



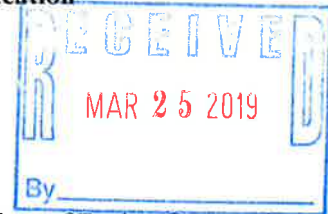
SOVEREIGN CONSULTING INC.

March 21, 2019

U.S. Army Corps of Engineers
1203 College Park Drive, Suite 103
Dover, Delaware 19904

Delaware Department of Natural Resources and Environmental Control
Wetlands and Subaqueous Lands Section
89 Kings Highway
Dover, Delaware 19901

**Re: NWP-12 & Wetlands and Subaqueous Lands Section Permit Application
Delmarva Power & Light Company
Whites Creek HDD
Sussex County, Delaware**



Dear Sir/Madam:

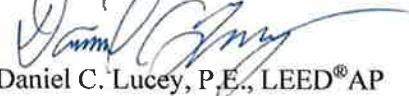
On behalf of Delmarva Power & Light Company (DPL), a wholly owned subsidiary of Exelon Corporation, Sovereign Consulting Inc. (Sovereign) is submitting this joint permit application (USACE: 1 copy, DNREC: 3 copies) for the above referenced horizontal directional drilling (HDD) project. In an effort to maintain and enhance electric service reliability, DPL proposes to install a 25kV electric power distribution line through a sixteen (16) inch diameter bore cavity under Whites Creek in order to create a looped circuit as customers in this area are currently served by a radial (i.e. dead end) circuit.

It is not anticipated that any excavation or fill within tidal or non-tidal wetlands will occur as a result of this project. However, Whites Creek is a tidal waterbody and the HDD bore will travel under this resource necessitating regulatory review by the United States Army Corps of Engineers (USACE) and the Delaware Department of Natural Resources and Environmental Control (DNREC). Therefore, on behalf of DPL, Sovereign requests a NWP-12 from the USACE and a Wetlands and Subaqueous Lands Section Permit from DNREC.

Please find attached copies of USACE form 4345, DNREC's Wetlands and Subaqueous Lands Section Basic Application, required supplemental information, and figures containing details of the project location and proposed activities. Additionally enclosed in the package for DNREC is a \$450.00 permit review fee check. If you have any questions or require further information regarding this application, please contact me at 703.732.3162 or Grant Parker at 410.860.6232.

Sincerely,

SOVEREIGN CONSULTING INC.


Daniel C. Lucey, P.E., LEED® AP
Senior Engineer

Attachments



An Exelon Company

**U.S. ARMY CORPS OF ENGINEERS AND DELAWARE
DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL JOINT PERMIT APPLICATION**

FOR

**WHITES CREEK
HORIZONTAL DIRECTIONAL DRILLING
SUSSEX COUNTY, DELAWARE**

MARCH 2019

PREPARED FOR:

**DELMARVA POWER & LIGHT COMPANY
PO BOX 9239
NEWARK, DE 19714**



PREPARED BY:

**SOVEREIGN CONSULTING INC.
50 WEST WELSH POOL ROAD, SUITE 6
EXTON, PA 19341**



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Attachment 7 – Raptor Nest Survey Report

Attachment 8 – Consultation Response Letters

Attachment 9 – Best Management Practices

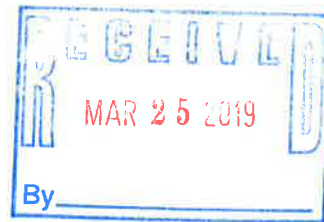
Attachment 10 – Adjacent and Riparian Property Owners

Attachment 11 – Copy of Right-of-Way Agreements

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Attachment 1
USACE Form 4345



U.S. Army Corps of Engineers (USACE)
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved -
OMB No. 0710-0003
Expires: 01-08-2018

The public reporting burden for this collection of information, OMB Control Number 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 APPLICATION TO THE ABOVE EMAIL.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. 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 a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. 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. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: <http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx>

(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 - Grant Middle - Last - Parker Company - Delmarva Power & Light Company E-mail Address - Grant.Parker@delmarva.com | 8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Daniel Middle - C Last - Lucey Company - Sovereign Consulting, Inc. E-mail Address - dlucey@sovcon.com |
| 6. APPLICANT'S ADDRESS: Address- PO Box 1739 City - Salisbury State - MD Zip - 21802 Country - USA | 9. AGENT'S ADDRESS: Address- 50 West Welsh Pool Road, Suite 6 City - Exton State - PA Zip - 19341 Country - USA |
| 7. APPLICANT'S PHONE NOS. w/AREA CODE a. Residence b. Business c. Fax 410-860-6232 | 10. AGENTS PHONE NOS. w/AREA CODE a. Residence b. Business c. Fax 703-732-3162 610-524-8129 |

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Daniel Lucey to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

Grant Parker
SIGNATURE OF APPLICANT

3/18/2019
DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

| | |
|--|--|
| 12. PROJECT NAME OR TITLE (see instructions) Whites Creek HDD | |
| 13. NAME OF WATERBODY, IF KNOWN (if applicable) Whites Creek | 14. PROJECT STREET ADDRESS (if applicable) Address See Attachment 4 |
| 15. LOCATION OF PROJECT Latitude: +N 38° 33' 15.78" Longitude: -W 75° 05' 40.51" | City - Ocean View State- DE Zip- 19970 |
| 16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID Municipality Section - Township - Range - | |

17. DIRECTIONS TO THE SITE
See Attachment 4

18. Nature of Activity (Description of project, include all features)

The applicant proposes to install a 25kV electric power distribution line under Whites Creek by pulling four (4) four-inch diameter conduits through a sixteen (16) inch cavity through the use of a horizontal directional drill (HDD). It is not anticipated that any excavation or fill within tidal or non-tidal wetlands will occur as a result of this project. The HDD design proposes that the conduit will be located at least twenty (20) feet below the bed of Whites Creek.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

In an effort to maintain and enhance electric service reliability, the applicant proposes to install a 25kV electric power distribution line through a sixteen (16) inch diameter cavity under Whites Creek in order to create a looped circuit as customers in this area are currently served by a radial (i.e. dead end) circuit.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge
N/A



21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

| Type Amount in Cubic Yards | Type Amount in Cubic Yards | Type Amount in Cubic Yards |
|-------------------------------|-------------------------------|-------------------------------|
| N/A | N/A | N/A |

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres N/A

or

Linear Feet N/A

23. Description of Avoidance, Minimization, and Compensation (see instructions)

N/A

24. Is Any Portion of the Work Already Complete? ☐ Yes ☒ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list)

a. Address- See Exhibit 10 for complete list of Adjacent Property Owners

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -



26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

| AGENCY | TYPE APPROVAL* | IDENTIFICATION NUMBER | DATE APPLIED | DATE APPROVED | DATE DENIED |
|--------|----------------|--------------------------|--------------|---------------|-------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application 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.

Grant Pake

SIGNATURE OF APPLICANT

03/18/2019
DATE

James C. Young

SIGNATURE OF AGENT

3/21/2019
DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

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.

Attachment 2
DNREC
Wetlands and Subaqueous Lands Basic
Application & Appendix E – Utility Crossings

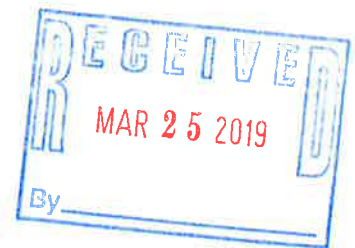


WETLANDS AND SUBAQUEOUS LANDS SECTION PERMIT APPLICATION FORM

**For Subaqueous Lands, Wetlands, Marina and
401 Water Quality Certification Projects**

**State of Delaware
Department of Natural Resources and Environmental Control
Division of Water**

Wetlands and Subaqueous Lands Section



**APPLICATION FOR APPROVAL OF
SUBAQUEOUS LANDS, WETLANDS, MARINA
AND WATER QUALITY CERTIFICATION PROJECTS**

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY**Application Instructions:**

1. Complete each section of this basic application and appropriate appendices as thoroughly and accurately as possible. Incomplete or inaccurate applications will be returned.
2. All applications must be accompanied by a scaled plan view and cross-section view plans that show the location and design details for the proposed project. Full construction plans must be submitted for major projects.
3. All applications must have an original signature page and proof of ownership or permitted land use agreement.
4. Submit an original and two (2) additional copies of the application (total of 3) with the appropriate application fee and public notice fee* (prepared in separate checks) to:

**Department of Natural Resources and Environmental Control
Wetlands and Subaqueous Lands Section
89 Kings Highway
Dover, Delaware 19901**

*Application and public notice fees are non-refundable regardless of the Permit decision or application status.

5. No construction may begin at the project site before written approval has been received from this office.

Helpful Information:

1. Tax Parcel Information:

| | |
|-------------------|----------------|
| New Castle County | (302) 395-5400 |
| Kent County | (302) 736-2010 |
| Sussex County | (302) 855-7878 |
2. Recorder of Deeds:

| | |
|-------------------|----------------|
| New Castle County | (302) 571-7550 |
| Kent County | (302) 744-2314 |
| Sussex County | (302) 855-7785 |
3. A separate application and/or approval may be required through the Army Corps of Engineers. Applicants are strongly encouraged to contact the Corps for a determination of their permitting requirements. For more information, contact the Philadelphia District Regulator of the Day at (215) 656-6728 or visit their website at: <http://www.nap.usace.army.mil/Missions/Regulatory.aspx>.
4. For questions about this application or the Wetlands and Subaqueous Lands Section, contact us at (302) 739-9943 or visit our website at: <http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx>. Office hours are Monday through Friday 8:00 AM to 4:30 PM, except on State Holidays.



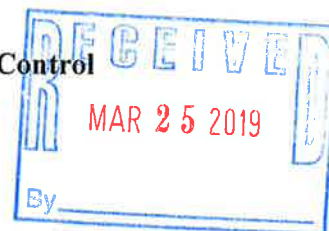
APPLICANT'S REVIEW BEFORE MAILING

DID YOU COMPLETE THE FOLLOWING?

| | | |
|-------------------------------------|-----|--|
| <input checked="" type="checkbox"/> | Yes | BASIC APPLICATION |
| <input checked="" type="checkbox"/> | Yes | SIGNATURE PAGE (Page 3) |
| <input checked="" type="checkbox"/> | Yes | APPLICABLE APPENDICES |
| <input checked="" type="checkbox"/> | Yes | SCALED PLAN VIEW |
| <input checked="" type="checkbox"/> | Yes | SCALED CROSS-SECTION OR ELEVATION VIEW PLANS |
| <input checked="" type="checkbox"/> | Yes | VICINITY MAP |
| <input checked="" type="checkbox"/> | Yes | COPY OF THE PROPERTY DEED & SURVEY |
| <input checked="" type="checkbox"/> | Yes | THREE (3) COMPLETE COPIES OF THE APPLICATION PACKET |
| <input checked="" type="checkbox"/> | Yes | APPROPRIATE APPLICATION FEE & PUBLIC NOTICE FEE (Separate checks made payable to the State of Delaware) |

Submit 3 complete copies of the application packet to:

**Department of Natural Resources and Environmental Control
Wetlands and Subaqueous Lands Section
89 Kings Highway
Dover, Delaware 19901**



Before signing and mailing your application packet, please read the following:

The Department requests that the contractor or party who will perform the construction of your proposed project, if other than the applicant, sign the application signature page along with the applicant in the spaces provided. When the application is signed by the contractor as well as the applicant, the Department will issue the Permit to both parties. For Leases, the contractor will receive a separate construction authorization that will make them subject to all of the terms and conditions of the Lease relating to the construction

Section 1: Applicant Identification

1. Applicant's Name: Grant Parker Telephone #: 410-860-6232
 Mailing Address: Delmarva Power & Light Fax #: _____
PO Box 1739 E-mail: Grant.Parker@delmarva.com
Salisbury, Maryland 21802
2. Consultant's Name: Daniel Lucey Company Name: Sovereign Consulting, Inc.
 Mailing Address: _____ Telephone #: 703-732-3162
50 West Welsh Pool Road, Suite 6 Fax #: _____
Exton, Pennsylvania 19341 E-mail: dlucey@sovcon.com
3. Contractor's Name: _____ Company Name: _____
 Mailing Address: _____ Telephone #: _____
 _____ Fax #: _____
 _____ E-mail: _____

Section 2: Project Description

4. Check those that apply:
☒ New Project/addition to existing project? ☐ Repair/Replace existing structure? (If checked, must answer #16)
5. Project Purpose (attach additional sheets as necessary):
In an effort to maintain and enhance electric service reliability, the Applicant proposes to install a 25kV electric power distribution line through a sixteen (16) inch diameter bore cavity under Whites Creek in order to create a looped circuit as customers in this area are currently served by a radial (i.e. dead end) circuit.
6. Check each Appendix that is enclosed with this application:

| | | |
|--|--|--|
| <input type="checkbox"/> A. Boat Docking Facilities | <input type="checkbox"/> G. Bulkheads | <input type="checkbox"/> N. Preliminary Marina Checklist |
| <input type="checkbox"/> B. Boat Ramps | <input type="checkbox"/> H. Fill | <input type="checkbox"/> O. Marinas |
| <input type="checkbox"/> C. Road Crossings | <input type="checkbox"/> I. Rip-Rap Sills and Revetments | <input type="checkbox"/> P. Stormwater Management |
| <input type="checkbox"/> D. Channel Modifications/Dams | <input type="checkbox"/> J. Vegetative Stabilization | <input type="checkbox"/> Q. Ponds and Impoundments |
| <input checked="" type="checkbox"/> E. Utility Crossings | <input type="checkbox"/> K. Jetties, Groins, Breakwaters | <input type="checkbox"/> R. Maintenance Dredging |
| <input type="checkbox"/> F. Intake or Outfall Structures | <input type="checkbox"/> M. Activities in State Wetlands | <input type="checkbox"/> S. New Dredging |

Section 3: Project Location

7. Project Site Address: _____ County: ☐ N.C. ☐ Kent ☒ Sussex
See Attachment 4 Site owner name (if different from applicant): _____
 Address of site owner: _____
8. Driving Directions: See Attachment 4
- (Attach a vicinity map identifying road names and the project location)
9. Tax Parcel ID Number: See Attachment 10 Subdivision Name: _____

| | | | | | | | | | |
|---|-----------------------------|--------------------------------------|-----------------------------|----------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| WSLS Use Only: | | Permit #s: _____ | | _____ | | _____ | | _____ | |
| Type | SP <input type="checkbox"/> | SL <input type="checkbox"/> | SU <input type="checkbox"/> | WE <input type="checkbox"/> | WQ <input type="checkbox"/> | LA <input type="checkbox"/> | SA <input type="checkbox"/> | MP <input type="checkbox"/> | WA <input type="checkbox"/> |
| Corps Permit: SPGP 18 <input type="checkbox"/> 20 <input type="checkbox"/> | | Nationwide Permit #: _____ | | Individual Permit # _____ | | | | | |
| Received Date: _____ | | Project Scientist: _____ | | | | | | | |
| Fee Received? Yes <input type="checkbox"/> No <input type="checkbox"/> | | Amt: \$ _____ | | Receipt #: _____ | | | | | |
| Public Notice #: _____ | | Public Notice Dates: ON _____ | | OFF _____ | | | | | |

Section 3: Project Location (Continued)

10. Name of waterbody at Project Location: Whites Creek waterbody is a tributary to: Indian River Bay
11. Is the waterbody: ☒ Tidal ☐ Non-tidal Waterbody width at mean low or ordinary high water 503 ft (MLW)
12. Is the project: ☒ On public subaqueous lands? ☐ On private subaqueous lands?*
☒ In State-regulated wetlands? ☒ In Federally-regulated wetlands?

*If the project is on private subaqueous lands, provide the name of the subaqueous lands owner:

See Attachment 11 for a copy of the Applicant's ROW agreements

(Written permission from the private subaqueous lands owner must be included with this application)

13. Present Zoning: ☐ Agricultural ☒ Residential ☐ Commercial ☐ Industrial ☐ Other

Section 4: Miscellaneous

14. A. List the names and complete mailing addresses of the immediately adjoining property owners on all sides of the project (attach additional sheets as necessary):

See Attachment 10 for a list of Adjacent Property Owners

- B. For wetlands and marina projects, list the names and complete mailing addresses of property owners within a 1,000 foot radius of the project (attach additional sheets as necessary):

See Attachment 10 for a list of Riparian Property Owners

15. Provide the names of DNREC and/or Army Corps of Engineers representatives whom you have discussed the project with:

A. Have you had a State Jurisdictional Determination performed on the property?

☐ Yes ☒ No

B. Has the project been reviewed in a monthly Joint Permit Processing Meeting?

☐ Yes ☒ No

*If yes, what was the date of the meeting? _____

16. Are there existing structures or fill at the project site in subaqueous lands?

☐ Yes ☒ No

*If yes, provide the permit and/or lease number(s): _____

*If no, were structures and/or fill in place prior to 1969?

☐ Yes ☒ No

17. Have you applied for or obtained a Federal permit from the Army Corps of Engineers?

☐ No

☒ Pending

☐ Issued

☐ Denied

Date: _____

Type of Permit: NWP 12

Federal Permit or ID #: _____

18. Have you applied for permits from other Sections within DNREC?

☒ No

☐ Pending

☐ Issued

☐ Denied

Date: _____

Permit or ID #: _____

Type of permit (circle all that apply): ☐ Septic ☐ Well ☐ NPDES ☐ Storm Water

Other: _____

Section 3: Project Location (Continued)10. Name of waterbody at Project Location: Whites Creek waterbody is a tributary to: Indian River Bay11. Is the waterbody: ☒ Tidal ☐ Non-tidal Waterbody width at mean low or ordinary high water 453 ft (MLW)12. Is the project: ☒ On public subaqueous lands? ☐ On private subaqueous lands?*
☒ In State-regulated wetlands? ☒ In Federally-regulated wetlands?*If the project is on private subaqueous lands, provide the name of the subaqueous lands owner:
See Attachment 11 for a copy of the Applicant's ROW agreements

(Written permission from the private subaqueous lands owner must be included with this application)

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B. For wetlands and marina projects, list the names and complete mailing addresses of property owners within a 1,000 foot radius of the project (attach additional sheets as necessary):

See Attachment 10 for a list of Riparian Property Owners

15. Provide the names of DNREC and/or Army Corps of Engineers representatives whom you have discussed the project with:

A. Have you had a State Jurisdictional Determination performed on the property?

☐ Yes ☒ No

B. Has the project been reviewed in a monthly Joint Permit Processing Meeting?

☐ Yes ☒ No

*If yes, what was the date of the meeting? _____

16. Are there existing structures or fill at the project site in subaqueous lands?

☐ Yes ☒ No

*If yes, provide the permit and/or lease number(s): _____

*If no, were structures and/or fill in place prior to 1969?

☐ Yes ☒ No

17. Have you applied for or obtained a Federal permit from the Army Corps of Engineers?

☐ No☒ Pending☐ Issued☐ Denied

Date: _____

Type of Permit: NWP 12

Federal Permit or ID #: _____

18. Have you applied for permits from other Sections within DNREC?

☒ No☐ Pending☐ Issued☐ Denied

Date: _____

Permit or ID #: _____

Type of permit (circle all that apply): Septic Well NPDES Storm Water

Other: _____



Section 5: Signature Page**19. Agent Authorization:**

If you choose to complete this section, all future correspondence to the Department may be signed by the duly authorized agent. In addition, the agent will become the primary point of contact for all correspondence from the Department.

I do not wish to authorize an agent to act on my behalf ☐

I wish to authorize an agent as indicated below ☒

I, Grant Parker, hereby designate and authorize Daniel Lucey
(Name of Applicant) (Name of Agent)
to act on my behalf in the processing of this application and to furnish any additional information requested by the Department.

Authorized Agent's Name: Daniel Lucey
Mailing Address: 50 West Welsh Pool Road
Suite 6
Exton, Pennsylvania 19341

Telephone #: 703-732-3162
Fax #: _____
E-mail: dlucey@sovcon.com

20. Agent's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application.

Daniel C. Lucey
Agent's Signature

3/21/2019
Date

21. Applicant's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge and that I am required to inform the Department of any changes or updates to the information provided in this application. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application. I grant permission to authorized Department representatives to enter upon the premises for inspection purposes during working hours.

Grant Parker
Applicant's Signature

03/18/2019
Date

Grant Parker, Delmarva Power & Light
Print Name

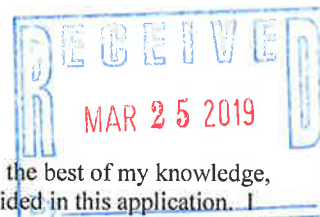
22. Contractor's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge, and that I am required to inform the Department of any changes or updates to the information provided in this application. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application.

Contractor's Name

Date

Print Name



Utility Crossings

Please respond to each question. Questions left blank may result in the application being returned as incomplete. In addition, the answers to all of the questions in this Appendix must correspond accurately to the information on the plan and section view drawings for the project.

1. Please indicate the total number of subaqueous lands crossings associated with the project here:
1 Complete a separate Appendix E for each crossing.

2. The information below is for Crossing # 1.

General Information

3. What type of utility is being installed and what is its diameter?

| | |
|--|--|
| <u> </u> wastewater pipeline <u> </u> inches | <input checked="" type="checkbox"/> electric line <u>16</u> inches |
| <u> </u> water line <u> </u> inches | <u> </u> TV/cable <u> </u> inches |
| <u> </u> gas line <u> </u> inches | <u> </u> fiber optic cable <u> </u> inches |
| <u> </u> other (describe) <u> </u> | <u> </u> inches |

4. What is the total length of the crossing relative to:

MHW 482 ft. MLW 453 ft. OHW 510 ft.

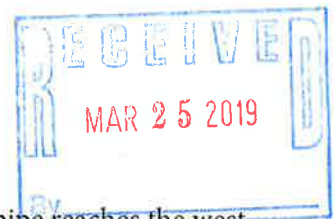
5. What is the total area of impact for the crossing relative to:

MHW 643 sq. ft. MLW 603 sqft. OHW 680 sq. ft.

6. What is the method of installation for the crossing:

☒ directional bore trench blasting plow

If another method of installation will be utilized, please describe here:



7. Briefly outline the construction sequence for placement of the structure:

A pilot hole will be drilled starting on the east side of Whites Creek. Once the drill pipe reaches the west side the hole will be reamed by pulling the pipe and a reamer back from west to east. After the hole is reamed to 16" in diameter a bundle of four 4-inch diameter conduit bundles will be pulled from the west side to the east side. Once the conduit is pulled through the hole the electrical connections will be made on either side of the creek.

8. Will dredging, excavating, or filling be required? Yes ☒ No

If "yes", complete the appropriate dredging appendix and/or fill appendix and include them with your application.

9. Will there be any permanent towers, poles, platforms or other structures (excluding submarine cables) on subaqueous land or in wetlands? ____ Yes ☒ No

If "yes", give the number of structures, and provide a description, including square footage and material (the location of all structures must be shown on the plans or the application cannot be processed).

10. At what depth will the subaqueous crossing be placed below the bottom of the waterbody? 20 ft.
At what height will an aerial crossing be above MHW? _____ feet

11. Is the crossing in, on, over or under public (undeeded) or private subaqueous lands?

☒ Public ☒ Private

If private, who is/are the property holder(s)? Foreside Group, LLC & Tac Beacon, LLC

Provide a copy of any deed, ROW or easement granting access if the private property owner is other than the applicant.

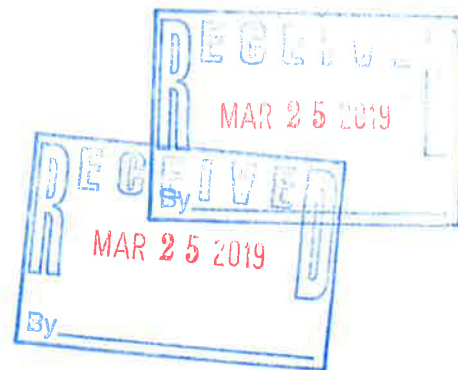
See Attachment 11 for a copy of the ROW agreements

12. Is the crossing adjacent to subaqueous lands on State-owned property? ____ Yes ☒ No
If so, which State agency is the owner? _____

Is the crossing within a DelDOT right of way? ____ Yes ☒ No

13. Please include evidence of written permission from the private land owner above (if other than the applicant).

See Attachment 11 for a copy of the Applicant's ROW Agreements



Attachment 3 Project Description



Written Description of Project

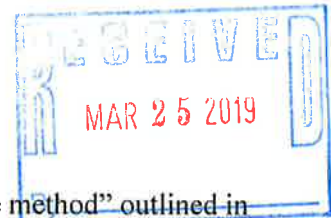
In an effort to maintain and enhance electric service reliability, Delmarva Power & Light (DPL) proposes to install a 25kV electric power distribution feeder (DE0531) under Whites Creek by pulling four (4) four-inch diameter conduits through a sixteen (16) inch diameter cavity through the use of a horizontal directional drill (HDD). Customers in the vicinity of the project are currently served by a radial (i.e. dead end circuit). Therefore, the purpose of the new 25kV line is to create a looped circuit which will allow electric service to feed from multiple directions in the event of an outage.

A bore rig will be setup within upland areas on the east side of the project near Daisey Avenue and conduit will be staged on the west side of the project near Peaceful Lane to be pulled back through the hole created by the drill bit. The HDD design proposes that the conduit will be located at least twenty (20) feet below the bed of Whites Creek.

A bathymetric survey of Whites Creek was performed by KCI Technologies, Inc. (KCI). Data from the KCI survey was utilized to create plan and profile drawings depicting the proposed HDD bore path. It is not anticipated that any excavation or fill within tidal or non-tidal wetlands will occur as a result of this project. All work is planned to occur within upland areas. However, given the proximity of the upland work areas to tidal wetlands and Whites Creek, erosion controls, site stabilization and DPL HDD boring protocols will be utilized as a best management practices to minimize the amount of sediment that could potentially migrate into jurisdictional areas during a storm event. Copies of applicable DPL BMPs are provided within Attachment 9.

The longitude and latitude for the termini of project location are as follows:

| | | |
|------------------|-----------------|-----------------|
| Eastern Terminus | 75° 05' 40.51"W | 38° 33' 15.78"N |
| Western Terminus | 75° 05' 49.96"W | 38° 33' 14.05"N |



Environmental Impacts

The project area was delineated on January 19, 2019 following the "routine method" outlined in the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual, as modified by the Corps Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region Version 2.0 (November 2010). A full copy of Sovereign's wetland delineation report is provided within Attachment 6. Within the project limits, one wetland, Wetland A, was identified.

Wetland A is a complex of estuarine emergent (E2EM) and estuarine unconsolidated bottom (E1UBL) wetlands associated with Whites Creek. The creek spans the majority of the project area. Vegetation was limited throughout the wetland and includes smooth cordgrass (*Spartina alterniflora*), and high-tide bush (*Iva frutescens*). The soil is a dark brown sandy loam with depleted matrix (10YR 4/1) and meets the indicator status of F3 (depleted matrix). Signs of hydrology include surface water, geomorphic position, and FAC-Neutral test.

There are no permanent impacts associated with this project. The bore path under Whites Creek measured from the edge of delineated tidal wetlands is 564 linear feet. Therefore, given that the diameter of the bore is 16 inches (1.3 feet), temporary impacts due to the bore traveling below Whites Creek are anticipated to be 752 square feet (0.017 acre). Environmental impact drawings are provided within Attachment 5.

Agency Consultation

Sovereign consulted with the DNREC Division of Fish and Wildlife and the United States Fish and Wildlife Service to determine whether the project will result in adverse impacts to threatened and endangered species. Below is a summary of the responses from each agency; please refer to Attachment 8 for copies of the agency response letters.

DNREC Division of Fish and Wildlife

The DNREC Division of Fish and Wildlife reviewed the proposed project for any potential adverse impacts to rare, threatened or endangered species, unique natural communities and other significant natural resources. According to their review which is documented in their February 28, 2019 response letter, there are no state or federal listed rare, threatened or endangered species present within the project area.

However, DNREC recommends a time of year restriction for in-stream work from March 1st through September 30th to protect species such as Summer Flounder, American Eel and Horseshoe Crabs.

USFWS

According to the USFWS auto-generated species list dated February 20, 2019, there are no federally proposed or listed endangered or threatened species or critical habitat within the project area. However, USFWS notes that there are several species of migratory birds which could be present within the project area.

Sovereign conducted a visual raptor nest survey for bald eagle (*Haliaeetus leucocephalus*) and osprey (*Pandion haliaetus*) nests within the project limits on January 22, 2019. There were no nests identified during the visual survey (see Attachment 7 for details). As such, a biological assessment or further Section 7 Consultation with USFWS is not required.



There are no permanent impacts associated with this project. The bore path under Whites Creek measured from the edge of delineated tidal wetlands is 510 linear feet. Therefore, given that the diameter of the bore is 16 inches (1.3 feet), temporary impacts due to the bore traveling below Whites Creek are anticipated to be 680 square feet (0.01 acre). Environmental impact drawings are provided within Attachment 5.

Agency Consultation

Sovereign consulted with the DNREC Division of Fish and Wildlife and the United States Fish and Wildlife Service to determine whether the project will result in adverse impacts to threatened and endangered species. Below is a summary of the responses from each agency; please refer to Attachment 8 for copies of the agency response letters.

DNREC Division of Fish and Wildlife

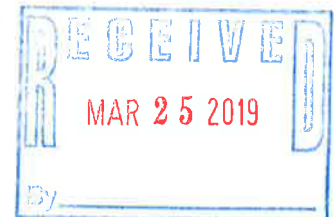
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USFWS

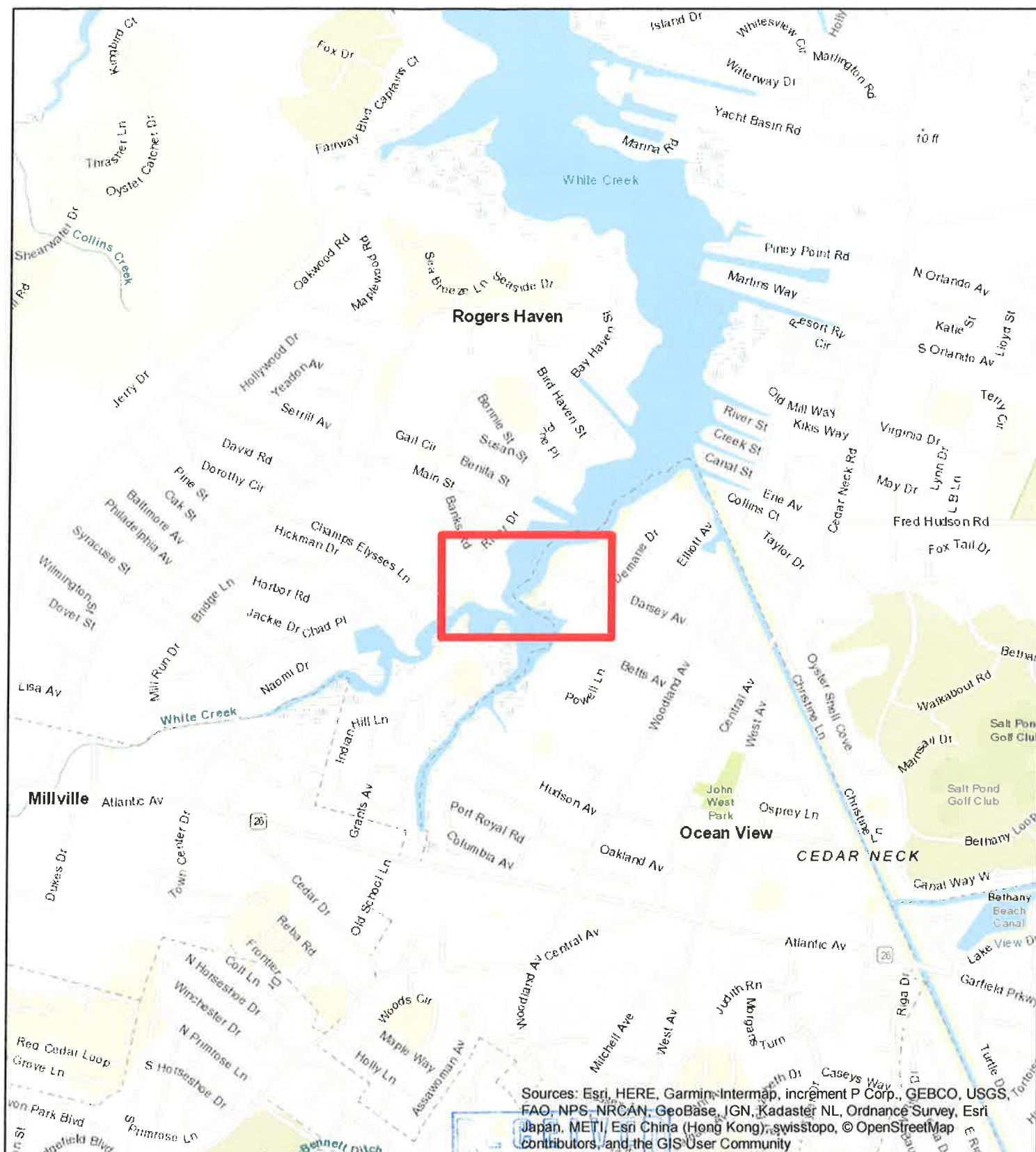
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Attachment 4
Site Figures





Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

MAR 25 2019

SOVEREIGN CONSULTING INC.

50 West Welsh Pool Road, Suite 6
Exton, Pennsylvania 19341
(610) 524-8124 (610) 524-8129



Legend

Whites Creek HDD Allignment

N
W E
S

NAD 1983 UTM Zone 18N
0.5

Miles

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Exton, Pennsylvania 19341
(610) 524-8124 (610) 524-8129

Fig. 2 - USGS Quadrangle Map

Delmarva Power & Light
Whites Creek Utility
Distribution Crossing
Sussex County, Delaware

Date: 3/08/2019



NAD 1983 UTM Zone 18N

1 inch = 175 feet

350

Feet



Legend

 Delineated Wetlands

RECEIVED
MAR 25 2019

Delmarva Power & Light
Sussex County Circuit
Whites Creek HDD Crossing Project

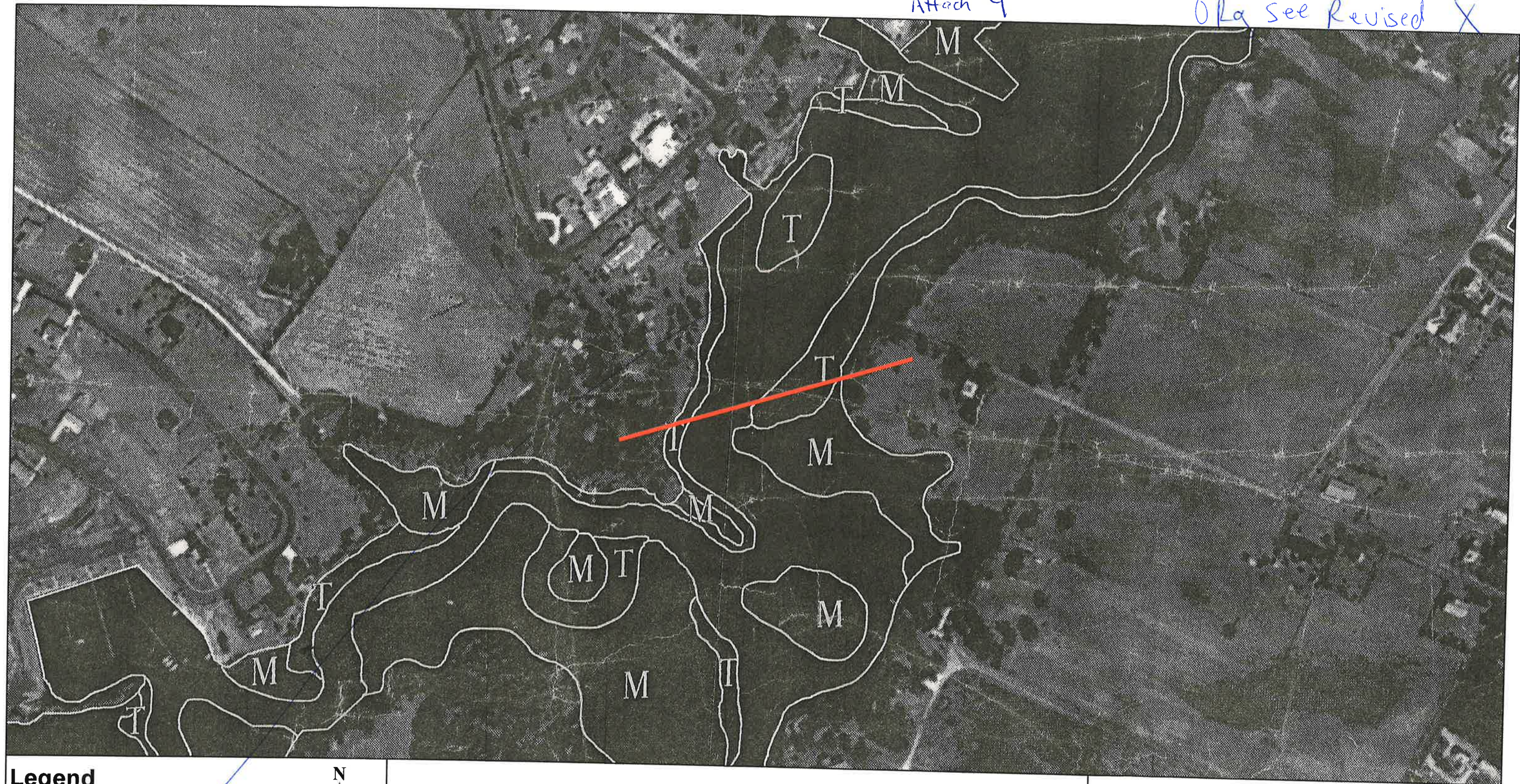


50 West Welsh Pool Road, Suite 6
Exton, Pennsylvania 19341
(610) 524-8124 (610) 524-8129

Date: 3/8/2019 Fig. 3

Attach 4

Ofc See Revised X



Legend

— 16" Diameter Bore Location



NAD 1983 UTM Zone 18N
870



Feet



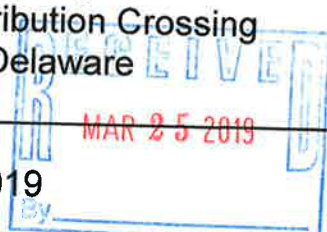
SOVEREIGN CONSULTING INC.

50 West Welsh Pool Road, Suite 6
Exton, Pennsylvania 19341
(610) 524-8124 (610) 524-8129

Figure 4 - DE Wetland Tile Exhibit Tile DNR042

Delmarva Power & Light
Whites Creek Utility Distribution Crossing
Sussex County, Delaware

Date: 3/08/2019

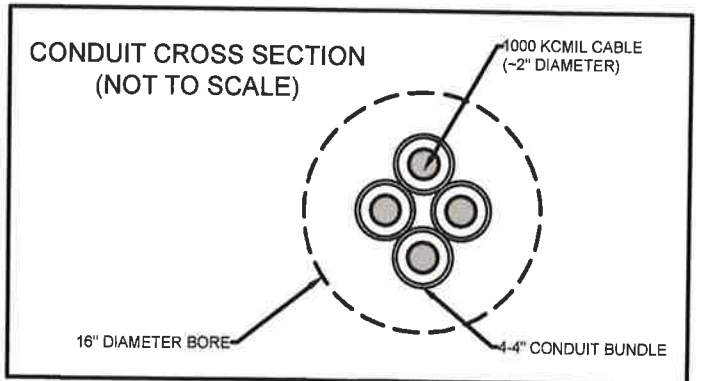
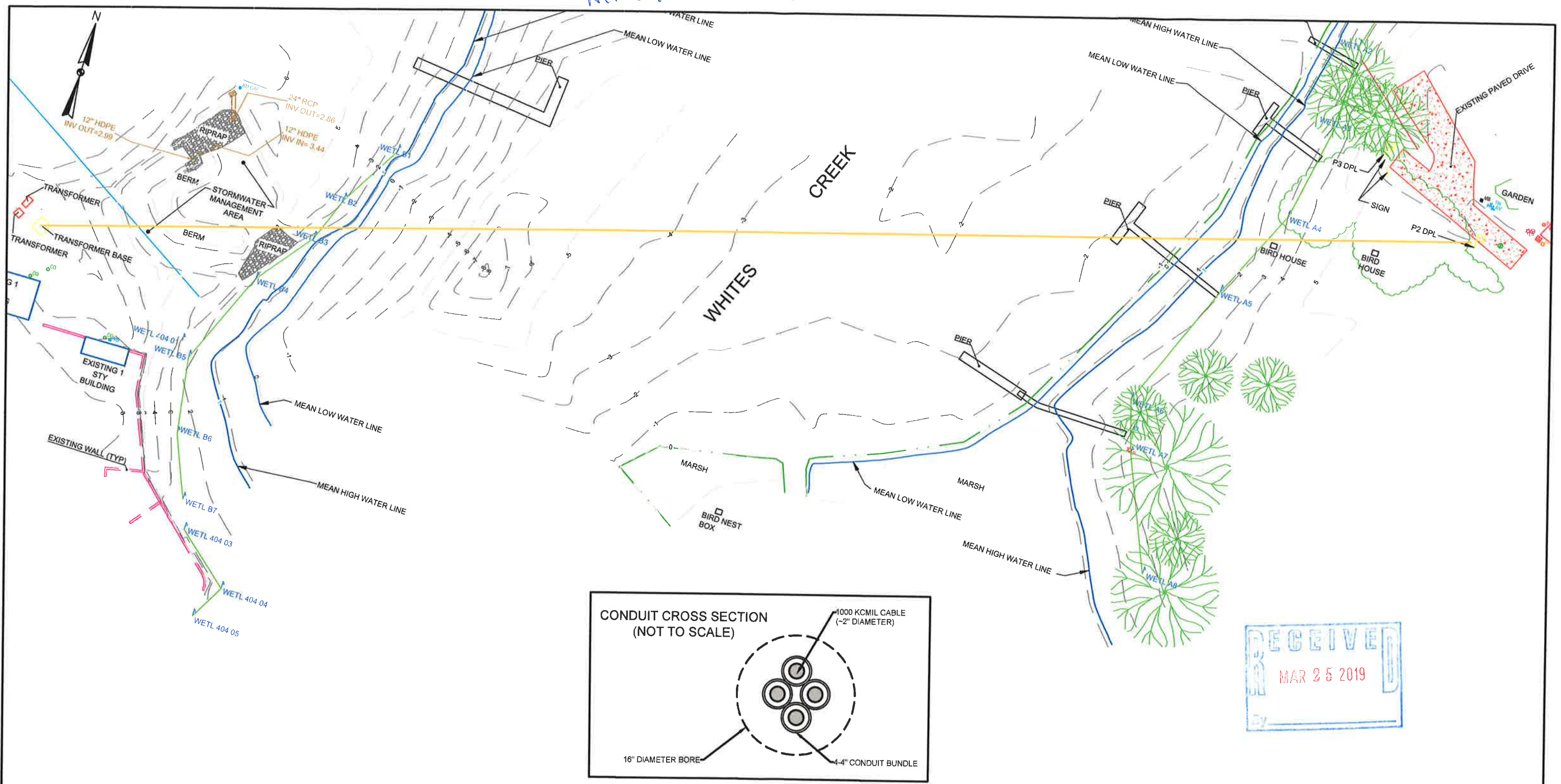


* 5

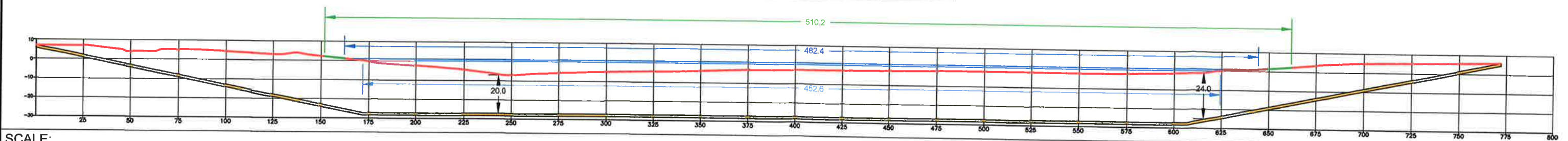
Attachment 5
Environmental Permitting Plans



Attachs



RECEIVED
MAR 25 2019
By _____



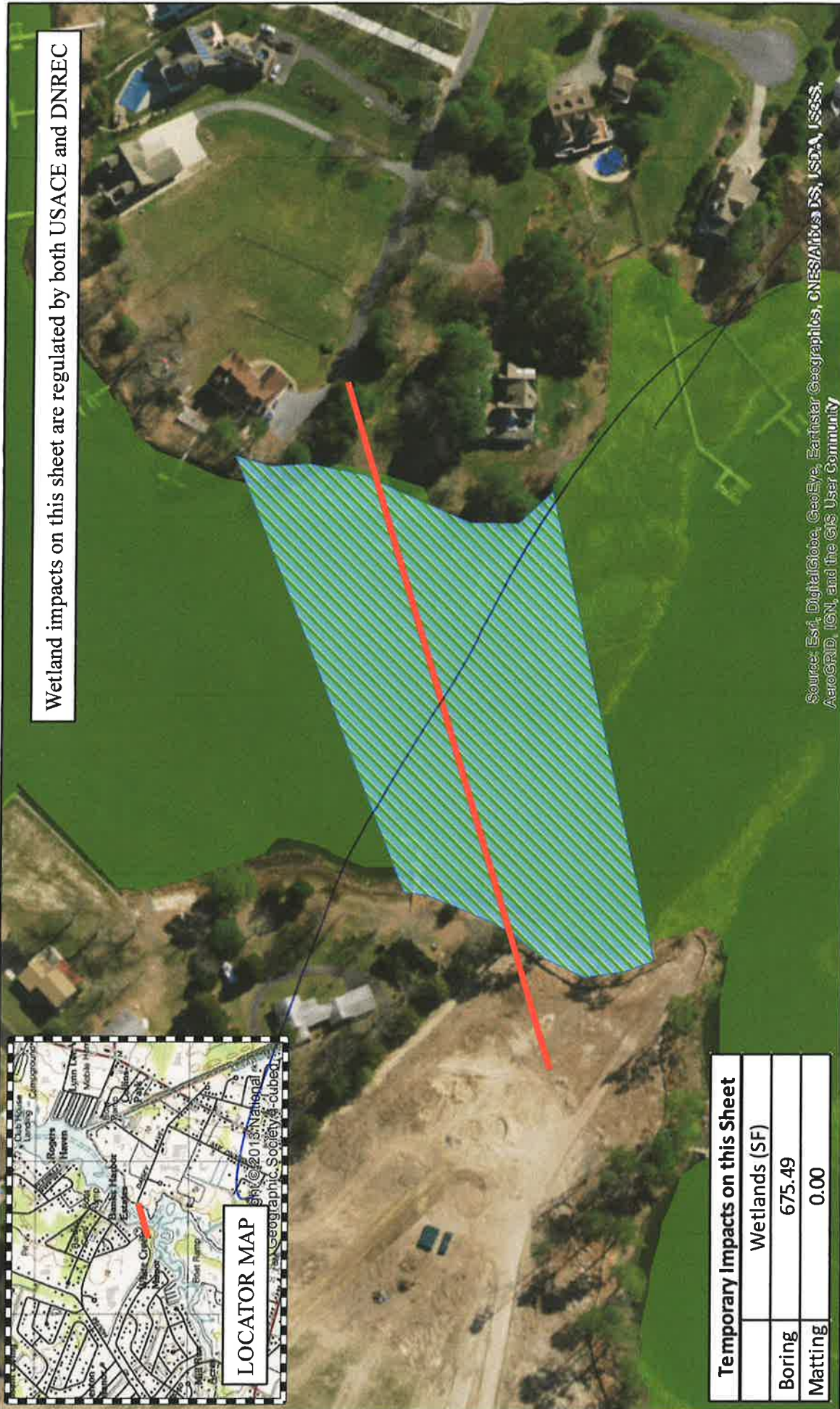
SCALE:
(H) AS
(V) SHOWN
100
FEET

- LEGEND
- 16" DIAMETER BORE HOLE
 - EXISTING GROUND SURFACE
 - WETLANDS
 - MHW LINE
 - MLW LINE

SOVEREIGN CONSULTING INC.

PROJECT: DELMARVA POWER & LIGHT COMPANY
WHITES CREEK HDD CROSSING
SUSSEX COUNTY DELAWARE

DATE: 3/08/2019



Wetland impacts on this sheet are regulated by both USACE and DNREC

LOCATOR MAP

| Temporary Impacts on this Sheet | |
|---------------------------------|--------|
| Wetlands (SF) | |
| Boring | 675.49 |
| Matting | 0.00 |

2007 Tidal Wetlands Boundary Downloaded From Firstmap@DE and Digitized by Sovereign Consulting Inc.



NAD 1983 UTM Zone 18N

140



Legend

- 16" Diameter Bore Location
- Delineated Wetlands
- Head of Tide Wetlands 2007



Delmarva Power & Light

Whites Creek Utility Distribution Crossing
Sussex County, Delaware



50 West Welsh Pool Road, Suite 6
Exton, PA 19341
P: 610-524-8124

Date: 3/08/2019 Impact Exhibit

Attachment 3
Wetland Figures





| | | | |
|---|---|--|---|
| <p>NAD 1983 UTM Zone 18N 1 inch = 175 feet 350 Feet</p> | <p>Copyright © 2013 National Geographic Society</p> | <p>Legend</p> <p> Delineated Wetlands</p> | <p>Delmarva Power & Light Sussex County Circuit Whites Creek HDD Crossing Project</p> <p> SUSSEX COUNTY, DE</p> <p>50 West Welsh Pool Road, Suite 6 Exton, Pennsylvania 19341 (610) 524-8124 (610) 524-8129</p> <p>Date: 2/13/2019 Fig. 1</p> |
|---|---|--|---|

Attachment 7
Raptor Nest Survey Report





An Exelon Company

AVIAN NEST SURVEY REPORT

**Whites Creek HDD Crossing Project
Sussex County, Delaware**

February 2019

**Prepared for:
Delmarva Power & Light Company
PO Box 9239
Newark, DE 19714-9239**



**Prepared by:
Sovereign Consulting Inc.
50 West Welsh Pool Road, Suite 6
Exton, PA 19341**



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1. INTRODUCTION

Sovereign Consulting Inc. (Sovereign) conducted a visual raptor nest survey within the specified area of the Whites Creek Horizontal Direction Drilling (HDD) crossing project on behalf of Delmarva Power & Light (DPL), a wholly owned subsidiary of Exelon Corporation. This report was prepared based on the most recent PHI standards (Pepco Holdings, 2016) and summarizes the methodology employed and results of the visual survey completed within the specified area of the Whites Creek HDD crossing project.

1.1 Project Description

The project includes an HDD crossing of Whites Creek, which is located within Sussex County, Delaware. Exact details of anticipated HDD activities are unknown at this time.

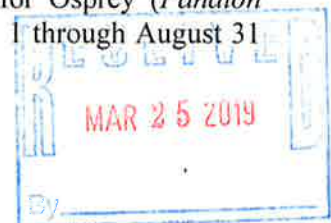
1.2 Site Description

The project area is located in Sussex County, Delaware, and consists of a mix of land use types including residential, cleared/maintained areas, and tidal wetlands.

1.3 Federal and State Regulatory Mechanisms

The bald eagle (*Haliaeetus leucocephalus*) is protected at the federal level through the Bald and Golden Eagle Protection Act (Eagle Act) and the Migratory Bird Treaty Act (MBTA). Both the Eagle Act and the MBTA prohibit the “take” of any bald or golden eagle (Federal Laws that Protect Bald Eagles, 2015). Take is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb” for the Eagle Act and as “pursue, hunt, shoot, wound, kill, trap, capture, possess, or collect” for the MBTA (National Bald Eagle Management Guidelines, 2007). Bald eagles can be very sensitive to human disturbance; to minimize and avoid disturbance, a 660-foot buffer should be maintained if the proposed activity will be visible from the nest and a 1,000-foot buffer should be maintained if the project would utilize helicopters and/or fixed-wing aircraft (National Bald Eagle Management Guidelines, 2007). If these buffers cannot be maintained, a time of year restriction from December 15 to July 15 prevents construction within these buffers to avoid incidental “take” of an eagle.

Additionally, a 300-foot buffer from all nests is required for Osprey (*Pandion haliaetus*) during the breeding season, which runs from April 1 through August 31 (Pepco Holdings, Inc., 2015).



1.4 Survey Type

Sovereign was contracted by DPL to perform a nest survey within the project area.

2. METHODOLOGY

2.1 Approach Summary

As directed by DPL, Sovereign conducted a visual nest survey throughout the project area.

2.2 Survey Methodology

Based on the location of the project area and direction provided by DPL, Sovereign conducted a visual raptor nest survey using high powered optics such as binoculars and spotting scopes. Sovereign personnel walked the project area on January 22, 2019 (Table 1) and visually surveyed all surrounding areas for evidence of nesting avian species that could potentially be impacted by the project activities.

Table 1. The table below is a summary of the survey performed within the project area.

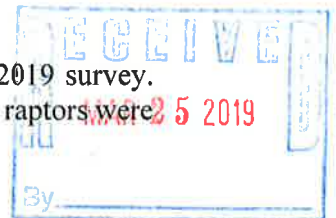
| Sovereign Personnel | Survey Date | Weather Conditions | Results |
|----------------------------|-------------|--|---|
| Brett Dietz JR Williams | 1/22/19 | Start: 35°F Fair Winds SSW 12 MPH No Precipitation End: 35°F Fair Winds SSW 12 MPH No Precipitation | No nests observed in target area. Empty nesting platform observed south of project area. |

Note: Weather conditions were consistent during the duration of the field event.

3. RESULTS

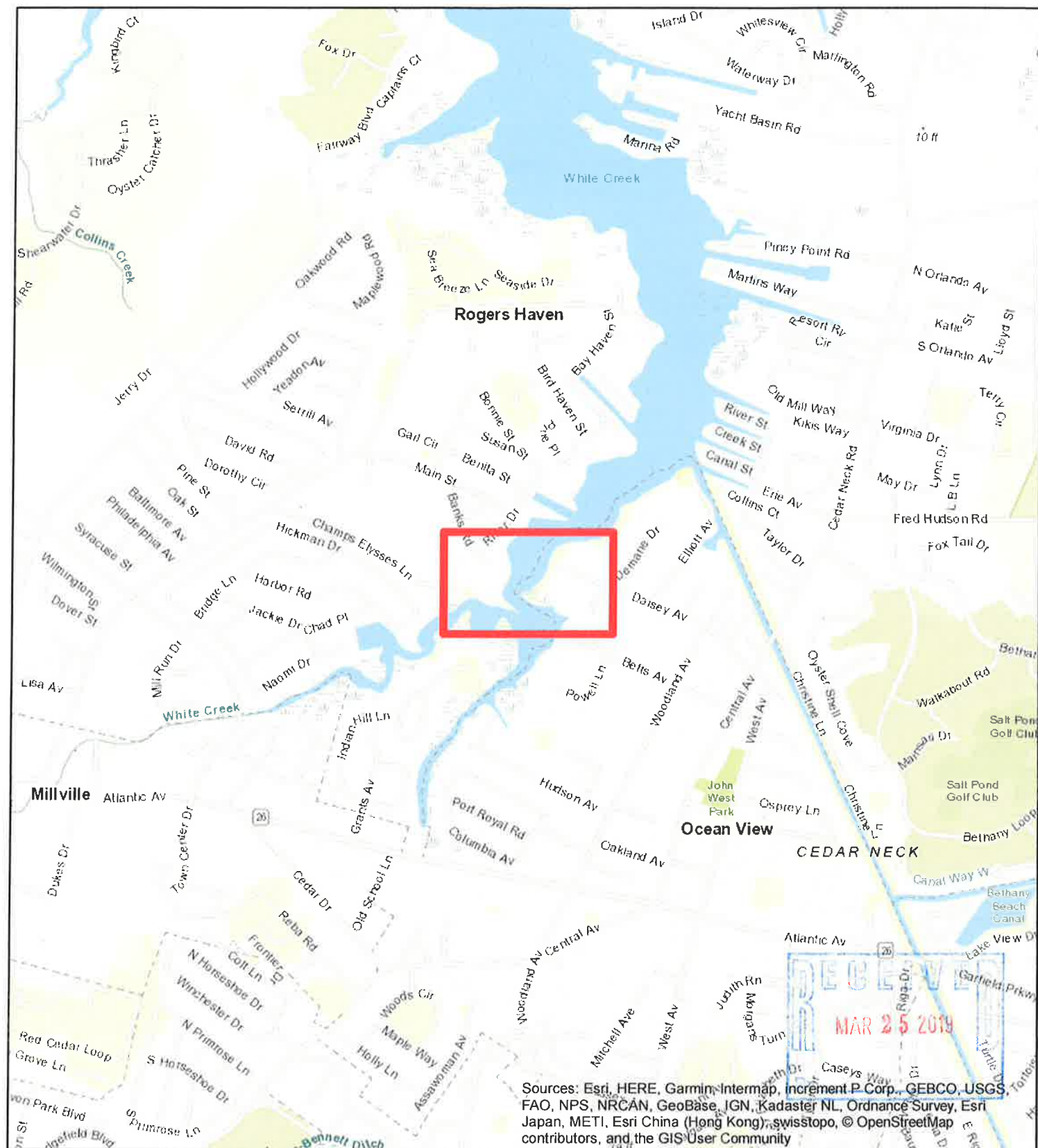
3.1 Summary of Documented Results

No stick nests were identified in the project area during the January 2019 survey. However, a nesting platform was identified south of the project area. No raptors were observed on the platform, or in the adjacent area.




3.2 Mapping

A map showing the location of the project corridor is included below.



Legend

 Whites Creek Project Area

NAD 1983 UTM Zone 18N
0.5

Miles



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Exton, Pennsylvania 19341
(610) 524-8124 (610) 524-8129

**Fig. 1 - Overall
USGS Quadrangle**

Delmarva Power & Light
Sussex County Circuit
Whites Creek
HDD Crossing Project

Date: 2/13/2019

3.3 Photographs



Photo 1. Representative photo of project area

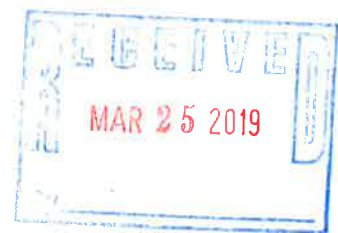


Photo 2. Representative photo of project area



Photo 3. Representative photo of project area

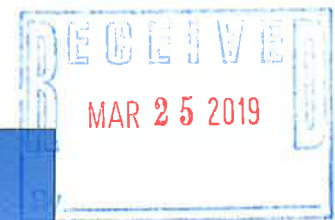


Photo 4. Representative photo of empty nest platform

4. DISCUSSION

4.1 Seasonality of Survey

The visual raptor nest survey was conducted on January 22, 2019 which is within the established breeding season.

4.2 Survey Limitations

The survey was primarily limited to the immediate project area due to property access rights. No other survey limitations were present during the survey.

4.3 Opportunistic Observations

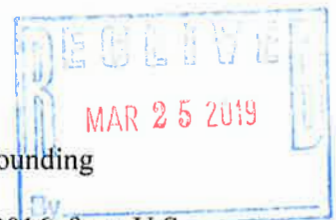
No raptor species were identified during the January 22, 2019 survey. Other non-target avian species were observed during the January 2019 survey. The species identified were Great blue heron (*Ardea herodias*) and American crow (*Corvus brachyrhynchos*). In addition, turkey vultures (*Cathartes aura*) were observed during the survey.

4.4 Future Recommendations

If maintenance is not completed prior to the next breeding season (e.g. winter/spring 2020) an additional survey is recommended to ensure that new nests were not constructed within 1,000 feet of the limits of construction.

5. REFERENCES

- Delmarva Power & Light. (2018, July 23). Request for Proposal - Guy Grounding Maintenance Work.
- Federal Laws that Protect Bald Eagles*. (2015, April 20). Retrieved May 2016, from U.S. Fish and Wildlife Service: <http://www.fws.gov/midwest/eagle/protect/laws.html>
- National Bald Eagle Management Guidelines*. (2007, May). Retrieved May 2016, from U.S. Fish and Wildlife Service Ecological Services: <http://www.fws.gov/northeast/ecologicalservices/pdf/NationalBaldEagleManagementGuidelines.pdf>
- Pepco Holdings, I. (2016, December 14). *PHI Avian Nest Survey Report Standardization*.
- Pepco Holdings, Inc. (2015, November). PHI's Avian Protection Program.



Attachment 8
Consultation Response Letters





STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF FISH & WILDLIFE
89 Kings Highway
Dover, Delaware 19901

OFFICE OF THE
DIRECTOR

Phone: (302) 739-9910
Fax: (302) 739-6157

February

Daniel C. Lucey
Sovereign Consulting, Inc.
50 West Welsh Road, Suite 6
Exton, Pennsylvania 19341

Re: SCI 2019 DPL Whites Creek HDD

Dear Mr. Lucey,

Thank you for contacting the Species Conservation and Research Program for information on threatened and endangered species.

Summer Flounder:

Sampling conducted by our Division's fisheries staff revealed that Whites Creek supports a large number of juvenile migratory fish and is thus considered an important nursery area in the Inland Bays. Several species of particular commercial and recreational importance utilize the creek and could be impacted by this project. A primary species of concern for this project is Summer Flounder (*Paralichthys dentatus*) which utilize the creek as a nursery area. We recommend that any in-stream work not occur from March 1st to September 30th to allow time for young of the year to grow large enough to be less vulnerable to habitat-altering activities and then migrate out of the system.

American Eel:

Whites Creek is utilized by large numbers of American Eel (*Anguilla rostrata*) during migratory activities. We request that any in-stream work not take place from March 1st to June 30th to allow upstream passage of elvers (young eels).

Horseshoe Crabs:

Intertidal zones of the Inland Bays generally support spawning Horseshoe Crabs (*Limulidae polyphemus*) and without site-specific data and appropriate monitoring, no in-stream work should occur from April 15th to August 30th to minimize the impact to Horseshoe Crabs.

HDD:

Although the use of a directional drill often has less of an impact than other methods, 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

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through Science and Service***

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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. On-site staff should have access to the DNREC 24 hour hotline phone number (1-800-662-8802) to report any environmental release or fish kill. Immediate notification of any environmental release is imperative. Please also follow-up with a contact to Edna Stetzar, DFW Environmental Scientist (302-735-8654 or Edna.Stetzar@state.de.us).

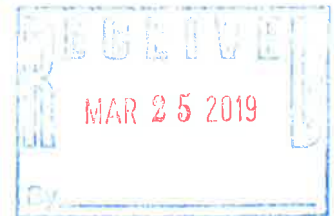
Please be advised that this review letter only includes possible impacts to species that are listed as federally endangered or threatened under the US Endangered Species Act and state endangered species when appropriate. Due to a temporary staff shortage, our program is unable to conduct the more thorough review we typically complete. A review that includes more detailed information will be available shortly, and if the project is reviewed at a later date, more information and recommendations may be included. We apologize for this inconvenience and appreciate your patience.

Sincerely,



Jeffrey Murphy
Environmental Review Assistant
Phone: 302-735-3600
6180 Hay Point Landing Rd
Smyrna, Delaware 19977

(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
89 Kings Hwy.
Dover, DE 19901
ATTN: Brandi Henderson

**In order for us to properly process your payment, you must reference
"SCI 2019 DPL Whites Creek HDD" on your check.**

cc: Brandi Henderson, Fish and Wildlife Accounting Specialist; 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

<http://www.fws.gov/chesapeakebay/>

<http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html>



In Reply Refer To:

February 20, 2019

Consultation Code: 05E2CB00-2019-SLI-0826

Event Code: 05E2CB00-2019-E-01857

Project Name: Whites Creek HDD

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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. This 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.*). MAR 25 2019

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 ECOS-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 ECOS-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:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

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 Tracking Number 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

Consultation Code: 05E2CB00-2019-SLI-0826

Event Code: 05E2CB00-2019-E-01857

Project Name: Whites Creek HDD

Project Type: TRANSMISSION LINE

Project Description: Delmarva Power & Light Company, a wholly owned subsidiary of Exelon Corporation proposes to extend electric distribution feeder DE0531 beneath Whites Creek. The feeder will be installed via a sixteen (16) inch diameter horizontal directional drilling (HDD) bore approximately 800 feet under the creek with the top of the cable being a minimum of twenty (20) feet below the creek bottom at its lowest point. A bore rig will be setup on the Daisy Avenue side and conduit will be staged on the Peaceful Lane side to be pulled back. The purpose of the project is to increase customer reliability by creating a loop where there is currently a radial circuit.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.55403458150505N75.09575293000877W>



Counties: Sussex, DE

Endangered Species Act Species

There is a total of 0 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.

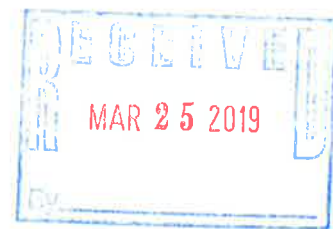
IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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.

-
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.

Critical habitats

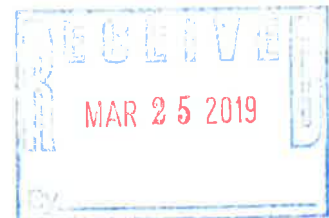
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



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.

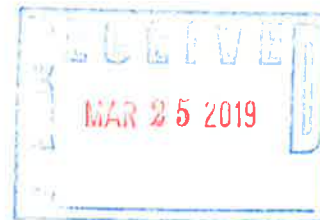
Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

ESTUARINE AND MARINE DEEPWATER

- E1UBL

ESTUARINE AND MARINE WETLAND

- E2EM1N
- E2EM1P



Attachment 9
Best Management Practices



B-7-5

VEGETATIVE STABILIZATION PERMANENT STABILIZATION



DEFINITION

To provide stabilization of exposed soil with permanent vegetation.

PURPOSE

To stabilize exposed soils with perennial long-lived grasses and legumes for periods greater than 6 months, and to prevent erosion on areas not covered with other materials, such as concrete, asphalt, or brick.



DESCRIPTION/CONDITIONS

Permanent stabilization is used to stabilize exposed soil for periods greater than 6 months. Prior to seeding, topsoil is placed as noted in BMP B-8-2 (Vegetative Stabilization – Soil Preparation, Topsoiling, and Soil Amendments).

SEEDING: The selected seed or seed mixture should be suitable for the area where the work is being done and certified to ensure the best quality and seed purity. A soil test should be performed to ensure the proper amounts of amendments are applied. For areas that will receive low maintenance, the application of 150 pounds per acre of urea fertilizer (46-0-0) is recommended at the time of seeding, in addition to the recommended amounts of soil amendments. The area to be seeded should be tilled by disking or other approved method 2 to 4 inches deep. The area should be smoothed and leveled to prepare a proper seedbed, leaving the top 2 to 3 inches loose and friable. On slopes greater than 3:1 but less than 2:1, the slope should be traversed with tracked machinery, with the tracking parallel to the slope. Remove branches, sticks, stones larger than 1½ inches in diameter, and all other foreign or unwanted material so that the area can be easily maintained. The area should be seeded and mulched as outlined in Section B-8-3 (Vegetative Stabilization – Seeding and Mulching). When moisture deficient conditions exist, the newly seeded area should be watered, if at all possible. Watering should consist of applying 1 inch of water every 3 to 4 days until the grass is firmly established.

SOD: Sod provides immediate stabilization on areas with a slope of 2:1 or flatter. Sod should be certified and the certification labels should be available for inspection prior to the placement of the sod. Sod used

for permanent stabilization should be machine cut with a uniform thickness of $\frac{3}{4}$ inch, not including the top growth and thatch. The thickness of the sod should not deviate by more than $\frac{1}{4}$ inch, either way. Broken or torn sod pads should not be used. Standard sections of sod should be strong enough to support their own weight and retain their shape when held vertically. Sod should be harvested when the moisture content is not excessively wet or dry, and should be transported and placed within 36 hours of harvesting.

SOD INSTALLATION: Sod should not be laid on excessively dry or frozen soils. When the soil is excessively dry, or during periods of high temperatures, the soil should be lightly watered just prior to laying the sod. The first row of sod should be laid in a straight line with subsequent rows parallel to and tightly abutting the first row. Stagger the lateral joints of the sod sections to promote a more uniform growth and strength of the vegetation. Avoid tearing, stretching, and overlapping the sod. All joints should be tight to prevent voids that would allow the roots to dry. On slopes, sod should be laid with the long edges parallel to the contour. Immediately after placement, the sod must be rolled or tamped to ensure good contact with the soil and then stapled, pegged, or secured to prevent slippage. After the sod is installed, it should be thoroughly watered to ensure both the sod and soil below the sod are thoroughly wet. The process of laying the sod, including the final watering, should be completed within 8 hours.

In the absence of rainfall, newly placed sod should be watered daily with sufficient water to thoroughly wet the sod and moisten the soil 4 inches deep, for at least the first week. Watering sod during the heat of the day will prevent wilting. After the first week, the sod should be watered as needed to maintain adequate moisture of the sod and subsoil. Newly placed sod must be fully established and rooted prior to mowing. No more than $\frac{1}{3}$ of the grass blade should be removed during the first mowing.

ADVANTAGES

Permanent stabilization protects the soil with a perennial vegetative cover for more than 6 months. Once established, and depending on the location, minimal maintenance is required to ensure the area remains stabilized. When used, sod provides immediate stabilization and prevents erosion of areas where it is critical to establish permanent stabilization quickly. This can be an environmental benefit and also a substantial public relations benefit.

LESSONS SHARED

Sod is likely the most expensive method to establish permanent stabilization. Establishing sod is labor intensive and requires a source of water. If a water source is not available at the site, water must be brought in as necessary for use.

MAINTANENCE

From the time the permanent stabilization is completed until the vegetation is firmly established, watering is recommended, as noted above. Areas that erode or fail to establish sufficient vegetation should be addressed immediately. Areas of erosion should be filled, compacted, and restabilized. Areas without adequate vegetative cover, less than 95% but greater than 40%, should be overseeded at one-half the original rate of seed and fertilizer, with mulch applied and anchored in accordance with the approved plans. Areas of less than 40% coverage should be tilled and restabilized following the original procedure.

B-10

HORIZONTAL DIRECTIONAL DRILLING

DEFINITION

A trenchless method of installing pipe, conduit, or cable underground.

PURPOSE

To place infrastructure under roadways, congested areas, streams, wetlands, and other sensitive environmental areas without the damage and disruption of open trenching.

DESCRIPTION / CONDITIONS

Horizontal Direction Drilling (HDD) is a method of installing infrastructure underground by boring a pilot hole and then enlarging the hole to the desired diameter. After installing an entry and receiving pit, which also acts as a collection and containment area for drilling fluids, the boring machine drills a horizontal pathway for the length needed. HDD is used to install infrastructure across environmentally sensitive areas to avoid open trenching and the need to obtain environmental permits. HDD is also used in urban areas to avoid open trenching, which can be expensive and disruptive to traffic and the community.



MAR 25 2019

ADVANTAGES

Using the HDD method to install underground infrastructure in environmentally sensitive areas can reduce or eliminate the need to obtain environmental permits. HDD eliminates the need for open trenches, which reduces the potential for erosion from exposed soil, the need to stabilize a trench after backfilling, and the problems associated with open trenches in urban areas, and can reduce the overall cost.

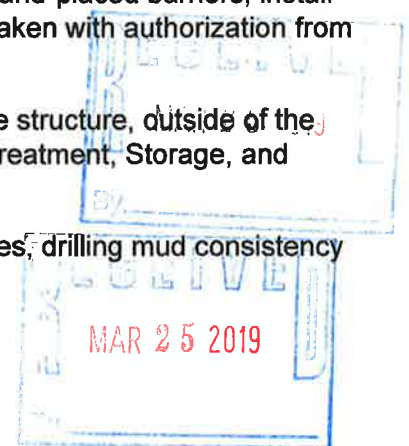
LESSONS LEARNED

HDD occasionally causes frac-out. Frac-out is the accidental release of drilling fluid through the ground, along the drilling pathway. Frac-out results when the pressure within the bore hole is greater than the surrounding soils can contain. This pressure differential can be due to sandy soil, soils containing a large

amount of gravel, or weak soils. Frac-outs must be stopped and the released materials contained, cleaned up, and properly disposed of at a PHI approved Treatment, Storage, and Disposal Facility (TSDF). The process to address a frac-out depends on where the frac-out occurs. When a frac-out occurs in or near sensitive resources, the following steps are recommended.

Wetland Location

- Suspend drilling operations if the release poses a threat to human health and safety or the environment.
- Temporarily suspend forward drilling and promptly notify the construction supervisor.
- In a state- or federal-regulated wetland, notify Environmental Planning (see contact information below) and the appropriate agencies of such event as soon as practicable.
- In consultation with Environmental Planning and regulatory agency where practicable, implement appropriate response and cleanup measures.
- Remove frac-out slurries in or adjacent to wetlands to the extent practical and restore the area to its previous condition. Efforts to contain and recover slurry in wetlands may result in further disturbance, and possibly offset the benefit gained in removing the slurry. Because it is difficult to predict the effects of a frac-out and the attempts to recover the slurry, Environmental Planning will evaluate frac-outs within wetlands on a case-by-case basis to determine the appropriate level of response to be implemented.
- If the amount of the frac-out slurry is too small to allow physical collection from the affected area, dilute it well with fresh water and allowed it to infiltrate and/or allow the fluid to dry and dissipate naturally.
- If the amount of the slurry exceeds that which can be contained with hand-placed barriers, install small collection sumps to contain the slurry. This step should only be taken with authorization from the regulatory agencies or as directed by Environmental Planning.
- Store the recovered slurry in a temporary holding tank or other suitable structure, outside of the wetland and 100-foot buffer, for reuse or disposal at a PHI approved Treatment, Storage, and Disposal Facility (TSDF).
- Evaluate the current drill profile (e.g., drill pressures, pump volume rates, drilling mud consistency) to identify means to prevent further frac-out events.
- Once the frac-out is stopped and contained, resume drilling.



In-Stream Locations

- Suspend drilling operations if the release poses a threat to human health and safety or the environment.

- Temporarily suspend forward drilling and promptly notify the construction supervisor. The construction supervisor will:
 - o Contact Environmental Planning.
 - o Monitor the extent of the frac-out slurry plume.
 - o In a state- or federal-protected stream, notify the appropriate regulatory agency as soon as practicable.
 - o Initiate containment measures and recovery of the frac-out slurry as appropriate. Containment is not always feasible for in-stream frac-outs. Assess whether hand-placed containment, recovery, or other measures, such as silt curtains and turbidity barriers, would be effective and beneficial.
 - o Store the recovered slurry in a temporary holding tank or other suitable structure, outside of wetlands, sensitive areas, away from streams and outside of a 100-foot buffer, for reuse or disposal at a PHI approved Treatment, Storage, and Disposal Facility (TSDF).
 - o Evaluate the current drill profile (e.g., drill pressures, pump volume rates, drilling mud consistency) to identify means to prevent further frac-out events.
 - o Once the frac-out is stopped and contained, resume drilling.

Containment Materials

At a minimum, the following containment, response, and clean-up equipment should be available at each HDD, especially when sensitive areas are nearby.

- Sand bags
- Silt fence
- Plastic sheeting
- Turbidity barriers
- Shovels
- Pails
- Push brooms
- Squeegees
- Pumps and sufficient hose
- Mud storage tanks
- Vacuum truck on 24-hour call (a vacuum truck may be on site to haul return mud back to the recirculating tank)



Clean Up and Restoration

Environmental Planning, in cooperation with the regulatory agencies, will develop site-specific clean up measures following any frac-out. If restoration is needed, Environmental Planning will develop the restoration plan. The following cleanup measures should be followed at a minimum.

- Clean up drilling mud by hand using shovels, buckets, and soft bristled brooms.
- Complete cleanup without causing damage to existing vegetation.
- Employ fresh water washes if deemed beneficial and feasible.
- Pump out containment structures and scrape the ground surface to bare topsoil without causing undue loss of topsoil or ancillary damage to existing and adjacent vegetation.
- Collect frac-out material in containers for temporary storage prior to removal from the site.

MAINTENANCE

Maintain the entry and receiving pits in a condition such that the drilling fluid does not escape from the pits. Sediment perimeter controls should be installed around the entry and receiving pits, as needed, and inspected at least weekly and after each rain event. Sediment controls should be maintained, repaired, or replaced as needed.

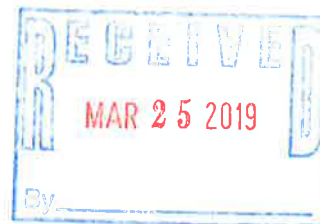
CONTACTS

Environmental Planning
Cristina Frank – Primary
Lead Environmental Scientist
Environmental Planning
(302) 454-4179 (p)
(302) 540-9905 (c)
Cristina.Frank@pepcoholdings.com

Dana Small – Secondary
Manager
Environmental Planning
(302) 283-6072 (p)
(302) 463-0389 (c)
Dana.Small@pepcoholdings.com

Mailing Address
MS79N64
P.O. Box 9239
Newark, DE 19714-9239

Other Deliveries
MS79NC64
401 Eagle Run Road
Newark, DE 19702



E-1

FILTER LOG

PREFERRED BMP FOR FILTERING

DEFINITION

Temporary, mesh, tubular casing filled with a coarse, compost filter medium. The tubes are biodegradable or photodegradable and are filled using a pneumatic blower.

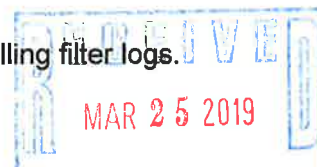
PURPOSE

To intercept sheet flow, retain sediment, and filter runoff.

DESCRIPTION/CONDITIONS

Filter logs are an alternative to silt fencing and can be used in hard-to-reach areas, on frozen ground, on pavement, and near tree roots. Heavy vegetation should be removed, by cutting off near the ground, prior to installing filter logs.

Filter logs must conform to the design criteria listed in the table below.



| Filter Log Design Constraints | | |
|-------------------------------|--|--------------------------------|
| Average Slope Steepness | Log Diameter 8 to 15 inches | Log Diameter > 15 to 25 inches |
| | Maximum Contributing Slope Length (ft) | |
| Flatter than 50:1 (<2%) | 125 | 250 |
| 50:1 to 10:1 (2-10 %) | 65 | 125 |
| <10:1 to 5:1 (>10-20%) | 50 | 100 |
| <5:1 to 2:1 (>20-50%) | N/A | 50 |

Filter logs should be placed parallel to contour, with both ends turned up grade to prevent bypass. Filter logs can be used only for sheet flow. The filter medium must be compost in accordance with the table below or other approved biodegradable materials. Filter logs must be staked at least every 4 feet or trenched a minimum of 4 inches into the ground and staked at least every 8 feet. Upon stabilization of the tributary area, filter logs may be left in place and vegetated or removed. In the latter case, the mesh should be cut open and the mulch spread as a soil supplement. In either case, the stakes should be removed.

| Compost Material | |
|---|---|
| Parameters | Acceptable Range* |
| pH | 5.0 - 8.5 |
| Moisture Content | 30% - 60%, wet weight basis |
| Organic Matter Content | 25% - 65%, dry weight basis |
| Particle Size | % passing a selected mesh size, dry weight basis 3 in (75 mm), 100% passing 1 in (25 mm), 90 – 100% passing 0.75 in (19 mm), 70 – 100% passing 0.25 in (6.4 mm), 30 – 60% passing 0.04 in (1 mm), 30% min. passing |
| Physical Contaminants (Manmade Inerts) | <1% dry weight basis |

* Adapted from AASHTO Standards Specs for Compost Filter Socks and EPA Example Compost Filter Parameters

ADVANTAGES

Filter logs are highly efficient at removing sediment. They are flexible and can be filled in place or, in some cases, filled and moved into position. They are especially useful on steep slopes and rocky soils. Filter logs can be placed without disturbing the soil (trenching), thereby reducing the amount of soil disturbance which reduces the potential for erosion. A much smaller amount of material (mesh tubes) need be disposed of at a PHI approved Treatment, Storage, and Disposal Facility (TSDF) at the end of the project, if the compost is left onsite. The compost can be spread onsite as a soil amendment or mulch.

LESSONS SHARED

Biodegradable filter logs have a functional life of 6 months, and photodegradable filter logs have a functional life of 1 year. Filter logs used in projects with disturbances anticipated to last longer than the life of the filter log should be replaced periodically, or another type of filtering should be used. Filter logs are labor intensive to construct and require routine inspection to ensure functionality. Mesh tubes which are

not biodegradable are to be removed and properly disposed of at a PHI approved Treatment, Storage, and Disposal Facility (TSDF).

MAINTENANCE

Sediment and debris must be removed and mulch must be replaced when sediment has accumulated to one-half the exposed height of the log. Filter logs that are clogged or torn must be replaced and reinstalled if undermined or dislodged. In permanent applications of filter logs, vegetation must be established and maintained so the requirements for Adequate Vegetative Establishment are met in accordance with the approved plan.

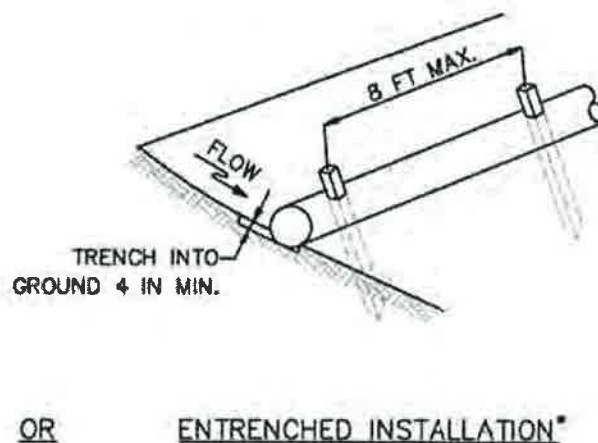
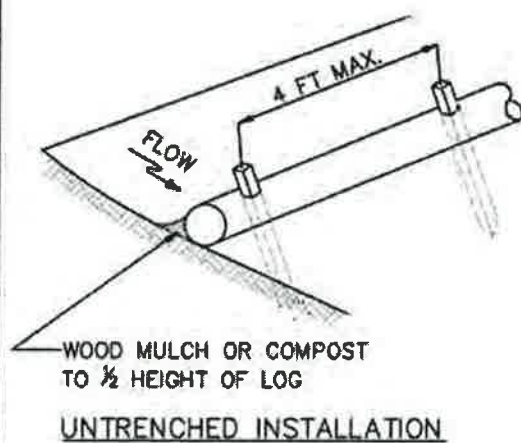
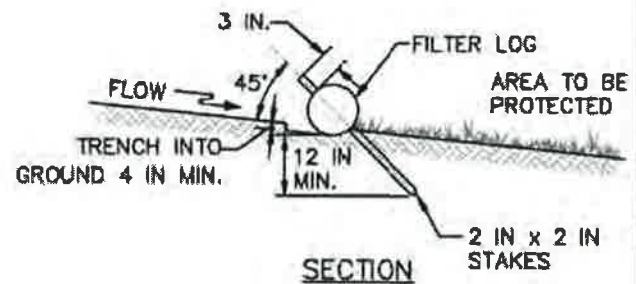
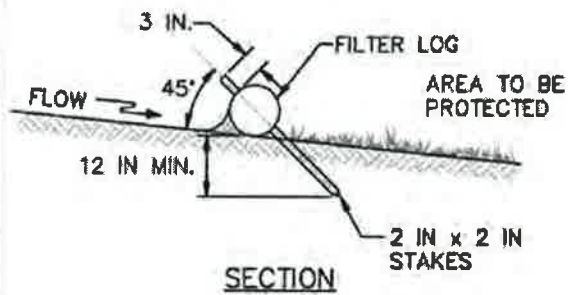


DETAIL E-1 FILTER LOG

STANDARD SYMBOL

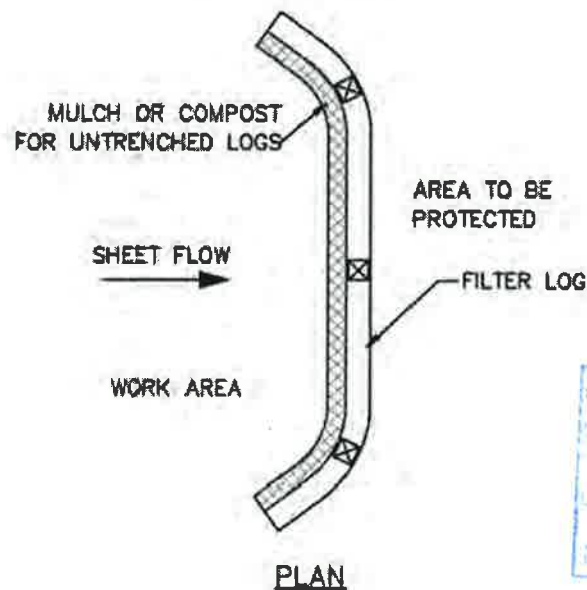
FL-18

DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG.



*THIS APPLICATION MAY NOT BE USED WITH LOGS SMALLER THAN 12 IN.

ISOMETRIC VIEW



1 OF 2

PHI STANDARDS AND SPECIFICATIONS FOR ENVIRONMENTAL BEST MANAGEMENT PRACTICES MANUAL

SOURCE: U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MARCH 3, 2014
REVISION 1.0

Pepco Holdings Inc

DETAIL E-1 FILTER LOG

STANDARD SYMBOL

— FL-18 —

DESIGNATION FL-18 REFERS TO
18 INCH DIAMETER FILTER LOG.

CONSTRUCTION SPECIFICATIONS

1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
2. FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH THE COMPOST MATERIAL TABLE), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
3. INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO CONTOUR WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
4. FOR UNTRENCHED INSTALLATION, BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
5. STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.
6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
7. WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
8. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF $\frac{1}{2}$ THE EXPOSED HEIGHT OF THE LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH THE APPROVED PLAN.




2 OF 2

PHI STANDARDS AND SPECIFICATIONS FOR ENVIRONMENTAL BEST MANAGEMENT PRACTICES MANUAL

SOURCE: U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

MARCH 3, 2014
REVISION 1.0

 Pepco Holdings Inc

Attachment 6
Wetland Delineation Report





An Exelon Company

WETLAND DELINEATION REPORT

**Whites Creek HDD Crossing Project
Sussex County, Delaware**

February 2019

**Prepared for:
Delmarva Power & Light Company
PO Box 9239
Newark, DE 19714**

**Prepared by:
Sovereign Consulting Inc.
50 West Welsh Pool Road, Suite 6
Exton, PA 19341**

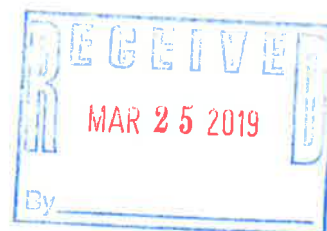


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| 4. RESULTS | 2 |
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List of Attachments

- Attachment 1 – Wetland Determination Data Logs
- Attachment 2 – Wetland Photographs
- Attachment 3 – Wetland Delineation Maps



1. INTRODUCTION

Sovereign Consulting Inc. (Sovereign) prepared this Wetland Delineation Report on behalf of Delmarva Power & Light Company (DPL), a wholly owned subsidiary of Exelon Corporation. This report summarizes activities conducted to identify whether wetlands, wetland transition areas/buffers, or waterways occur within the project area associated with the Whites Creek HDD Crossing project.

2. SITE INFORMATION AND BACKGROUND

2.1 Project Description

The project area is approximately 0.2 miles in length and is located in Sussex County, Delaware. The right-of-way (ROW) includes a mixture of residential properties, cleared and maintained areas, and tidal wetlands.

The project includes installation of cable under Whites Creek via HDD. Exact project details and impact areas were not known at the time of the survey and preparation of this report.

2.2 Onsite Soils

The soils onsite vary throughout the project area depending on the setting (i.e, tidal wetlands and uplands). According to the US Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey, the mapped soil units found within the study area include:

| Symbol | Map Unit Name | Hydric |
|--------|--|--------|
| Br | Broadkill mucky peat, very frequently flooded, tidal | Yes |
| KsA | Klej loamy sand, 0-2% slopes | Yes |
| PrA | Pepperbox-Rockawalkin complex, 0-2% slopes | No |
| RuB | Runclint loamy sand, 2-5% slopes | Yes |
| WHe1 | Herring Creek mucky silt loam, 0-1 meter water depth | Yes |

3. FIELD METHODOLOGY

A review of the United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps identified wetlands within the vicinity of the proposed project area. To confirm the presence or absence of wetlands, wetland buffers and waterways, a wetland delineation was conducted on January 22, 2019 within the project area. The delineation included routine assessments of vegetation, hydrology, and soil conditions. Wetland delineation procedures followed the "routine method" outlined in the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual, as modified by the Corps Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region Version 2.0 (November 2010).

The applicable wetland determination data forms used during the wetland delineation are provided in Attachment 1; photographs of the project and wetland areas are presented in Attachment 2.

4. RESULTS

Sovereign delineated one wetland within the project area.

The wetland, identified as Wetland A, is described in the following section. Hydric soils and hydrophytic vegetation were consistent throughout the project limits. Therefore, representative wetland data logs characterizing the wetland and site photographs are provided in Attachment 1 and Attachment 2, respectively. Figures depicting the delineated tidal wetland boundaries are included as Attachment 3.

4.1 Wetland A

Wetland A is a complex of estuarine emergent (E2EM) and estuarine unconsolidated bottom (E1UBL) wetlands associated with Whites Creek. The creek spans the majority of the project area. Vegetation was limited throughout the wetland and includes smooth cordgrass (*Spartina alterniflora*), and high-tide bush (*Iva frutescens*). The soil is a dark brown sandy loam with depleted matrix (10YR 4/1) and meets the indicator status of F3 (depleted matrix). Signs of hydrology include surface water, geomorphic position, and FAC-Neutral test.

5. FINDINGS

Wetland determination is based on co-occurrence of wetland hydrology, hydric soils and hydrophytic vegetation indicators. Using a detailed ground-level assessment approach, one (1) wetland area was identified throughout the project area.

6. REFERENCES

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S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-20. Vicksburg, MS: U.S. Army Engineer Research and Development Center.



Attachment 1
Wetland Determination Data Forms



WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Whites Creek HDD Crossing City/County: Sussex County Sampling Date: 1/22/19
 Applicant/Owner: Delmarva Power & Light Company State: DE Sampling Point: Wetland A
 Investigator(s): B. Dietz, E. Williams Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): LRRT Lat: _____ Long: _____ Datum: NAD83
 Soil Map Unit Name: RuB - Runclint loamy sand, 2-5% slopes NWI classification: E2EM1N / E1UBL

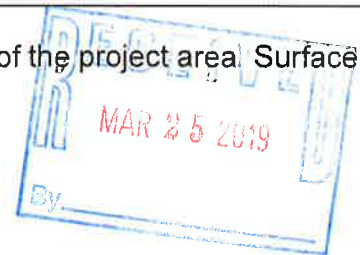
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ 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 <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: Wetland A is associated with Whites Creek, which spans the majority of the project area. | | |

HYDROLOGY

| | | |
|---|--|---|
| Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Marl Deposits (B15) (LRR U) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) | | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum moss (D8) (LRR T, U) |
| Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1-8"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0"</u> (includes capillary fringe) | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: Wetland A is associated with Whites Creek, which spans the majority of the project area. Surface water, geomorphic position and FAC-Neutral test were observed. | | |



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

 Sampling Point: Wetland A

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | |
|---|------------------|-------------------|------------------|---------------------------|
| 1. _____ | _____ | _____ | _____ | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | |
| 50% of total cover: _____ | | | | 20% of total cover: _____ |
| Sapling/Shrub Stratum (Plot size: _____) | | | | |
| 1. <i>Iva frutescens</i> | 20% | Yes | FACW | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | |
| 50% of total cover: _____ | | | | 20% of total cover: _____ |
| Herb Stratum (Plot size: _____) | | | | |
| 1. <i>Spartina alterniflora</i> | 80% | Yes | OBL | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 9. _____ | _____ | _____ | _____ | |
| 10. _____ | _____ | _____ | _____ | |
| 11. _____ | _____ | _____ | _____ | |
| 12. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | |
| 50% of total cover: _____ | | | | 20% of total cover: _____ |
| Woody Vine Stratum (Plot size: _____) | | | | |
| 1. _____ | _____ | _____ | _____ | |
| 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 (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
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0¹
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

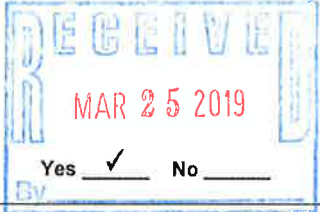
Definitions of Four Vegetation Strata:

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 ☐

Remarks: (If observed, list morphological adaptations below).
 The plot was dominated by smooth cordgrass and high-tide bush.

SOIL

Sampling Point: Wetland A**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|------------|-----------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-6" | 10YR 3/2 | | | | | | sandy loam | saturated |
| 6-18" | 10YR 4/1 | | | | D | M | sandy loam | saturated |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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)
☐ 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)
☐ 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 Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20)
 (MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators 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 ☐

Remarks:

The observed soil was consistent with the published descriptions of the Runclint loamy sand soil series, which is listed on the hydric soils list for Sussex County, Delaware.



WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Whites Creek HDD Crossing City/County: Sussex County Sampling Date: 1/22/19
 Applicant/Owner: Delmarva Power & Light Company State: DE Sampling Point: Upland A
 Investigator(s): B. Dietz, E. Williams Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): LRRT Lat: _____ Long: _____ Datum: NAD83
 Soil Map Unit Name: RuB - Runclint loamy sand, 2-5% slopes NWI classification: _____

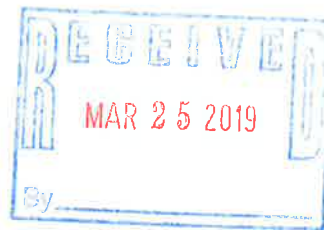
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ 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 <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Remarks: Upland A is located adjacent to Wetland A. | |

HYDROLOGY

| | | |
|--|--|---|
| Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Marl Deposits (B15) (LRR U) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) | | <u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum moss (D8) (LRR T, U) |
| Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe) | | Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: No wetland hydrology indicators observed. | | |



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

 Sampling Point: Upland A

| Tree Stratum (Plot size: _____) | | Absolute % Cover | Dominant Species? | Indicator Status |
|--|---------------|---|----------------------|---------------------|
| 1. | Pinus sp. | 10% | No | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| | | _____ = Total Cover | | |
| | | 50% of total cover: _____ 20% of total cover: _____ | | |
| Sapling/Shrub Stratum (Plot size: _____) | | | | |
| 1. | Ilex opaca | 10% | No | FAC |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| | | _____ = Total Cover | | |
| | | 50% of total cover: _____ 20% of total cover: _____ | | |
| Herb Stratum (Plot size: _____) | | | | |
| 1. | Poa pratensis | 80% | Yes | FACU |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |
| | | _____ = Total Cover | | |
| | | 50% of total cover: _____ 20% of total cover: _____ | | |
| Woody Vine Stratum (Plot size: _____) | | | | |
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| | | _____ = Total Cover | | |
| | | 50% of total cover: _____ 20% of total cover: _____ | | |

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

The plot was dominated by maintained lawn grass.

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0¹

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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 ☒

SOIL

Sampling Point: Upland A

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|---|----------------|---|-------------------|------------------|------------|----------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-10" | 10YR 3/2 | | | | | | sandy loam | dry, compacted |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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)
☐ 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)
☐ 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 Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
☐ 2 cm Muck (A10) (LRR S)
☐ Reduced Vertic (F18) (outside MLRA 150A,B)
☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
☐ Anomalous Bright Loamy Soils (F20)
 (MLRA 153B)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

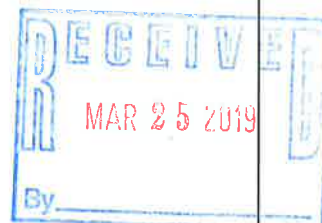
Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

The observed soil was not consistent with the published descriptions of the Runclint loamy sand soil series, which is listed on the hydric soils list for Sussex County, Delaware.



Attachment 2
Photographic Log





Photo 1. Representative photo of Wetland A (Whites Creek)

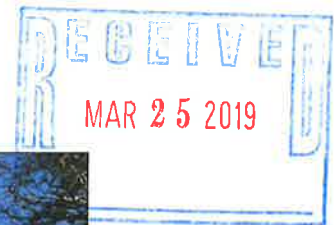
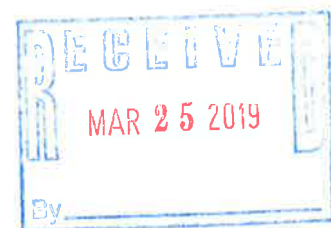


Photo 2. Representative photo of Wetland A (Whites Creek)



Photo 3. Representative photo of Wetland A (Whites Creek)



Attachment 10
Adjacent and Riparian Property Owners



Attach 10 (1)



Legend

— 16" Diameter Bore Location

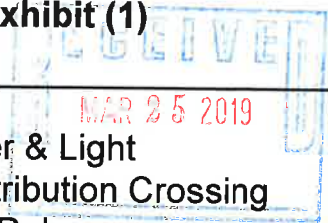
□ Tax Parcels

NAD 1983 UTM Zone 18N
375
Feet

N
W E
S


SOVEREIGN CONSULTING INC.
50 West Welsh Pool Road, Suite 6
Exton, Pennsylvania 19341
(610) 524-8124 (610) 524-8129

Figure 3 - APO Exhibit (1)



Delmarva Power & Light
Whites Creek Utility Distribution Crossing
Sussex County, Delaware

Date: 3/08/2019

Attach 10 (2)



Legend

- 16" Diameter Bore Location
- Tax Parcels

NAD 1983 UTM Zone 18N
870
Feet

RECEIVED
MAR 25 2019

**SOVEREIGN CONSULTING INC.**

50 West Welsh Pool Road, Suite 6
Exton, Pennsylvania 19341
(610) 524-8124 (610) 524-8129

Figure 4 - APO Exhibit (2)

Delmarva Power & Light
Whites Creek Utility Distribution Crossing
Sussex County, Delaware

Date: 3/08/2019



| Designation | Parcel ID | Owner Name | Address | City | State | Zip |
|-------------|-------------------|--|---------------------------|---------------|-------|-------|
| APO | 134-12.00-170.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| APO | 134-12.00-2008.00 | Wood Gordon E Sr & Patricia K | 58 Daisey Ave | Ocean View | DE | 19970 |
| APO | 134-12.00-2023.00 | Dick Sue H Trustee | 57 Daisey Ave | Ocean View | DE | 19970 |
| APO | 134-12.00-2024.00 | Poffenberger Brent B | 12 Windward Way | Dagsboro | DE | 19939 |
| APO | 134-12.00-2025.00 | Whiting Robert D Jr Revocable | 805 Westridge Drive | Hockessin | DE | 19707 |
| APO | 134-12.00-2294.00 | Forseide Commons Association of Owners Inc | 805 Westridge Drive | Hockessin | DE | 19707 |
| APO | 134-12.00-274.00 | Frey John K Jr | 31858 New St | Dagsboro | DE | 19939 |
| APO | 134-12.00-275.00 | Banks Ann J | 31501 Banks Rd | Ocean View | DE | 19970 |
| APO | 134-12.00-322.00 | Case Kerry Elizabeth Tree of the Robert | 42 Central Ave | Ocean View | DE | 19970 |
| APO | 134-12.00-326.01 | Grandview Shores HOA Inc | 10 Elliott Ave | Ocean View | DE | 19970 |
| APO | 134-12.00-3624.00 | Huang Peter Jeanne Liu | 8300 Greensboro Dr Ste L1 | McLean | VA | 22102 |
| APO | 134-12.00-3625.00 | Destefano Donald | 30717 Peaceful Ln | Ocean View | DE | 19970 |
| APO | 134-12.00-3626.00 | Kircher Mark G | 30713 Peaceful Ln | Ocean View | DE | 19970 |
| APO | 134-12.00-3627.00 | Goodman Marc S | 30705 Peaceful Ln | Ocean View | DE | 19970 |
| APO | 134-12.00-3628.00 | Weiss William Jr | PO Box 668 | Brownstown | PA | 17508 |
| RPO | 134-12.00-1361.00 | McAleer John F | 543 Harbor Rd | Ocean View | DE | 19970 |
| RPO | 134-12.00-2009.00 | Wood Gordon E Sr Trustee | 58 Daisey Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-2011.00 | Weise George J | 2 Foreside Ct | Ocean View | DE | 19970 |
| RPO | 134-12.00-2013.00 | Biasotto Lawrence A Trustee | 38567 Reservation Trail | Ocean View | DE | 19970 |
| RPO | 134-12.00-2014.00 | Ryan Mark W & Nancy A Ryan | 3805 Village Park Dr | Chevy Chase | MD | 20815 |
| RPO | 134-12.00-2015.00 | Rogers Barry E & Nancy J Rogers | 310 Charlseton Dr | Wilmington | DE | 19808 |
| RPO | 134-12.00-2016.00 | Smolen James A | 107 Frost Ln | Newtown | PA | 18940 |
| RPO | 134-12.00-2017.00 | Timmons Edwards J Jr | 46 Daisey Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-2018.00 | Jones Kenneth E & Kathleen R | 13103 Briargrove Ct | Oak Hill | VA | 20171 |
| RPO | 134-12.00-2019.00 | Smith Ronald E Trustee of The | 42 Daisey Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-2020.00 | Fitzgerald Kevin & Nancy Fitzgerald | 664 Shore Rd | Severna Park | MD | 21146 |
| RPO | 134-12.00-2021.00 | Whiting Robert D Jr Trustee | 805 Westridge Drive | Hockessin | DE | 19707 |
| RPO | 134-12.00-2022.00 | Sussex County | PO Box 589 | Georgetown | DE | 19947 |
| RPO | 134-12.00-2026.00 | Wajbel Paul J Jr | 2901 York Manor Rd | Phoenix | MD | 21131 |
| RPO | 134-12.00-2027.00 | Vergier Carey Michael | 49 Daisey Avenue | Ocean View | DE | 19970 |
| RPO | 134-12.00-2028.00 | Skolnick Barry David | 47 Daisey Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-2031.00 | DeJannette Beryl R Trustee | 8711 Wrights Mill Rd | Windsor Mill | MD | 21244 |
| RPO | 134-12.00-2032.00 | DeJannette Beryl R Trustee | 8711 Wrights Mill Rd | Windsor Mill | MD | 21244 |
| RPO | 134-12.00-2033.00 | Garc Properties LLC | 105 Briggs Ln | Newark | DE | 19711 |
| RPO | 134-12.00-2039.00 | Hoffer Joseph R | 313 Reigerts Lane | Annaple | PA | 17003 |
| RPO | 134-12.00-2041.00 | Haar Michael J & Therese C | 6119 Wicasset Rd | Bethesda | MD | 20816 |
| RPO | 134-12.00-2043.00 | Demarie Peter P II TTEE | PO Box 181 | Bethany Beach | DE | 19930 |
| RPO | 134-12.00-2045.00 | Rogers Barry E & Nancy J Rogers | 310 Charlseton Dr | Wilmington | DE | 19808 |
| RPO | 134-12.00-2046.00 | Walter George M & Cynthia B | 18 Elliott Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-2047.00 | Pickrel George Moss & Mary Ann G | 13 Demarie Dr | Ocean View | DE | 19970 |
| RPO | 134-12.00-2048.00 | Ryan James F Trustee | PO Box 1077 | Bethany Beach | DE | 19930 |
| RPO | 134-12.00-2049.00 | Scarangella Anthony | 35 Daisey Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-2050.00 | Brendel Eugene | 39 Daisey Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-2051.00 | DeMarie Family LLC | PO Box 181 | Bethany Beach | DE | 19930 |



| Designation | Parcel ID | Owner Name | Address | City | State | Zip |
|-------------|-------------------|---|-------------------------------|---------------|-------|-------|
| RPO | 134-12.00-242.00 | McRoberts Erica A | 15138 Route 414 | Canton | PA | 17724 |
| RPO | 134-12.00-243.00 | Troutman George L & Connie N | 3044 Route 22 | Fredricksburg | PA | 17026 |
| RPO | 134-12.00-244.00 | O'Neill Robert A Patricia V | 37379 Main St | Ocean View | DE | 19970 |
| RPO | 134-12.00-245.00 | Gibbs James D Susan E | 37367 Main St | Millville | DE | 19970 |
| RPO | 134-12.00-246.00 | Sekscendski Edward S | 37359 Main St | Ocean View | DE | 19970 |
| RPO | 134-12.00-247.00 | Hasselo Diane B | 37347 Main St | Ocean View | DE | 19970 |
| RPO | 134-12.00-254.00 | McCabe Margaret C | 203 Banks Rd | Millville | DE | 19970 |
| RPO | 134-12.00-255.00 | Carey Elaine A Revocable Trust | 1654 Dogwood Street | The Villages | FL | 32162 |
| RPO | 134-12.00-256.00 | Banks Elwood R Jr | 37342 Main St | Ocean View | DE | 19970 |
| RPO | 134-12.00-257.00 | Banks Elwood R Jr | 37342 Main St | Ocean View | DE | 19970 |
| RPO | 134-12.00-258.00 | Takagi Diana Marie | 113 Applegate Dr | Sterling | VA | 20164 |
| RPO | 134-12.00-259.00 | Maebly Charles D Jane G | PO Box 1295 | Ocean View | DE | 19970 |
| RPO | 134-12.00-260.00 | Heffernan Bernadette M | 31459 Banks Rd | Ocean View | DE | 19970 |
| RPO | 134-12.00-261.00 | Berdinka Julius S | 31449 Hope St | Ocean View | DE | 19970 |
| RPO | 134-12.00-263.00 | Bradley John B Trustee | 133 Dickinson Ln | Wilmington | DE | 19807 |
| RPO | 134-12.00-264.00 | Owings Ronald K Deborah A | 1602 East Branch Ct | Forest Hill | MD | 21050 |
| RPO | 134-12.00-265.00 | Arnold Thomas Joseph | 545 Horseshoe Trail Dr | Lebanon | PA | 17042 |
| RPO | 134-12.00-266.00 | Delisle Stewart J | 10050 Fox Den Road | Ellicott City | MD | 21042 |
| RPO | 134-12.00-267.00 | Briedis Jason W | 31468 River Drive | Ocean View | DE | 19970 |
| RPO | 134-12.00-268.00 | Reardon James P Kathleen C | 295 East Jefferson St Apt 208 | Media | PA | 19063 |
| RPO | 134-12.00-269.00 | Conklin Wayne | 31473 Banks Rd | Ocean View | DE | 19970 |
| RPO | 134-12.00-270.00 | Banks Harbor Marina Inc | PO Box 1008 | Ocean View | DE | 19970 |
| RPO | 134-12.00-2709.00 | Sotil-Berisso Aldo F | 5335 Jennifer Dr | Fairfax | VA | 22032 |
| RPO | 134-12.00-271.00 | Kaplan Lawrence A Bonnie I | 31429 River Dr | Ocean View | DE | 19970 |
| RPO | 134-12.00-2710.00 | Cornell Jimmie A Jr | 15257 Bucks Run Dr | Woodbine | MD | 21797 |
| RPO | 134-12.00-2711.00 | Frick Joseph J & Patricia A | 31859 Creek Shore Ct | Ocean View | DE | 19970 |
| RPO | 134-12.00-2712.00 | White Michael E | 10720 Harding Rd | Laurel | MD | 20723 |
| RPO | 134-12.00-2713.00 | Ebbert Timothy J Kathleen B | 31863 Creek Shore Ct | Ocean View | DE | 19970 |
| RPO | 134-12.00-2714.00 | Litz Roy C Jr Trustee | 31865 Creek Shore Ct | Ocean View | DE | 19970 |
| RPO | 134-12.00-2715.00 | Wu Bonnie J | 128 Dewberry Drive | Hockessin | DE | 19707 |
| RPO | 134-12.00-272.00 | Leon Elin G Trustee | 29438 Spy Glass Ln | Dagsboro | DE | 19939 |
| RPO | 134-12.00-272.01 | Christian Adam Tyler | 710 Westcliff Rd | Wilmington | DE | 19803 |
| RPO | 134-12.00-273.00 | Hudson Charles R TTEE | 31467 River Dr | Millville | DE | 19970 |
| RPO | 134-12.00-273.01 | Hudson Charles R TTEE | 31467 River Dr | Millville | DE | 19970 |
| RPO | 134-12.00-276.01 | Waterside LLC | 1701 Sunset Lake Rd | Wilmington | DE | 19803 |
| RPO | 134-12.00-276.02 | Inlet at Pine Grove Homeowner's Association | 1501 S Edgewood St Ste K | Baltimore | MD | 21227 |
| RPO | 134-12.00-316.00 | Straw Properties LLC | 5074 Dorsey Hall Dr Ste 205 | Ellicott City | MD | 21042 |
| RPO | 134-12.00-320.00 | Tribbitt Jane W | 6 Hickman Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-321.02 | Tribbitt Jane H & Timothy R | 6 Hickman Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-321.03 | Rhodes Nancy H & John T | 4 Hickman Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-321.04 | Tribbitt Jane H & Timothy R | 6 Hickman Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-321.05 | Baker Carol A | 2901 Westchester Rd | Richmond | VA | 23225 |
| RPO | 134-12.00-321.06 | Tribbit Tyler Lee | 36360 Pine Grove Lane | Ocean View | DE | 19970 |
| RPO | 134-12.00-321.07 | Rhodes John West | 3 Hickman Ave | Ocean View | DE | 19970 |

RECEIVED
MAR 25 2019

| Designation | Parcel ID | Owner Name | Address | City | State | Zip |
|-------------|-------------------|---|---------------------------|----------------|-------|-------|
| RPO | 134-12.00-321.08 | Tribbett Matthew Hickman | 1 Hickman Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-326.00 | DeMarie Family LLC & Raymond Book Trustee | PO Box 181 | Bethany Beach | DE | 19930 |
| RPO | 134-12.00-326.02 | Ocean View Town of Inc | 201 Central Ave | Ocean View | DE | 19970 |
| RPO | 134-12.00-3561.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3562.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3563.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3564.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3565.00 | Schell Brothers LLC | 20184 Phillips St | Rehoboth Beach | DE | 19971 |
| RPO | 134-12.00-3566.00 | Mintz Tammy | 33462 Heavenly Way | Ocean View | DE | 19970 |
| RPO | 134-12.00-3567.00 | Michael Jan S | 80 Shore Rd | Bayville | NY | 11709 |
| RPO | 134-12.00-3568.00 | Hanley Kevin P | 13529 Scottish Autumn Ln | Gaithersburg | MD | 20878 |
| RPO | 134-12.00-3569.00 | Crehan Ann Mary TTEE | 4743 Massachusetts Ave NW | Washington | DC | 20016 |
| RPO | 134-12.00-3570.00 | MacDonald Eric A | 33480 Heavenly Way | Ocean View | DE | 19970 |
| RPO | 134-12.00-3571.00 | Kowalski Stanley A | 33486 Heavenly Way | Ocean View | DE | 19970 |
| RPO | 134-12.00-3572.00 | Richmond Joseph Carlton | 33489 Heavenly Way | Ocean View | DE | 19970 |
| RPO | 134-12.00-3573.00 | Ferro Fernando J | 8 Deer Oak Ct | Phoenix | MD | 21131 |
| RPO | 134-12.00-3574.00 | Brock Richard Tyler | 33467 Heavenly Way | Ocean View | DE | 19970 |
| RPO | 134-12.00-3575.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3576.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3577.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3578.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3579.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3580.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3581.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3582.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3583.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3584.00 | Schell Brothers LLC | 20184 Phillips St | Rehoboth Beach | DE | 19971 |
| RPO | 134-12.00-3612.00 | Jordan Christopher Wyatt | 2800 Quebec St NW #816 | Washington | DC | 20008 |
| RPO | 134-12.00-3613.00 | Newcomer Harry G III | 2920 Duncan Rd | White Hall | MD | 21161 |
| RPO | 134-12.00-3614.00 | Stafford Felix J | 3400 Brick Bot Rd | Williamsburg | VA | 23188 |
| RPO | 134-12.00-3615.00 | Schell Brothers LLC | 20184 Phillips St | Rehoboth Beach | DE | 19971 |
| RPO | 134-12.00-3616.00 | McCoy Suzanne K | 30660 Peaceful Ln | Ocean View | DE | 19970 |
| RPO | 134-12.00-3617.00 | Karnafel Paul V & Barbara Karnafel | 853 Scott Rd | Clarks Summit | PA | 18411 |
| RPO | 134-12.00-3618.00 | Moss Bradford | 30682 Peaceful Ln | Ocean View | DE | 19970 |
| RPO | 134-12.00-3619.00 | Towe Jerome Donald III | 30690 Peaceful Ln | Ocean View | DE | 19970 |
| RPO | 134-12.00-3620.00 | Spring James P | 116 Reynolds Ln | West Grove | PA | 19390 |
| RPO | 134-12.00-3621.00 | Payne Robert H | 32119 Serenity Ct | Ocean View | DE | 19970 |
| RPO | 134-12.00-3622.00 | Ludwig Dean L Meagan A Ludwig | 14 Beverly Dr | Hillsborough | NJ | 08844 |
| RPO | 134-12.00-3623.00 | Jeppl James C | 8 Runford Dr Unit 202 | Baltimore | MD | 21228 |
| RPO | 134-12.00-3629.00 | Vaeth Robert A | 30689 Peaceful Ln | Ocean View | DE | 19970 |
| RPO | 134-12.00-3630.00 | Kovacs Christopher E | 20 Sandy Point Dr | Brick | NJ | 08723 |
| RPO | 134-12.00-3631.00 | Hardesty Scott Stanley | 102 Amesbury Ct | Severna Park | MD | 21146 |
| RPO | 134-12.00-3632.00 | Cann Kijuna L | 30661 Peaceful Ln | Ocean View | DE | 19970 |
| RPO | 134-12.00-3633.00 | Edrington James G | 20 Eastport Ct | Lutherville | MD | 21903 |

REGISTERED
MAR 25 2019

| Designation | Parcel ID | Owner Name | Address | City | State | Zip |
|-------------|-------------------|-------------------------------|--------------------|----------------|-------|-------|
| RPO | 134-12.00-3634.00 | Boteler Paul W | 13215 Manor Dr S | Mount Airy | MD | 21771 |
| RPO | 134-12.00-3635.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-3636.00 | Schell Brothers LLC | 20184 Phillips St | Rehoboth Beach | DE | 19971 |
| RPO | 134-12.00-3637.00 | Tac Beacon LLC | PO Box 1855 | Orange Park | FL | 32067 |
| RPO | 134-12.00-866.00 | Bird Herbert J D | 787 Hickman Dr | Ocean View | DE | 19970 |
| RPO | 134-12.00-867.00 | Stokes Mary A | 789 Hickman Dr | Ocean View | DE | 19970 |
| RPO | 134-12.00-868.00 | Amini Manouchehr | 967 Lee Rd | Hockessin | DE | 19070 |
| RPO | 134-12.00-869.00 | Everett Roger W Sonia W | 50 McCleary Rd | Elkton | MD | 21921 |
| RPO | 134-12.00-870.00 | Zygmunt John M Jr | 117 Compton Way | Hamilton Sq | NJ | 18690 |
| RPO | 134-12.00-871.00 | Sheats Law J Kathryn K Sheats | 797 Hickman Dr | Millville | DE | 19970 |
| RPO | 134-12.00-872.00 | Nelson Charles K Barbara S | 799 Hickman Dr | Ocean View | DE | 19970 |
| RPO | 134-12.00-873.00 | McCauley Michael B & Julie F | 1223 Foulk Rd | Wilmington | DE | 19803 |
| RPO | 134-12.00-874.00 | Collins Daniel | 803 Hickman Dr | Ocean View | DE | 19970 |
| RPO | 134-12.00-875.00 | McBride Byron M & Barbara A | 805 Hickman Dr | Millville | DE | 19970 |
| RPO | 134-12.00-876.00 | Bartsch Donald R | 807 Hickman Dr | Millville | DE | 19970 |
| RPO | 134-12.00-878.00 | Volta Michael A Jonette C | 804 Hickman Dr | Millville | DE | 19970 |
| RPO | 134-12.00-879.00 | Quigley Daniel W | 796 Hickman Dr | Ocean View | DE | 19970 |
| RPO | 134-12.00-880.00 | Zook William C & Mary L | 792 Hickman Dr | Millville | DE | 19970 |
| RPO | 134-12.00-881.00 | Zook Linda S | 790 Hickman Dr | Ocean View | DE | 19970 |
| RPO | 134-12.00-882.00 | Vorel David F Helen P Vorel | 4209 Southfield Rd | Ellicott City | MD | 21042 |
| RPO | 134-12.00-883.00 | McGinnis Michael P | 786 Hickman Lane | Ocean View | DE | 19970 |
| RPO | 134-8.00-106.00 | Van Buren Donald W & Denise A | 31341 Coral Ct | Ocean View | DE | 19970 |
| RPO | 134-8.00-107.00 | Willey I Robert & Carolyn V | 31339 Coral Ct | Millville | DE | 19970 |

Attachment 11
Copy of Right-of-Way Agreement



17982

BK: 4707 PG: 89

Tax Parcel No 134-12.00-170.00

Prepared By Delmarva Power & Light Company
& Return to: Right-of Way Department
PO Box 9239, I-95 & Rt. 273
Newark, DE 19714-9239

UTILITY EASEMENT AGREEMENT

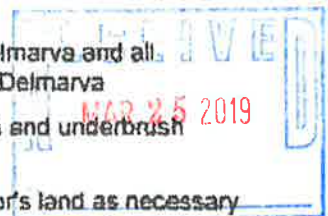
THIS EASEMENT AGREEMENT, made this 19 day of January, 2017, between TAC BEACON LLC ("Grantor") and DELMARVA POWER & LIGHT COMPANY, a corporation of the State of Delaware and the Commonwealth of Virginia ("Delmarva"),

WITNESSETH:

WHEREAS, Grantor is the owner of land located in the State/Commonwealth of DELAWARE, the County of SUSSEX, which land abuts on CLUBHOUSE RD, OCEAN VIEW BALTIMORE HUNDRED, which is recorded in (Liber) 4354, (Folio) 301.

For and in consideration of the payment by Delmarva of the sum of one dollar (\$1.00) and other valuable consideration, the receipt of which is hereby acknowledged, Grantor grants to Delmarva a perpetual easement and right of way and agrees as follows.

- 1 Delmarva shall have the right to install, operate, maintain, add to, extend, relocate and remove its ELECTRIC (X), GAS () , COMMUNICATION () , and other appropriate facilities, and accessories and appurtenances thereto to extend Delmarva's systems and to provide services to Delmarva's service areas; including any other cables, conduits, fibre optic cables and wires on, over, under and across Grantor's land which may become necessary to provide such services
- 2 The facilities installed pursuant to this agreement shall remain the property of Delmarva and all maintenance, repairs and removals of said facilities shall be the responsibility of Delmarva
- 3 Delmarva shall have the right to trim, remove, and/or otherwise maintain all trees and underbrush located 15 feet on each side of the centerline of Delmarva's facilities
- 4 Delmarva shall have the rights of ingress, egress and regress to and over Grantor's land as necessary for the enjoyment of the rights granted herein
- 5 Grantor agrees not to place any improvements, including trees or other foliage, within 10 feet of the opening side of any enclosed equipment installed under the terms of this Agreement and shall not construct any structures or improvements over or under the utility facilities permitted by this Agreement
- 6 Grantor shall have the right to use the land covered by this Agreement for any lawful purpose not inconsistent with or in contravention of the rights of Delmarva
- 7 Grantor covenants that it is seized of and has the right to convey the foregoing easement, rights and privileges, agrees that Delmarva shall have quiet and peaceable possession, use and enjoyment of the aforesaid easement, rights and privileges.
- 8 Grantor agrees that this Utility Easement Agreement shall be binding upon and inure to the benefit of Grantor and Delmarva and their respective heirs, personal representatives, administrators, successors and assigns.



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CR

NS

9. Grantor hereby certifies that the actual monetary consideration paid for this Agreement is \$1.00.
10. Delmarva's utility facilities installed hereunder may, without further consideration, be relocated to conform to new or reestablished highway limits.

All property and property rights acquired by Delmarva are subject to its existing mortgage. The interest in property granted to Delmarva herein is subject to the lien of the Indenture of Mortgage and Deed of Trust, dated as of October 1, 1943, as amended and supplemented, which document is now between Delmarva Power & Light Company and The Bank of New York Trust Company, N.A., as Successor Trustee to Chemical Bank. This paragraph affects only the property and/or property rights granted to Delmarva herein and does not affect any property rights of Grantor.

As agent on behalf of Delmarva, I certify that this document was prepared by Delmarva

[Signature]
Name: DOUGLAS M. HUDSON

Title: ENGINEERING FIELDMAN

WITNESS our hands and seals the day and year aforesaid.

WITNESS:

[Signature]

GRANTOR:

TAC BEACON LLC
(Type Name of LLC, LLP, etc)

By:

Robert L. Sipple, Jr.

(SEAL)

Print Name

MANAGER

Title

STATE OR COMMONWEALTH OF

Delaware
Sussex

)

) SS

)

COUNTY OF

Recorder of Deeds
Scott Dailey
May 15, 2017 09:04A
Sussex County
Doc. Surcharge Paid

BE IT REMEMBERED, That on the 19 day of January, 2017, personally came before me a notary public, the within named Grantor, Robert L. Sipple, Jr. party(ies) to this indenture and known to me personally to be such, and acknowledged said Agreement to be his/her act of said individual(s) or the act and deed of the corporation or partnership for which he/she signed

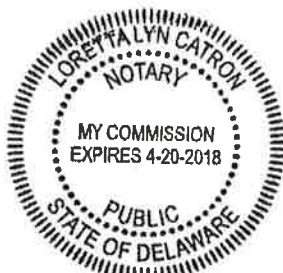
My commission expires: _____

Notary
Seal/Stamp Here

Print Name

Loretta L. Catron

Notary Public



Return to

Right-of Way Department
PO Box 9239, I-95 & Rt. 273
Newark, DE 19714-9239

MAR 25 2019

RECEIVED
May 15, 2017
ASSESSMENT DIVISION
OF SUSSEX COUNTY

Sus84

FOR DELMARVA USE ONLY

Secured by: D. HUDSON

Address: **CLUBHOUSE RD**

Map Number: 12.00

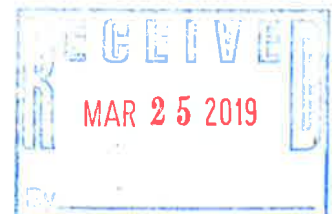
Development: **SOLITUDES**

Coordinates Covered: 61018/00037

Job Order Number: 6147906

District/Hundred: 134/BALTIMORE

Parcel Number: 170.00



12861

1657 1989

REAL ESTATE

UTILITY EASEMENT AGREEMENT

JUN 21 1989

THIS EASEMENT AGREEMENT, made this 22nd day of May, 19 89, between Forside Group, L.P. ("Grantor") and DELMARVA POWER & LIGHT COMPANY, a corporation of the State of Delaware and the Commonwealth of Virginia ("Delmarva"),

WITNESSETH:

WHEREAS, Grantor is the owner of land located in the State/Commonwealth of Delaware, the County of Sussex, which land abuts on Palisoy Landing Road (Street, Highway or County Road), Ocean View, Delaware (Town, City, Subdivision or Hundred), the land having been granted to Grantor by the Estate of Lillian Evans

by deed/will dated October 20, 1988, which is recorded in (Liber) 1605 (Folio) 61.

For and in consideration of the payment by Delmarva of the sum of one dollar (\$1.00) and other valuable consideration, the receipt of which is hereby acknowledged, Grantor grants to Delmarva a perpetual easement and agrees as follows:

1. Delmarva shall have the right to install, operate, maintain, add to, extend, relocate and remove its ELECTRIC [], GAS [], communication and other facilities, including the necessary accessories and appurtenances, on, under, over and across Grantor's land for the purpose of extending Delmarva's utility system and to provide utility services to the premises of Grantor and to other residences, premises and users. Delmarva shall have the right to apportion the easement rights and privileges granted herein and Grantor shall have no right to participate or share in the use of the facilities installed pursuant to this Agreement. Delmarva shall have the right to trim, remove and/or otherwise maintain all trees and underbrush located 15 feet on each side of the centerline of Delmarva's facilities. Furthermore, Delmarva shall have the rights of ingress, egress and regress to and over Grantor's land as required for the enjoyment of the rights granted herein.
2. Grantor agrees not to place any improvements, including trees or other foliage, within 10 feet of the opening side of any enclosed equipment installed under the terms of this Agreement and shall not construct any structures or improvements over or under the utility facilities permitted by this Agreement. Grantor shall have the right to use the land covered by this Agreement for any lawful purpose not inconsistent with or in contravention of the rights of Delmarva.
3. Grantor covenants that it is seized of and has the right to convey the foregoing easement, rights and privileges; agrees that Delmarva shall have quiet and peaceable possession, use and enjoyment of the aforesaid easement, rights and privileges; and agrees that this entire utility easement agreement shall be binding upon and inure to the benefit of Grantor and Delmarva and their respective heirs, personal representatives, administrators, successors and assigns.

M/RB 1.001 5/87
STK NO.: 0113-6001



BOOK 1657 PAGE 39

4. Grantor hereby certifies that the actual monetary consideration paid for this Agreement is \$ 1.28.

WITNESS:

INDIVIDUAL GRANTOR:

(SEAL)
(SEAL)
(SEAL)

CORPORATE OR PARTNERSHIP GRANTOR:

Forside Group, L.P.

BY: J. J. Tansey (SEAL)
TITLE: General Partner

STATE OR COMMONWEALTH OF
COUNTY OF

Delaware) SS
Sussex)

BE IT REMEMBERED, That on the 22nd day of May, 19 89, personally came before me, a notary public, the within named Grantor, J. Joseph Tansey, General Partner party(ies) to this indenture and known to me personally to be such, and acknowledged said Agreement to be his/her act and deed or the act and deed of the corporation or partnership for which he/she signed.

WITNESS our hands the day and year aforesaid.

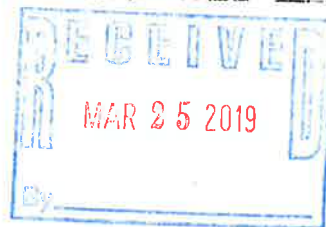
My commission expires: August 28, '89

Mary Anne Thurman
Notary Public

FOR DELMARVA USE ONLY.

| | |
|---|--|
| Secured By: <u>Waco D. Prager</u> | Account Number: <u>176401.637671</u> |
| Tax District Number: <u>61239L</u> | Parcel Number: _____ |
| Map Number: <u>611-998-1 614-596-2</u> | District/Hundred: <u>611-998-1 614-596-2</u> |
| Coordinates Covered: <u>61355/99967</u> | <u>61355/99960</u> |
| <u>61559/99930</u> | <u>61368/99926</u> |
| <u>61465/99939</u> | <u>61391/99940</u> |
| 1988 JUN 30 - JUL 12 12 | |

SUSSEX COUNTY



Delmarva Farm & Ranch Co.
Waco D. Prager

19924

BOOK 1605 PAGE 61

THIS DEED, Made this 18th day of October, in the year of our LORD one thousand nine hundred and eighty-eight;

BETWEEN JAMES E. (JAY) PARKER, JERALD W. (JERRY) PARKER, SCOTT PIPER, STEVEN W. PIPER, RUTH E. PARKER, GRACE W. PIPER, KATHRYN J. (KAY) WEST, Heirs of the Estate of LILLIAN D. EVANS, Deceased, and JAMES E. PARKER and SCOTT PIPER, Executors of the Estate of LILLIAN D. EVANS, Deceased, of 1505 Prince Street, Alexandria, VA 22314, parties of the first part, "GRANTOR",

- A N D -

FORESIDE GROUP, L. P., a Delaware Limited Partnership, c/o J. Joseph Tansey, Century 21/Tansey and Company, P. O. Box 1449, Bethany Beach, DE 19930, party of the second part, "GRANTEE".

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of FIVE HUNDRED FIFTY THOUSAND & 00/100 DOLLARS (\$550,000.00) lawful money of the United States of America, the receipt whereof is hereby acknowledged, hereby grant and convey unto the said party of the second part:

ALL THAT CERTAIN Lot, place and parcel of land situate, lying and being in the Town of Ocean View, Baltimore Hundred, Sussex County, Delaware, and shown on a Plot recorded October 11th, 1988, in the Office of the Recorder of Deeds in and for Sussex County, at Georgetown, Delaware, in Plot Book 40, at Page 230, as FORESIDE COMMONS, as surveyed by Land Tech Inc., Registered Surveyors, on August 15th, 1988, more particularly described as follows, to wit: BEGINNING at a concrete marker, said concrete marker located on the Southwestern right-of-way of Daisey's Landing Road; thence turning and running by and along the Southwestern right-of-way of the 30 foot right-of-way known as Daisey's Landing Road, North 69° 09' 24" West 1189 feet, ±, to an iron pipe; said iron pipe located at the high water mark of White's Creek; thence with the meanderings of the high water mark of White's Creek the following courses and distances: South 18° 52' 41" West 73.27 feet to an iron pipe; thence South 25° 14' 26" West 151.35 feet to an iron pipe; thence South 50° 49' 04" West 41.68 feet to an iron pipe; thence South 71° 09' 55" West 74.75 feet to an iron pipe; thence South 73° 26' 50" West 52.16 feet to an iron pipe; thence North 77° 18' 49" West 38.70 feet to an iron pipe; South 51° 24' 10" West 41.51 feet to an iron pipe; thence South 11° 18' 51" West 24.48 feet to an iron pipe; thence South 61° 16' 14" East 19.97 feet to an iron

LAW OFFICES OF
MAULL & MAULL P.A.
EAST MARKET STREET
P.O. BOX 790
GEORGETOWN, DELAWARE 19947-0790
302-438-7793



CD 11000.00
TR-IX
10/20/88
8774 133

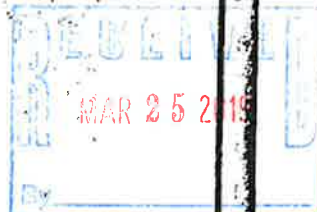
pipe; thence continuing 83.0 feet along the same course to an iron pipe; thence South 87° 17' 50" East, thru a point to an iron pipe, 172.96 feet; thence North 67° 38' 22" East 31.0 feet to an iron pipe; thence North 84° 55' 40" East 55.02 feet to an iron pipe; thence South 45° 03' 33" East 25.0 feet to an iron pipe; thence continuing along the same course 57.54 feet to an iron pipe; thence South 57° 58' 32" East 44.93 feet to an iron pipe; thence South 15° 28' 26" East 23.98 feet to an iron pipe; thence turning and running by and along the common boundary line between these lands and lands now or formerly of John T. West, Jr., North 45° 01' 58" East 103 feet, ±, to a concrete marker; thence turning and running by and along the common boundary line between these lands and lands now or formerly of John T. West, Jr. and of Jean W. Tribbitt, South 69° 29' 30" East 852.57 feet to a point; thence continuing along the same course 21.60 feet to a concrete monument; thence turning and running North 20° 30' 40" East 342.29 feet home to the place of Beginning, and shown as being 16 Lots and Road, and said to contain 10.39 ACRES.

BEING the same land conveyed to C. Elliott Evans and Lillian Evans, his wife, by Deed of George M. Ellis and Elizabeth W. Ellis, his wife, dated the 1st day of September, 1950, and of record in the Office of the Recorder of Deeds in and for Sussex County, at Georgetown, Delaware, in Deed Book 398, at Page 135. THE SAID Charles Elliott Evans died on the 2nd day of March, 1967, and said property descended to Lillian Evans as the surviving tenant. THE SAID Lillian D. Evans died on the 10th day of August, 1986, under the Third Item of her Last Will and Testament, dated the 14th day of August, 1985, and of record in the Office of the Register of Wills in and for Sussex County, at Georgetown, Delaware, in Will Book 155, at Page 123, she devised the above property to Jay Parker, Jerry Parker, Scott Piper, Stephen Piper, Ruth Parker, Grace Piper and Kay West, the above Grantors.

SUBJECT to the building restriction line and the "404" wetlands line, as well as all easements, subservice and central water systems as more fully set forth in the Plot of record in Plot Book 40, at Page 230.

THE SAID JAMES E. PARKER executes this Deed as Attorney in Fact under Powers of Attorney attached hereto and made a part hereof.

LAW OFFICES OF
MAULL & MAULL, P.A.
EAST MARKET STREET
P.O. BOX 390
GEORGETOWN, DELAWARE 19947-0390
(302) 436-1793



hands and seals, the day and year aforesaid.

WITNESS
WITNESS
WITNESS
WITNESS
WITNESS
WITNESS
WITNESS
WITNESS

AS to all Duly.

[Signature] (SEAL)
JAMES E. (JAY) PARKER, Executor

[Signature] (SEAL)
JAMES E. PARKER, Attorney in Fact
for SCOTT PIPER, Executor

[Signature] (SEAL)
JAMES E. MAY PARKER

[Signature] (SEAL)
JAMES E. PARKER, Attorney in Fact
for JERALD W. (JERRY) PARKER

[Signature] (SEAL)
JAMES E. PARKER, Attorney in Fact
for SCOTT PIPER

[Signature] (SEAL)
JAMES E. PARKER, Attorney in Fact
for STEVEN W. PIPER

[Signature] (SEAL)
JAMES E. PARKER, Attorney in Fact
for RUDY E. PARKER

[Signature] (SEAL)
JAMES E. PARKER, Attorney in Fact
for GRACE W. PARKER

[Signature] (SEAL)
JAMES E. PARKER, Attorney in Fact
for KATHRYN J. (KAY) WEST

LAW OFFICES OF
MAULL & MAULL, P.A.
847 MARKET STREET
P.O. BOX 908
GEORGETOWN, DELAWARE 19347-0908
302-636-7200

RECEIVED
MAR 25 2019

STATE OF DELAWARE
COUNTY OF SUSSEX

BE IT REMEMBERED, That on this 15th day of October, in the year of our LORD one thousand nine hundred and eighty-eight, personally came before me, the Subscriber, a Notary Public in and for the State and County aforesaid, JAMES E. (JAY) PARKER, Individually, Executor of the Estate of Lillian D. Evans, and Attorney in Fact for Jerald W. (Jerry) Parker, for Scott Piper, for Steven W. Piper, for Ruth E. Parker, for Grace W. Piper and for Kathryn J. (Kay) West, parties to this Indenture, known to me personally to be such, and acknowledged this Indenture to be their act and deed.

GIVEN under my hand and seal of Office, the day and year aforesaid.



My Commission Expires: 1/16/89

PURCHASERS REPORT
MADE THIS DATE

OCT 21 1988

ASSESSMENT DIVISION
OF SUSSEX COUNTY

LAW OFFICES OF
MAULL & MAULL, P.A.
EAST MARKET STREET
P.O. BOX 906
GEORGETOWN, DELAWARE 19341-0906
302-356-7263



GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that I, Jerald W. Parker, of the
 city of Belmont, County of _____, State of California,
 reposing special trust and confidence in James E. Parker, of
 the Washington County of D. C., State of _____,
 have made, constituted and appointed, and by these presents do make, constitute and appoint the said
James E. Parker my true and lawful attorney to exercise or perform any act, power, duty, right or
 obligation whatsoever that I now have or may hereafter acquire, relating to any person, matter, transaction or property, real or
 personal, tangible or intangible, now owned or hereafter acquired by me. I grant to my said attorney full power and authority to do
 and perform all and every act necessary in exercising any of the powers granted herein as fully as I might do if personally present,
 with full power of revocation, hereby ratifying and confirming all that said attorney shall lawfully do or cause to be done by virtue
 of this Power of Attorney.

**This Power of Attorney shall not be affected by disability of the principal.

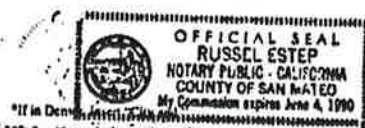
**This Power of Attorney shall become effective upon the disability of the principal.

EXECUTED this 8 day of October, 1988.

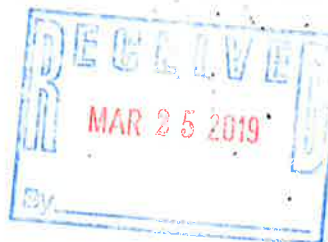
Jerald W. Parker
 PRINCIPAL
 Jerald W. Parker

STATE OF Calif.
 County of San Mateo }

The foregoing instrument was acknowledged before me this 8 day of Oct.
 19 88, by Jerald W. Parker
 My commission expires 6-4-90, 1990. Witness my hand and official seal.



Russel Estep
 Notary Public
Russel A. Estep



**POWER OF ATTORNEY
(REAL ESTATE)**

KNOW ALL MEN BY THESE PRESENTS, that I, Scott Piper
of the County of Jefferson, State of Colorado
do make, constitute and appoint James E. Parker, of the
County of Washington, State of D. C., to act as
my true and lawful attorney for me and in my name, place and stead for my sole use and benefit to grant, bargain, sell,
convey, purchase, encumber or contract for the sale or purchase of the following described real estate situate in the County
of Sussex, State of Delaware, to wit:

62 Daisey Road. Ocean View.

All the piece of parcel consisting of 9.95 acres more or less
identified on Tax Map #1 - 34- 12, Parcel 322 located on Daisey
Landing Road, Ocean View, Baltimore Hundred, Sussex County, Delaware.

My said attorney-in-fact is hereby authorized and empowered to collect such monies as may become due from the sale,
and to make, execute, acknowledge and deliver contracts for sale, deeds, Deeds of Trust, and other instruments in writing of
every kind and nature, including, but not limited to, the sale and loan closing documents and statements, upon such terms
and conditions as my said attorney may deem necessary and convenient to accomplish such sale or conveyance of said real
estate. My said attorney shall have full power and authority to do and perform all acts necessary to be done to complete a sale
or conveyance of said real estate, with full power of revocation, hereby ratifying and confirming all that said attorney shall
lawfully do or cause to be done by virtue of this Power of Attorney and the powers contained herein.

*This Power of Attorney shall not be affected by disability of the principal.

*This Power of Attorney shall become effective upon the disability of the principal.

*This Power of Attorney shall automatically expire by its own terms upon completion of the limited purpose set forth
above.

EXECUTED this 5th day of October, 1988.

STATE OF Colorado
COUNTY OF Jefferson

Scott Piper
PRINCIPAL
ss. Scott Piper

The foregoing instrument was acknowledged before me this 5th day of October,
1988, by Scott Piper, the Principal.

Witness my hand and official seal.

My commission expires:

Strike either of both referring to fact.

Scott Piper
My Commission expires December 19, 1990
10875 Hwy. 285 Ste. C-203
Conifer, CO 80433



BOOK 1605 PAGE 67

**POWER OF ATTORNEY
(REAL ESTATE)**

KNOW ALL MEN BY THESE PRESENTS, that I, Steven Piper
of the County of Santa Clara, State of California
do make, constitute and appoint James E. Parker, of the
County of Washington, State of D. C., to act as
my true and lawful attorney for me and in my name, place and stead for my sole use and benefit to grant, bargain, sell,
convey, purchase, encumber or contract for the sale or purchase of the following described real estate situate in the County
of Sussex, State of Delaware, to wit:
62 Daisey Road Landing.

All that piece of parcel consisting of 9.95 acres, more or less,
identified on Tax Map #1 - 34- 12, Parcel 322 located on Daisey
Landing Road, Ocean View, Baltimore Hundred, Sussex County, Delaware.

My said attorney-in-fact is hereby authorized and empowered to collect such monies as may become due from the sale,
and to make, execute, acknowledge and deliver contracts for sale, deeds, Deeds of Trust, and other instruments in writing of
every kind and nature, including, but not limited to, the sale and loan closing documents and statements, upon such terms
and conditions as my said attorney may deem necessary and convenient to accomplish such sale or conveyance of said real
estate. My said attorney shall have full power and authority to do and perform all acts necessary to be done to complete a sale
or conveyance of said real estate, with full power of revocation, hereby ratifying and confirming all that said attorney shall
lawfully do or cause to be done by virtue of this Power of Attorney and the powers contained herein.

*This Power of Attorney shall not be affected by disability of the principal.

*This Power of Attorney shall become effective upon the disability of the principal.

*This Power of Attorney shall automatically expire by its own terms upon completion of the limited purpose set forth
above.

EXECUTED this 12th day of October, 19 88.

STATE OF California
COUNTY OF Santa Clara

Steven Piper
PRINCIPAL
Steven Piper

The foregoing instrument was acknowledged before me this 12th day of October
19 88, by Steven Piper, the Principal.

Witness my hand and official seal.

My commission expires: 6 February 1990

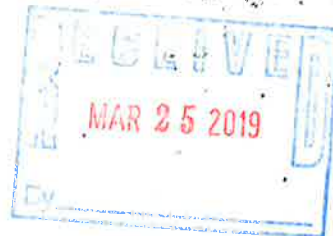
*Strike either or both according to fact.

Debra L. Brenton
Debra L. Brenton, Notary Public



OFFICIAL SEAL
DEBRA L. BRENTON
Notary Public-California
SANTA CLARA COUNTY

My Comm. Exp. Feb. 6, 1990



POWER OF ATTORNEY
(REAL ESTATE)

KNOW ALL MEN BY THESE PRESENTS, that I, Ruth E. Parker
of the County of Jefferson, State of Colorado
do make, constitute and appoint James E. Parker, of the
County of Washington, State of D. C., to act as
my true and lawful attorney for me and in my name, place and stead for my sole use and benefit to grant, bargain, sell,
convey, purchase, encumber or contract for the sale or purchase of the following described real estate situate in the County
of Sussex, State of Delaware, to wit:
62 Daisy Road, Ocean View.

All that piece of parcel consisting of 9.95 acres, more or less,
identified on Tax Map #1 - 34 - 12, Parcel 322 located on
Daisy Landing Road, Ocean View, Baltimore Hundred, Sussex
County, Delaware.

My said attorney-in-fact is hereby authorized and empowered to collect such monies as may become due from the sale,
and to make, execute, acknowledge and deliver contracts for sale, deeds, Deeds of Trust, and other instruments in writing of
every kind and nature, including, but not limited to, the sale and loan closing documents and statements, upon such terms
and conditions as my said attorney may deem necessary and convenient to accomplish such sale or conveyance of said real
estate. My said attorney shall have full power and authority to do and perform all acts necessary to be done to complete a sale
or conveyance of said real estate, with full power of revocation, hereby ratifying and confirming all that said attorney shall
lawfully do or cause to be done by virtue of this Power of Attorney and the powers contained herein.

*This Power of Attorney shall not be affected by disability of the principal.

*This Power of Attorney shall become effective upon the disability of the principal.

*This Power of Attorney shall automatically expire by its own terms upon completion of the limited purpose set forth
above.

EXECUTED this _____ day of _____, 19 _____

STATE OF Colorado

COUNTY OF Jefferson

Ruth E. Parker
PRINCIPAL
Ruth E. Parker

The foregoing instrument was acknowledged before me this 4 day of October
19 88 by Ruth E. Parker, the Principal.



Witness my hand and official seal.

My commission expires:

July 12, 1992

Marilou Graveley
Notary Public
2532 So. Yarrow St.
Lakewood, CO 80227



POWER OF ATTORNEY
(REAL ESTATE)

KNOW ALL MEN BY THESE PRESENTS, that I, Grace W. Piper
 of the County of Jefferson, State of Colorado
 do make, constitute and appoint James E. Parker, of the
 County of Washington, State of D.C., to act as
 my true and lawful attorney for me and in my name, place and stead for my sole use and benefit to grant, bargain, sell,
 convey, purchase, encumber or contract for the sale or purchase of the following described real estate situate in the County
 of Sussex, State of Delaware, to wit:
62 Daisey Rd., Ocean View, Del. All That piece or parcel
consisting of 9.95 acres more or less identified on
Tax Map #1-34-12, Parcel #322 Located on
Daisey Landing Rd, Ocean View, Baltimore
Hundred Sussex County, Delaware.

My said attorney-in-fact is hereby authorized and empowered to collect such monies as may become due from the sale,
 and to make, execute, acknowledge and deliver contracts for sale, deeds, Deeds of Trust, and other instruments in writing of
 every kind and nature, including, but not limited to, the sale and loan closing documents and statements, upon such terms
 and conditions as my said attorney may deem necessary and convenient to accomplish such sale or conveyance of said real
 estate. My said attorney shall have full power and authority to do and perform all acts necessary to be done to complete a sale
 or conveyance of said real estate, with full power of revocation, hereby ratifying and confirming all that said attorney shall
 lawfully do or cause to be done by virtue of this Power of Attorney and the powers contained herein.

*This Power of Attorney shall not be affected by disability of the principal.

*This Power of Attorney shall become effective upon the disability of the principal.

*This Power of Attorney shall automatically expire by its own terms upon completion of the limited purpose set forth
 above.

EXECUTED this 5th day of October, 19 88.

STATE OF Colorado
 COUNTY OF Jefferson ss.

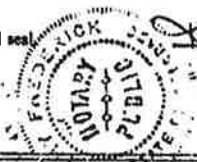
Grace W. Piper
 PRINCIPAL

The foregoing instrument was acknowledged before me this 5th day of October
 19 88, by Grace W. Piper, the Principal.

Witness my hand and official seal

My commission expires:

*Strike either or both according to fact.



Kathy Mink
 Notary Public
 My Commission Expires
 April 17, 1989
 2628 So. Colorado Blvd.
 Denver, CO 80222



BOOK 1605 -A- 70

**POWER OF ATTORNEY
(REAL ESTATE)**

KNOW ALL MEN BY THESE PRESENTS, that I, KATHRYN J. WEST
of the County of JEFFERSON, State of COLORADO
do make, constitute and appoint JAMES E. PARKER, of the
County of WASHINGTON, State of D.C., to act as
my true and lawful attorney for me and in my name, place and stead for my sole use and benefit to grant, bargain, sell,
convey, purchase, encumber or contract for the sale or purchase of the following described real estate situate in the County
of SUSSEX, State of DELAWARE, to wit:

62 DAISY ROAD, OCEAN VIEW
all that piece or parcel consisting of 9.95 acres
more or less identified on Tax Map # P-34-12,
Parcel # 322 located on Daisy Landing Rd. Ocean View,
Saltwater Hundred Sussex County Delaware.

My said attorney-in-fact is hereby authorized and empowered to collect such monies as may become due from the sale,
and to make, execute, acknowledge and deliver contracts for sale, deeds, Deeds of Trust, and other instruments in writing of
every kind and nature, including, but not limited to, the sale and loan closing documents and statements, upon such terms
and conditions as my said attorney may deem necessary and convenient to accomplish such sale or conveyance of said real
estate. My said attorney shall have full power and authority to do and perform all acts necessary to be done to complete a sale
or conveyance of said real estate, with full power of revocation, hereby ratifying and confirming all that said attorney shall
lawfully do or cause to be done by virtue of this Power of Attorney and the powers contained herein.

*This Power of Attorney shall not be affected by disability of the principal.

*This Power of Attorney shall become effective upon the disability of the principal.

*This Power of Attorney shall automatically expire by its own terms upon completion of the limited purpose set forth
above.

EXECUTED this 3rd day of October, 19 88.

STATE OF Colorado } Kathryn J. West PRINCIPAL
COUNTY OF Jefferson } ss.

The foregoing instrument was acknowledged before me this 3rd day of October
19 88, by Kathryn J. West, the Principal.

Witness my hand and official seal.

My Commission Expires 4/9/89
7590 W. Colfax
Lakewood, Colorado 80215

1988 OCT 20 PM 3:12

PUBLIC SERS REPORT
MADE THIS DATE

OCT 21 1988

ForeSide Group Inc.
P.O. Box 1449
Bethany, Del.
11/2/88

RECEIVED
MAR 25 2019

Attachment 12
Frac-Out Contingency Plan



DNREC Permit No. _____

CONDUIT O.D. SIZE: 4x4" inch HDPE
ESTIMATED BORE SIZE: 16 inches

1.0 Purpose

This Frac-Out Contingency Plan is to provide assurance of adequate monitoring, detection, containment and cleanup for potential discharge of drilling fluid or other materials (referred to as an “inadvertent return” or “frac-out”) resulting from the horizontal directional drilling (HDD) crossing of Whites Creek authorized by Delaware Natural Resources and Environmental Control (DNREC), *body of water/wetland* provided no temporary or permanent impacts occur to the creek.

| | |
|---|---|
| <i>Licensee:</i> | <u>Delmarva Power & Light Company (DPL)</u> |
| <i>Design Engineer:</i> | <u>DPL</u> |
| <i>Independent Monitoring Contractor (IMC):</i> | <u>Sovereign Inc.</u> |
| <i>HDD Contractor</i> | |

Please see below for a list of personnel contacts:

[illegible]

2.0 Best Practices

DPL and their HDD Contractor (contractor), shall follow the best management practices contained in Horizontal *Directional Drill Good Practices Guidelines* by HDD Consortium, David Bennett, PhD, Samuel Ariaratnam, PhD, & Casey E. Como (2008).

3.0 Pre-Construction

Before construction begins:

- 3.1 DPL shall conduct a preconstruction meeting. DPL shall include the following representatives in a notice of the preconstruction meeting at least two weeks before the meeting is to be held:
- HDD Contractor:
 - Design Engineer: DPL
 - Environmental: DPL
 - The local ESC Authority, if applicable



4.0 Construction

During construction:

- 4.1 The HDD Contractor shall perform continuous visual monitoring of the drilling route and surrounding area during all HDD operations and shall make and retain daily inspection notes.
- 4.2 The HDD Contractor shall keep detailed notes to include:
- Volume of drilling material used and recovered
 - Method of material disposal
 - Depth of bore below the regulated water body or wetland bottom
 - Daily average drilling pressures and any notable spikes or deviations
 - Daily bore or ream size and distance of progression

- Remove drilling fluids at a rate sufficient to maintain containment of the frac-out during all drilling operations.

5.3 If frac-out is in a **Nontidal Wetland location** (including 100-foot non-tidal wetland Buffer/riparian buffer), the DPL and its contractor shall:

- Suspend forward drilling and promptly notify those indicated in Section 1.0.
- Evaluate frac-out to determine the appropriate containment and cleanup measures. The Licensee shall consult with the DNREC Wetlands Reviewer concerning the evaluation and proposed cleanup measures as soon as possible, and take appropriate, immediate action to stop and contain the frac-out.
- Implement appropriate cleanup measures to contain and remove frac-out drilling fluid to the extent practicable. Appropriate cleanup measures are determined by the specific circumstances of the frac-out and may include, but are not limited to:
 - Removing the drilling fluid by hand if efforts to contain and remove the drilling fluid with equipment will result in further disturbance by equipment and personnel.
 - Diluting the drilling fluid with fresh water, allowing the fluid to dry and dissipate naturally, or a combination of both, if hand removal is not possible.
 - Using small collection sump pumps (less than 5 cubic yards) to remove the fluid, if the amount of the released drilling fluid exceeds that which can be contained with hand-placed barriers.
 - If the amount of the slurry exceeds that which can be contained and collected using small sumps, drilling operations will be suspended until the frac-out can be brought under control.
- Store removed drilling fluid in a temporary holding tank or other suitable structure, out of the wetland area and wetland buffer pending reuse or disposal.
- Evaluate current drill profile (e.g., drill pressures, pump volume rates, drilling mud consistency) to identify methods to prevent further frac-out events.
- Resume drilling only when evaluation, regulatory agency coordination, and cleanup are complete and prevention measures are in place.



5.4 If frac-out is at an **In-Waterbody location**, the Licensee shall:

- Suspend forward drilling and promptly notify those indicated in Section 1.0.
- Evaluate frac-out to determine the most appropriate cleanup measures, including if structures are needed to contain the plume. The Licensee shall consult with DNREC Wetlands Reviewer concerning the evaluation and proposed cleanup measures as soon as possible, and take appropriate, immediate action to stop and contain the frac-out.



- 4.3 The following containment materials must be available at the HDD crossing location and adequately designed for the specific project; including but not limited to:

| Material | Required items are indicated below |
|---|-------------------------------------|
| hay bales | <input type="checkbox"/> |
| silt fence | <input type="checkbox"/> |
| plastic sheeting | <input type="checkbox"/> |
| turbidity barriers: 50 linear feet | <input checked="" type="checkbox"/> |
| turbidity curtain height: per current stream depth | <input checked="" type="checkbox"/> |
| shovels, pails | <input checked="" type="checkbox"/> |
| push brooms | <input checked="" type="checkbox"/> |
| squeegees | <input checked="" type="checkbox"/> |
| pumps and sufficient hose | <input checked="" type="checkbox"/> |
| mud storage tanks | <input checked="" type="checkbox"/> |
| boat(s): on call with a required response time of less than 45 minutes. | <input checked="" type="checkbox"/> |
| vacuum truck on 24-hour call | <input type="checkbox"/> |
| generator with light tower | <input type="checkbox"/> |
| other 1: sandbags | <input type="checkbox"/> |
| other 2: | <input type="checkbox"/> |
| other 3: | <input type="checkbox"/> |

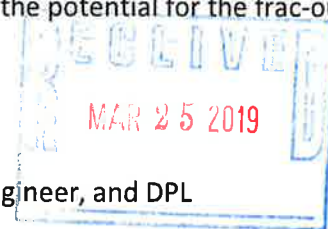
5.0 Response to Frac-Out

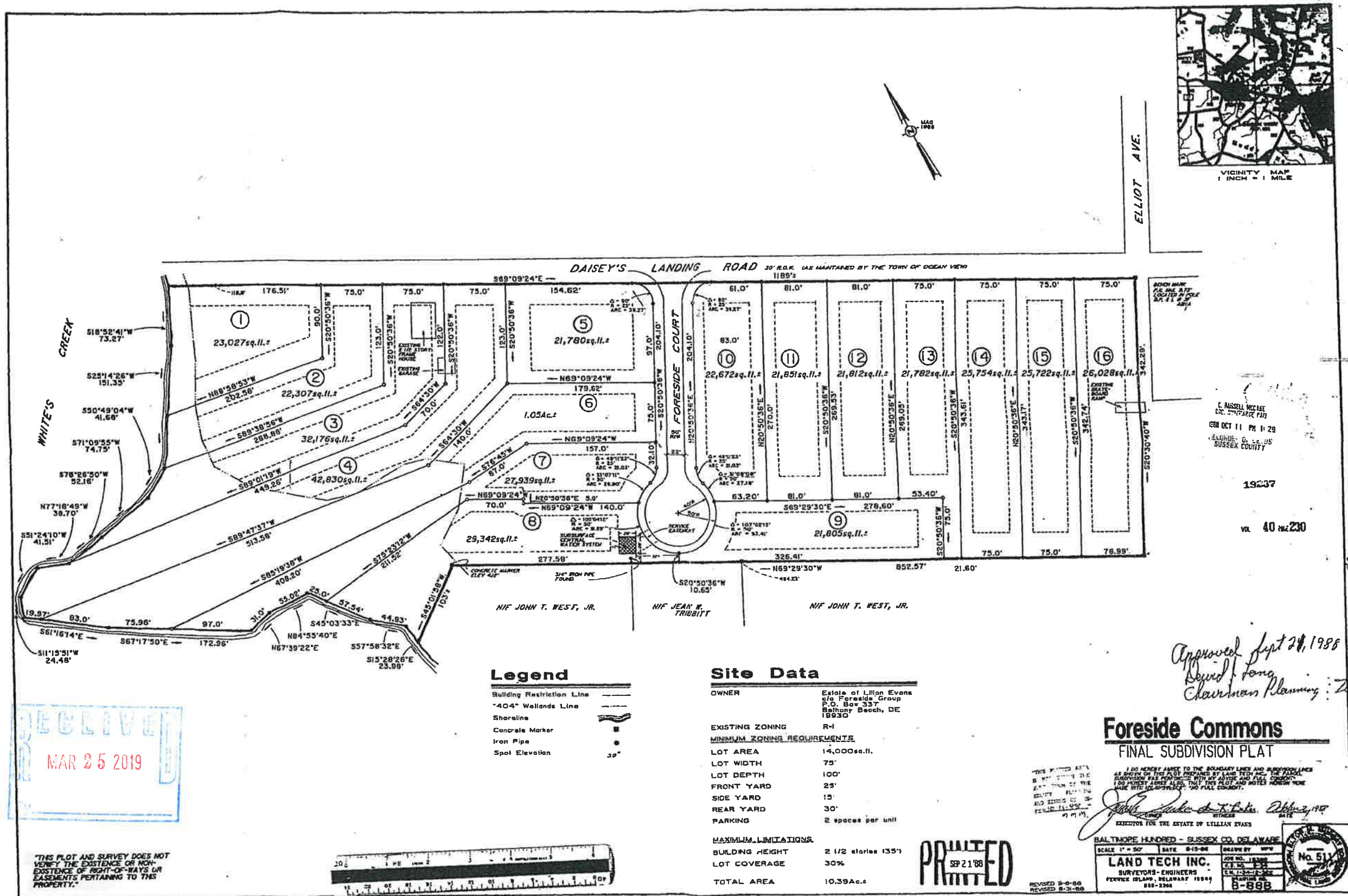
A frac-out is a discharge of drilling fluid or other materials. If a frac-out is observed and has impacted, or has the potential to impact, federally or State regulated waters or wetlands, DPL and its contractor is responsible for following this Frac-Out Contingency Plan. Specifically, DPL and its contractor:

- 5.1 Assess the frac-out to determine the amount of drilling fluid released and the potential for the frac-out to reach regulated waters or wetlands.

- 5.2 If frac-out is at an **Upland location**, the contractor's HDD crew shall:

- Promptly notify HDD Contractor's on-site supervisor, DPL Design Engineer, and DPL Environmental.
- Immediately suspend drilling operation until containment is in place, if frac-out cannot be controlled.
- Evaluate frac-out to determine the most appropriate cleanup measures, including if containment structures are needed.
- Implement appropriate cleanup measures to contain and remove frac-out drilling fluid to the extent practicable.
- Depending on volume of drilling fluid lost, remove the fluid by vacuum truck and/or shovel. The IMC may determine that small amounts are unrecoverable.





- Implement appropriate cleanup measures to contain and remove frac-out drilling fluid to the extent practicable. Appropriate cleanup measures are determined by the specific circumstances of the frac-out and may include, but are not limited to:
 - Pump or vacuum truck,
 - Hand-placed containment recovery,
 - Silt curtains, turbidity barriers, and similar measures.
- Store removed drilling fluid in a temporary holding tank or other suitable structure, out of the wetland area and wetland buffer pending reuse or disposal.
- Evaluate current drill profile (e.g., drill pressures, pump volume rates, drilling mud consistency) to identify methods to prevent further frac-out events.
- Resume drilling *only* when evaluation, regulatory agency coordination, and cleanup are complete and prevention measures are in place.

6.0 Cleanup Guidelines

- Hand cleaning means using shovels, buckets, soft-bristled brooms or other hand items included in the material list, without causing damage to vegetation. Fresh water washes will be employed if deemed beneficial and feasible.
- Containment structures (turbidity curtains, booms, or other) must be pumped out and the ground surface scraped to bare topsoil without causing undue loss of topsoil or ancillary damage to existing and adjacent vegetation.
- Material will be collected in containers for temporary storage prior to removal from the site.
- Potential for a secondary impact from the clean-up process is to be evaluated and clean-up activities terminated if physical damage to the site may exceed the benefits of clean-up activities.
- The need to restore disturbances to nontidal and tidal wetlands or waters will be determined in consultation with DPL Environmental and DNREC.

7.0 Close-Out Procedures

After the drilling fluid has been contained and removed, DPL and its contractor shall:

- 7.1 Recycle or dispose of the removed drilling fluid at an authorized upland location or commercial disposal facility.

Note: Recovered drilling mud may not be deposited in waters of the State, streams, water bodies, or storm drains.

- 7.2 Remove all containment structures and materials unless otherwise specified by the Design Engineer with approval from the appropriate regulatory agencies.
- 7.3 Consult with the DPL Environmental, USACE and DNREC concerning restoration.

Note: There may be a need for additional Federal, State, County or Municipality authorizations or approvals associated with the aforementioned information. This guidance is not meant to replace or substitute for any other applicable regulations or requirements.

By signing below, I certify that I have read this document and that I know and understand the meaning and intent of this Frac-Out Contingency Plan, and that in the event of a frac-out, I agree to follow this plan.

Signature

Company

Printed Name

Date

