout. Construction activities include horizontal directional drilling (HDD) under Mill Creek to install the new gas line. Access to the work area west of Mill Creek will be obtained through existing gravel access roads from Water Street. Access to the work area east of Mill Creek will be obtained through existing access roads from DPL's Liquid Natural Gas Plant. The project proposes 300 square feet of temporary wetland impacts for the installation of temporary bore pits for the installation of the proposed pipeline. The construction timeline will adhere to any relevant time-of-year (TOY) restrictions.

DPL is requesting a Nationwide Permit 12 (NWP-12) for the relocation of the existing gas line. This submittal includes a Permit Application Form, Statement of Project Purpose, Profile Views, Impact Plates, Wetland Delineation, and Consultation Letters. The project is separately applying for a DNREC Wetlands and Subaqueous Lands Permit in addition to obtaining a Coastal Zone Consistency Determination.

Please review and contact me at 484-859-8497 or sayourik@mccormicktaylor.com or Jonathan Bartlett at 302-440-5222 or Jonathan.bartlett@exeloncorp.com if you need any additional information.
We thank you for your consideration.

Sincerely,

Stephanie Yourik,

Associate Project Manager, Energy Services
McCormick Taylor, Inc.

Delmarva Power
401 Eagle Run Rd
Newark, DE 19714

Application Form

U.S. Army Corps of Engineers (USACE)

NATIONWIDE PERMIT PRE-CONSTRUCTION NOTIFICATION (PCN)

For use of this form, see 33 CFR 330; the proponent agency is CECW-COR.

Form Approved -
OMB No. 0710-0003
Expires: 2027-10-31

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority	Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Program of the Corps of Engineers (Corps); Final Rule 33 CFR 320-332.
Principal Purpose	Information provided on this form will be used in evaluating the nationwide permit pre-construction notification.
Routine Uses	This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of the agency coordination process.
Disclosure	Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued.

The public reporting burden for this collection of information, 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR RESPONSE TO THE ABOVE EMAIL.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (*see sample drawings and/or instructions*) and be submitted to the district engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME

First - Jonathan Middle - Last - Bartlett

Company - Delmarva Power & Light Co. (DPL)

Company Title - Senior Environmental Program Manager

E-mail Address - Jonathan.Bartlett@exeloncorp.com

6. APPLICANT'S ADDRESS

Address- 401 Eagle Run Road

City - Newark State - DE ZIP - 19714 Country - USA

7. APPLICANT'S PHONE NOs. with AREA CODE

a. Residence	b. Business	c. Fax	d. Mobile
			302-440-5222

8. AUTHORIZED AGENT'S NAME AND TITLE (*agent is not required*)

First - Stephanie Middle - Last - Yourik

Company - McCormick Taylor

E-mail Address - SAYourik@mccormicktaylor.com

9. AGENT'S ADDRESS

Address- 106 Milford Street, Unit 105

City - Salisbury State - MD ZIP - 21804 Country - USA

10. AGENT'S PHONE NOs. with AREA CODE

a. Residence	b. Business	c. Fax	d. Mobile
	443-257-7597		

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Stephanie Yourik to act in my behalf as my agent in the processing of this nationwide permit pre-construction notification and to furnish, upon request, supplemental information in support of this nationwide permit pre-construction notification.

Jonathan Bartlett Digitally signed by Jonathan Bartlett Date: 2026.04.10 11:32:28 -04'00' — SIGNATURE OF APPLICANT

4/10/2026 — DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME or TITLE (*see instructions*)

Mill Creek Gas Line Replacement

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

13. NAME OF WATERBODY, IF KNOWN (*if applicable*)

Little Mill Creek

14. PROPOSED ACTIVITY STREET ADDRESS (*if applicable*)

1400 Delmarva Lane - Gas right-of-way just south of railroad

15. LOCATION OF PROPOSED ACTIVITY (*see instructions*)

Latitude °N Longitude °W

City: Wilmington

State: DE ZIP: 19801

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (*see instructions*)

State Tax Parcel ID: 0704340055, 0704430002, 0704430003

Municipality:

Section:

Township:

Range:

17. DIRECTIONS TO THE SITE

From I-95 S, take Exit 5B, then continue onto DE-141 N for approximately 0.4 miles. Turn right onto E Market Street and continue for one block, then turn right on S. Walnut Street and continue for one block. Turn right onto E Ayre Street, then continue for approximately 0.1 mile. Turn left onto S James Street and continue for approximately 0.1 mile. Turn left onto E. Water Street and continue for approximately 0.6 miles. An entrance to the site is located at the intersection of Water Street and Marsh Lane.

18. IDENTIFY THE SPECIFIC NATIONWIDE PERMIT(S) YOU PROPOSE TO USE

NWP-12 - Oil or Natural Gas Pipeline Activities

19. DESCRIPTION OF PROPOSED NATIONWIDE PERMIT ACTIVITY (*see instructions*)

A 12-inch conduit will be installed under Little Mill Creek via Horizontal Directional Drilling (HDD). A bore pit will be installed on either side of the proposed line. This pit will require temporary excavation. The eastern bore pit is located within a nontidal PEM wetland. Bore pits will be restored to original grade. The existing pipeline will be abandoned in place.

20. DESCRIPTION OF PROPOSED MITIGATION MEASURES (*see instructions*)

Disturbed grounds including wetlands will be restored to original grade and stabilized using a wetland seed mix. Filter log will be installed around the downslope side of all work areas, and construction matting will be used for access to all wetland areas.

21. PURPOSE OF NATIONWIDE PERMIT ACTIVITY (*Describe the reason or purpose of the project, see instructions*)

An existing natural gas pipeline has become exposed within Little Mill Creek, creating a potential safety hazard. The existing pipeline will be retired and replaced.

22. QUANTITY OF WETLANDS, STREAMS, OR OTHER TYPES OF WATERS DIRECTLY AFFECTED BY PROPOSED NATIONWIDE PERMIT ACTIVITY (*see instructions*)

Acres: 0.01 Acres (300 sqft) temporary wetland impacts.

Linear Feet: N/A

Cubic Yards Dredged or Discharged: 35 C.Y. temporarily removed

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

23. List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. (*see instructions*)

The project is seperately applying for a DNREC Wetlands and Subaqueous Lands Permit, and is obtaining a Coastal Zone Consistency Determination.

24. If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and/or the loss of greater than 3/100-acre of stream bed and requires pre-construction notification, explain how the compensatory mitigation requirement in paragraph (c) and/or paragraph (d) of general condition 23 will be satisfied, or explain why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required for the proposed activity.

N/A - Project will not result in greater than 1/10-acre of wetlands and/or the loss of any stream bed, and proposes no permanent wetland impacts.

25. Is any portion of the nationwide permit activity already complete? ☐ Yes ☒ No If Yes, describe the completed work:

26. List the name(s) of any species listed as endangered or threatened under the Endangered Species Act that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. (*see instructions*)

N/A

27. List any historic properties that have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic property or properties. (*see instructions*)

No historic properties are located within or immediately adjacent to the project area per DE Cultural and Historic Resource Information System (CHRIS). An information request was submitted to DE SHPO in November 2025 and the results of that request are pending.

28. For a proposed NWP activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, identify the Wild and Scenic River or the "study river":

N/A - The project proposes no impacts to streams or rivers. The project will bore underneath Little Mill Creek, which is not designated as National Wild and Scenic River System, nor is it designated as a "study river".

29. If the proposed NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, have you submitted a written request for section 408 permission from the Corps district having jurisdiction over that project? ☐ Yes ☒ No

If "yes", please provide the date your request was submitted to the Corps district:

30. If the terms of the NWP(s) you want to use require additional information to be included in the PCN, please include that information in this space or provide it on an additional sheet of paper marked Block 30. (*see instructions*)

31. Pre-construction notification is hereby made for one or more nationwide permit(s) to authorize the work described in this notification. I certify that the information in this pre-construction notification is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Jonathan Bartlett Digitally signed by Jonathan Bartlett Date: 2026.04.10 11:31:44 -04'00'	4/10/2026		04/08/2026
SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE

The pre-construction notification must be signed by the person who desires to undertake the proposed activity (applicant) and, if the statement in Block 11 has been filled out and signed, the authorized agent.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Delmarva Power
401 Eagle Run Rd
Newark, DE 19714

Attachment 1 – Project Purpose

Project Purpose
Delmarva Power and Light Company (DPL)
Mill Creek Gas Line Replacement Project
New Castle County, Delaware

Delmarva Power & Light Company (DPL) is proposing to relocate approximately 870 feet of an existing gas line by installing a new 12-inch diameter gas line on the north side of the Jack A. Markell Trail at Little Mill Creek in Wilmington, New Castle County, DE. The existing gas line in this area has become exposed in the water column of Little Mill Creek, putting gas reliability and public safety at risk. The proposed line will be installed deeper underneath Little Mill Creek, and the existing line will be filled with grout and abandoned in place.

Work for the project will include construction activities on both sides of Little Mill Creek in the cleared right-of-way. The line will be installed underneath Little Mill Creek using a 12-inch conduit, to be installed via Horizontal Directional Drilling (HDD). Construction activities include drilling under Little Mill Creek to install the new gas line. Access to the work area west of Little Mill Creek will be obtained through existing access roads from DPL's Liquid Natural Gas Plant.

McCormick Taylor conducted a wetland delineation in September and October 2025 and identified two palustrine emergent wetlands, one estuarine intertidal emergent wetland, and one estuarine subtidal watercourse. See **Attachment 2** for the Impact Plates and Profile Views and **Attachment 3** for the Wetland Delineation.

Temporary impacts to nontidal PEM wetlands are anticipated for the installation of bore pits required for the HDD work. Construction matting will be utilized at all other locations where the LOD intersects with wetlands to prevent wetland impacts. Filter log will be installed along the perimeter of the LOD. Following the installation of the new gas line, the bore pits will be returned to their original grade, matting will be removed from the surrounding areas, and all wetland areas will be stabilized with a wetland seed mix.

Consultation was initiated with Delaware Department of Natural Resources and Environmental Control (DNREC). DNREC identified pipevine swallowtail (*Battus philenor*, state very rare) at or adjacent to the project site. See **Attachment 4** for the Consultation Letters, USFWS IPAC Species List, and Bat DKey.

Upon review of the Delaware Historical & Cultural Affairs (DHCA) Cultural and Historical Resources Information System (CHRIS), it was determined that there are no areas of historical or archaeological significance within the project area. Consultation was initiated with DE SHPO, and results of that investigation are pending.

The project is separately applying for a DNREC subaqueous lands permit and obtaining Coastal Zone Management Federal Consistency Determination.

Delmarva Power
401 Eagle Run Rd
Newark, DE 19714

Attachment 2 – Impact Plates and Profile Views

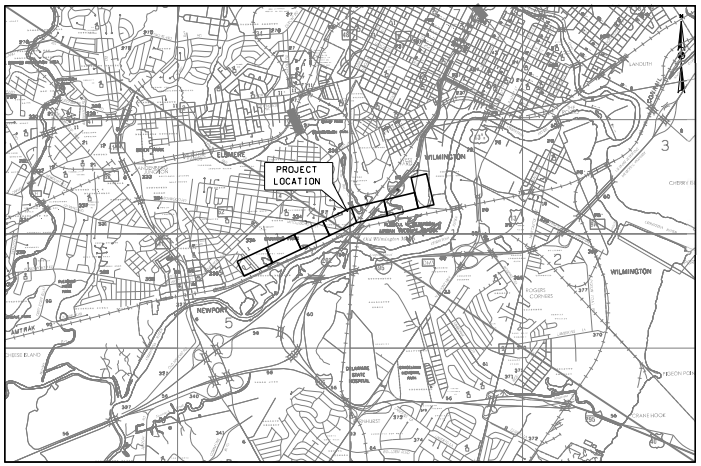
DELMARVA POWER & LIGHT CO.
MILL CREEK GAS LINE REPLACEMENT
SEDIMENT AND STORMWATER PLANS
NEW CASTLE COUNTY, DELAWARE

INDEX OF DRAWINGS

DWG. NO.	SHT. NO.	DESCRIPTION
1	ES-T1	TITLE PAGE
2	ES-N1	EROSION & SEDIMENT CONTROL NOTES
3-7	ES-D1 - ES-D5	EROSION & SEDIMENT CONTROL DETAILS
8-14	ES-01 - ES-07	EROSION & SEDIMENT CONTROL PLANS

SITE DATA AND EROSION AND SEDIMENT CONTROL NOTES:

1. LIMITS OF DISTURBANCE: 1.30 ACRES
   LATITUDE/LONGITUDE: 39° 43'20.0" N, -75° 34'14.0" W
   ZONING: SUBURBAN (S), HEAVY INDUSTRIAL (HI)
   EARTHWORK ESTIMATE: CUT: 33 C.Y.
   FILL: 0 C.Y.
2. OWNER/DEVELOPER DATA: DELMARVA POWER & LIGHT CO.
   401 EAGLE RUN ROAD
   NEWARK, DE 19809
   PHONE: 302-454-4101
3. ENGINEER DATA: MCCORMICK TAYLOR, INC
   1818 MARKET STREET
   PHILADELPHIA, PA 19103
   PHONE: (215) 592-4200
4. REVIEW AGENCY DATA: NEW CASTLE COUNTY DEPARTMENT OF LANDUSE
   87 READS WAY
   NEW CASTLE, DE 19720
   PHONE: 302-395-5400
   FAX : 302-395-5587
5. TAX PARCEL & PROPERTY ADDRESS: SEE PLANS - PROJECT LIMITS WITHIN EXISTING DPL ROW.
6. PER FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP 10003C0152L.
7. THE PROPOSED UNDERGROUND GAS LINE WILL BE INSTALLED VIA HORIZONTAL DIRECTIONAL DRILLING (HDD) WHERE IT CROSSES MILL CREEK.
8. THE PROJECT DOES NOT IMPACT CRITICAL NATURAL AREAS.
9. NO DEBRIS SHALL BE BURIED ON THE SITE.
10. NO WASTE OR BY-PRODUCTS WILL BE PRODUCED.
11. NO WATER OR SANITARY SEWER CONNECTIONS ARE PROPOSED ON THIS PLAN.



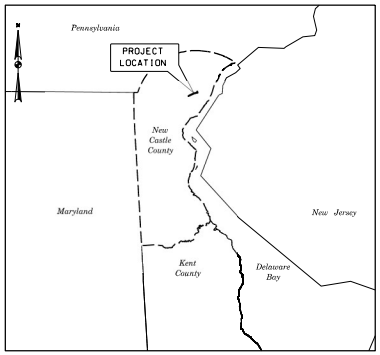
NEW CASTLE COUNTY, DE

LOCATION MAP
SCALE: 1" = 1500'

PROJECT NARRATIVE:

DELMARVA POWER & LIGHT CO. (DPL) PROPOSES THE REPLACEMENT OF APPROXIMATELY 1,000 FEET OF HIGH-PRESSURE UNDERGROUND GAS LINE UNDER MILL CREEK IN WILMINGTON, DE. THE GAS LINE IS TO BE INSTALLED VIA HORIZONTAL DIRECTIONAL DRILLING (HDD). NO PERMANENT CHANGE IN GRADE OR NEW IMPERVIOUS AREA IS PROPOSED AS PART OF THIS PROJECT. ALL DISTURBED GROUNDS WILL BE RESTORED TO PRE EXISTING CONDITIONS. NO TREE CLEARING OR GRUBBING IS PROPOSED. THE EXISTING GAS LINE WILL BE CUT OFF AND RETIRED IN PLACE.

FILTER SOCK WILL BE USED FOR EROSION AND SEDIMENT CONTROL. AS WORK IS COMPLETED, SEED, STABILIZATION, AND TACK ARE TO BE PLACED PER STATE STABILIZATION REQUIREMENTS IN ORDER TO RE-ESTABLISH THE SITE'S EXISTING HYDROLOGIC CONDITIONS. THE PROJECT PROPOSES TEMPORARY IMPACTS TO NONTIDAL WETLANDS.COORDINATION WITH THE DELAWARE DIVISION OF HISTORICAL AND CULTURAL AFFAIRS IS ONGOING. THE DNREC DIVISION OF FISH AND WILDLIFE INDICATED THAT THERE ARE NO STATE OR FEDERALLY LISTED THREATENED OR ENDANGERED SPECIES AT THE SITE. PIPEVINNE SWALLOWTAIL (BATTUS PHILENOR, STATE RANK S2) OCCURS AT OR ADJACENT TO THE SITE. NO WORK WILL BE CONDUCTED BETWEEN MARCH 1ST AND JULY 31ST. TEMPORARY IMPACTS TO THE 100 YR FLOODPLAIN ARE PROPOSED. NO NET FILL WITHIN THE 100 YR FLOODPLAIN IS PROPOSED.



VICINITY MAP
NOT TO SCALE

CERTIFICATION OF OWNERSHIP

I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY WHICH IS SUBJECT OF THIS PLAN AND THAT THE LAND USE ACTION PROPOSED BY THIS PLAN IS MADE AT MY DIRECTION AND THAT I AUTHORIZE THIS PLAN TO BE RECORDED IN ACCORDANCE WITH THE REGULATIONS OF THE NEW CASTLE COUNTY UNIFIED DEVELOPMENT CODE.

SIGNATURE: _____ DATE: _____

NAME: CHARLES REED TITLE: MANAGER, ENVIRONMENTAL PROGRAMS PHONE: (302) 583-6076

FIRM: DELMARVA POWER & LIGHT COMPANY ADDRESS: PO BOX 9239 NEWARK, DE 19714

CERTIFICATION OF PLAN ACCURACY

I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER WITH A BACKGROUND IN CIVIL ENGINEERING IN THE STATE OF DELAWARE AND THAT ALL OF THE INFORMATION ON THIS PLAN IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY ACCEPTED SURVEYING STANDARDS AND PRACTICES AND BY THE NEW CASTLE COUNTY UNIFIED DEVELOPMENT CODE.

WILLIAM B CARPENTER LICENSE No. 20486 DELAWARE PROFESSIONAL ENGINEER

SIGNATURE: _____ DATE: 4/7/2008

NAME: WILL CARPENTER, P.E. TITLE: ENGINEER #20486 PHONE: (443) 397-4445

FIRM: MCCORMICK TAYLOR, INC. ADDRESS: 1818 MARKET STREET, 16TH FLOOR PHILADELPHIA, PA 19103

NO GREATER THAN 1.0 ACRE WILL BE DISTURBED IN NEW CASTLE COUNTY AT ANY ONE TIME THROUGHOUT THE COURSE OF CONSTRUCTION.

THE GRADING LIMITS SHOWN ON THE PLAN ARE NOT TO BE EXCEEDED. ANY CHANGES IN THE GRADING, EROSION AND SEDIMENT CONTROL PLAN, STORM WATER MANAGEMENT FACILITY OR OTHER SEGMENT OF THE WORK MUST BE REVIEWED AND APPROVED BY THE ENGINEER.

McCORMICK TAYLOR
1818 Market Street
16th Floor
Philadelphia, PA 19103

REVISIONS

DELMARVA POWER & LIGHT CO.
AN EXELON COMPANY
NEW CASTLE COUNTY, DELAWARE

ES-T1

MILL CREEK GAS LINE REPLACEMENT

SCALE: AS SHOWN DWG. 1 OF 14

DESIGNED: OMS PHASE*:
DRAWN: OMS CKT*:
CHECKED: JJK WT*: 10035-079

3/3/2008
pw:\\mt-pwbentley:comnt-pw:01\Documents\Projects\Energy\Exelon\DPL\10035-01\Folk_Road_Gas_Lines\300_CADD_User_Working_Files\OMS\pES-T001.dgn

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

1. A PRE-CONSTRUCTION MEETING (UNLESS WAIVED BY NEW CASTLE COUNTY) MUST BE HELD PRIOR TO COMMENCING CONSTRUCTION. CONTACT NEW CASTLE COUNTY DEPARTMENT OF LAND USE VIA EMAIL: PERMITS@NCCDE.ORG TO SCHEDULE A MEETING. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. DNREC AND NEW CASTLE COUNTY (NCC) PERSONNEL SHALL HAVE THE RIGHT TO CONDUCT ON-SITE INSPECTIONS OF LAND DISTURBING ACTIVITIES.
3. UNLESS OTHERWISE AUTHORIZED BY NCC, ALL WORK MUST BE DONE IN ACCORDANCE WITH THE LATEST APPROVED SEDIMENT AND STORMWATER MANAGEMENT PRACTICES MAY BE REQUIRED AS DEEMED NECESSARY BY THE NEW CASTLE COUNTY DEPARTMENT OF LAND USE. IF NCC DETERMINES THE APPROVED PLAN TO BE DEFICIENT, THAT PLAN WILL BE VOIDED, THE SITE ISSUED A STOP WORK ORDER AND THE SUBMISSION OF A REVISED PLAN WILL BE REQUIRED FOR REVIEW AND APPROVAL BY NCC.
4. LIMITS OF DISTURBANCE MUST BE DELINEATED IN THE FIELD. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY DEFINED AT ALL TIMES DURING CONSTRUCTION. (BREAK DOWN PER PHASE(S), IF APPLICABLE).
5. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAINFALL. MAINTENANCE MUST BE PERFORMED AFTER EACH INSPECTION AS NECESSARY. ANY ERODED AREAS SHALL BE STABILIZED AND ANY ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED ACCORDING TO PLAN.
6. SHOULD QUESTIONS ARISE REGARDING THE MAINTENANCE OF EROSION AND SEDIMENT CONTROL PRACTICES, THE SITE CONTRACTOR SHALL CONTACT THE CONSULTING ENGINEER EXPEDITIOUSLY FOR TECHNICAL ASSISTANCE.
7. THE APPROVED S&S PLAN INCORPORATES POLLUTION PREVENTION PRACTICES LISTED UNDER STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION SITE POLLUTION PREVENTION IN THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, DATED DECEMBER 2003 AND ITS REVISIONS.

POLLUTION PREVENTION MEASURES:

1. POLLUTION PREVENTION MEASURES SHALL BE USED THROUGHOUT THE PROJECT DURATION FOR WASTE MANAGEMENT, EQUIPMENT AND VEHICLE WASHING, MATERIAL HANDLING, SPILL PREVENTION AND CONTROL INCLUDING EQUIPMENT FUELING, EQUIPMENT MAINTENANCE, AND EQUIPMENT REPAIRS.
2. IN THE EVENT OF A SPILL DNREC EMERGENCY RESPONSE WILL BE NOTIFIED @ 1-800-662-8802.

VEGETATIVE STABILIZATION
(PERMANENT AND TEMPORARY SEEDING AND MULCHING)

1. FOLLOWING DOCUMENTATION OF TURBID DISCHARGES, NEW CASTLE COUNTY OR DELEGATED AGENCY MAY REQUEST THAT THE SEDIMENT AND STORMWATER MANAGEMENT PLAN BE REVISED ACCORDINGLY TO ADDRESS THE USE OF BEST AVAILABLE TECHNOLOGY (BAT).
2. FOLLOWING SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 14 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROLS, TOPSOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. TEMPORARY STABILIZATION IS REQUIRED IF GRADING WILL NOT CHANGE FOR 14 CALENDAR DAYS OR MORE FOR THOSE AREAS WHICH ARE SHOWN ON THE PLAN AND ARE CURRENTLY BEING USED FOR MATERIAL STORAGE, OR FOR THOSE AREAS ON WHICH ACTUAL EARTH MOVING ACTIVITIES ARE CURRENTLY BEING PERFORMED.
3. SEDIMENT CONTROL PRACTICE SEEDING - DOCUMENT SEEDING ON THE EROSION AND SEDIMENT CONTROL PLAN USING APPROPRIATE CHART BELOW. NOTE: IF SEDIMENT CONTROL PRACTICES ARE IN FOR LONGER THAN 12 MONTHS, PERMANENT SEEDING IS REQUIRED.
4. TEMPORARY/PERMANENT SEEDING MIXTURES AND RATE - DOCUMENT SEEDING ON THE EROSION AND SEDIMENT CONTROL PLAN USING APPROPRIATE CHART ON SHEET ES-D1.

STANDARD SEDIMENT AND STORMWATER CONSTRUCTION NOTES:

1. THE NEW CASTLE COUNTY DEPARTMENT OF LAND USE MUST BE NOTIFIED IN WRITING FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. REVIEW AND OR APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.
3. IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY DNREC OR THE DELEGATED AGENCY.
4. FOLLOWING SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED FOR ALL PERIMETER SEDIMENT CONTROLS, SOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE WITHIN 14 CALENDAR DAYS UNLESS MORE RESTRICTIVE FEDERAL REQUIREMENTS APPLY.
5. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
6. AT ANY TIME A DEWATERING OPERATION IS USED, IT SHALL BE PREVIOUSLY APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER FOR A NON-EROSIVE POINT OF DISCHARGE, AND A DEWATERING PERMIT SHALL BE APPROVED BY THE DNREC WELL PERMITTING BRANCH.
7. APPROVED STANDARD PLANS REMAIN VALID FOR 1 YEAR FROM THE DATE OF APPROVAL.
8. POST CONSTRUCTION VERIFICATION DOCUMENTS ARE TO BE SUBMITTED TO NEW CASTLE DEPARTMENT OF LAND USE WITHIN 60-DAYS OF STORMWATER MANAGEMENT FACILITY COMPLETION.
9. APPROVAL OF A SEDIMENT AND STORMWATER MANAGEMENT PLAN DOES NOT GRANT OR IMPLY A RIGHT TO DISCHARGE STORMWATER RUNOFF. THE OWNER/DEVELOPER IS RESPONSIBLE FOR ACQUIRING ANY AND ALL AGREEMENTS, EASEMENTS, ETC., NECESSARY TO COMPLY WITH STATE DRAINAGE AND OTHER APPLICABLE LAWS.
10. BEFORE ANY EARTHWORK OR EXCAVATION TAKES PLACE, THE CONTRACTOR SHALL CALL MISS UTILITY AT 811 OR 1.800.282.8555 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO HAVE ALL EXISTING UTILITIES MARKED ONSITE.
11. THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHALL BE CHECKED DAILY AND ADJUSTED AND/OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
12. BEST AVAILABLE TECHNOLOGY (BAT) SHALL BE EMPLOYED TO MANAGE TURBID DISCHARGES IN ACCORDANCE WITH REQUIREMENTS OF 7. DEL C. CH 60, REGULATIONS GOVERNING THE CONTROL OF WATER POLLUTION, SECTION 9.1.02, KNOWN AS SPECIAL CONDITIONS FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES, AND DEPARTMENT POLICIES, PROCEDURES, AND GUIDANCE.
13. DOCUMENTATION OF SOIL TESTING AND MATERIALS USED FOR TEMPORARY OR PERMANENT STABILIZATION INCLUDING BUT NOT LIMITED TO SOIL TEST RESULTS, SEED TAGS, SOIL AMENDMENT TAGS, ETC. SHALL BE PROVIDED TO THE DEPARTMENT OR DELEGATED AGENCY TO VERIFY THAT THE PERMANENT OR TEMPORARY STABILIZATION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED PLAN. THE DEPARTMENT OR DELEGATED AGENCY SHALL HAVE THE DISCRETION TO MAY REQUIRE ADDITIONAL SOIL TESTING AND REAPPLICATION OF PERMANENT OR TEMPORARY STABILIZATION IN ACCORDANCE WITH SPECIFICATIONS PROVIDED IN THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, OR ALTERNATIVE MEASURES THAT PROVIDE FUNCTIONAL EQUIVALENCY.

SEQUENCE OF CONSTRUCTION:

1. CONTACT THE NEW CASTLE COUNTY DEPARTMENT OF LAND USE AT 302-395-5400 TO SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST 2 WEEKS PRIOR TO THE START OF CONSTRUCTION.
2. CALL MISS UTILITY (800) 257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
3. IMPLEMENT EROSION AND SEDIMENT CONTROLS (8" FILTER LOG) AS INDICATED ON THE PLAN SHEETS PRIOR TO BEGINNING WORK. FILTER LOG SHALL BE INSTALLED PER DETAIL DE-ESC-3.1.7 OF THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK.
4. BEGIN INSTALLATION OF THE UNDERGROUND GAS LINE. A DRILL PIT IS LOCATED ON EITHER SIDE OF THE BORE. AS THE BORE IS COMPLETED, ANY DISTURBED AREA IS TO BE STABILIZED. IF A FRAC-OUT OCCURS DURING DRILLING ACTIVITIES, THE FRAC-OUT CONTINGENCY PLAN SHALL BE FOLLOWED. ALL IN-PLACE SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ON A CONTINUING BASIS UNTIL THE SITE IS PERMANENTLY STABILIZED. THE CONTRACTOR MAY NEED TO ADJUST OR REPAIR MEASURES AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR.
5. ALL EXCESS SOILS ARE TO BE HAULED TO A SITE WITH AN APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
6. WITH WRITTEN PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE EROSION AND SEDIMENT CONTROLS. STABILIZE ANY REDISTURBED AREAS.

WILLIAM R CARPENTER
LICENSE
No. 20486
DELAWARE
PROFESSIONAL ENGINEER
4/7/2026

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REVISIONS

DELMARVA POWER & LIGHT CO.
AN EXELON COMPANY

NEW CASTLE COUNTY, DELAWARE

ES-N1

MILL CREEK GAS
LINE REPLACEMENT

SCALE: NOT TO SCALE	DWG. 2 OF 14
DESIGNED: OMS	PHWR#:
DRAWN: OMS	CKT#:
CHECKED: JJK	MT#: 10035-079

3/3/2026
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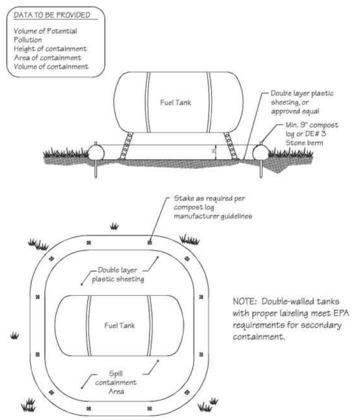
Standard Detail & Specifications
Fueling & Spill Control



Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.6.4 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications
Fueling & Spill Control

Pollution Prevention – Fueling & Spill Control

1. Fueling should only take place in signed designated areas, away from downstream drainage facilities and watercourses.
2. Fueling must be with nozzles equipped with automatic shut-off to control drips. Do not top off.
3. Protect the areas where equipment or vehicles are being repaired, maintained, fueled or parked from storm water run-on and runoff.
4. Use barriers such as berms to prevent storm water run-on and runoff, and to contain spills.
5. Place a "Fueling Area" sign next to each fueling area.
6. Store hazardous materials such as fuel, solvents, oil and chemicals in secondary containment.
7. Inspect vehicles and equipment for leaks on each day of use. Repair fluid and oil leaks immediately.
8. Absorbent spill clean-up materials and spill kits must be available in fueling areas and on fuel trucks.
9. If fueling is to take place at night, make sure the fueling area is sufficiently illuminated.
10. Properly dispose of used oil, fluids, lubricants and spill clean-up materials.

CLEAN UP SPILLS

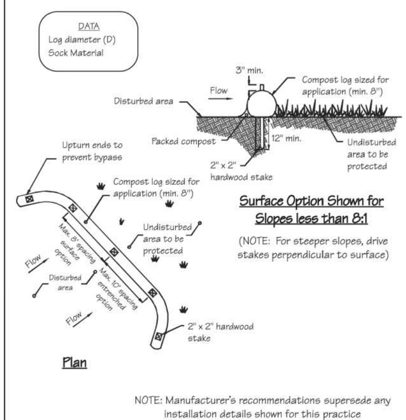
1. If it is safe to do so, immediately contain and clean up any chemical and/or hazardous material spills.
2. Properly dispose of used oil, fluids, lubricants and spill clean-up materials.
3. Do not bury spills or wash them down with water.

LEAKS AND DRIPS

1. Use drip pans or absorbent pads at all times. Place under and around leaky equipment.
2. Do not allow oil, grease, fuel or chemicals to drip onto the ground.
3. Have spill kits and clean up material on-site.
4. Repair leaky equipment promptly or remove problem vehicles and equipment from the site. Clean up contaminated soil immediately.
5. Store contaminated waste in sealed containers constructed of suitable material. Label these containers properly.
6. Clean up all spills and leaks. Promptly dispose of waste and spent clean up materials.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.6.4 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications
Compost Filter Log



Source:	Symbol:	Detail No.
Adapted from MD Stds & Specs for ESC & Filtrexx™ International	—— CFL ——	DE-ESC-3.1.7 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications
Compost Filter Log

Construction Notes:

1. Prior to installation, clear bedding area of obstructions including rocks or debris larger than 1 inch and fill in any sharp depression areas.
2. If socks are prepared on-site, fill the sock fabric using a pneumatic blower so that the logs are rigid and do not deform. Terminate at the desired length.
3. For trenched applications, excavate 2 to 4 inches below grade along the width and length of the compost filter log.
4. Install the compost filter logs perpendicular to the flow direction and parallel to the slope with the beginning and end of the installation pointing up the slope a minimum of 1 foot elevation difference. On sites where this is not possible, upturn at a minimum length of 10' at a 30 degree angle to prevent runoff bypass.
5. For untrenched applications, blow or hand pack soil, mulch, or compost on the upslope side of the log, filling the bottom void area.
6. Stake the filled log every 10 feet maximum through the center of the sock for trenched applications, or every 8 feet for untrenched. The stake shall be a 2" by 2" hardwood. It should extend 12" below grade and protrude at least 3" above the top of the sock. If located on a slope greater than 8:1, the stake shall be angled downslope at a 45 degree angle to prevent the force of the water from dislodging to log.
7. When the length of the compost filter log needed exceeds the available compost filter sock length, the next sock shall be overlapped a minimum of 12" before being filled, and a stake placed through both socks at the overlap.
8. Remove accumulated sediment when it has reached half of the effective height of the log.
9. Inspect weekly and after rain event. If sock is degrading or the sock is failing, vegetate to secure the compost, replace the log, or reinforce with an additional log. If the log has been crushed due to construction equipment, it can be "fluffed" back to its effective height. If the effective height can no longer be restored, the log shall be replaced or reinforced with an additional compost filter log.

Source:	Symbol:	Detail No.
Adapted from MD Stds & Specs for ESC & Filtrexx™ International	—— CFL ——	DE-ESC-3.1.7 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications
Mulching

1. **Materials and Amounts**
   a. *Straw* - Straw shall be unrotted small grain straw applied at the rate of 1-1/2 to 2 tons per acre, or 70 to 90 pounds (two bales) per 1,000 square feet. Mulch materials shall be relatively free of weeds and shall be free of noxious weeds such as; thistles, Johnsongrass, and quackgrass. Spread mulch uniformly by hand or mechanically. For uniform distribution of hand spread mulch, divide area into approximately 1,000 square feet sections and place 70-90 pounds (two bales) of mulch in each section.

   b. *Wood chips* - Apply at the rate of approximately 6 tons per acre or 275 pounds per 1,000 square feet when available and when feasible. These are particularly well suited for utility and road rights-of-way. If wood chips are used, increase the application rate of nitrogen fertilizer by 20 pounds of N per acre (200 pounds of 10-10-10 or 66 pounds of 30-0-0 per acre).

   c. *Hydraulically applied mulch* -The following conditions apply to hydraulically applied mulch:
      i. Definitions:
         a. Wood fiber mulch shall consist of specially prepared wood that has been processed to a uniform state, is packaged for sale as a hydraulic mulch for use with hydraulic seeding equipment, and consists of a minimum of 70% virgin or recycled wood fiber combined with 30% paper fiber and additives.
         b. Blended fiber mulch shall consist of any hydraulic mulch that contains greater than 30% paper fiber. The paper component must consist of specially prepared paper that has been processed to a uniform fibrous state and is packaged for sale as a hydraulic mulch for use with hydraulic seeding equipment.
         c. A bonded fiber matrix (BFM) consists of long strand, specially prepared wood fibers that have been processed to a uniform state held together by a water resistant bonding agent. BFMs shall contain no paper (cellulose) mulch but may contain small percentages of synthetic fibers to enhance performance.
         d. Refer to **Figure 3.4.5a** for conditions and limitations of use for each of the above categories of hydraulic mulch.
      ii. All components of the hydraulically applied mulches shall be pre-packaged by the manufacturer to assure material performance. Field mixing of the mulch components is acceptable, but must be done per manufacturers recommendations to ensure the proper results.
      iii. Hydraulic mulches shall be applied with a viable seed and at manufacturer's recommended rates. Increased rates may be necessary based on site conditions.
      iv. Hydraulically applied mulches and additives shall be mixed according to manufacturers recommendations.
      iv. Materials within this category shall only be used when hydraulically applied mulch has been specified for use on the approved Sediment and Stormwater Plan, or supplemental approval from the plan approval agency has been obtained in writing for a specific area.

Source:	Symbol:	Detail No.
Delaware ESC Handbook & Filtrexx™ International		DE-ESC-3.4.5 Sheet 1 of 3 Effective July 2023

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REVISIONS

DELMARVA POWER & LIGHT CO.
AN EXELON COMPANY
NEW CASTLE COUNTY, DELAWARE
ES-D1
MILL CREEK GAS LINE REPLACEMENT

SCALE: NOT TO SCALE		DWG. 3 OF 14	
DESIGNED: OMS		PH WR#:	
DRAWN: OMS		CKT#:	
CHECKED: JJK		MT#:	10035-079

3/3/2026
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Standard Detail & Specifications
Mulching

v. Application:
   a. Apply product to geotechnically stable slopes that have been designed and constructed to divert runoff away from the face of the slope.
   b. Do not apply to saturated soils, or if precipitation is anticipated within 24-48 hours.
   c. During the spring (March 1 to May 31) and fall (September 1 to November 30) seasons, hydraulic mulches may be applied in a one-step process where all components are mixed together in single-tank loads. It is recommended that the product be applied from opposing directions to achieve optimum soil coverage.
   d. During the summer (June 1 to August 31) and winter (December 1 to February 28) seasons, the following two-step process is required:
      Step One– Mix and apply seed and soil amendments with a small amount of mulch for visual metering.
      Step Two – Mix and apply mulch at manufacturers recommended rates over freshly seeded surfaces. Apply from opposing directions to achieve optimum soil coverage.
   e. Minimum curing temperature is 40° F (4° C). The best results and more rapid curing are achieved at temperatures exceeding 60° F (15° C). Curing times may be accelerated in high temperature, low humidity conditions on dry soils.

vi. Recommended application rates are for informational purposes only. Conformance with this standard and specification shall be performance-based and requires **100% soil coverage.** Any areas with bare soil showing shall be top dressed until full coverage is achieved.

d. *Compost blanket (CB)* - Loosely applied with a pneumatic blower so that a 1" compost blanket uniformly covers the **soil with 100% coverage.** This application can be used with seed to promote germination by applying the approved seed mix directly into the loosely blown compost. The compost blanket performs best on slopes less than 2:1 and requires no mulch anchoring.

2. **Anchoring mulch** - Mulch must be anchored immediately to minimize loss by wind or water. This may be done by one of the following methods, depending upon size of area, erosion hazard, and cost.
   a. *Crimping* - A crimper is a tractor drawn implement designed to punch and anchor mulch into the top two (2) inches of soil. This practice affords maximum erosion control but is limited to flatter slopes where equipment can operate safely. On sloping land, crimping should be done on the contour whenever possible.
   b. *Tracking* - Tracking is the process of cutting mulch (usually straw) into the soil using a bulldozer or other equipment that runs on cleated tracks. Tracking is used primarily on slopes 3:1 or steeper and should be done up and down the slope with cleat marks running across the slope.
   c. *Liquid mulch binders* - Applications of liquid mulch binders should be heavier at edges, in valleys, and at crests of banks and other areas where the mulch will be moved by wind or water. All other areas should have a uniform application of binder. The use of synthetic binders is the preferred method of mulch binding and should be applied at the rates recommended by the manufacturer.
   d. *Paper fiber* - The fiber binder shall be applied at a net dry weight of 750 lbs/ac. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons.
   e. *Nettings* - Biodegradable nettings may be used to secure straw mulch. Install and secure according to the manufacturer's recommendations. Photodegradable or synthetic nettings are not acceptable.

Source:	Symbol:	Detail No.
Delaware ESC Handbook & Filtrexx™ International		**DE-ESC-3.4.5** Sheet 2 of 3 Effective July 2023

Standard Detail & Specifications
Mulching

MULCHING MATERIAL SELECTION GUIDE

Percent Slope	Type of Mulch / App. Rate*	Dec. 1 to Feb. 28(29)	March 1 to May 31	June 1 to Aug. 31	Sept. 1 to Nov. 30
Less than 2%	Blended Fiber @ 2000 lbs/ac. minimum	xxxxxxxxxxxxxxxxx	OK (≤ 1 ac.)	xxxxxxxxxxxxxxxxx	OK (≤ 1 ac.)
	Wood Fiber @ 2000 lbs/ac. min.	xxxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxxx	OK
	BFM @ 3000 lbs/ac. min.	OK	OK	OK	OK
	Straw @ 2 Tons/ac. Min.	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	OK	OK	OK	OK
2% to 5.9%	Wood Fiber @ 2000 lbs/ac. min.	xxxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxxx	OK
	BFM @ 3000-3500 lbs/ac. min	OK	OK	OK	OK
	Straw @ 2 Tons/ac. min.	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	OK	OK	OK	OK
6% to 10.9%	Wood Fiber @ 2000-2500 lbs/ac. min.	xxxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxxx	OK
	BFM @ 3500-4000 lbs/ac. min.	OK	OK	OK	OK
	Straw @ 2 Tons/ac. min.	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	OK	OK	OK	OK
11% to 24.9%	Wood Fiber @ 2500-3000 lbs/ac. min.	xxxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxxx	OK
	BFM @ 3500-4000 lbs/ac. min.	OK	OK	OK	OK
	Straw @ 2 Tons/ac. min.	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	OK	OK	OK	OK
25% to 33%	Wood Fiber @ 2500-3000 lbs/ac. min.	xxxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxxx	OK
	BFM @ 4000 lbs/ac. min.	xxxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxxx	OK
	Straw @ 2 Tons/ac. min.	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	OK	OK	OK	OK
33% and up	BFM @ 4000-4500 lbs/ac. min.	xxxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxxx	OK
	Straw @ 2 Tons/ac. min.***	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	2:1 Max.	2:1 Max.	2:1 Max.	2:1 Max.

* Note: Manufacturers Recommended Rates for informational purposes only. Performance standard requires 100% soil coverage.
** Note: Stabilization Matting must be applied in accordance with Section 3.4.6 of the Delaware ESC Handbook.
***Note: Straw applied on slopes greater than 33% must be netted (this does not apply to topsoil stockpiles).
OK = Acceptable to use during this time period.
xx = Not acceptable to use during this time period.
All application rates are minimums

Source:	Symbol:	Detail No.
Delaware ESC Handbook & Filtrexx™ International		**DE-ESC-3.4.5** Sheet 3 of 3 Effective July 2023

Standard Detail & Specifications
Vegetative Stabilization

TEMPORARY SEEDING BY RATES, DEPTHS AND DATES

Mix #	Species[5]	Seeding Rate		Optimum Seeding Dates[1] O = Optimum Planting Period; A = Acceptable Planting Period							Planting Depth[3]
				Coastal Plain			Piedmont			All	
	Certified Seed	lb/Ac[4]	lb/1000 sq.ft.	2/1-4/30	[2] 5/1-8/14	8/15-10/31	3/1-4/30	[2] 5/1-7/31	8/1-10/31	10/31-2/1	
1	Barley	125	4	O	A	O	O	A	O		1-2 inches 2-3" sandy soils
2	Oats	125	4	O	A	A	O	A	A		1-2 inches 2-3" sandy soils
3	Rye	125	4	O	A	O	O	A	O	A	1-2 inches 2-3" sandy soils
4	Perennial Ryegrass	125	4	O	A	O	O	A	O		0.5 inches 1-2" sandy soils
5	Annual Ryegrass	125	4	O	A	O	O	A	O	A	0.5 inches 1-2" sandy soils
6	Winter Wheat	125	4	O	A	O	O	A	O	A	1-2 inches 2-3" sandy soils
7	Foxtail Millet	30 PLS	0.7		O			O			0.5 inches 1-2" sandy soils
8	Pearl Millet	20 PLS	0.5		O			O			0.5 inches 1-2" sandy soils

1. Winter seeding requires 3 tons per acre of straw mulch for proper stabilization.
2. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3. Applicable on slopes 3:1 or less.
4. Use varieties currently recommended for Delaware. Contact a County Extension Office for information.
5. Warm season grasses such as Millet may be used between 5/1 and 9/1 if desired. Seed at 3-5 lbs. per acre. Good on low fertility and acid areas. Seed after frost through summer at a depth of 0.5".

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		**DE-ESC-3.4.3** Sheet 1 of 4 Effective July 2023

Standard Detail & Specifications
Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES

Seeding Mixtures		Seeding Rate[1]		Optimum Seeding Dates[2] O = Optimum Planting Period A = Acceptable Planting Period							Remarks
Mix No.	Certified Seed[3]			Coastal Plain			Piedmont			All[4]	
	Well Drained Soils	lb/Ac	lb/1000 sq.ft.	2/1-4/30	5/1-8/14	8/15-10/31	3/1-4/30	5/1-7/31	8/1-10/31	10/31-2/1	
1	Tall Fescue Canada Wild Rye	140 10	3.2 0.23	A	O	A	A	O	A	Add 100 lbs./ac Winter Rye	Good erosion control mix Tolerant of low fertility soils Good for droughty sites
2	Deertongue Sheep Fescue White Clover	30 30 10	0.69 0.69 0.35	A	O	A	A	O	A	Add 100 lbs./ac Winter Rye	Good erosion control mix Tolerant of low fertility soils Legume that fixes atmospheric N into soil
3	Tall Fescue (Turf-type) **or** Strong Creeping Red Fescue **or** Perennial Ryegrass **plus** Flatpea[5]	50 50 50 15	1.15 1.15 1.15 0.34	O	A[4]	O	O	A[4]	O	Add 100 lbs./ac. Winter Rye	Good erosion control mix Tall Fescue for droughty conditions. Creeping Red Fescue for heavy shade. Flatpea to suppress woody vegetation.
4	Strong Creeping Red Fescue Kentucky Bluegrass Perennial Ryegrass **or** Redtop **plus** White Clover[5]	100 70 15 5 3	2.3 1.61 0.35 0.11 0.07	O	A[4]	O	O	A[4]	O	Add 100 lbs./ac. Winter Rye	Suitable waterway mix. Canada Bluegrass more drought tolerant. Use Redtop for increased drought tolerance.
5	Switchgrass[6,7] **or** Coastal Panicgrass Big Bluestem Little Bluestem Indian Grass	10 10 5 5 5	0.23 0.23 0.11 0.11 0.1		O			O			Native warm-season mixture. Tolerant of low fertility soils. Drought tolerant. Poor shade tolerance. N fertilizer discouraged - weeds
6	Tall Fescue (turf-type) (Blend of 3 cultivars)	150	3.5	O	A[4]	O	O	A[4]	O		Managed filter strip for nutrient uptake.
7	Tall Fescue Ky. Bluegrass (Blend) Perennial Ryegrass	150 20 20	3.5 0.46 0.46	O	A[4]	O	O	A[4]	O		Three cultivars of Kentucky Bluegrass. Traffic tolerant.
8	Big Bluestem[7] Indian Grass[7] Little Bluestem[7] Creeping Red Fescue **plus one of:** Partridge Pea Bush Clover Wild Indigo Showy Tick-Trefoil	10 10 8 30 5 3 3 2	0.23 0.23 0.18 0.69 0.11 0.07 0.07 0.05	O	A[4]		O	A[4]			All species are native. Indian Grass and Bluestem have fluffy seeds. Plant with a specialized native seed drill. Creeping Red Fescue will provide erosion protection while the warm season grasses get established.

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		**DE-ESC-3.4.3** Sheet 2 of 4 Effective July 2023

Standard Detail & Specifications
Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES (cont.)

Seeding Mixtures		Seeding Rate[1]		Optimum Seeding Dates[2] O = Optimum Planting Period A = Acceptable Planting Period							Remarks
Mix No.	Certified Seed[3]			Coastal Plain			Piedmont			All[4]	
	Poorly Drained Soils	lb/Ac	lb/1000 sq.ft.	2/1-4/30	5/1-8/14	8/15-10/31	3/1-4/30	5/1-7/31	8/1-10/31	10/31-2/1	
9	Redtop Creeping Bentgrass Sheep Fescue Rough Bluegrass	75 35 30 45	1.72 0.8 0.69 1	O	A[4]	O	O	A[4]	O	Add 100 lbs./ac. Winter Rye	Quick stabilization of disturbed sites and waterways
10	Switchgrass[6]	10	0.23	A		O	A		O		Good erosion control, wildlife cover and wetland revegetation.
	Residential Lawns										
11	Tall Fescue Perennial Ryegrass Kentucky Bluegrass Blend	100 25 30	2.3 0.57 0.69	O	A[4]	O	O	A[4]	O		High value, high maintenance, light traffic, irrigation necessary. Well drained soils, full sun.
12	Tall Fescue Perennial Ryegrass Sheep Fescue	100 25 25	2.3 0.57 0.57	O	A[4]	O	O	A[4]	O		Moderate value, low maintenance, traffic tolerant
13	Creeping Red Fescue Chewings Fescue Rough Bluegrass Kentucky Bluegrass	50 50 20 20	1.15 1.15 0.4 0.4	O	A[4]	O	O	A[4]	O		Shade tolerant, moderate traffic tolerance, moderate maintenance.
14	Creeping Red Fescue Rough Bluegrass **or** Chewings Fescue	50 90	1.15 2.1	O	A[4]	O	O	A[4]	O		Shade tolerant, moisture tolerant.
15	K-31 Tall Fescue	150	3.5	O	A[4]	O	O	A[4]	O		Monoculture, but performs well alone in lawns. Discouraged.

1. When hydroseeding is the chosen method of application, the total rate of seed should be increased by 25%.
2. Winter seeding requires 3 tons per acre of straw mulch. Planting dates listed above are average for Delaware. These dates may require adjustment to reflect local conditions.
3. All seed shall meet the minimum purity and minimum germination percentages recommended by the Delaware Department of Agriculture. The maximum % of weed seeds shall be in accordance with Chapter 15, Title 3 of the Delaware Code.
4. Turf-type species may be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
5. It is recommended that all leguminous seed be inoculated.
6. Warm season grass mix and Switchgrass cannot be mowed more than 4 times per year.
7. Warm season grasses require a soil temperature of at least 50 degrees in order to germinate and will remain dormant until then.

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		**DE-ESC-3.4.3** Sheet 3 of 4 Effective July 2023

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Philadelphia, PA 19103

REVISIONS

DELMARVA POWER & LIGHT CO.
AN EXELON COMPANY
NEW CASTLE COUNTY, DELAWARE
ES-D2
MILL CREEK GAS
LINE REPLACEMENT

SCALE: NOT TO SCALE	DWG. 4 OF 14
DESIGNED: OMS	PHI WR#:
DRAWN: OMS	CKT#:
CHECKED: JJK	MT#: 10035-079

3/3/2026
pw:\\mt-pw.bentley.com:mt-pw-01\Documents\Projects\Energy\Exelon\DPL\10035-071_Foulk_Road_Gas_Line\300_CADD_User_Working_Files\OMS\pES-D003.dgn

Standard Detail & Specifications

Vegetative Stabilization

Construction Notes:

1. Site Preparation
   a. Prior to seeding, install needed erosion and sediment control practices such as diversions, grade stabilization structures, berms, dikes, grassed waterways, and sediment basins.
   b. Final grading and shaping is not necessary for temporary seedings.
2. Seedbed Preparation

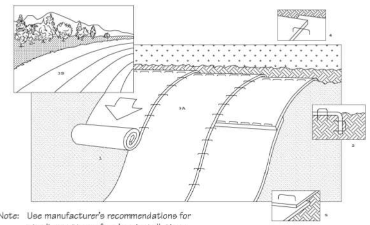
   It is important to prepare a good seedbed to ensure the success of establishing vegetation. The seedbed should be well prepared, loose, uniform, and free of large clods, rocks, and other objectionable material. The soil surface should not be compacted or crusted.
3. Soil Amendments
   a. Lime - Apply liming materials based on the recommendations of a **soil test** in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply dolomitic limestone at the rate of 1 to 2 tons per acre. Apply limestone uniformly and incorporate into the top 4 to 6 inches of soil.
   b. Fertilizer - Apply fertilizer based on the recommendations of a **soil test** in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply a formulation of 10-10-10 at the rate of 600 pounds per acre. Apply fertilizer uniformly and incorporate into the top 4 to 6 inches of soils.
4. Seeding
   a. For **temporary stabilization**, select a mixture from **Sheet 1**. For a **permanent stabilization**, select a mixture from **Sheet 2** or **Sheet 3** depending on the conditions. Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.
   b. Apply seed uniformly with a broadcast seeder, drill, cultipacker seeder or hydroseeder. All seed will be applied at the recommended rate and planting depth.
   c. Seed that has been broadcast should be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used and the seed and fertilizer is mixed, they will be mixed on site and the seeding shall be done immediately and without interruption.
5. Mulching

   All mulching shall be done in accordance with detail **DE-ESC-3.4.5**.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		**DE-ESC-3.4.3** Sheet 4 of 4 Effective July 2023

Standard Detail & Specifications

Stabilization Matting - Slope



Note: Use manufacturer's recommendations for stapling patterns for slope installations.

Perspective

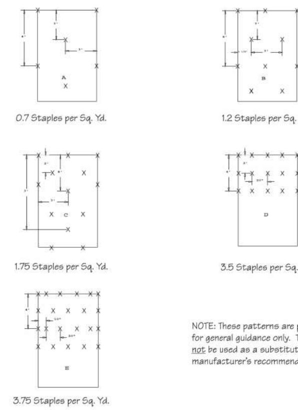
Construction Notes:

1. Prepare soil before installing matting, including application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the mat in a 6" deep X 6" wide trench. Backfill and compact trench after stapling.
3. Roll the mats (A) down or (B) horizontally across the slope.
4. The edges of parralel mats must be stapled with approx. 2" overlap.
5. When mats must be spliced down the slope, place mats end over end (shingle style) with approx. 4" overlap. Staple through overlapped area, approx. 12" apart.

Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	SM-S	**DE-ESC-3.4.6.1** Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Stabilization Matting - Slope



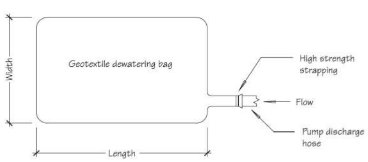
NOTE: These patterns are provided for general guidance only. They shall not be used as a substitute for manufacturer's recommendations.

Stapling Patterns

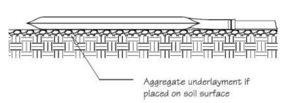
Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	SM-S	**DE-ESC-3.4.6.1** Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Geotextile Dewatering Bag



Plan



Profile

NOTE: Pre-manufactured products installed in accordance with manufacturer's recommendations may be used as an equivalent substitute with Departmental approval.

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	GB	**DE-ESC-3.2.1.2** Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Geotextile Dewatering Bag

Construction Notes:

1. The dewatering bag should be placed so the incoming water flows into and through the bag, and then flow off the site without creating more erosion. The neck should be tied off tightly to stop the water from flowing out of the bag without going through the walls. The dewatering bag should be placed on a gravel bed to allow water to flow in all directions.
2. The dewatering bag is considered full and should be disposed when it is impractical for the bag to filter the sediment out at a reasonable flow rate. At this point, it should be replaced with a new bag.
3. Disposal may be accomplished as directed by the construction reviewer. If the site allows, the bag may be buried on site and seeded, visible fabric removed and seeded or removed from site to a proper disposal area.

Materials:

1. The geotextile fabric shall be a Type GD-IV.
2. The dewatering bag shall be sewn with a double needle machine using high strength thread. All structural seams will be sewn with high strength, double stitched "J" type. Seam strength test will have the following minimum average roll values:

Type	TEST METHOD	TEST RESULT
Heavy duty	ASTM D-4884	100 lb / in

3. The dewatering bag shall have an opening large enough to accommodate a four (4) inch discharge hose with attached strap to tie off the hose to prevent the pumped water from escaping from the bag without being filtered.

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	GB	**DE-ESC-3.2.1.2** Sheet 2 of 2 Effective July 2023

WILLIAM R. CARPENTER LICENSE No. 20486 DELAWARE PROFESSIONAL ENGINEER 4/7/2026

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REVISIONS

DELMARVA POWER & LIGHT CO.
AN EXELON COMPANY

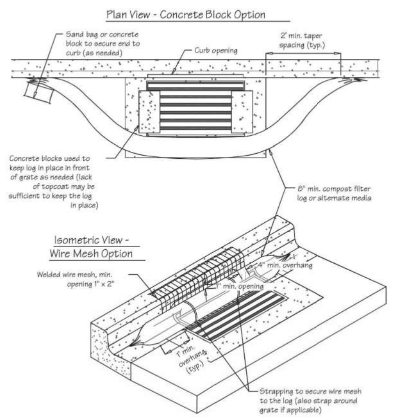
NEW CASTLE COUNTY, DELAWARE

ES-D3

MILL CREEK GAS LINE REPLACEMENT

SCALE: NOT TO SCALE	DWG. 5 OF 14
DESIGNED: OMS	PHI WR#:
DRAWN: OMS	CKT#:
CHECKED: JJK	MT#: 10035-079

Standard Detail & Specifications
Inlet Protection - Type 3



Source:	Symbol:	Detail No.
Adapted from Filtrexx[TM] International	IP-3	DE-ESC-3.1.5.3 Sheet 1 of 3 Effective July 2023

Standard Detail & Specifications
Inlet Protection - Type 3

Notes:

1. This practice shall only be used in situations in which Inlet Protection – Type 1 cannot be used due to site constraints. These include, but are not limited to partially complete parking areas, streets, roads, etc., having a throat or curb opening. It should be used in conjunction with Type 2 Inlet Protection when a grate is also present.
2. The filter log sock fabric shall be high durability netting material to resist puncture and wear in the traffic areas. If compost media is used to fill the sock it must meet the Standards and Specifications for Compost Material in the Appendix, except that the maximum pass through for a 3/8" screen shall be 20% to allow for higher flow through. Additives, such as soluble phosphorus and petroleum hydrocarbons, can be mixed with the compost media to aid in pollutant removal, if desired. Reference the Compost Filter Log design guidelines for additional requirements on the high durability netting material, compost media, and sock filling and installation procedures. Reference the design alternatives below for additional log media options.
3. The maximum contributing drainage area shall be 3 acres, or as recommended by the manufacturer. 8" diameter socks shall be used for standard roadway applications. If in a highly disturbed area, the Engineer or Site Reviewer may opt for larger socks, either 12" or 18" depending on the need. (If used as a replacement for Type 1 Inlet Protection with special approval, minimum 12" diameter socks shall be used.) The top of the log may need to be flattened so that it is always below the top of curb elevation with a minimum 1" opening in order to prevent localized flooding.
4. Concrete blocks shall be used to aid in the log shape and prevent it from entering into the throat. They should be placed between the log and the throat opening, and used to secure the ends of the log against the curb if needed. The end of the log shall extend a minimum of 2 feet past the end of the throat opening. If a grate is also present in addition to the throat opening, the concrete blocks can either be laid perpendicular to the curb (recommended) so that the log lies on the outside of the grate, or parallel to the curb so that the log lies on top of the grate (note, Type 2 Inlet Protection is also used in conjunction with Type 3 if a grate is present). Sand bags can be used as an alternate to the concrete blocks at the end of the log to secure the log against the curb.

Source:	Symbol:	Detail No.
Adapted from Filtrexx[TM] International	IP-3	DE-ESC-3.1.5.3 Sheet 2 of 3 Effective July 2023

Standard Detail & Specifications
Inlet Protection - Type 3

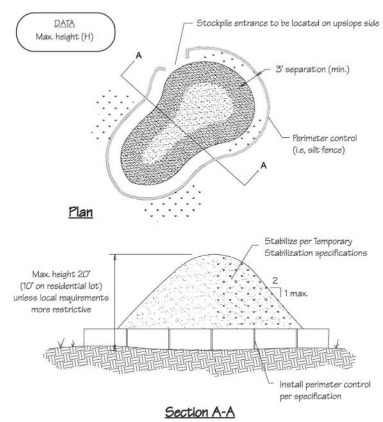
5. If concrete blocks are not desired due to high traffic volumes, a welded wire screen in an "S" shape can be fitted over the length of the opening and secured to the log with straps, such as zip-ties. This will prevent the sock from falling into the opening. In this case, the log only needs to extend past the curb opening a minimum of 1 foot.
6. In all cases, the log shall provide a physical barrier to the catchbasin to allow for ponding and sedimentation along the upstream side of the log. The logs shall be placed on flat surfaces and maintain constant contact with the paved surface. Any daylight will allow for untreated discharge and is not permitted.
7. All structures must be inspected frequently (24 hours after a storm event and weekly) for proper function. Accumulated sediment shall be removed to avoid future failure, and must not exceed half of the effective height of the log. Reference manufacturer's recommendations for additional maintenance.

Alternatives:

1. In lieu of the compost filter log, crushed DE #3 stone with a fractured face on all sides that is double wrapped in 1" chicken wire made from 10 gauge wire may be used. The wire should be secured using hog rings or wire ties on 6" centers along the length of the joint, and on 1" center on the ends of the rock sock. All installation and maintenance criteria are the same as the compost log above.
2. In lieu of the compost filter media, 100% shredded rubber (typically from tires) can be used.
3. For applications that have a grate and a throat inlet, some Type 2 Inlet Protection manufacturers have developed a catchbasin sack insert that also have a tubular attachment which rests above the grate and against the throat. As long as the sack meets the requirements of Type 2 Inlet Protection, and the provided throat protection extends a minimum of 1' past the limits of the curb opening, without any daylight along the edges, these combination Type 2 and Type 3 devices may be used upon approval of the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Adapted from Filtrexx[TM] International	IP-3	DE-ESC-3.1.5.3 Sheet 3 of 3 Effective July 2023

Standard Detail & Specifications
Soil Stockpile



Source:	Symbol:	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	SP	DE-ESC-3.7.3 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications
Soil Stockpile

Construction Notes:

1. Locate stockpiles so that they are 50 feet from any storm drain inlet, open channel, wetland or waterbody. Redirect any concentrated flow around the stockpile using an approved erosion and sediment control measure.
2. Secure the perimeter of the stockpile with an approved erosion and sediment control perimeter device.
3. If stockpile is to remain inactive for more than 14 calendar days, the stockpile must be vegetated. Follow the temporary vegetation specifications. The vegetation chosen shall last the duration of the stockpile; the stockpile shall be restabilized if the temporary vegetation dies or erosion results.

Source:	Symbol:	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	SP	DE-ESC-3.7.3 Sheet 2 of 2 Effective July 2023

WILLIAM R CARPENTER LICENSE No. 20486 DELAWARE PROFESSIONAL ENGINEER 4/7/2026

McCORMICK TAYLOR
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16th Floor
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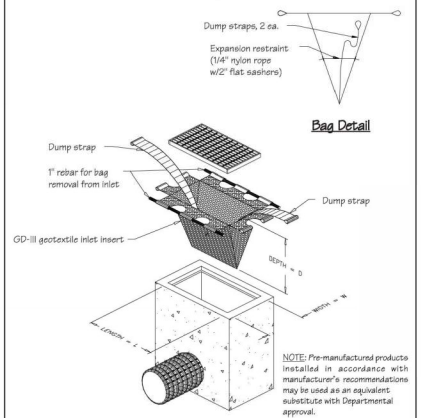
REVISIONS

DELMARVA POWER & LIGHT CO.
AN EXELON COMPANY
NEW CASTLE COUNTY, DELAWARE
ES-D4
MILL CREEK GAS
LINE REPLACEMENT

SCALE: NOT TO SCALE	DWG. 5 OF 14
DESIGNED: OMS	PHI WR#:
DRAWN: OMS	CKT#:
CHECKED: JJK	MT#: 10035-079

Standard Detail & Specifications

Inlet Protection - Type 2



Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	IP-2	DE-ESC-3.1.5.2 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Inlet Protection - Type 2

Notes:

1. This practice shall only be used in situations in which Inlet Protection - Type 1 cannot be used due to site constraints. These include, but are not limited to partially completed parking areas, streets, roads, etc.
2. It may be necessary to transition from Type 1 to Type 2 Inlet Protection as construction proceeds.
3. For areas where there is a concern for oil run-off or spills, insert shall meet one of the above specifications with an oil-absorbant pillow or shall be made completely from an oil-absorbant material with a woven pillow.

Materials:

The geotextile inlet insert shall meet or exceed the specifications of Type GD-III geotextile in accordance with Appendix A-3 of the Delaware Erosion & Sediment Control Handbook.

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	IP-2	DE-ESC-3.1.5.2 Sheet 2 of 2 Effective July 2023

WILLIAM R CARPENTER III — LICENSE — No. 20486 — DELAWARE — PROFESSIONAL ENGINEER
4/7/2026

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Philadelphia, PA 19103

REVISIONS

DELMARVA POWER & LIGHT CO.
AN EXELON COMPANY
NEW CASTLE COUNTY, DELAWARE
ES-D5
MILL CREEK GAS LINE REPLACEMENT

SCALE: NOT TO SCALE	DWG. 6 OF 14
DESIGNED: OMS	PHASE*:
DRAWN: OMS	CKT*:
CHECKED: JJK	WT*: 10035-079

3/3/2026
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STANDARD SYMBOLS:

- LIMITS OF DISTURBANCE (LOD)
- LIMITS OF ACCESS (LOA)
- PROPOSED GAS LINE
- EXISTING UNDERGROUND GAS
- BORE PITS
- WETLAND PROTECTION MATTING
- EXISTING STRUCTURES
- EXISTING CONTOURS
- RAILROAD
- PROPERTY LIMITS

- T STATE TIDAL WETLAND CLASSIFICATIONS
- NM SOIL CLASSIFICATION
- SOIL BOUNDARY
- DELINEATED WETLANDS
- DELINEATED WATERCOURSES
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- FL-8
- STATE TIDAL WETLANDS
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE

SCALE: 1" = 50'

50 0 50 100 US Feet

SCALE: 1" = 50'

No proposed resource impacts on this plate.

McCORMICK TAYLOR
1818 Market Street
16th Floor
Philadelphia, PA 19103

WILLIAM R CARPENTER LICENSE No. 20486 DELAWARE PROFESSIONAL ENGINEER
4/7/2026

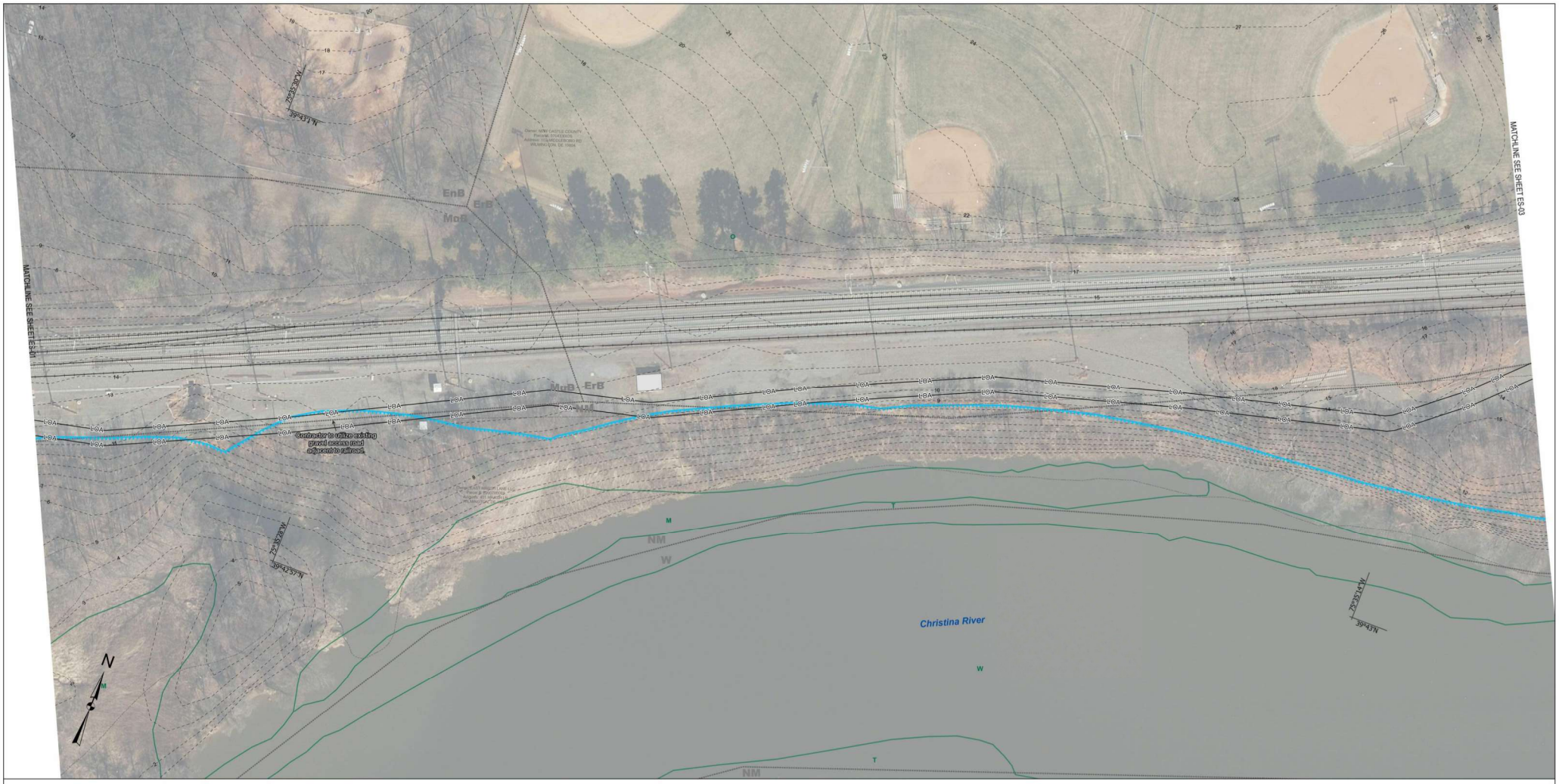
DELMARVA POWER & LIGHT CO.

AN EXELON COMPANY
EROSION AND SEDIMENT CONTROL PLAN SHEET
NEW CASTLE COUNTY, DELAWARE

ES-01

MILL CREEK GAS LINE REPLACEMENT

SCALE: 1" - 50'	DWG 8 OF 14
DESIGNED:	PHI WR#:
DRAWN:	CKT#:
CHECKED:	MT#: 10035.079



STANDARD SYMBOLS:

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SCALE: 1" = 50'

50 0 50 100 US Feet

SCALE: 1" = 50'

No proposed resource impacts on this plate.

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4/7/2026

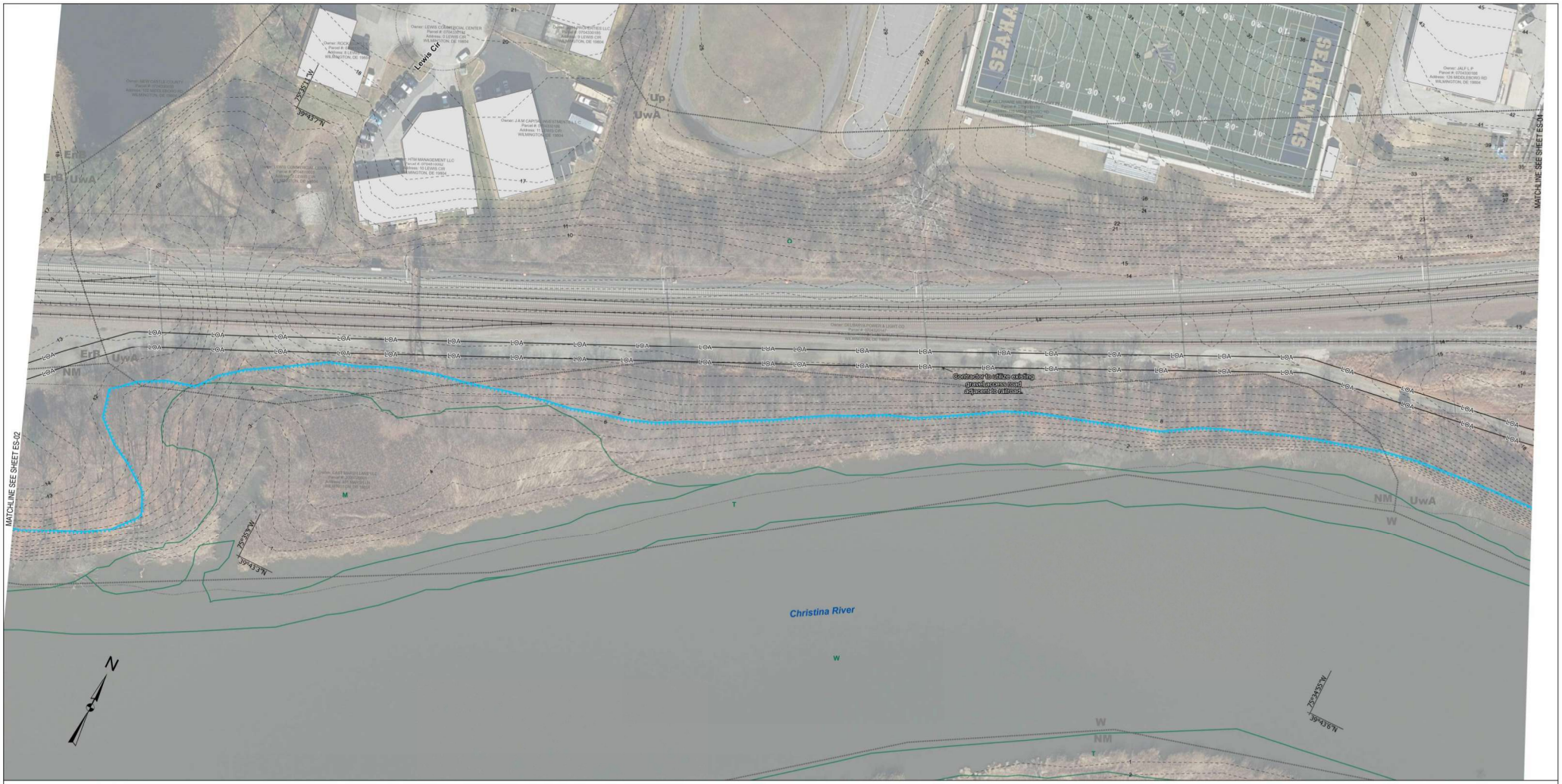
DELMARVA POWER & LIGHT CO.

AN EXELON COMPANY
EROSION AND SEDIMENT CONTROL PLAN SHEET
NEW CASTLE COUNTY, DELAWARE

ES-02

MILL CREEK GAS LINE REPLACEMENT

SCALE: 1" - 50'	DWG 9 OF 14
DESIGNED:	PHI WR#:
DRAWN:	CKT#:
CHECKED:	MT#: 10035.079



STANDARD SYMBOLS:

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SCALE: 1" = 50'

50 0 50 100 US Feet

SCALE: 1" = 50'

No proposed resource impacts on this plate.

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4/7/2026

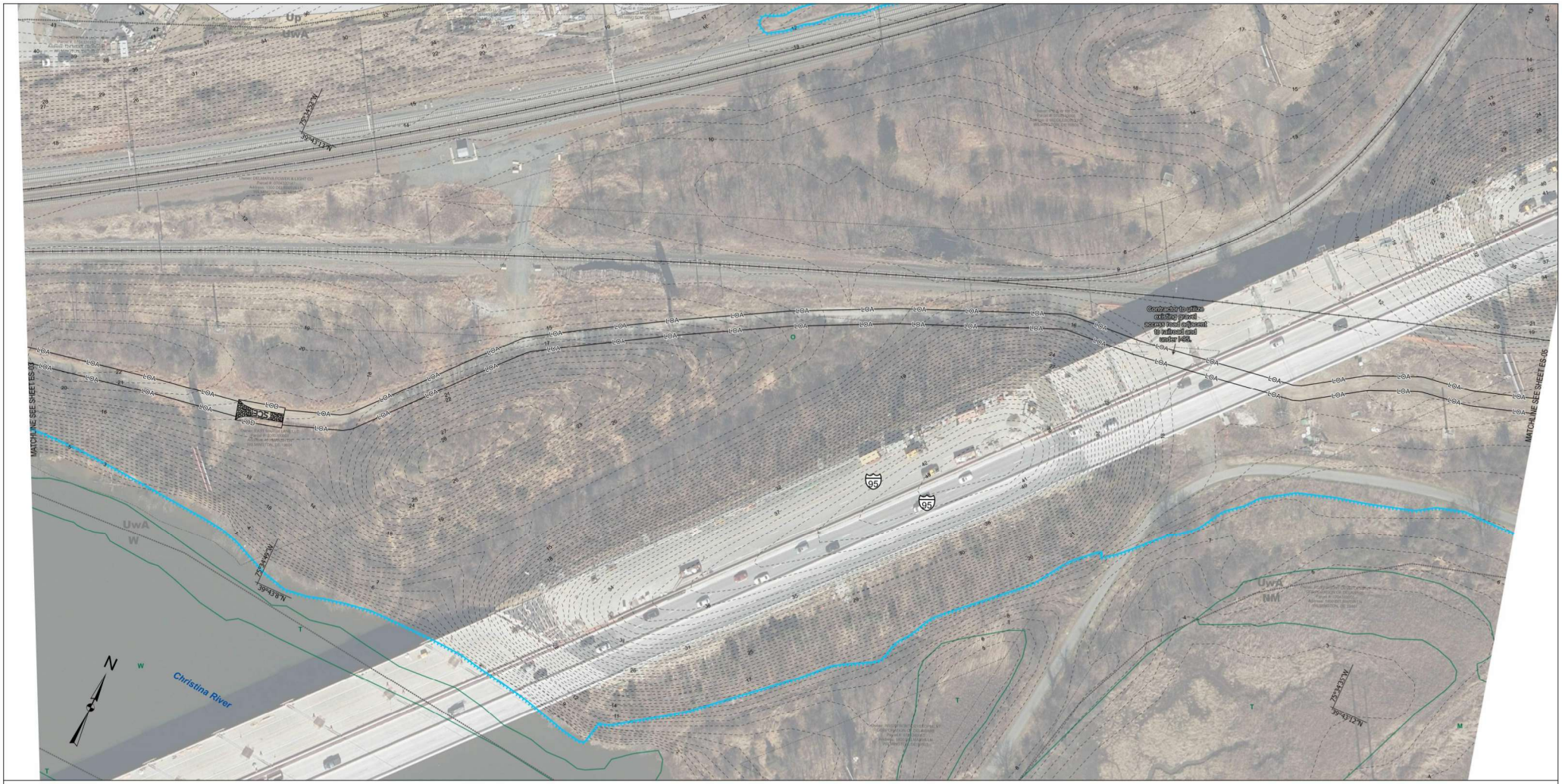
DELMARVA POWER & LIGHT CO.

AN EXELON COMPANY
EROSION AND SEDIMENT CONTROL PLAN SHEET
NEW CASTLE COUNTY, DELAWARE

ES-03

MILL CREEK GAS LINE REPLACEMENT

SCALE: 1" - 50'	DWG 10 OF 14
DESIGNED:	PHI WR#:
DRAWN:	CKT#:
CHECKED:	MT#: 10035.079



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SCALE: 1" = 50'

50 0 50 100 US Feet

SCALE: 1" = 50'

No proposed resource impacts on this plate.

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4/7/2026

DELMARVA POWER & LIGHT CO.

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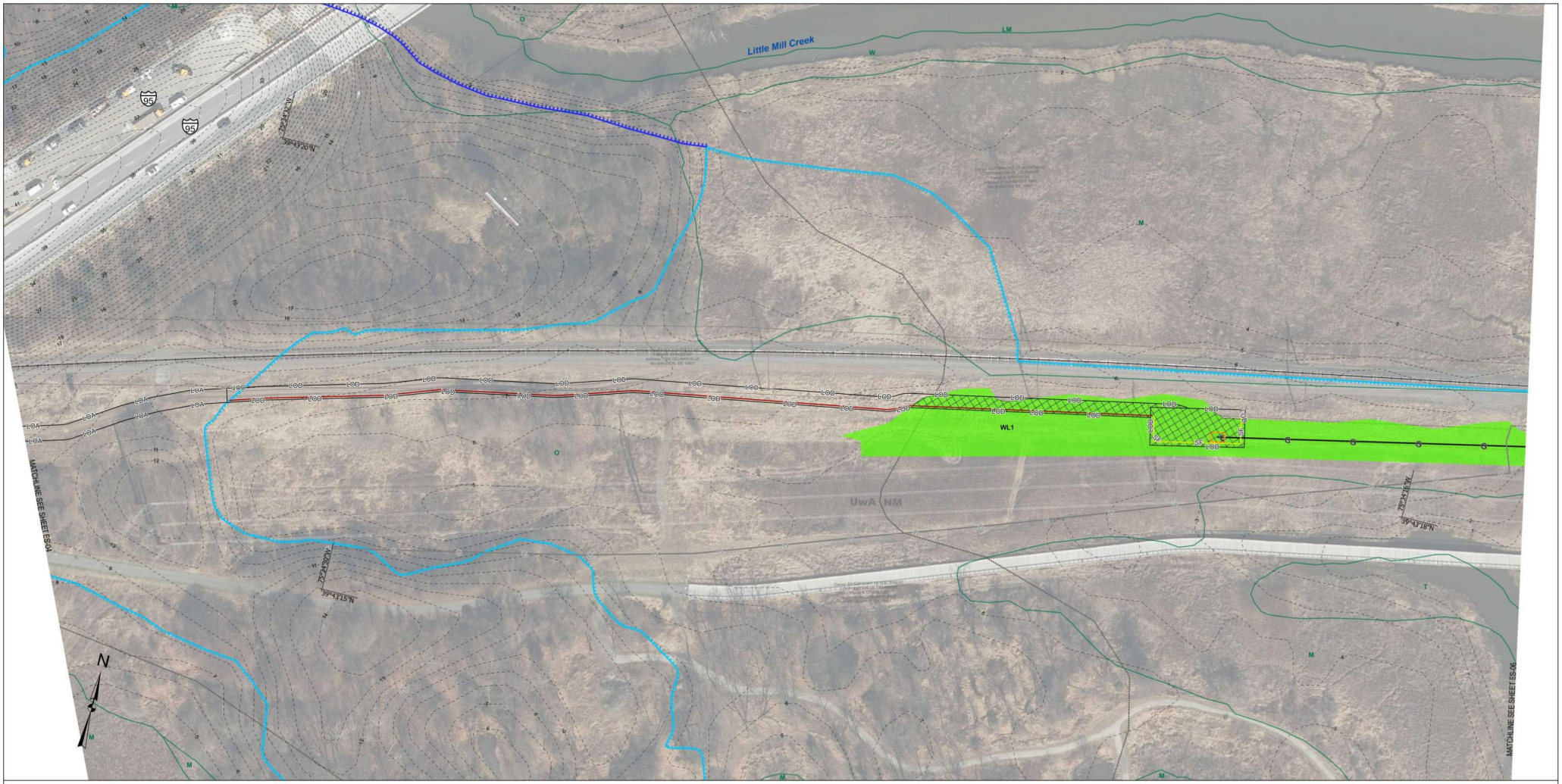
EROSION AND SEDIMENT CONTROL PLAN SHEET
NEW CASTLE COUNTY, DELAWARE

ES-04

MILL CREEK GAS LINE REPLACEMENT

SCALE: 1" - 50'	DWG 11 OF 14
DESIGNED:	PHI WR#:
DRAWN:	CKT#:
CHECKED:	MT#: 10035.079



STANDARD SYMBOLS:

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- STABILIZED CONSTRUCTION ENTRANCE

SCALE: 1" = 50'

50 0 50 100 US Feet

SCALE: 1" = 50'

Mill Creek Gas Line Replacement Impact Table

Plate Number	Name		Temporary Wetland Impacts	Temporary Floodplain Impacts
			SF	SF
5	WL1	PEM	150	150

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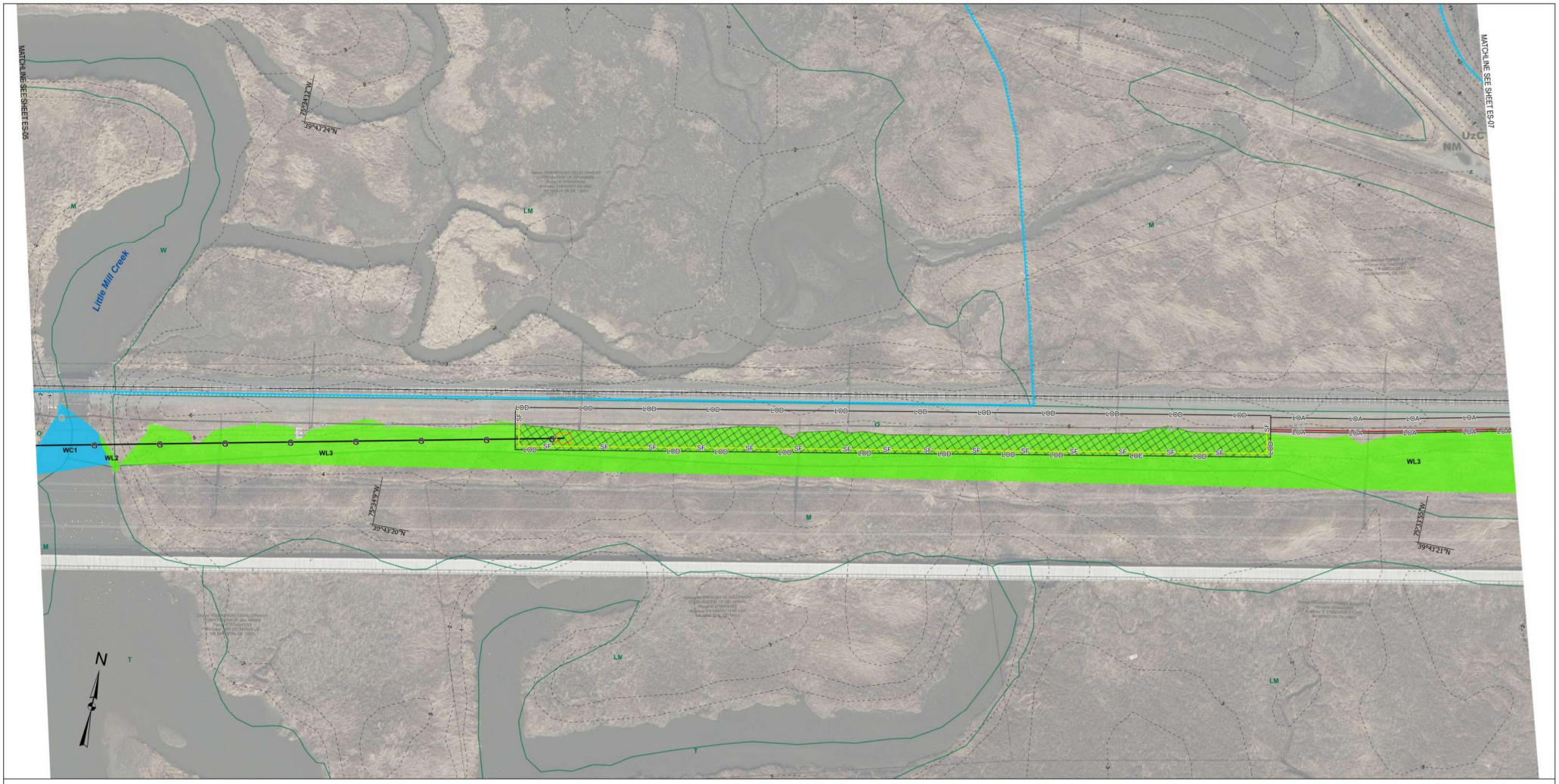
EROSION AND SEDIMENT CONTROL PLAN SHEET
NEW CASTLE COUNTY, DELAWARE

ES-05

MILL CREEK GAS LINE REPLACEMENT

SCALE: 1" - 50'	DWG 12 OF 14
DESIGNED:	PHI WR#:
DRAWN:	CKT#:
CHECKED:	MT#: 10035.079



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SCALE: 1" = 50'

50 0 50 100 US Feet

SCALE: 1" = 50'

Mill Creek Gas Line Replacement Impact Table

Plate Number	Name		Temporary Wetland Impacts	Temporary Floodplain Impacts
			SF	SF
6	WL3	PEM	150	150

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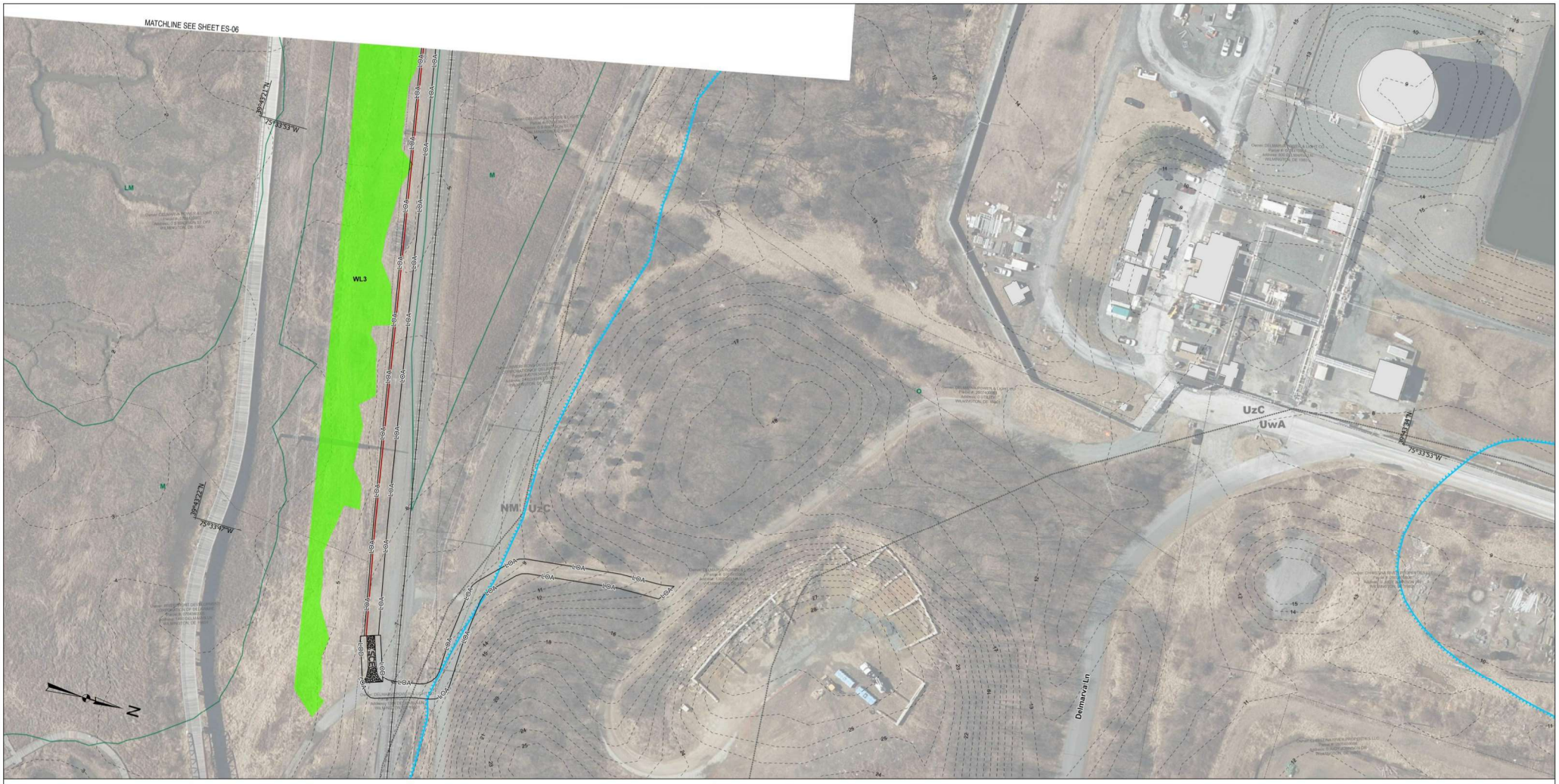
NEW CASTLE COUNTY, DELAWARE

ES-06

MILL CREEK GAS LINE REPLACEMENT

SCALE: 1" - 50'	DWG 13 OF 14
DESIGNED:	PHI WR#:
DRAWN:	CKT#:
CHECKED:	MT#: 10035.079



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- NM SOIL CLASSIFICATION
- SOIL BOUNDARY
- DELINEATED WETLANDS
- DELINEATED WATERCOURSES
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- STATE TIDAL WETLANDS
- FL-8
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE

SCALE: 1" = 50'

50 0 50 100 US Feet

SCALE: 1" = 50'

No proposed resource impacts on this plate.

McCORMICK TAYLOR
1818 Market Street
16th Floor
Philadelphia, PA 19103

WILLIAM R CARPENTER LICENSE No. 20486 DELAWARE PROFESSIONAL ENGINEER
4/7/2026

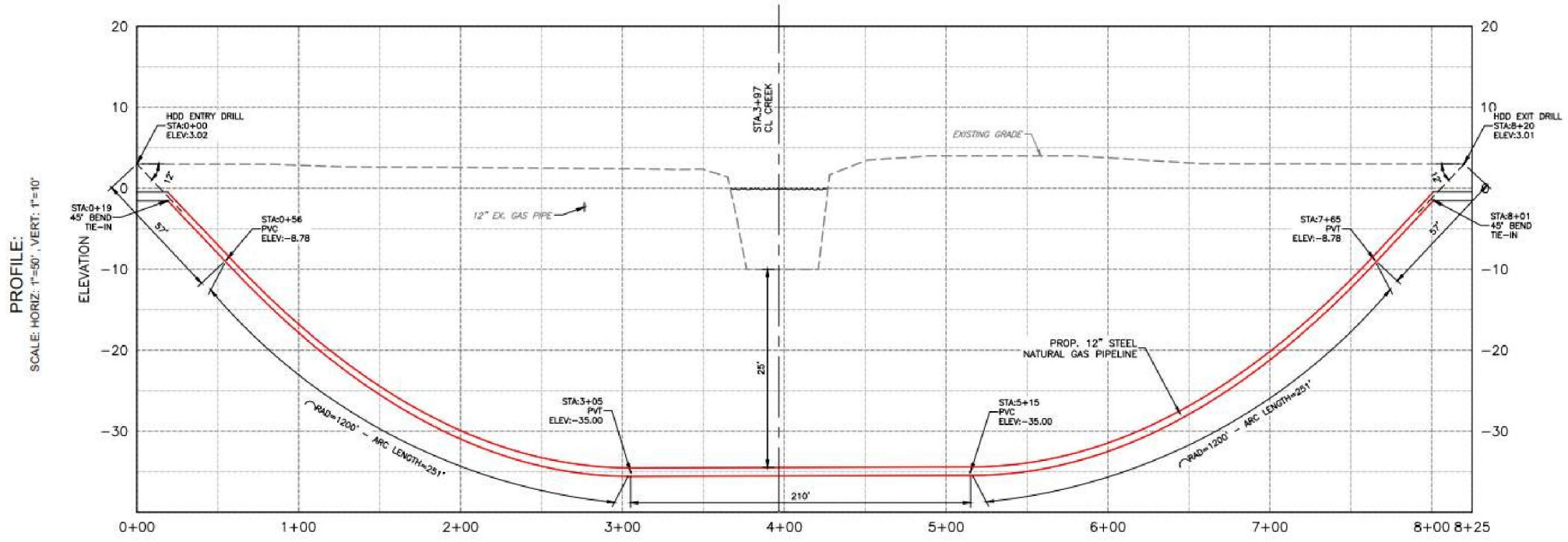
DELMARVA POWER & LIGHT CO.

AN EXELON COMPANY
EROSION AND SEDIMENT CONTROL PLAN SHEET
NEW CASTLE COUNTY, DELAWARE

ES-07

MILL CREEK GAS LINE REPLACEMENT

SCALE: 1" - 50'	DWG 14 OF 14
DESIGNED:	PHI WR#:
DRAWN:	CKT#:
CHECKED:	MT#: 10035.079



Little Mill Creek -
Cross Section Diagram

McCORMICK TAYLOR

WILLIAM R CARPENTER
LICENSE
No. 20486
DELAWARE
PROFESSIONAL ENGINEER

4/7/2026

Delmarva Power
401 Eagle Run Rd
Newark, DE 19714

Attachment 3 – Wetland Delineation

delmarva power℠
AN EXELON COMPANY

Little Mill Creek
Gas Line Replacement Project

WETLAND & WATERCOURSE DELINEATION REPORT

OCTOBER 2025

Prepared For:

delmarva power℠
AN EXELON COMPANY

Delmarva Power
401 Eagle Run Road
P.O. Box 9239
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Prepared By:

McCORMICK TAYLOR

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Appendix B: Wetland and Watercourse Delineation Map
Appendix C: Wetland Determination Data Forms and Watercourse Data Sheets
Appendix D: Representative Photos of Wetland and Watercourse Systems

I. INTRODUCTION

A. PROJECT OVERVIEW

Delmarva Power & Light Co. (DPL) requested a wetland and watercourse delineation to support permit applications required for the proposed relocation of a gas line along CR 9014 at Little Mill Creek, in Wilmington, New Castle County, Delaware (**Appendix A**). The study area for the delineation included approximately 2.25 miles of cleared DPL right-of-way (ROW) and existing gravel access roads from Water Street to DPL's Liquid Natural Gas Plant. The study area is primarily located immediately south of Conrail's Railroad ROW with portions crossing the Russell W. Peterson Wildlife Refuge. The investigation described within this report is limited to the wetland and watercourse areas within the study area defined above and displayed in **Appendix B**. Other wetlands and watercourses likely occur adjacent to the ROW, outside of the study area.

II. APPROACH TO THE INVESTIGATION

A. DESKTOP DATA REVIEW

Prior to the field investigation, potential wetland and watercourse areas within the study area were identified using mapping by the National Wetlands Inventory (NWI) (USFWS, 2024), Delaware Department of Natural Resources and Environmental Control (DNREC) (DNREC, 2023), Federal Emergency Management Agency (FEMA) 100-year floodplain (FEMA, 2019), and the National Hydrography Dataset (NHD) (USGS, 2025). This mapping identified two palustrine wetlands, two estuarine wetlands, two 100-year floodplains, two intermittent tidal watercourses and one perennial tidal watercourse (Little Mill Creek) within the study area. Soil survey data indicates that there are hydric (100%) and non-hydric soils (0%). Additionally, the Delaware Tax Ditch Map was utilized to confirm the lack of any conveyances within the study area that are part of the Delaware Tax Ditch Program (DENREC, 2024).

B. DETAILED ON-SITE INVESTIGATION

McCormick Taylor, Inc. (MT) completed a wetland and watercourse delineation within the study area provided by DPL. This delineation was conducted in accordance with the *U.S. Army Corps of Engineers Wetlands Delineation Manual, Y-87-I* (USACE, 1987) *and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, Version 2.0* (USACE, 2010). This approach requires the positive identification of three wetland parameters during normal circumstances: hydrophytic vegetation, hydric soils, and wetland hydrology. Vegetation was identified to species and indicator status was determined using the associations given in *The National Wetland Plant List* (U.S. Army Corps of Engineers, 2022). Soil color descriptions were made using a Munsell Color chart (Munsell ® Color, 2013).

All potentially jurisdictional features in the study area were delineated by a team of environmental scientists, including one Professional Wetland Scientist (PWS). If jurisdictional features extend beyond the study area, these are noted on the Wetland and Watercourse Delineation Map (***Appendix B***). The applicable data form (Atlantic and Gulf Coastal Plain Region or a Watercourse of the US [WC] Data Sheet) was completed for each delineated feature (***Appendix C***). Wetland

and watercourse boundaries were delineated with pink survey tape and marked using a designation, whereby wetland (WL) and stream (WC) systems were labeled sequentially. Boundary points of watercourse features were delineated along the left and right banks of the channel. Boundary point positions were located using handheld Global Navigation Satellite System (GNSS) data collectors and placed onto project base mapping. All wetlands and watercourses were classified using the Cowardin Classification System according to *A Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, 1979).

III. RESULTS

A field investigation of the study area was conducted on September 12 and September 16, 2025 by two MT staff, including one Professional Wetland Scientist (PWS). MT identified two palustrine emergent wetlands, one estuarine intertidal emergent wetland, and one estuarine subtidal watercourse (**Appendix B**). Wetland and watercourse data sheets and photos are included in **Appendix C** and **Appendix D**, respectively.

Wetland 1 (WL1) is a palustrine emergent persistent wetland with a seasonally flooded/saturated water regime (PEM1E) located in a floodplain and is characterized by test plot WL1-WET. Soil borings within this wetland revealed the presence of hydric soil conditions evidenced by a 6-inch layer, starting at the surface, with a matrix color of 10YR 4/1 with 10% redox concentrations with a color of 7.5YR 5/8, meeting the Depleted Matrix (F3) and Anomalous Bright Floodplain Soils (F20) hydric soil indicators. Hydrology indicators include High Water Table (A2), Saturation (A3), Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), and FAC-Neutral Test (D5). Dominant vegetation within the wetland includes common reed (*Phragmites australis*) and small carp grass (*Arthraxon hispidus*), meeting the dominance test for hydrophytic vegetation.

Wetland 2 (WL2) is an estuarine intertidal emergent persistent wetland with a regularly flooded water regime (E2EM1N) located on a tidal bench and is characterized by test plot WL2-WET. Soil borings within this wetland revealed the presence of hydric soil conditions evidenced by a 16-inch layer, starting at the surface, with a matrix color of 10YR 2/1 with a mucky sand texture, meeting the Sandy Mucky Mineral (S1) hydric soil indicator. Hydrology indicators include Surface Water (A1), High Water Table (A2), Saturation (A3), Water Marks (B1), Sediment Deposits (B2), Algal Mat or Crust (B4), Inundation Visible on Aerial Imagery (B7), Sparsely Vegetated Concave Surface (B8), Geomorphic Position (D2), and FAC-Neutral Test (D5). Dominant vegetation within the wetland includes yellow pond-lily (*Nuphar advena*), meeting the rapid test for hydrophytic vegetation.

Wetland 3 (WL3) is a palustrine emergent persistent wetland with a seasonally flooded/saturated water regime (PEM1E) located in a depression and is characterized by test plot WL3-WET. Soil borings within this wetland revealed the presence of hydric soil conditions evidenced by a 2-inch layer, starting at 2-inches below the surface, with a matrix color of 10YR 4/1 with 15% redox concentrations with a color of 5YR 4/6, meeting the Depleted Matrix (F3) and Anomalous Bright Floodplain Soils (F20) hydric soil indicators. Hydrology indicators include High Water Table (A2), Saturation (A3), Oxidized Rhizospheres on Living Roots (C3), Geomorphic Position (D2), and FAC-Neutral Test (D5). Dominant vegetation within the wetland includes reed canary grass

(*Phalaris arundinacea*) and small carp grass, meeting the dominance test for hydrophytic vegetation.

Watercourse 1 (WC1) is a watercourse with a manipulated channel shape, originating outside of the study area to the north. The watercourse is a blue line stream (Little Mill Creek). WC1 is an estuarine watercourse with an unconsolidated bottom, subtidal water regime, and a mud substrate (E1UBL3). WC1 has an average width of 75-feet and an average channel depth of over 8-feet. Water depth averaged over 5-feet during the field investigation. Bank erosion was moderate, and the banks were slightly unstable throughout the study area.

IV. CONCLUSION

The field investigation of the Little Mill Creek Gas Line Replacement Project identified two palustrine emergent wetlands, one estuarine intertidal emergent wetland, and one estuarine subtidal watercourse. If impacts to the watercourse and/or wetlands are proposed, MT recommends coordination with the USACE and DNREC.

Additionally, on March 12, 2025, the U.S. Environmental Protection Agency (EPA) and Department of the Army announced a joint memorandum issuing guidance to field staff on implementation of "continuous surface connection" in light of the U.S. Supreme Court's (SCOTUS) May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency*. Within this memorandum, "waters of the United States (WOTUS)" are defined as "only those adjacent wetlands that have a continuous surface connection because they directly abut the [requisite jurisdictional water] (e.g., they are not separated by uplands, a berm, dike, or similar feature)," (US EPA, 2025).

While this delineation was conducted in accordance with the guidance provided in the March 12, 2025 memorandum, a notice is yet to be issued to SCOTUS regarding a conclusive definition of WOTUS. That said, interpretation of the current definition is up to the discretion of the reviewing agency.

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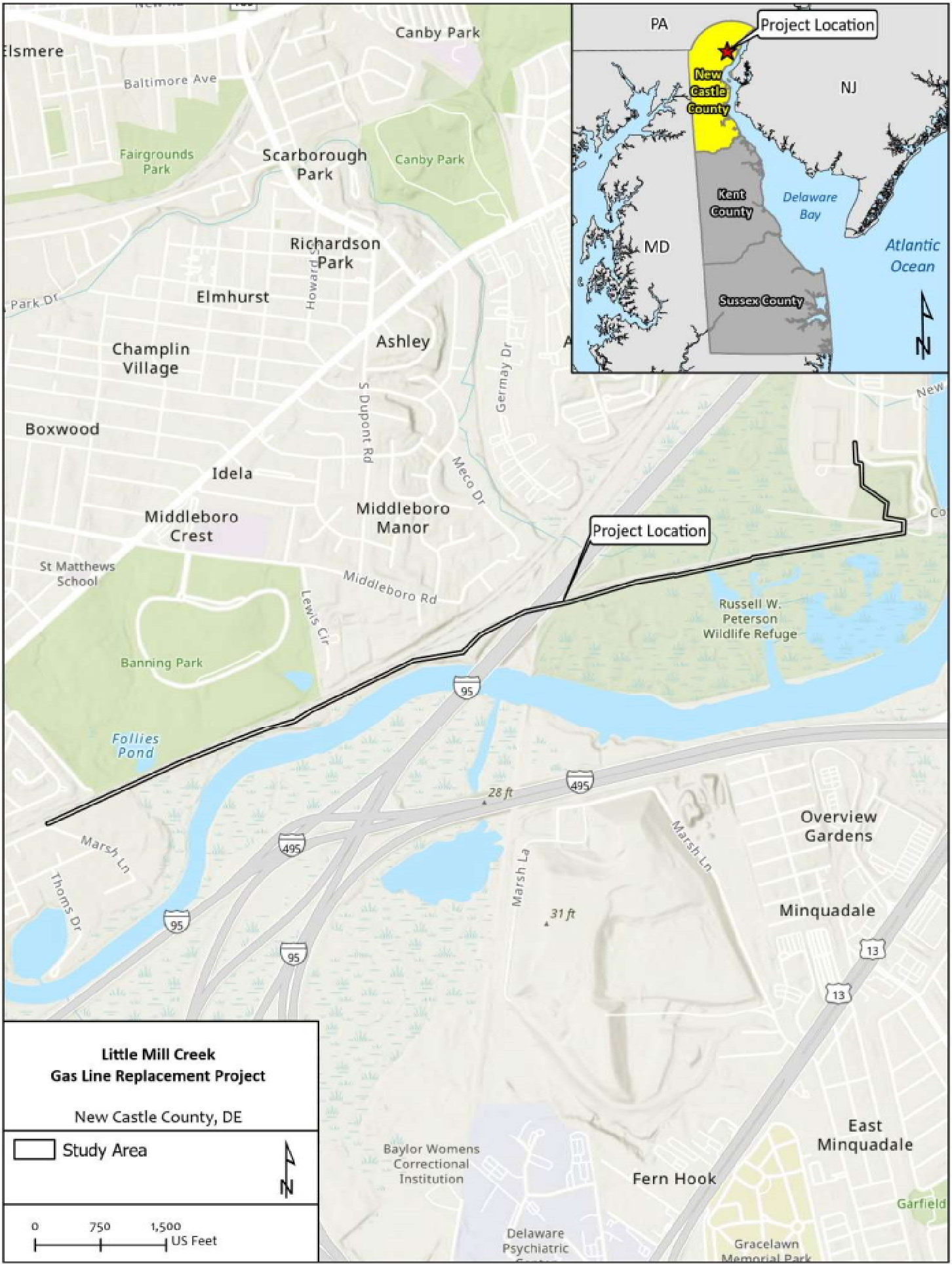
Appendix A

Project Location Map


Project Location
PA
NJ
MD
New Castle County
Kent County
Sussex County
Delaware Bay
Atlantic Ocean
Canby Park
Elsmere
Baltimore Ave
Fairgrounds Park
Scarborough Park
Canby Park
Richardson Park
Howard
Elmhurst
Park Dr
Champlin Village
Ashley
S Dupont Rd
Germay Dr
Boxwood
Idela
Middleboro Crest
Middleboro Manor
Meco Dr
Project Location
St Matthews School
Middleboro Rd
Lewis Cir
Russell W. Peterson Wildlife Refuge
Banning Park
Follies Pond
95
495
28 ft
31 ft
Marsh Ln
Thoms Dr
Marsh La
Overview Gardens
Minquadale
13
East Minquadale
Fern Hook
Baylor Womens Correctional Institution
Delaware Psychiatric
Gracelawn Memorial Park
Garfield
Little Mill Creek
Gas Line Replacement Project
New Castle County, DE
Study Area
N
0
750
1,500
US Feet

Appendix B

Wetland and Watercourse Delineation Map

Parcels

Study Area

NWI/DNREC Wetlands:

NWI/DNREC Wetlands:

Soils:

Non Hydric (0%) or Predominantly Non Hydric (1 - 32%)

Partially Hydric (33 -65%), Predominantly Hydric (66 - 99%), or Hydric (100%)

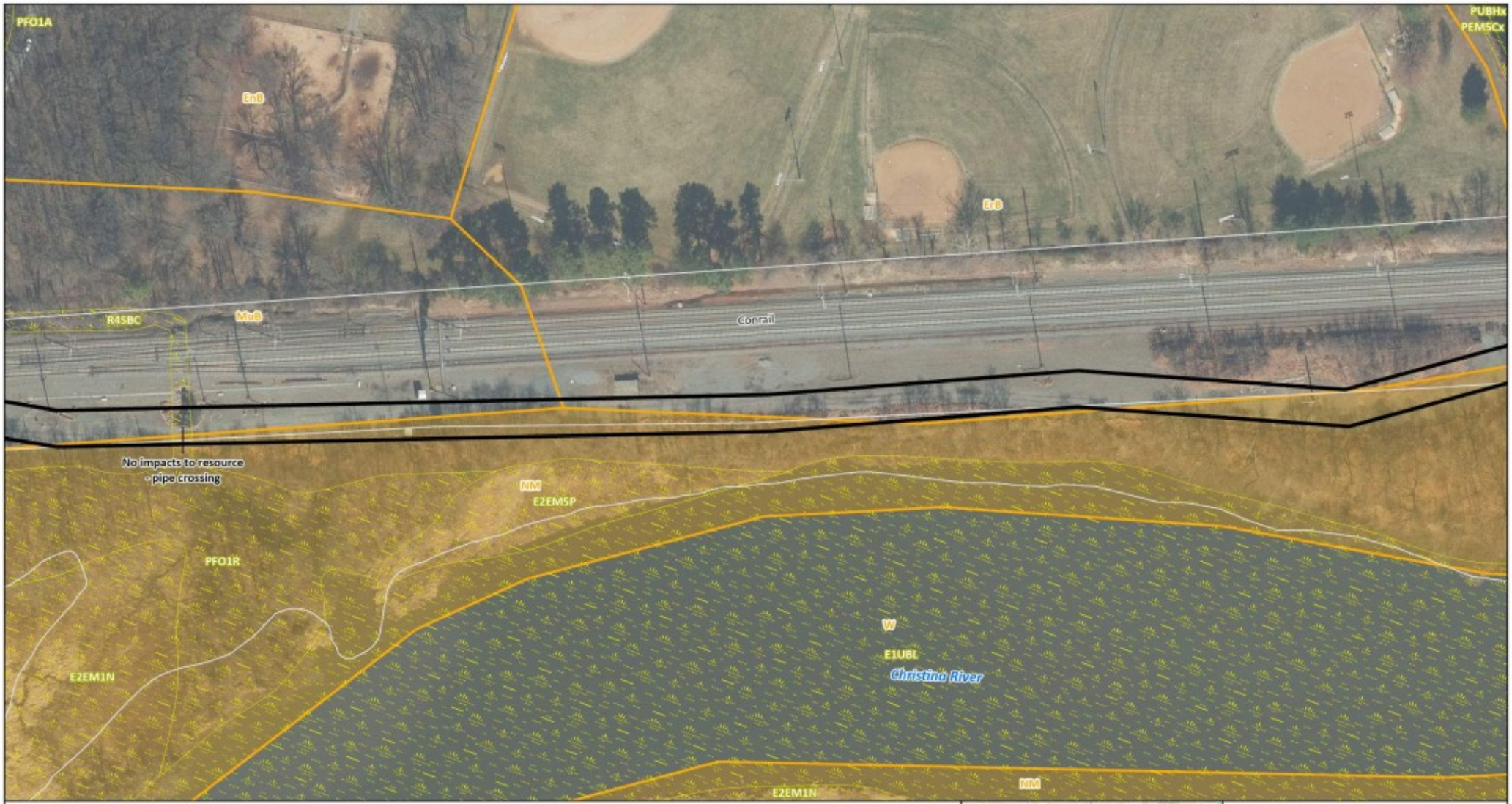
No Regulated Resources Present Within Study Area on this Sheet.

0 50 100 US Feet

Little Mill Creek
Gas Line Replacement Project

Wetland and Watercourse Delineation Map

New Castle County, DE



Parcels

Study Area

NWI/DNREC Wetlands:

NWI/DNREC Wetlands:

Soils:

Non Hydric (0%) or Predominantly Non Hydric (1 - 32%)

Partially Hydric (33 -65%), Predominantly Hydric (66 - 99%), or Hydric (100%)

No Regulated Resources Present Within Study Area on this Sheet.

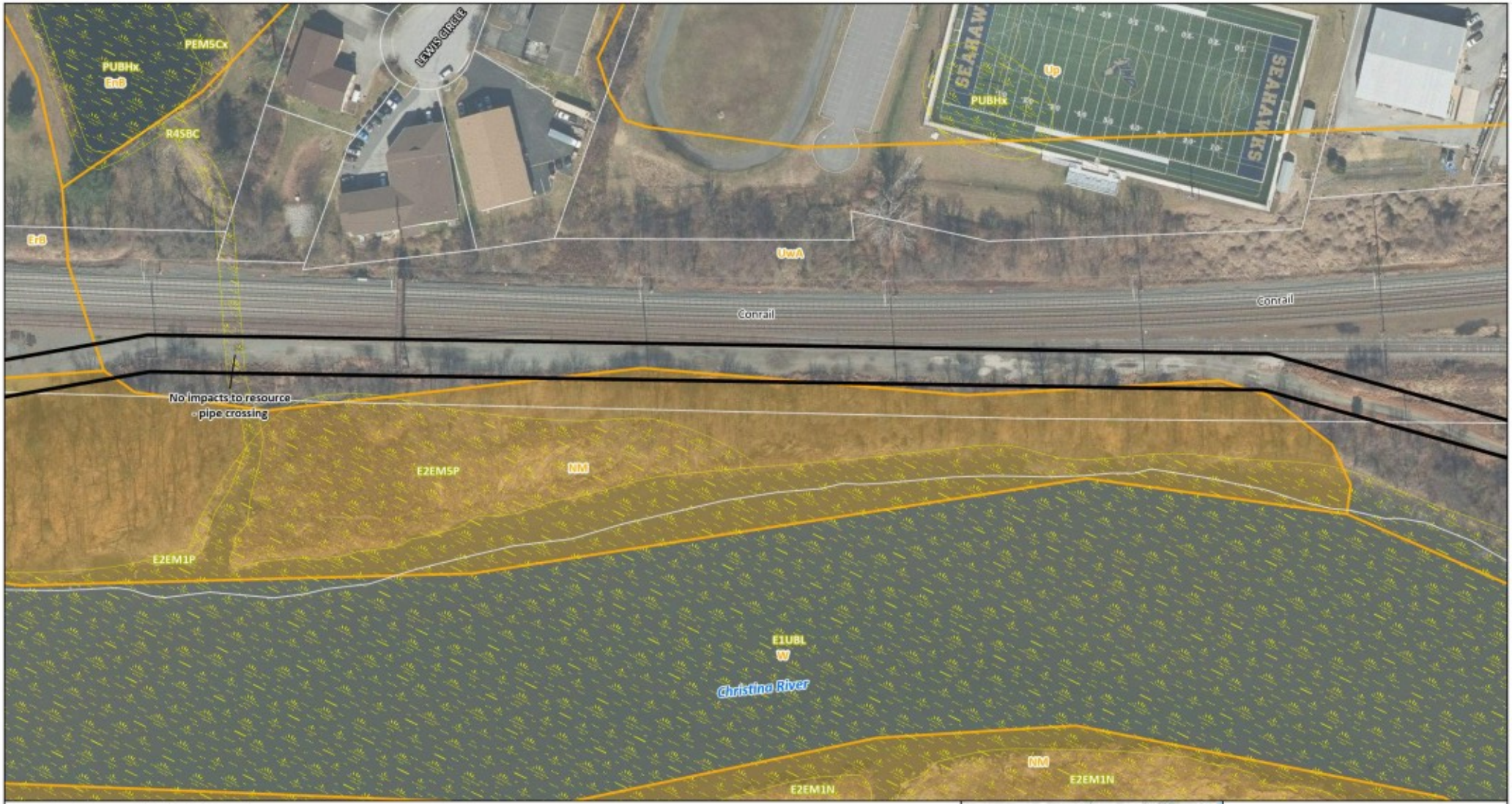
N

0 50 100 US Feet

Little Mill Creek Gas Line Replacement Project

Wetland and Watercourse Delineation Map

New Castle County, DE



Parcels

Study Area

NWI/DNREC Wetlands:

NWI/DNREC Wetlands:

Soils:

Non Hydric (0%) or Predominantly Non Hydric (1 - 32%)

Partially Hydric (33 -65%), Predominantly Hydric (66 - 99%), or Hydric (100%)

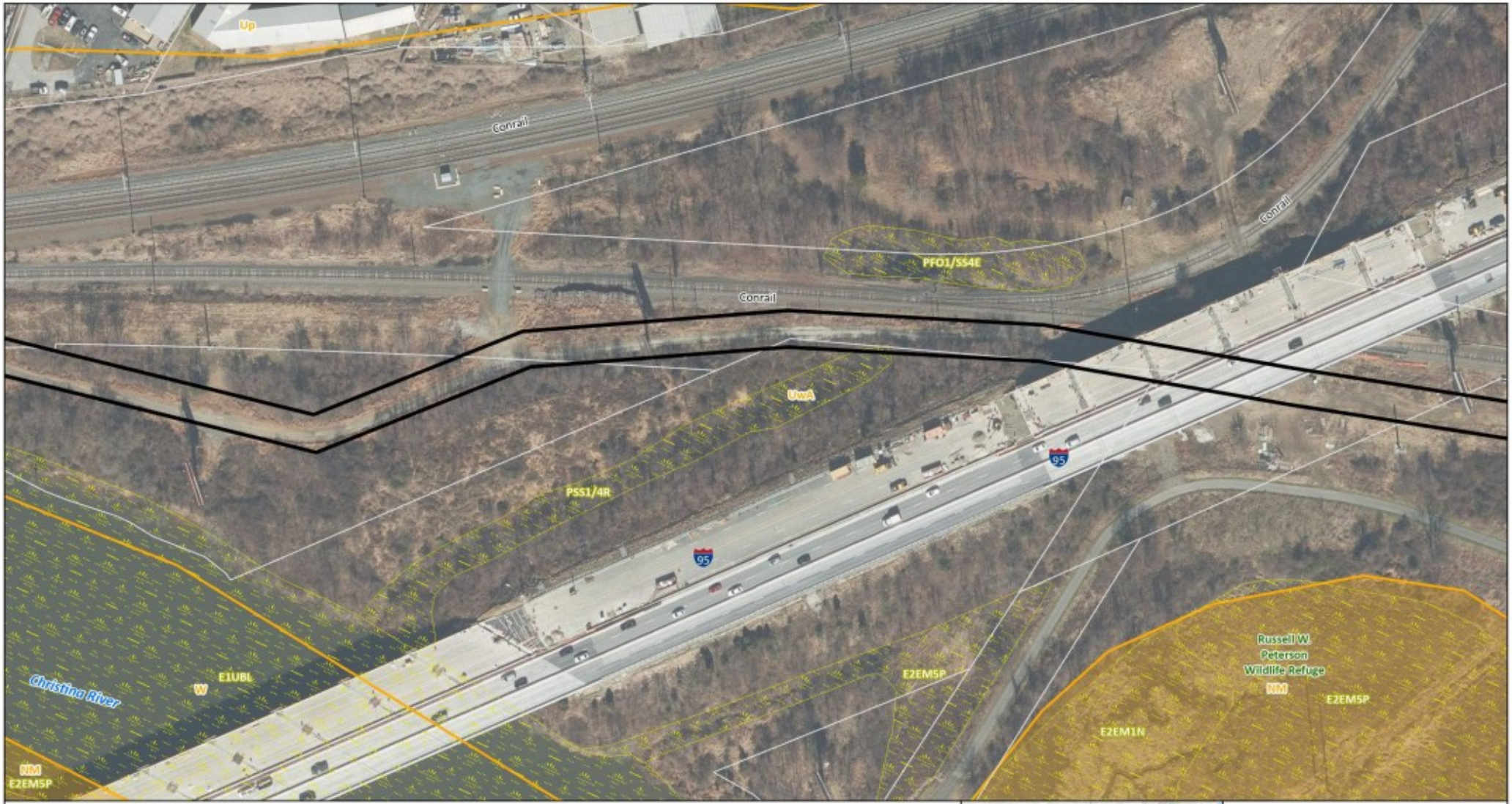
No Regulated Resources Present Within Study Area on this Sheet.

0 50 100 US Feet

Little Mill Creek
Gas Line Replacement Project

Wetland and Watercourse Delineation Map

New Castle County, DE



Parcels

Study Area

NWI/DNREC Wetlands:

NWI/DNREC Wetlands:

Soils:

Non Hydric (0%) or Predominantly Non Hydric (1 - 32%)

Partially Hydric (33 -65%), Predominantly Hydric (66 - 99%), or Hydric (100%)

No Regulated Resources Present Within Study Area on this Sheet.

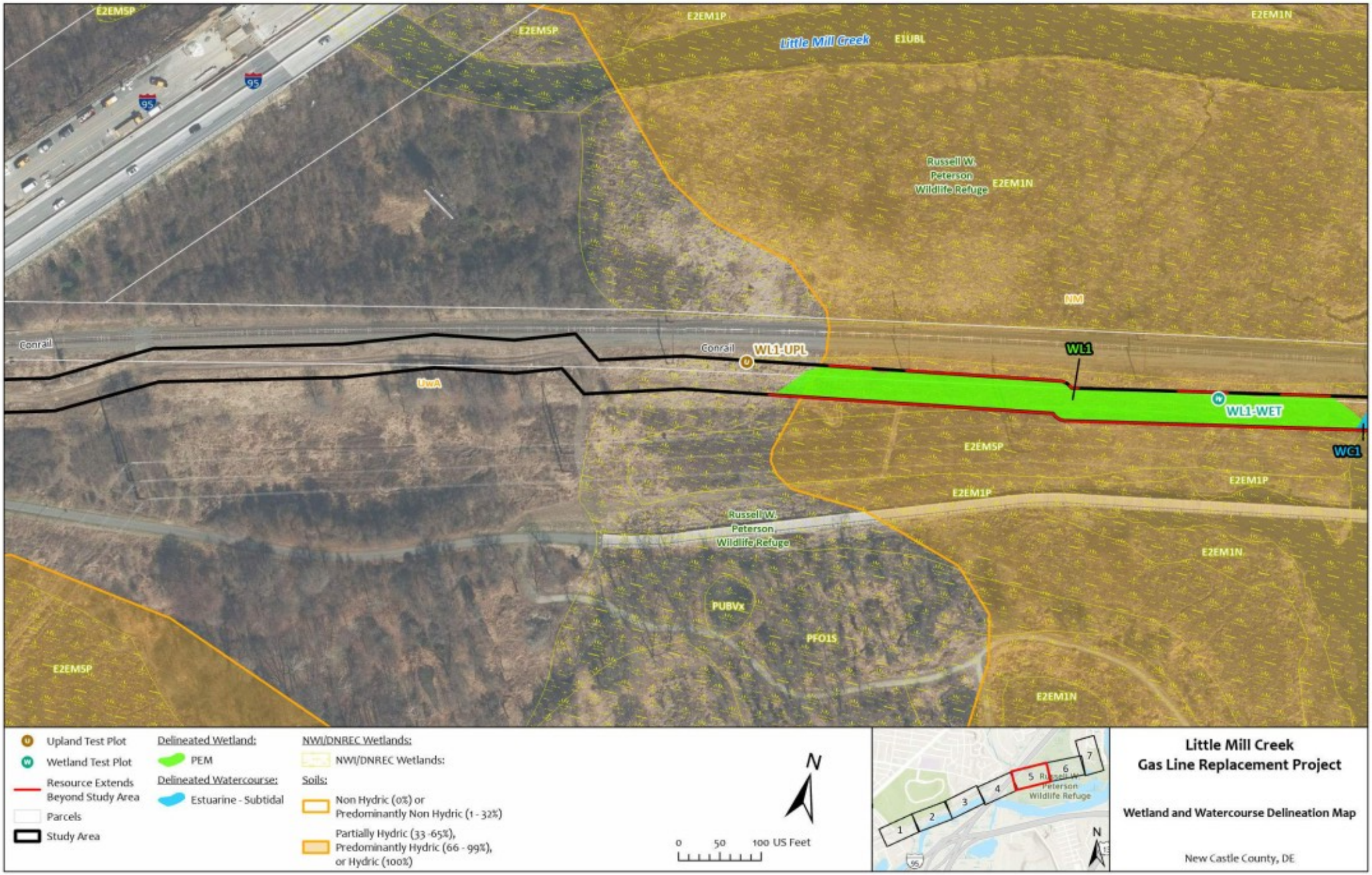
N

0 50 100 US Feet

Little Mill Creek Gas Line Replacement Project

Wetland and Watercourse Delineation Map

New Castle County, DE

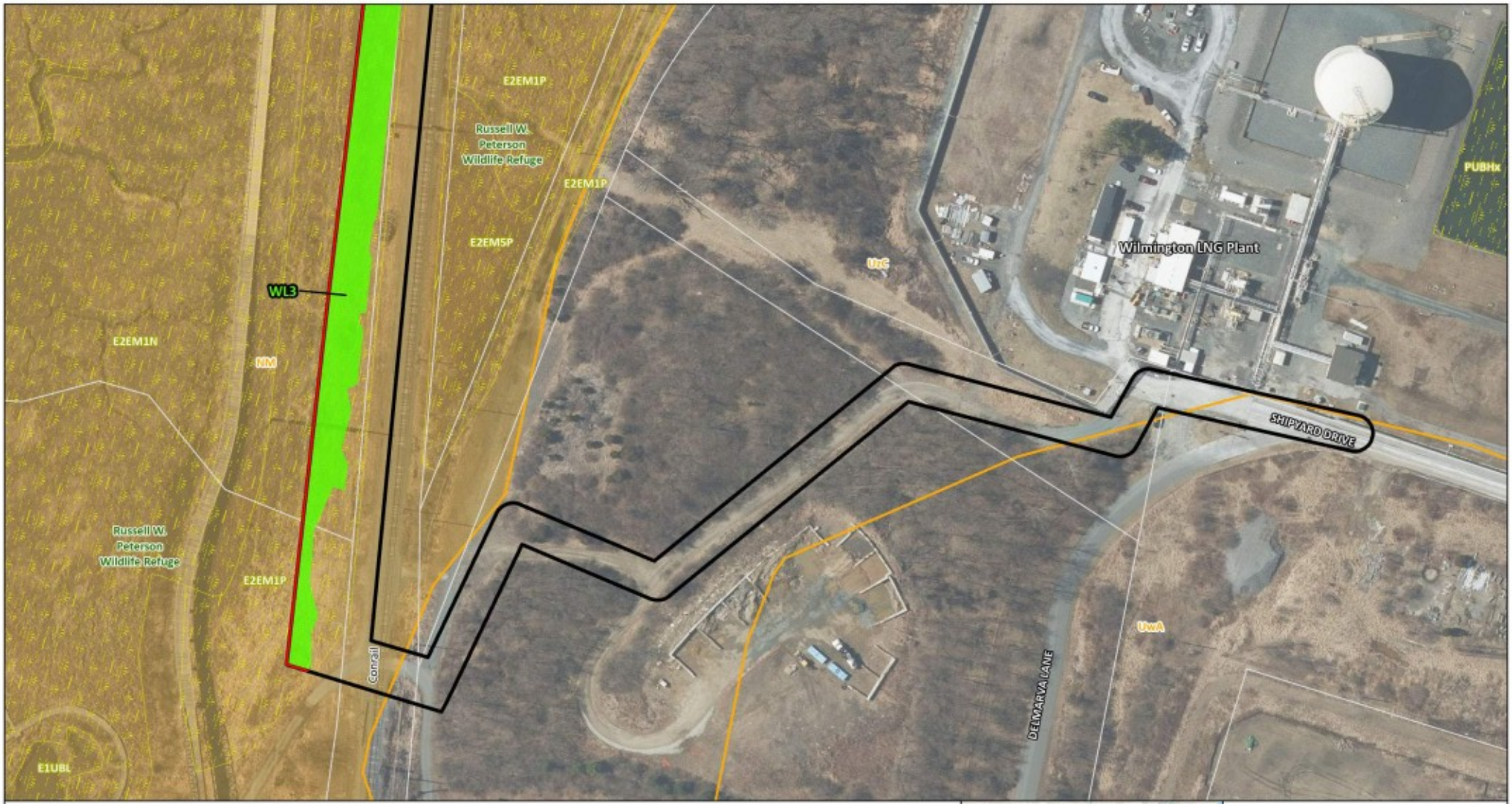


Little Mill Creek Gas Line Replacement Project

Wetland and Watercourse Delineation Map

New Castle County, DE


E2EM1N
Little Mill Creek
E1UBL
UzC
E2EM1/USN
E2EM1P
Russell W.
Peterson
Wildlife Refuge
E2EM5P
E1UBL
E2EM1P
NM
Conrail
WC1
WL2
E2EM1P
WL3-WET
WL2-WET
E2EM5P
WL1
WL3
E2EM1P
WL3
E2EM1P
Russell W.
Peterson
Wildlife Refuge
E2EM1N
E2EM1N
E2EM1N
Wetland Test Plot
Resource Extends Beyond Study Area
Parcels
Study Area
Delineated Wetland:
PEM
E2EM
Delineated Watercourse:
Estuarine - Subtidal
NWI/DNREC Wetlands:
NWI/DNREC Wetlands:
Soils:
Non Hydric (0%) or Predominantly Non Hydric (1 - 32%)
Partially Hydric (33 -65%), Predominantly Hydric (66 - 99%), or Hydric (100%)
N
0 50 100 US Feet
1
2
3
4
5
6
7
Russell W. Peterson Wildlife Refuge
N
Little Mill Creek
Gas Line Replacement Project
Wetland and Watercourse Delineation Map
New Castle County, DE



Resource Extends Beyond Study Area

Parcels

Study Area

Delineated Wetland:

PEM

NWI/DNREC Wetlands:

NWI/DNREC Wetlands:

Soils:

Non Hydric (0%) or Predominantly Non Hydric (1 - 32%)

Partially Hydric (33 -65%), Predominantly Hydric (66 - 99%), or Hydric (100%)

N

0 50 100 US Feet

Little Mill Creek Gas Line Replacement Project

Wetland and Watercourse Delineation Map

New Castle County, DE

Appendix C

Wetland Determination Data Forms
and Watercourse Data Sheets

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region
See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Little Mill Creek Gas Line Replacement City/County: Wilmington/New Castle Sampling Date: 09/12/2025

Applicant/Owner: Delmarva Power & Light Company State: DE Sampling Point: WL1-WET

Investigator(s): AT, SS Section, Township, Range: N/A

Landform (hillside, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0-1

Subregion (LRR or MLRA): LRR S, MLRA 149A Lat: 39.722047° Long: -75.571233° Datum: NAD83

Soil Map Unit Name: Nanticoke and Mannington soils, very frequently flooded, tidal (NM) NWI classification: E2EM1P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:
PEM1E observed. NWI and DNREC Mapped E2EM1P.

West of Little Mill Creek (WC1). No tidal indicators present. Little Mill Creek is incised, as evidenced by the exposed gas line.

BPJ Functions/Values: Groundwater recharge/discharge, floodflow alteration, sediment/toxicant/pathogen retention, wildlife habitat, and sediment/shoreline stabilization.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: WL1-WET

Tree Stratum (Plot size: 10'r*)	Absolute % Cover	Dominant Species?	Indicator Status
1. None.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 10'r*)			
1. None.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 10'r*)			
1. *Phragmites australis*	40	Yes	FACW
2. *Arthraxon hispidus*	20	Yes	FAC
3. *Persicaria sagittata*	15	No	OBL
4. *Lythrum salicaria*	10	No	OBL
5. *Scirpus cyperinus*	8	No	OBL
6. *Pilea pumila*	6	No	FACW
7. *Panicum dichotomiflorum*	5	No	FACW
8. *Persicaria hydropiperoides*	4	No	OBL
9.			
10.			
11.			
12.			
	108 =Total Cover		
50% of total cover: 54	20% of total cover: 22		

Woody Vine Stratum (Plot size: 10'r*)			
1. None.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)
Prevalence Index = B/A =		

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (If observed, list morphological adaptations below.)
*Plot size limited to portion of wetland within study area.

SOIL

Sampling Point: WL1-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/1	90	7.5YR 5/8	10	C	PL	Loamy/Clayey	Prominent redox concentrations
6-13	10YR 4/2	80	7.5YR 4/6	20	C	M	Loamy/Clayey	Prominent redox concentrations; w/ gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- X Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- ___ Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(MLRA 149A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region
See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Little Mill Creek Gas Line Replacement City/County: Wilmington/New Castle Sampling Date: 09/12/2025

Applicant/Owner: Delmarva Power & Light Company State: DE Sampling Point: WL1-UPL

Investigator(s): AT, SS Section, Township, Range: N/A

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR or MLRA): LRR S, MLRA 149A Lat: 39.721786° Long: -75.573246° Datum: NAD83

Soil Map Unit Name: Udorthents, wet substratum, 0 to 2 percent slopes (UwA) NWI classification: E2EM1P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation X , Soil X , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Plot located west of WL1 and south of the railroad, within NWI/DNREC mapped wetlands.

*Vegetation frequently mowed and soil profile disturbed by railroad and past construction.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: WL1-UPL

Tree Stratum (Plot size: 10'r*)	Absolute % Cover	Dominant Species?	Indicator Status
1. None.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 10'r*)			
1. *Elaeagnus umbellata*	30	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	30 =Total Cover		
50% of total cover: 15	20% of total cover:	6	
Herb Stratum (Plot size: 10'r*)			
1. *Eupatorium serotinum*	25	Yes	FAC
2. *Artemisia vulgaris*	20	Yes	UPL
3. *Senecio hieraciifolius*	15	No	FAC
4. *Dichanthelium clandestinum*	8	No	FACW
5. *Microstegium vimineum*	4	No	FAC
6. *Persicaria perfoliata*	4	No	FAC
7. *Setaria faberi*	2	No	UPL
8.			
9.			
10.			
11.			
12.			
	78 =Total Cover		
50% of total cover: 39	20% of total cover:	16	
Woody Vine Stratum (Plot size: 10'r*)			
1. None.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	8	x 2 =	16
FAC species	48	x 3 =	144
FACU species	0	x 4 =	0
UPL species	52	x 5 =	260
Column Totals:	108 (A)		420 (B)
Prevalence Index = B/A =			3.89

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (If observed, list morphological adaptations below.)

*Plot size limited to upland area between WL1 and railroad within study area.

SOIL

Sampling Point: WL1-UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/3	100					Loamy/Clayey	
4-12	10YR 5/4	60					Loamy/Clayey	Fill material. Split matrix, see remarks.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- ___ Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(MLRA 149A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

4-12: 10YR 4/2, 40%, no redox, entirely fill material

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region** See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 9/30/2027* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: Little Mill Creek Gas Line Replacement City/County: Wilmington/New Castle Sampling Date: 09/12/2025

Applicant/Owner: Delmarva Power & Light Company State: DE Sampling Point: WL2-WET

Investigator(s): AT, SS Section, Township, Range: N/A

Landform (hillside, terrace, etc.): tidal bench Local relief (concave, convex, none): convex Slope (%): 5

Subregion (LRR or MLRA): LRR S, MLRA 149A Lat: 39.722128° Long: -75.570317° Datum: NAD83

Soil Map Unit Name: Nanticoke and Mannington soils, very frequently flooded, tidal (NM) NWI classification: E2EM1P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:
E2EM1N observed. Abuts east side of WC1.

BPJ Functions/Values: Wildlife habitat, sediment/shoreline stabilization, and visual quality and aesthetics.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 1
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: WL2-WET

Tree Stratum (Plot size: 5'x25'*)	Absolute % Cover	Dominant Species?	Indicator Status
1. None.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 5'x25'*)			
1. None.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5'x25'*)			
1. *Nuphar advena*	40	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40 =Total Cover		
50% of total cover: 20	20% of total cover: 8		

Woody Vine Stratum (Plot size: 5'x25'*)			
1. None.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	40 (A)		40 (B)
Prevalence Index = B/A =			1.00

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (If observed, list morphological adaptations below.)
*Plot size limited to size of wetland.

SOIL

Sampling Point: WL2-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-16	10YR 2/1	100					Mucky Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Iron Monosulfide (A18)
- X Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- ___ Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(MLRA 149A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region
See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Little Mill Creek Gas Line Replacement City/County: Wilmington/New Castle Sampling Date: 09/16/2025
Applicant/Owner: Delmarva Power & Light Company State: DE Sampling Point: WL3-WET
Investigator(s): AT, SS Section, Township, Range: N/A
Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-1
Subregion (LRR or MLRA): LRR S, MLRA 149A Lat: 39.722508° Long: -75.568311° Datum: NAD83
Soil Map Unit Name: Nanticoke and Mannington soils, very frequently flooded, tidal (NM) NWI classification: E2EM1P
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation X* , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:
PEM1E observed.

*Vegetation along the railroad (~10' of WL3) is routinely mowed for the railroad ROW.

BPJ Functions/Values: Groundwater recharge/discharge and wildlife habitat.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 5
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: WL3-WET

Tree Stratum (Plot size: 10'r*)	Absolute % Cover	Dominant Species?	Indicator Status
1. None.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Sapling/Shrub Stratum (Plot size: 10'r*)			
1. None.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 10'r*)			
1. *Phalaris arundinacea*	40	Yes	OBL
2. *Arthraxon hispidus*	30	Yes	FAC
3. *Vernonia noveboracensis*	20	No	FACW
4. *Persicaria sagittata*	7	No	OBL
5. *Kyllinga brevifolia*	3	No	FACW
6. *Bidens aristosa*	3	No	FACW
7. *Pilea pumila*	3	No	FACW
8. *Lythrum salicaria*	3	No	OBL
9. *Hibiscus moscheutos*	3	No	OBL
10. *Panicum virgatum*	2	No	FAC
11. *Kummerowia striata*	2	No	FACU
12. *Juncus effusus*	2	No	OBL
	118 =Total Cover		
50% of total cover: 59	20% of total cover: 24		

Woody Vine Stratum (Plot size: 10'r*)			
1. None.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	29	x 2 =	58
FAC species	32	x 3 =	96
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	118 (A)		217 (B)
Prevalence Index = B/A =			1.84

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

_X_ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (If observed, list morphological adaptations below.)
*Plot size limited to width of study area.

SOIL

Sampling Point: WL3-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 4/1	98	5YR 4/6	2	C	PL	Loamy/Clayey	Prominent redox concentrations
2-11	10YR 4/1	85	5YR 4/6	15	C	PL/M	Loamy/Clayey	Prominent redox concentrations
11-14	10YR 4/1	80	5YR 4/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- X Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- ___ Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(MLRA 149A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

WATERCOURSE DATA SHEET

Project:	DPL Little Mill Creek Gas Line Replacement		Feature ID: WC1	Cowardin:	E1UBL3
Date:	09/12/2205	State: DE	Photos:	On webmap	
Crew:	AT, SS	County: New Castle	Last Flag Number:	N/A	

Feature Hydrologic Class (check one):

Tidal	Perennial	Intermittent (SNE)	Ephemeral (SNE)
✔ TNW (Subject to ebb and flow)	☐ TNW – Perennial (Flowing year round)	☐ RPW – Seasonal (must flow at least 3 months a year)	☐ Non-RPW draining uplands (*not jurisdictional*)
	☐ RPW – Perennial (Flowing year round)		☐ Non-RPW erosional feature (*not jurisdictional*)
			☐ Non-RPW with abutting wetland
			☐ Non-RPW with adjacent wetland
Describe rational for hydrologic class (and nearest stream): Little Mill Creek			☐ Non-RPW wetland adjacent or abutting upstream (outside of study area)

Feature Description (check all that apply):

Shape (with respect to top of bank)		Substrate					Vegetation
☐ Natural Channel Shape	Channel Width and Depth: ~75 x >8'	✔ Silts	☐ Sands	☐ Other:			RB (& width): >100' PEM
☐ Artificial (man-made)	Water Depth: >5'	☐ Cobbles	☐ Gravel				
✔ Manipulated (man-altered)	Bank Erosion/stability: moderate/slightly unstable	☐ Bedrock	✔ Muck				LB (& width): >100' E2EM/PEM
Notes Railroad upstream of study area.							

Weather/Precipitation Conditions (check all that apply):

During Field Visit		Recent Rains (w/in one week)		Monthly Drought Conditions USACE Antecedent Precipitation Score		
				Drier than Normal (APT score < 10)	Normal Conditions (10≤ APT score < 15)	Wetter than Normal (15 ≤ APT score)
✔	No Rain	✔	0-0.5 inches			
☐	Light Rain	☐	0.5-1 inches		✔	
☐	Heavy Rain	☐	>1 inch			

Non-tidal tributary has (check all that apply):

Bed and Banks			
☐	Yes	☐	No

Ordinary High Water Mark			
☐	Clear, natural line impressed on the bank	☐	Sediment deposition
☐	Changes in the character of soil	☐	Water staining
☐	Shelving	☐	Presence of litter and debris
☐	Vegetation matted down, bent, or absent	☐	Destruction of terrestrial veg.
☐	Leaf litter disturbed	☐	Presence of wrack line
☐	Sediment sorting	☐	Scour
☐	Observed/predicted flow events	☐	Abrupt change in plant community
☐	Other:		

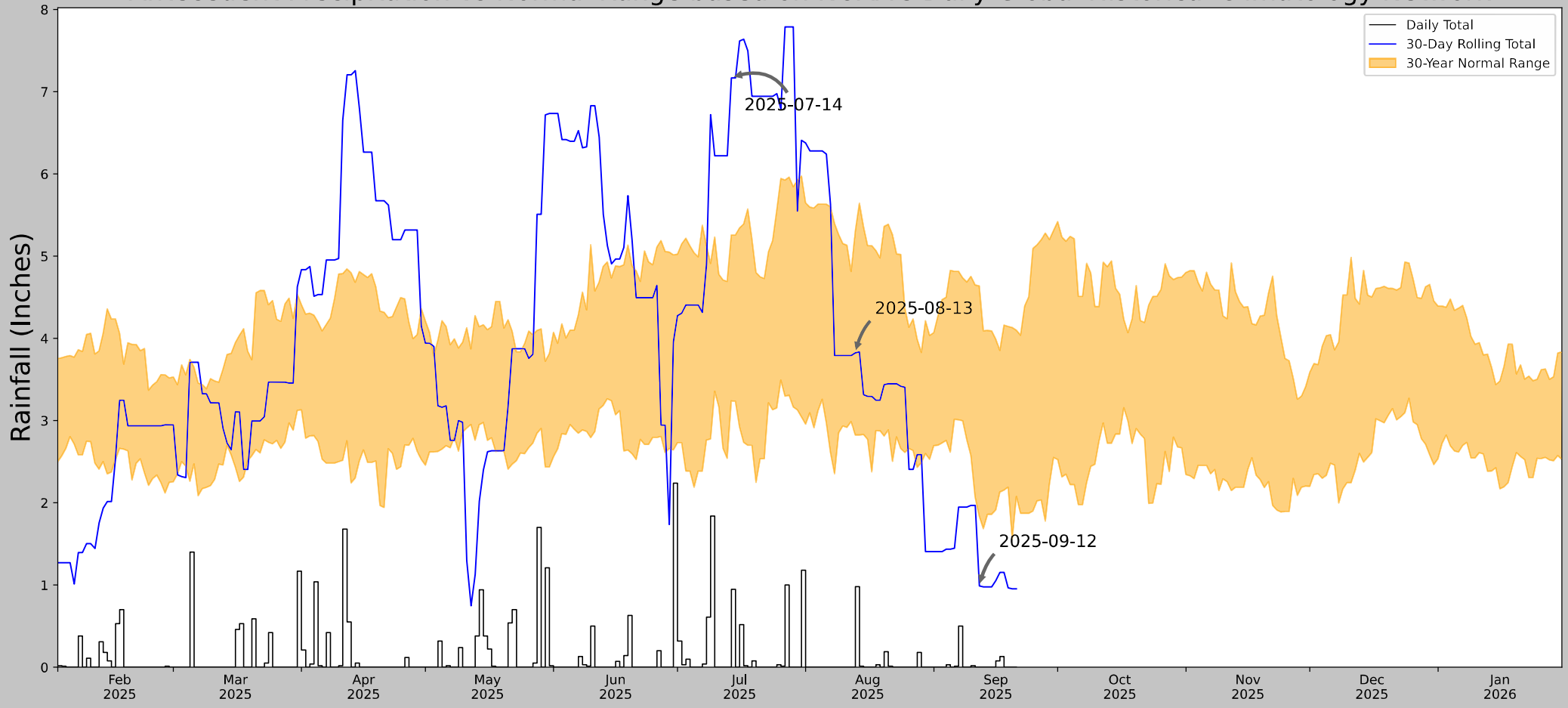
Tidal tributary has (check all that apply):

High Tide Line		Mean High Water Mark indicated by:		Chemical Characteristics	
☐	Oil or scum line along shore objects	☐	Survey to available datum	☐	Water is clear
☐	Fine shell or debris deposits (foreshore)	☐	Physical markings	✔	Water is discolored
✔	Physical markings or characteristics	✔	Vegetation lines/changes in types	☐	Oily film
☐	Tidal gauges			☐	Other:
Notes:					

Additional Notes *(Riffle pools, rootwads, woody debris, aquatic life, etc.)*:

Fish observed.

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	39.72021, -75.5792
Observation Date	2025-09-12
Elevation (ft)	19.786
Drought Index (PDSI)	Moderate drought (2025-08)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-09-12	1.839764	4.638977	0.988189	Dry	1	3	3
2025-08-13	2.82441	5.299213	3.822835	Normal	2	2	4
2025-07-14	3.23937	5.25748	7.169292	Wet	3	1	3
Result							Normal Conditions - 10

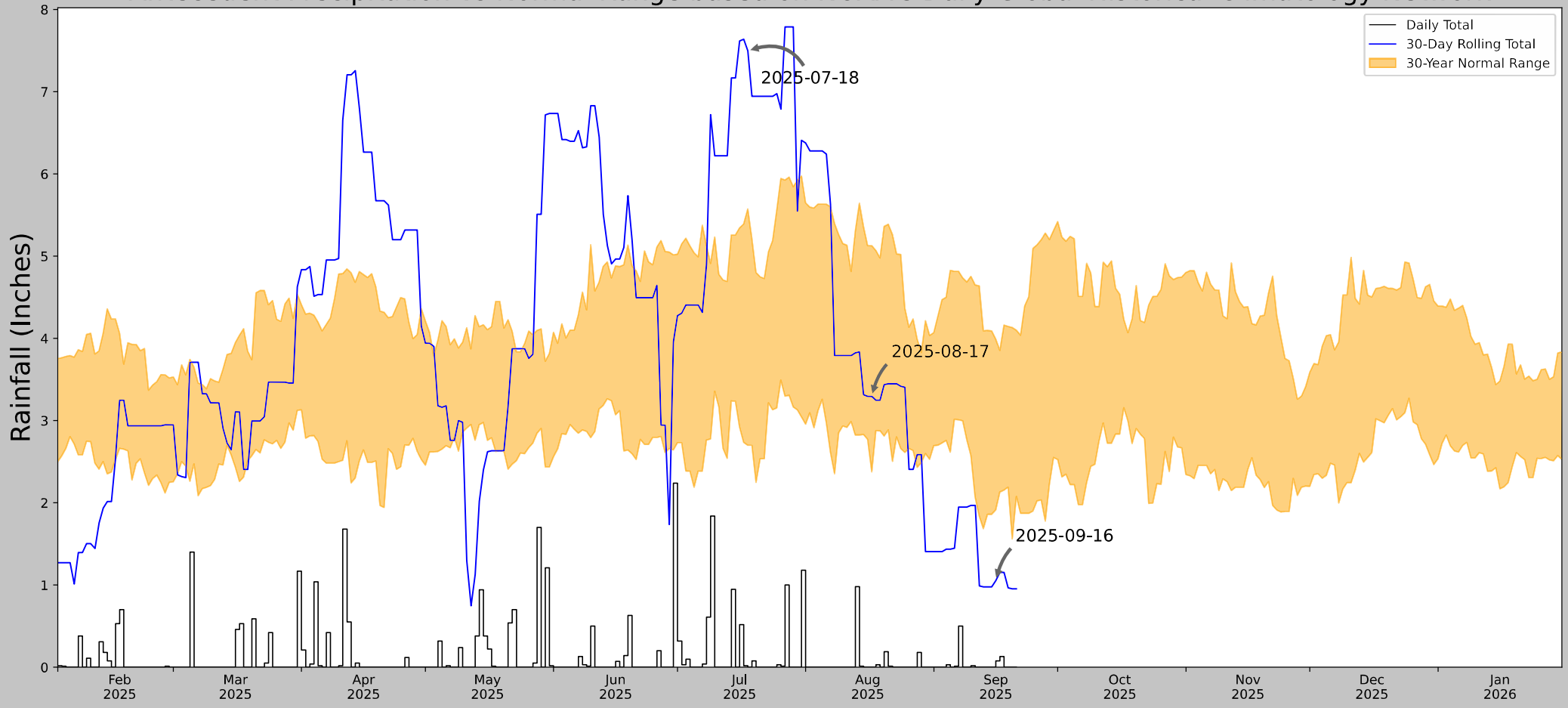
Figures and tables made by the
Antecedent Precipitation Tool
Version 3.0

US Army Corps of Engineers.
ERDC

Developed by:
U.S. Army Corps of Engineers and
U.S. Army Engineer Research and
Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
WILMINGTON NEW CASTLE CO AP	39.6744, -75.6056	74.147	3.462	54.361	1.746	11351	90
NEWARK AG FARM	39.6683, -75.7456	105.971	7.457	31.824	3.593	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	39.72021, -75.5792
Observation Date	2025-09-16
Elevation (ft)	19.786
Drought Index (PDSI)	Moderate drought (2025-08)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-09-16	1.913386	3.991732	1.055118	Dry	1	3	3
2025-08-17	2.376378	5.127953	3.295276	Normal	2	2	4
2025-07-18	2.699606	5.57441	7.496063	Wet	3	1	3
Result							Normal Conditions - 10

Figures and tables made by the
Antecedent Precipitation Tool
Version 3.0

US Army Corps of Engineers.
ERDC

Developed by:
U.S. Army Corps of Engineers and
U.S. Army Engineer Research and
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Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
WILMINGTON NEW CASTLE CO AP	39.6744, -75.6056	74.147	3.462	54.361	1.746	11351	90
NEWARK AG FARM	39.6683, -75.7456	105.971	7.457	31.824	3.593	2	0

Appendix D

Representative Photos of Wetland and Watercourse System

Little Mill Creek Gas Line Relocation Project
Representative Photos of Wetland and Watercourse Systems

WL1-WET: PEM1E wetland facing east.

WL1-UPL: Upland area facing east.

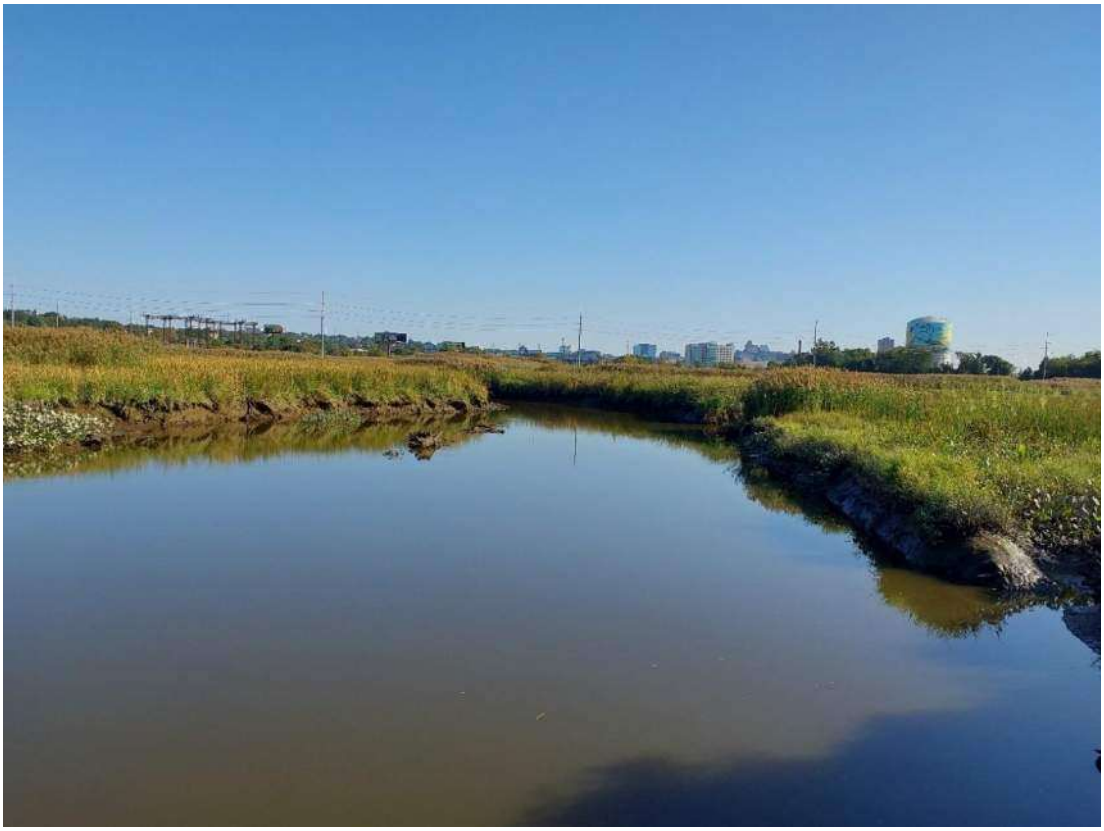
Little Mill Creek Gas Line Relocation Project
Representative Photos of Wetland and Watercourse Systems

WL2-WET: E2EM1N wetland facing west.

WL3-WET: PEM1E wetland facing east.

Little Mill Creek Gas Line Relocation Project
Representative Photos of Wetland and Watercourse Systems

WC1: E1UBL3 watercourse (Little Mill Creek) facing downstream.



WC1: E1UBL3 watercourse (Little Mill Creek) facing upstream.

Delmarva Power
401 Eagle Run Rd
Newark, DE 19714

Attachment 4 – Consultation Letters

McCORMICK TAYLOR

November 12, 2025

Delaware Division of Historical and Cultural Affairs
State Historic Preservation Office
Attention: Suzanne Savery, Director
29 North State St.
Dover, DE 19901

< Sent via email suzanne.savery@delaware.gov>

RE: Delmarva Power & Light Company (DPL)
Mill Creek Markell Trail Gas Line Replacement Project
New Castle County, Delaware

Ms. Savory,

Delmarva Power & Light Company (DPL) is proposing to relocate approximately 0.2-mile of an existing gas line by installing a new gas line adjacent to the Jack A. Markell Trail at Little Mill Creek in Wilmington, Delaware (New Castle County). The Project will occur on the south side of the Norfolk Southern Rail Line and north of the Jack A. Markell Trail boardwalk, in a cleared right-of-way (ROW) on both sides of Little Mill Creek. Please see the attached Project location map and .KMZ file for your reference.

The Project will include construction activities on both sides of Little Mill Creek and will be entirely within the existing cleared ROW. Construction activities include horizontal directional drilling under the creek to install the new gas line. The line will be installed underneath Little Mill Creek using a 12-inch steel pipe. The existing line will be abandoned in place.

The crossing of streams and adjacent wetlands may require a United States Army Corps of Engineers (USACE) Nationwide Permit. Therefore, the project will be completed in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended through 1992 (NHPA), and the associated implementing federal regulations found at 36 CFR 800. As the proposed project is a permitted project, the potential project impacts to cultural resources must be considered. Therefore, this letter serves to initiate the Section 106 process and consultation with the Delaware State Historic Preservation Officer (DE SHPO).

DPL is requesting from your office any information or records that you may have regarding the presence of cultural or historical significance within the project area.

If you should have any questions or need additional information, please contact me at (484) 859-8497 or sayourik@mccormicktaylor.com. We thank you for your consideration concerning this project.

Sincerely,

Stephanie Yourik
Project Manager, Environmental Services
McCormick Taylor

CC: Jonathan Bartlett, DPL
Enclosures: Project Location Map & KMZ

November 12, 2025

DNREC – Division of Fish and Wildlife
Environmental Review Coordinator
6180 Hay Point Landing Road
Smyrna, DE 19977

< Sent via email DNREC_EnvReview@delaware.gov>

RE: Delmarva Power & Light Company (DP&L)
Mill Creek Markell Trail Gas Line Replacement Project
New Castle County, Delaware

To Whom it May Concern,

Delmarva Power & Light Company (DPL) is proposing to relocate approximately 0.2-mile of an existing gas line by installing a new gas line adjacent to the Jack A. Markell Trail at Little Mill Creek in Wilmington, Delaware (New Castle County). The Project will occur on the south side of the Norfolk Southern Rail Line and north of the Jack A. Markell Trail boardwalk, in a cleared right-of-way (ROW) on both sides of Little Mill Creek. Please see the attached Project location map and .KMZ file for your reference.

The Project will include construction activities on both sides of Little Mill Creek and will be entirely within the existing cleared ROW. Construction activities include horizontal directional drilling under the creek to install the new gas line. The line will be installed underneath Little Mill Creek using a 12-inch steel pipe. The existing line will be abandoned in place.

DPL is requesting from your office any information or records that you may have regarding the presence of rare, threatened, or endangered species within the Project area. In addition to the rare species information, please forward any information that you may have regarding State Natural Heritage Sites.

DPL is aware of the cost recovery process. If you should have any questions or need additional information, please contact me at (484) 859-8497 or sayourik@mccormicktaylor.com. We thank you for your consideration concerning this project.

Sincerely,

Stephanie Yourik
Project Manager, Environmental Services
McCormick Taylor

McCORMICK TAYLOR

CC: Jonathan Bartlett, DPL
Enclosures: Project Location Map & KMZ

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DIVISION OF FISH & WILDLIFE
RICHARDSON & ROBBINS BUILDING
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

DIRECTOR'S OFFICE

PHONE
(302) 739-9910

December 2, 2025

Andrew Meyer
McCormick Taylor
1501 S. Clinton Street, Suite 1150
Baltimore, MD 21224

Re: MTA 2025 Mill Creek Markell Trail Gas Line Replacement Project

Dear Andrew:

Thank you for contacting the Division of Fish and Wildlife (DFW) Species Conservation and Research Program about information on rare, threatened and endangered species, unique natural communities, and other significant natural resources as they relate to the above referenced project.

State Natural Heritage Site
A review of our database indicates that the following state-rare or federally-listed plants, animals or natural communities occur at or adjacent to the project site:

Scientific Name	Common Name	Taxon	State Rank	State Status	SGCN Tier or Global Rank	Federal Status
Battus philenor	Pipevine Swallowtail	Invertebrate	S2	NL	Tier 2	NL

State Rank: **S1** – Extremely rare within the state (typically 5 or fewer occurrences); **S2** – Very rare within the state (6 to 20 occurrences); **S3** – Rare to uncommon in Delaware; **S4** – Apparently secure, at fairly low risk of extinction or extirpation due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors; **S5** – Demonstrably secure, at very low risk of extinction or extirpation due to a very extensive range, abundant populations or occurrences, or little to no concern from declines or threats; **SX** – Extirpated or presumed extirpated from the state. All historical locations and/or potential habitat have been surveyed; **SH** – Historically known, but not verified for an extended period (usually 15+ years); there are expectations that the species may be rediscovered; **SE** – Non-native in the state (introduced through human influence); not a part of the native flora or fauna; **SNR** – Not yet ranked in Delaware; **SN** – Occurrences in DE of limited conservation value, **of concern due to a restricted range; **SU** – Status uncertain within the state. Usually, an uncommon species which is believed to be of conservation concern, but there is inadequate data to determine the degree of rarity; **B** – Breeding; **M** – Migratory; **N** – Nonbreeding.

State Status: E – Endangered, i.e., designated by the Delaware Division of Fish and Wildlife as seriously threatened with extinction in the state pursuant to State of Delaware Code (7 Del. §601 *et seq.*) and implementing regulation (Title 7, 3900, 16.0 Endangered Species); **NA** – Plants are not included in Title 7; **NL** – Not listed.

SGCN Tiers: Tier 1 – Species of Greatest Conservation Need (SGCN) that are most in need of conservation action in order to sustain or restore their populations. They are the focus of the Delaware Wildlife Action Plan (DEWAP), which is based on analyzing threats to their populations and habitats, and on developing conservation actions to eliminate, minimize, or compensate for these threats; **Tier 2** – SGCN that are also in need of conservation action, although not with the urgency of Tier 1 species. Their distribution across the landscape will help determine where DEWAP conservation actions will be implemented on the ground; **Tier 3** – These species are for the most part still relatively common in Delaware, but are listed as SGCN for various reasons, including documented population declines, high responsibility of the Northeast region for the global population, or continued need for monitoring and/or management. This tier also includes non-breeding species that are uncommon in Delaware. **NA** – Plants are not addressed in DEWAP.

Federal Status: E – Endangered, i.e., designated by the U.S. Fish and Wildlife Service as being in danger of extinction throughout its range; **T** – Threatened, i.e., designated by USFWS as being likely to become endangered in the foreseeable future throughout all or a significant portion of its range; **C** – Candidate, i.e., taxa for which the U.S. Fish and Wildlife Service has on file enough substantial information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species. NOAA Managed Candidate: **SC** – Species of Concern, i.e., species about which NOAA's National Marine Fisheries Service (NMFS) has some concerns regarding status and threats, but for which insufficient information is available to indicate a need to list the species under the ESA; **NL** – Not listed.

While one or more state-rare species were identified near the project location, at present, this project does not lie within a State Natural Heritage Site, nor does it lie within a Delaware National Estuarine Research Reserve, which are two criteria used to identify "Designated Critical Resource Waters" in the U.S. Army Corps of Engineers (USACE) Nationwide Permit General Condition No. 22. A copy of this letter shall be included in any permit application or pre-construction notification submitted to the USACE for activities on this property.

Revegetation

If any re-vegetation of disturbed areas is proposed in association with this project, we request that no non-native species or state-rare species be used in the disturbed areas. We further recommend that the applicant re-vegetate the area using native plant species that are indigenous to the state of Delaware and are appropriate for the site. Our staff can provide guidance in selecting plant material.

Key Wildlife Habitat

The wetland in the project area is mapped as Key Wildlife Habitat (KWH) in the Delaware Wildlife Action Plan (DEWAP) because it is part of a large wetland complex/large forest block that can support an array of plant and animal species across the landscape.

Although designation as KWH is non-regulatory, these maps are intended to help guide site-specific conservation planning efforts. Impacts to KWH should be minimized to the greatest extent practicable.

The DEWAP is a comprehensive strategy for conserving the full array of native wildlife and habitats, common and uncommon, as vital components of the state's natural resources. This document can be viewed via the Division of Fish and Wildlife's website.

Delaware Ecological Network

Habitat in the project area has been identified as ecologically important by the Delaware Ecological Network (DEN) and is classified as a core area and corridor. The DEN, although non-regulatory, is a statewide conservation network developed using GIS and field collected datasets

that help to identify and prioritize ecologically important areas for natural resource protection. The DEN includes ecologically important areas such as forests, wetlands, streams, habitat that supports rare species and areas of especially high quality. The DEN includes the following key elements: 1) Core areas – which contain relatively intact natural ecosystems, and provide high-quality habitat for native plants and animals, 2) Hubs – which are slightly fragmented aggregations of core areas with contiguous natural cover and 3) Corridors – which link core areas together, allowing wildlife movement and seed and pollen transfer between them. The DEN can be accessed through First Map: Delaware Ecological Network 2.0 | Delaware Ecological Network 2.0 | State of Delaware (arcgis.com). We recommend that this DEN designated area be protected to the fullest extent possible.

Low Marsh

Currently, there are no records of state-rare or federally-listed marsh bird species at this site. However, aerial imagery and wetland habitat maps indicate that low marsh habitat (i.e., dominated by *Spartina alterniflora*) is present. Several state-rare species of conservation concern frequently nest in low marsh habitat, including the seaside sparrow (*Ammospiza maritimus*), clapper rail (*Rallus longirostris*), and willet (*Tringa semipalmata*). We recommend a time of year restriction of **April 1st to July 31st** to avoid impacts to marsh nesting birds.

Fisheries

Horizontal Directional Drilling

The project description indicates that direct impacts to waterbodies would be avoided through use of trenchless construction methods, such as horizontal directional drill; therefore, no time of year restrictions or other measures are requested for anadromous fish species or for resident gamefish species. If this changes, please contact us again for further guidance. We would likely request that in-water work not occur from **March 1st to June 30th** to allow time for anadromous fish species and American eel young of the year, which utilize Little Mill Creek as a nursery area, to grow large enough to be less vulnerable to habitat-altering activities and then migrate out of the system.

Although the use of a directional drill has less of an impact than other methods, such as trenching, there is still a potential for frac-outs to occur which could impact wetlands and water bodies within the project area. Therefore, we highly recommend that a frac-out contingency plan be in place prior to the start of project activities. The contingency plan should include the following:

1. A provision to contain materials released,
2. A clean-up protocol, and
3. Arrangements for an experienced representative (drilling crew or consultant) to watch the site at all times so that the operation can be shut down immediately in the event a frac-out occurs.

In addition, on-site staff should have access to the DNREC 24-hour hotline **(1-800-662-8802)** to report any environmental release or fish kill. Immediate notification of any environmental release is imperative.

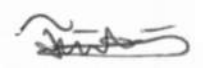
Please also contact fisheries section staff:

- Tidal waters: Devon Scott (Devon.Scott@delaware.gov or 302-735-2961)
- Non-tidal waters: Steven Luell (Steven.Luell@delaware.gov or 302-735-2973)
- If appropriate fisheries staff cannot be reached: Fisheries section (302-739-9914)

We are continually updating our records on Delaware's rare, threatened and endangered species, unique natural communities and other significant natural resources. If the start of the project is delayed more than a year past the date of this letter, please contact us again for the latest information.

Please feel free to contact me with any questions or if you require additional information.

Sincerely,



Faith Garcia
Environmental Review Coordinator
Phone: (302) 735-8665
Cell: (302) 443-3812
Email: christinefaith.garcia@delaware.gov
89 Kings Highway
Dover, DE 19901

(See invoice on next page)

INVOICE - PAYMENT DUE

It is our policy to charge a fee for this environmental review service. This letter constitutes an invoice for $35.00 ($35.00/hour for a minimum of one hour). Please make your check payable to "Delaware Division of Fish and Wildlife" and submit to:

DE Division of Fish and Wildlife
97 Commerce Way, Suite 106
Dover, DE 19904
ATTN: DFW Fiscal

In order for us to properly process your payment, you must reference "MTA 2025 Mill Creek Markell Trail Gas Line Replacement Project**" on your check.**

cc: DFW Fiscal; Code to 72900

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To: 02/05/2026 18:52:17 UTC
Project code: 2026-0046014
Project Name: Mill Creek Gas Line Replacement

Federal Nexus: yes
Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Record of project representative's no effect determination for 'Mill Creek Gas Line Replacement'

Dear Owen Stelzig:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on February 05, 2026, for 'Mill Creek Gas Line Replacement' (here forward, Project). This project has been assigned Project Code 2026-0046014 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the **Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (Dkey)**, invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat and/or Tricolored Bat

Based upon your IPaC submission and a standing analysis, your project has reached the following effect determinations:

Species	Listing Status	Determination

Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	No effect

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the species covered by this key. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions

occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Chesapeake Bay Ecological Services Field Office and reference Project Code 2026-0046014 associated with this Project.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Mill Creek Gas Line Replacement

2. Description

The following description was provided for the project 'Mill Creek Gas Line Replacement':

> Delmarva Power & Light Company (DPL) is proposing to relocate approximately 870 feet of an existing gas line by installing a new 12-inch diameter gas line on the north side of the Jack A. Markell Trail at Little Mill Creek in Wilmington, New Castle County, DE. The existing gas line in this area has become exposed in the water column of Little Mill Creek, putting gas reliability and public safety at risk. The proposed line will be installed deeper underneath Little Mill Creek, and the existing line will be filled with grout and abandoned in place.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.7244462,-75.56317088797742,14z

DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the species covered by this determination key. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   No

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

   No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Note for projects in Pennsylvania: Projects requiring authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act would be considered as having a federal nexus. Since the U.S. Army Corps of Engineers (Corps) has issued the Pennsylvania State Programmatic General Permit (PASPGP), which may be verified by the PA Department of Environmental Protection or certain Conservation Districts, the need to receive a Corps authorization to perform the work under the PASPGP serves as a federal nexus. As such, if proposing to use the PASPGP, you would answer ‘yes’ to this question.

   Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   No

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

   No

10. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum or winter roost? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

    Automatically answered

    No

11. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

    No

12. Will the action cause effects to a bridge?

    Note: Covered bridges should be considered as bridges in this question.

    No

13. Will the action result in effects to a culvert or tunnel at any time of year?

    No

14. Are trees present within 1000 feet of the action area?

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

15. Does the action include the intentional exclusion of bats from a building or building-like structure? **Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

    No

16. Does the action involve removal, modification, or maintenance of a human-made building-like structure (barn, house, or other building) **known or suspected to contain roosting bats?**

    No

17. Will the action cause construction of one or more new roads open to the public?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

    No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

20. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

    Note: For information regarding NSF/ANSI 60 please visit https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects

    No

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

    No

22. Will the action include drilling or blasting?

    Yes

23. Will the drilling or blasting produce noise or vibrations above existing background levels that will affect suitable summer habitat for northern long-eared bats and/or tricolored bats?

    Note: Additional information defining suitable suitable summer habitat for the northern long-eared bat and/or tricolored bat, can be found in Appendix A in the USFWS' Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines

    No

24. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use at night)?

    No

25. Will the proposed action involve the use of herbicides or pesticides (e.g., fungicides, insecticides, or rodenticides)?

    No

26. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

    Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    No

27. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    No

28. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

    No

29. Will the proposed action result in the use of prescribed fire?

    Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

    No

30. Does the action area intersect the tricolored bat species list area?

    Automatically answered
    Yes

31. Is the action area located within 0.5-mile of radius of an entrance/opening to any known tricolored bat hibernacula or winter roost?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

    Automatically answered
    No

32. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

33. Has a presence/probable absence bat survey targeting the tricolored bat and following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines been conducted within the project area?

    No

34. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities?
(If unsure, answer ""Yes."")

    Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (Tillandsia usneoides), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see Appendix A in the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines.

    Yes

35. Do you have any documents that you want to include with this submission?

    No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Owen Stelzig
Address: 1501 S Clinton St Suite 1150
City: Baltimore
State: MD
Zip: 21224
Email omstelzig@mccormicktaylor.com
Phone: 4109806103

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To: 02/05/2026 18:44:08 UTC
Project Code: 2026-0046014
Project Name: Mill Creek Gas Line Replacement

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
(410) 573-4599

PROJECT SUMMARY

Project Code: 2026-0046014
Project Name: Mill Creek Gas Line Replacement
Project Type: Natural Gas Distribution
Project Description: Delmarva Power & Light Company (DPL) is proposing to relocate approximately 870 feet of an existing gas line by installing a new 12-inch diameter gas line on the north side of the Jack A. Markell Trail at Little Mill Creek in Wilmington, New Castle County, DE. The existing gas line in this area has become exposed in the water column of Little Mill Creek, putting gas reliability and public safety at risk. The proposed line will be installed deeper underneath Little Mill Creek, and the existing line will be filled with grout and abandoned in place.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.7244462,-75.56317088797742,14z

Counties: New Castle County, Delaware

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Owen Stelzig
Address: 1501 S Clinton St Suite 1150
City: Baltimore
State: MD
Zip: 21224
Email omstelzig@mccormicktaylor.com
Phone: 4109806103